



**Laxmi Charitable Trust's**  
**Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce**  
**Dr. S. Radhakrishnan Marg, Andheri (East), Mumbai 400 069.**

**Criteria No. with Title:** 1 Curricular Aspects

**Metric No. with Title :** 1.3 Curriculum Enrichment

**Sub Metric No. with Title :** 1.3.2.1 Number of students undertaking project work/field work / internships (latest Completed Year)

### **Index**

<b>Sr. No.</b>	<b>Document Links</b>
<b>1.</b>	<b>A.Y. 2023-2024 Internships / Project Work.</b>

SEMESTER VI-ADVERTISING		
COURSE CODE	CREDITS	COURSE NAME
COMPULSORY-CORE	04X2=08	DRG(DISCIPLINE RELATED GENERIC)
BAMMC DRGA-601	04	1. DIGITAL MEDIA
BAMMC DRGA-602	04	2. ADVERTISING DESIGN
ELECTIVES-	03X04=12	DSE 1 A (DISCIPLINE SPECIFIC ELECTIVES-) (ANY FOUR COURSES)
BAMMC EAAC 2601		1. ADVERTISING IN CONTEMPORARY SOCIETY
BAMMC EABM 2602		2. BRAND MANAGEMENT
BAMMC EAMP 2603		3. MEDIA PLANNING & BUYING
BAMMC EAAS 2604		4. ADVERTISING & SALES PROMOTION
BAMMC EARM 2605		5. RURAL MARKETING & ADVERTISING
BAMMC EARE 2606		6. RETAILING & MERCHANDISING
BAMMC EAEM 2607		7. ENTERTAINMENT & MEDIA MARKETING
BAMMC EATP 2608		8. TELEVISION PROGRAM PRODUCTION
TOTAL	20	

### COMPULSORY 01

PROGRAM	BAMMC
YEAR	TYBAMMC-Advertising
SEMESTER	VI
COURSE:	DIGITAL MEDIA
COURSE CODE	BAMMC DRGA-601
PAPER	DRGA (COMPULSORY)
TOTAL MARKS	100 (75:25)
NO OF LECTURES	48

SEMESTER VI		
COURSE CODE	COURSE NAME & DETAILED SYLLABUS	
BAMMC DRGA-601	DIGITAL MEDIA	
COURSE OUTCOME:		
1. Understand digital marketing platform 2. Understand the key goals and stages of digital campaigns 3. Understand the use of key digital marketing tools 4. Learn to develop digital marketing plans		
MODULE	DETAILS	LECTURES
1	About features	10
	1. Introduction to Digital Marketing a. Understanding Digital Media b. Advantages of Digital Media c. Principles of Digital Media Marketing d. Key Concepts in Digital media	04



		e. Traditional Vs Digital Media	08
2	2.Search Engine Optimization (SEO):	a. How search Engine works b. Introduction to SEO c. On Page Optimisation d. Off Page optimisation e. SEO Audit, Tools and Measurement f. SEO Resources, Careers in SEO	
3	3.Search Engine marketing (SEM)	a. What is SEM? b. Why SEM c. What is Google Adwords? Why Google Adwords d. Google network e. Adwords terminologies f. Campaign types g. Creation of Google Display NETWORK (GDN) h. Display Ads format i. Conversion tracking j. GDN Campaign creation (DEMO) k. Remarketing l. What are Google shopping Ads	04
4	Social Media Marketing (SMM)	a. Introduction to Social Media b. Facebook Marketing c. Instagram Marketing d. LinkedIn Marketing e. Twitter Marketing f. SMM Tools g. Creating a successful social media strategy	04
5	Email marketing	1.key terms and concepts 2.Customer acquisition strategies 3.Best Practices : CRABS 4.Tools to enhance lead nurturing 5.Enhance better reach	05
6	Web Analytics	a. Introduction to analytics b. Social CRM and analysis c. Google analytics d. Digital Analytics e. Content performance analytics f. Visitor analysis g. Social media analytics	06
7	Affiliate Marketing and Programmatic Marketing	a. Affiliate Marketing b. Definition, Purpose, Resources required, Top Players in Affiliate Marketing, Segregation of Affiliate marketing c. Programmatic Marketing d. Evolution and growth of programmatic Marketing e. Real Time bidding, f. Types of Programmatic Advertising, Advantages and Challenges, Myths of	10



	Creative thinking, Execution, 4. Production dept: (in-house or outsource) Photography, TVC, Print of promotional material.	
3.Process of Design	Research of: 1. Product (features & benefits) 2. Market: (TA) Psycho & Demography 3. Message Strategy: What to say & How 4. Competition & claim 5. Visualisation & Copy 6. Illustration: Choosing one among 7. Execution: Graphic design	
4.Art Direction	Role of art director in various media  Detailing in illustration Detailing in TVC: Location, Models, Costume, Working on storyboard	
5.Analysing Ads & Logos	Discussion of existing ads: Print ads: For layout, Colours, Message TVCs: AV, Pace, Tone etc Innovative, Ambient, Transit for relevancy PoS: For size, Place, Consumer psychology	08
<b>2</b>	<b>DESIGN BASICS: LANGUAGE OF VISUALS</b>	
1.Elements of Design	Vocabulary: Point, Line, Shape, Size, Tone, Colours, Texture, Space	
2.Principles of Design	Grammar: Proportions, Contrast, Harmony, Balance, Rhythm, Unity	
3.Rules of Design	Rules/Guides: Emphasis, Proximity, Alignment, Visual path, Syntax Gestalt: Completion, Closure, Invariance, Multi-stability, Figure & ground etc	
4.Optical illusions	Visual Influence: Shapes & proportions, Tones & contrast, Lines & length	
5.5. Typography	Type as Design element:  Classification: Serif, Sans serif, Decorative, Trendy etc. Measurement: size, weight, Kern, Track, leading, Baseline etc. Word Expression, Meaning expressed by appearance	
<b>3</b>	<b>LAYOUT: THE BLUE PRINT</b>	10
1.Types of Layout	Mondrian, Picture window, Split, Big type, All text, All art, Circus etc.	
2.Stages of Layout	Thumbnail sketches, Rough layout, Finished layout, Comprehensive	
3.Choosing Picture	Strong visual capable of selecting Target Group, Suitable with headline, Trial close	
4.Choosing Typo	Sorting text into parts of copy, Choosing appropriate typeface for Headline, Subheads Slogan, Body etc.	
5.Putting all	Choosing canvas size, Trying formats, orientat	



		Programmatic Marketing	
8	Content writing	a. Intro to content writing b. Core Principles of Content writing c. Why blogs matter d. Principles of writing blogs e. How to write content for twitter and Mobile	04
9	Cyber laws	a. Information Technology Act b. Copyright Act c. Cyber ethics d. Digital Security	02
<b>Total Lectures</b>			<b>48</b>
<b>BOS SYLLABUS COMMITTEE MEMBERS</b>			
1. Prof. Pradeep Sasidharan (Convener)			
2. Prof. Dr Hanif Lakdawala (Subject Expert)			
<b>Reference Book And Material</b>			
1. Digital marketing By Seema Gupta			
2. Digital Marketing By Puneet Singh Bhatia			

### COMPULSORY 02

PROGRAM	BAMMC
YEAR	TYBAMMC-Advertising
SEMESTER	VI
COURSE:	<b>ADVERTISING DESIGN</b>
COURSE CODE	BAMMC DRGA-602
PAPER	DRGA (COMPULSORY)
TOTAL MARKS	100 (75:25)
NO OF LECTURES	48

### SEMESTER VI

COURSE CODE	COURSE NAME & DETAILED SYLLABUS	
BAMMC DRGA-602	ADVERTISING DESIGN	
<b>COURSE OUTCOME:</b>		
1. Learner shall understand the process of planning & production of the advertisement.		
2. To highlight the importance of visual language as effective way of communication.		
3. To provide practical training in the field of advertising & make learner industry ready		
<b>MODULE</b>	<b>DETAILS</b>	<b>LECTURES</b>
1	<b>INTRODUCTION: ADVERTISING DESIGN=COMMUNICATION DESIGN</b>	10
1. Project Paper	Intro to Project paper & Campaign Campaign outline, Elements to be produced, Viva voce	
2. Role of Agency Departments	1. Accounts dept: Client handling, Strategy planning 2. Media dept: Media research, Media planning, Buying & billing 3. Creative dept: Prime calibre, All of visualisation	



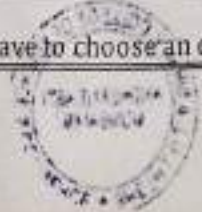
	Together	Various proportions of verbal & Visual	
4	<b>PLANNING A CAMPAIGN: WORKING ON FINAL PROJECT</b>		10
	1.Choosing a product	Finalizing what to sell, Designing a Logo: Type based, Shape based, combo, Symbolic etc. Planning tagline	
	2.Research	Product/Service (features & benefits) Market: Wants & Needs, Psycho & Demography, What words may click their minds. Tone & Voice.	
	3.Idea generation	Coming to big idea, Trying various idea generation techniques	
	4.Visualising Layout	Choosing appropriate image/s & working on rough layout Finalizing layout for highest effectiveness.	
5	<b>EXECUTION: ON SYSTEM WORK (FACULTY TO GUIDE &amp; INSTRUCT)</b>		10
	1.Logo Design	Working on system: Corel Draw/Illustrator Designing Logo, Deciding color scheme (Logo is vector based) Modifying Typo, Using glyphs, Considering shape as identity	
	2.Logo Manual	Creating a Logo design Philosophy Explaining the logic behind choice of Type, Choice of colour, Reason for shape, Tagline as brand promise. Making all compact. Creating 4 diff sizes & also reverse	
	3.Print Ads/ Press ads	Press: Using finalized layout for creating series of three ads (Synergy maintained) Diff image same typo OR Diff expressions same model-(brand ambassador) & same typo Creating headlines suitable to image (syntax)	
	4.Outdoor ad, Innovative/ Transit /Ambient Point of purchase	Outdoor: Deciding location, Format, Spotting frequency, Advantage of location, Advantage of local surroundings, Spotability, Appropriate headlines	
	5.TVC or Web Ads	TVC: Story line, Script, Floor plan, Camera plot, Storyboard with , VFX, OSD, SFX, VO Web ad: Pop up, Scroll, Banner etc Printing, Mounting & Preparing for viva	
<b>Total Lectures</b>			<b>48</b>

**BOS SYLLABUS SUB-COMMITTEE MEMBERS**

1. Prof. Arvind Parulekar (Convener)
2. Prof. Arvind Hate (Subject Expert)
3. Prof. Ashish Gandhre (Industry Expert)

**Note:**

1. Students have to choose an existing product with new fresh brand name & new logo &



not the existing brand.

2. Students should not be encouraged to bring in 'innovation' in the product or not to 'invent' totally new. Invention is job of engineers & we are in communication. (If agency has to rely on innovation for the advertisement then it's a failure of their efficiency.)

3. The viva will be based on the project & the evaluation will be based on its effectiveness as communication design.

4. Make students aware that marketing & advertising are different things & advertising has to be self-explanatory. If student has to verbally push to sell 'his work' then the work is weak.

Internal Assessment: (25 Marks)

Learning process in art has four phases:

1. Appreciation
2. Imitation
3. Inspiration
4. Creation

To take the students through all these phases the internal assessment comprise of:

**Scrap book:** (appreciation) Collection of print ads from magazine & Newspaper as well as **Logos of different brands**. Students are supposed to analyse the ads in the scrap book for the layouts, colour harmonies used, typography, mood, type of headlines & visual path along with various design aspects.

Logos has to be analyzed for their shape, symbolism, typo treatment, uniqueness, connectivity to the industry & unity as well as alignment within logo elements.

**Drawing book:** (imitation & inspiration) The exercise in the book is based on various design principles such as harmony, contrast, illusions etc & to carry out rough layout & rough designs for new logo. This also comprise of idea generation & rough story board.

**Final campaign:** Creative brief & finalized layouts for press & print media that will follow Synergy. Student to start campaign on approval of creative brief.

**Project: Elements of Campaign: Language can be English, Hindi, Marathi.**

1. Logo Design: (Fresh) presented in Logo Manual
2. Stationary: Visiting Card, Letterhead, Envelope in hard copy crafted in actual.
3. Press Ads: Series of 3 ads for Newspaper maintaining synergy.
4. Print Ads: Series of 2 ads for Magazine maintaining synergy. English and/or regional
5. Outdoor Ad: Billboard, Hoarding (one as reminder ad or warm up campaign)
6. Innovative/ Transit/ Ambient Ad: Any one of these suitable to the product/service
7. Point of Sale: Standee/ Dangles/ Strut cad/ Tent card/ kiosk etc: any one suitable
8. TVC Storyboard: 12 to 16 key frames with Floor plan, Camera plot, OSD, SFX, VFS, VO
9. Internet Ads: Scroll/ Banner/ Pop up etc: Any one ad suitable to product/service

#### References:

1. Art & Ideas: G. S. Rege
2. Art & Production: N. N. Sarkar
3. Advertising by Design Robin Landa
4. Elements of Graphic Design Alexander White
5. Ogilvy on Advertising David Ogilvy

#### ELECTIVE 01

PROGRAM	BAMMC
YEAR	TYBAMMC-Advertising
SEMESTER	VI





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Advertising Design Project details Semester VI 2023-24

ROLL NO.	STUDENT NAME	PRODUCT	PROJECT TITLE / BRAND NAME
T 181	Bhaduri Kristy Jaydeep Rajeshri	Food Delivery Application	Tastewave
T 182	Chamola Deepika Rakesh Pramila	Toothpaste	CavityOff
T 183	Champanerker Vaishnavi Naresh Mona	Tea Powder	Prabhat Tea
T 185	Gautam Anandraj Jeyachitra	Milk based dessert	Scoper
T 186	Ghorai Shubhangi Biswajeet Subhadra	Laptop	Lappy
T 187	Gokarnkar Smruti Sushant Priya	Perfumery	Arroma
T 189	Koli Gauri Suresh Hemangi	Hair Oil	Nourish Bliss
T 190	Maharana Nagesh Jagnath Reena	Sunglasses	Seethrough
T 193	Nathi Divya Srisailam Manjula	Coffee	Brew Heaven
T 194	Nathi Kaveri Swami Mangamma	Cold Drink	Super Fizz
T 195	Pingle Siddhi Anant Asavari	Fabric Cleaning Pen	Clean Bolt
T 196	Poojari Disha Vasant Kavitha	Mobile Phone	Cellmax
T 198	Rathod Meet Anil Harsha	Jewellery Shop	Meet Sparkles
T 199	Ravigotre Vaishnavi Kamaljeet Singh Sushma	Luxury Watch	Hourflux
T 200	Saha Ishika Raju Purnima	Shampoo	Ecoshine
T 201	Sharma Jhanvi Rakesh Jagruti	Skin care serum	Glow ease
T 202	Shetty Diksha Dayanand Vijayalaxmi	Restaurant	Sakura Sushi
T 203	Suthar Niyati Mahesh Tarlika	Event company	Trekify
T 204	Tiwari Nikita Vidhichandra Geeta	Face wash	Caffeine care
T 205	Varade Sumedh Sanjay Rachana	Chips	Crunchy&Sanker
T 206	Yadav Manisha Sanjay Sanju	Ethnic Wear	Threadlings



*Handwritten signature*

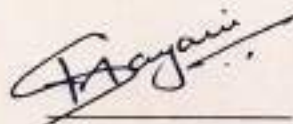


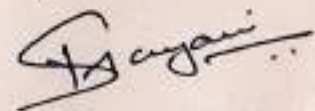
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# Certificate

This is to certify that the project entitled, "TasteWave (service)  
" is bonafide work of Miss Kristy Bhaduri  
bearing Seat No. 9091647 submitted in partial  
fulfilment of the requirement for the award of degree of B. A. in Multimedia &  
Mass Communication from University of Mumbai during academic year 2023-  
2024.

  
Internal Guide

  
Coordinator

  
External Examiner

  
I/C PRINCIPAL

Date: 14 / 05 / 2024



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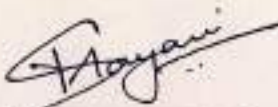


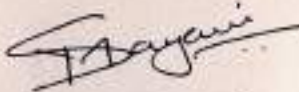
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# Certificate

This is to certify that the project entitled, "Scooper (Ice cream)  
\_\_\_\_\_ " is bonafide work of Gautam Anandraj  
\_\_\_\_\_ bearing Seat No. 9091646 submitted in partial  
fulfilment of the requirement for the award of degree of B. A. in Multimedia &  
Mass Communication from University of Mumbai during academic year 2023-  
2024.

  
Internal Guide

  
Coordinator

  
External Examiner

  
I/C PRINCIPAL

Date: 14/05/2024



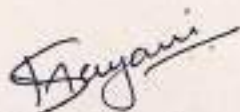
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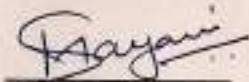
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# Certificate

This is to certify that the project entitled, "Threadlings (Clothing)  
\_\_\_\_\_ " is bonafide work of Yadav Manisha  
\_\_\_\_\_ bearing Seat No. 9092152 submitted in partial  
fulfilment of the requirement for the award of degree of B. A. in Multimedia &  
Mass Communication from University of Mumbai during academic year 2023-  
2024.



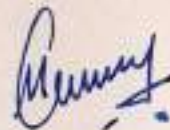
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Coordinator



External Examiner



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Date: 14 / 05 / 2024



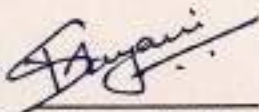
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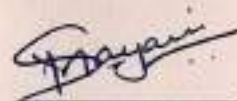


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# Certificate

This is to certify that the project entitled, "Nourish Bliss (Hair oil)  
\_\_\_\_\_ " is bonafide work of Gauri Koli  
\_\_\_\_\_ bearing Seat No. 9091836 submitted in partial  
fulfilment of the requirement for the award of degree of B. A. in Multimedia &  
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2024.

  
Internal Guide

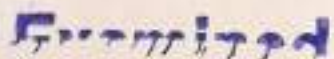
  
Coordinator

  
External Examiner

  
I/C PRINCIPAL

Date: 14/5/2024







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# Certificate

This is to certify that the project entitled, "Nowflux (watch)  
\_\_\_\_\_ " is bonafide work of Vaishnavi Ravigotre  
\_\_\_\_\_ bearing Seat No. 9091958 submitted in partial  
fulfilment of the requirement for the award of degree of B. A. in Multimedia &  
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2024.

Internal Guide

Coordinator

External Examiner

I/C PRINCIPAL

Date: 14 / 05 / 2024



**Examined**

## Welcome to PCPL Family - Letter Of Internship - Private & Confidential Inbox v



**Neha Shetty** <neha.shetty@desidime.com>

to me v

Mon 6 Nov 2023 15:27



Hi Kristy,

Congratulations! We are pleased to make an offer of Internship to you.

Here's welcoming you to the Parity Cube Family!

As discussed earlier, we have agreed on Rs 5000 as stipend each month, duration of internship will be for 3 months and your joining date will be on 7th November at 10am in off

Request you to send us a confirmation email at the earliest.

Looking forward to your offer acceptance and on-boarding.

Please feel free to contact us for any further information/clarification in relation to the above.

The office address is as follows:

Parity Cube Private Limited  
604/605, Tanishka Building,  
Near Growel's 101 Mall,  
[Akurli Road](#)  
[Kandivali East,](#)  
[Mumbai - 400101.](#)

—  
**Thanks & Regards,**  
**Neha Shetty - Human Resources**  
[neha.shetty@desidime.com](mailto:neha.shetty@desidime.com)





Branch Office: 504 - 505, Taranga  
Business Park, Next to Grover's 100 Mall,  
Kandivli East, Mumbai, Maharashtra-400003

Parity Cube Pvt. Ltd. Contact:  
Email: [hr@paritycube.com](mailto:hr@paritycube.com) / [info@paritycube.com](mailto:info@paritycube.com)  
Website: [www.paritycube.com](http://www.paritycube.com)

**Subject: Extension of Internship for Kristy Bhaduri**

To Whom It May Concern,

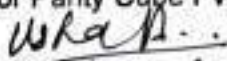
I am writing to inform you that Kristy Bhaduri has been working as an intern with our organization since 7th November 2023. Initially, her internship was scheduled for a three-month period. However, based on her performance and contribution to our team, we are pleased to announce that we have extended her internship for an additional three months.

During her time with us, Kristy has demonstrated a strong work ethic, dedication, and a willingness to learn.

We are confident that Kristy will continue to excel in her role, and we look forward to continuing to work with her.

Yours sincerely,

For Parity Cube Pvt. Ltd.

  
Usha Acharya - Asst. HR Manager  
9833758077

## **Letter of Appointment**

**Date:- 28/12/2023**

**Dear,**

**Deepika Chamola**

I am offering you job as Social Media Intern as a internship opportunity at Saffrons World. We have reviewed your qualifications and believe that you possess the skills and enthusiasm necessary to contribute to our Saffrons team.

As we disussed about your payment, it will be unpaid internship

Consider this letter to be the final confirmation for your job,

You'r Joining date will be from **29<sup>th</sup> December 2023** ,

Warm Regards



**Vijay Kalose**  
CMD

**Saffrons World**




## **Letter of Completion**

**Date:- 02/02/2024**

**Dear,  
Deepika Chamola**

**This is to certify that miss Deepika Chamola has Successfully completed her internship in the role of Social Media Executive at Saffrons World. The Internship Start date was 29<sup>th</sup> December 2023 and End date is 29<sup>th</sup> January 2024 During this period Deepika Chamola worked in various Social Media Platforms Social media projects where she successfully completed**

**Warm Regards**

  
**Vijay Kalose  
CMD  
Saffrons World**





Specialist in Graphic Designing, Advertising & Marketing

Date: - 2<sup>nd</sup> January 2024

Ms. Vaishnavi Naresh Champanerkar  
D/101, GovindNager SRA Bldg,  
Gundavali, Andheri-Kurla Road,  
Mumbai- 400 066. Maharashtra.

**Subject: Appointment for post of "Intern"**

**Dear Ms. Vaishnavi Naresh Champanerkar.**

We are pleased to offer you, the position of Intern with Om Sai Divya Agency on the following terms and conditions:

**1. Commencement of employment**

Your employment will be effective, as of 1<sup>st</sup> January 2024.

**2. Job title**

Your job title will be Intern, and your internship is for a period of 1 month only. You will report to the Mr. Yogesh Mhatre (Designer and Marketing Consultant).

**3. Salary**

You will not be entitled or beneficial for any compensation/salary for internship period.

**4. Hours of Work**

Normal working hours are from 10.00 am to 6.00 pm and if necessary for additional hours depending on your responsibilities.

Continue...

**OM SAI DIVYA AGENCY**

Shop no. 1&2, Datey Bhavan, Dattapada Road, Borivali (East), Mumbai – 400 066.  
Tel:- +91 70391 09863 Email Id:- omsaidivyaagency@gmail.com

## 5. Firm property

You will always maintain in good condition of firm property, which may be entrusted to you for official use during the course of your employment and shall return all such property to the firm prior to relinquishment of your charge, failing which the cost of the same will be recovered from you by the firm.

## 6. Confidential Information

1 During your employment with the firm you will devote your whole time, attention, and skill to the best of your ability for its business. You shall not, directly, or indirectly, engage or associate yourself with, be connected with, concerned, employed or engaged in any other business or activities or any other post or work part time or pursue any course of study whatsoever, without the prior permission of the firm.

2 You must always maintain the highest degree of confidentiality and keep as confidential the records, documents and other Confidential Information relating to the business of the firm which may be known to you or confided in you by any means, and you will use such records, documents, and information only in a duly authorized manner in the interest of the Firm.

We welcome and request you to sign the duplicate copy of this appointment letter as a token of your having acceptance and return the same to us.

Yours Faithfully,

For OM SAI DIVYA AGENCY

*Anil M.*  
Proprietor



**OM SAI DIVYA AGENCY**

Shop no. 1&2, Datey Bhavan, Dattapada Road, Borivali (East), Mumbai – 400 066.  
Tel:- +91 70391 09863 Email Id:- omsaividyaagency@gmail.com



Specialist in Graphic Designing, Advertising & Marketing

Ref No.: - OSDA/138/2024

Date: - 05/02/2024

**TO WHOM SOEVER IT MAY CONCERN**

This is to certify that Ms. Vaishnavi Naresh Champanerkar worked as an Intern in our firm from 01/01/2024 to 31/01/2024 with our entire satisfaction. During her working period, we found her a sincere, honest, hardworking, and dedicated employee with a professional attitude and very good at work. She is amiable in nature and character is well, we have no objection to allowing her in any better position and have no liabilities in our firm.

We wish her every success in life.

Sincerely,

**For OM SAI DIVYA AGENCY**

**Proprietor**



**OM SAI DIVYA AGENCY**

Shop no. 1&2, Datey Bhavan, Dattapada Road, Borivali (East), Mumbai – 400 066.  
Tel:- +91 70391 09863 Email Id:- omsaidivyaagency@gmail.com

04th May, 2023

Gautam Anandraj  
Mumbai

Dear Gautam,

**Sub: Internship.**

This has reference to your application received by us.

We are pleased to inform you that your request for an 'Intern' has been accepted and the same will be with effect from **05th May, 2023 to 04th August, 2023** in the **Programming** at our **Mumbai** office.

During this period:

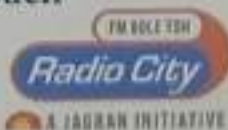
1. You will be reporting to **Mohammad Syed Asif** at our **Mumbai station**.
2. You will have to report at the above mentioned office on all working days as communicated to you by your superior.
3. This internship has been offered to you as a part of a project. The Company would in no way be liable for any claim that may arise either in the course of or arising out of this internship like accidents etc.
4. You acknowledge that during the course of your internship with the Company, you will become familiar with the Company's trade secrets and with your confidential information concerning the Company and its associates and related Companies. You agree that during the term thereof and for **three** months thereafter, you shall not directly or indirectly own, manage, control, participate in, consult with, or deal with any other entity carrying on similar business.
5. This letter is valid only for the purpose of your internship and is not to be treated as a letter of offer or appointment in the Company.
6. You will be paid **Rs.5000/-** stipend during your internship.
7. This letter is only to be treated and an intern offer letter and not as a **completion certificate**.

If the above terms and conditions are acceptable to you, kindly sign the second copy as a token of your acceptance.

We wish you all the best.

**For Music Broadcast Limited**

*SuKantman*  
Sagorika Kantharia  
Head - Human Resource & Coach



06th August, 2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Gautam Anandraj** worked as an 'Intern' in our organization in the **Programming Department** at our **Mumbai station** from **05th May, 2023** to **04th August, 2023**.

During his tenure he worked on **Programming project**.

For Music Broadcast Limited

*S. V. Kantharia*

**Sagorika Kantharia**  
Head - Human Resource & Coach

Accepted

*Gautam Anandraj*

(Gautam Anandraj)



Date: 12<sup>th</sup> April 2023

Ms. Shubhangi Ghorai  
A43/6, Eagle Chawl,  
Khudiram Samanta,  
Nehru Nagar, V. M. Road No. 5,  
Mumbai - 400056

Dear Shubhangi,

With reference to your application and the subsequent interview you had with us, we are pleased to appoint you as "**Jr. Content Writer**" w.e.f. from **10<sup>th</sup> April 2023** on the following terms and conditions:

1. You will be on probation for a period of Six Months. The probation period can be curtailed or extended by the management at its sole discretion without assigning any reason. During the probation your services can be terminated if required without notice.
2. Your annual salary & compensation (CTC) will be **Rs. 2,16,000/- i.e. Two Lac Sixteen Thousand Only.**
3. Your job profile will be developed from time to time in such way that, the company gets the maximum benefits from your experience and knowledge
4. You shall perform all duties that you shall be required to perform and shall also perform such other duties as may be assigned to you by your Superiors from time to time.
5. It is necessary and important condition of all the acceptance of your appointment that you shall not object to your transfer being made from one place to another or one department to another, or from one job to another, either in the existing products or any other new products that the company may market to any of its office or places of business, present or future. It must be cleared that the company while exercising its right this clause, neither be bound nor shall it create in you right to ask for any extra remuneration. You are expected to do all such other work within your competence as may be assigned to you from time to time.

A handwritten signature in blue ink, appearing to be "Shri", is located at the bottom right of the letter.


- 6 You hereby give an undertaking that all matters connected with your work, or any things that come to your knowledge in the course of your employment, shall at all times be treated by you as strictly confidential and shall not be disclosed to any other persons or companies.
- 7 You will always maintain good condition of the company's property which may be given to you for official use during the course of your employment and shall return the same to the company immediately on relinquishment of your services and obtain clearance certificate to that effect, failing which the cost of the same will be recovered from you by the company.
- 8 You will not accept money, gift, rewards or compensation etc. for your personal gain from any person or office with which you may be having official dealing.
- 9 You shall devote your whole time and attention to your employment with the company and shall discharge your duties to the best of your ability. It is the condition of your employment that, you shall, not engage yourself directly or indirectly, with or without remuneration in any other employment, service or calling of any nature whatsoever without written permission from the company.
- 10 If due to any reason, you are medically unfit or you become incapable of performing the duties assigned to you or in the event of your placing yourself in a position which may be in conflict with the best interests of the Company, or if observed that, you have furnished false particulars in your application for employment, or you have deliberately not disclosed any information which, have prompted the company not to appoint you, then, in such cases the Company shall be legible to terminate your employment.
- 11 After your confirmation in service, if you desire to resign from the service of the Company, you will have to give 60 days' notice to the Company in writing or pay one month salary to the Company in lieu of the said notice.
- 12 You are required to produce the satisfactory proof of your age. The same may be evident from the school leaving certificate. Once the proof of age is accepted and taken on the Company's record, you shall not be heard for change in your date of birth. It is imperative to note that if it comes to the knowledge of the Company that you have given



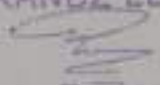
- a wrong age, or have submitted false documents in proof thereof, you shall be liable, to an immediate and forthwith termination without any compensation.
- 13 The retirement age as per company's policy is **58 years**. Your date of birth given by you and taken on record is **24<sup>th</sup> January 2003**.
  - 14 During your employment you shall furnish your correct residential address and subsequently any changes therein shall be submitted in writing within a week.
  - 15 You shall abide by all the rules and regulation of the company as applicable to you from time to time.

The terms and condition of your employment, as above are read out and explained to you in the language you understand. You are required to sign an office copy as a token of your acceptance

Date: 12<sup>th</sup> April 2023

Sign: 

Place: Mumbai

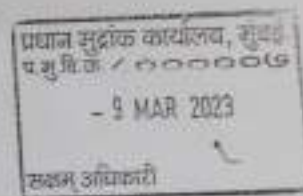
For EBRANDZ LLP  
  
Partner.



महाराष्ट्र MAHARASHTRA

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48AA 206702



स.स. इ.स. चान्गळे

**Bond for Training Cost Reimbursement**

eBrandz LLP, a company, having its principal place of business at eBrandz LLP, 202, Italian Art Printers, Italian Compound, Goregoan - Mulund Link Road, 1st Bhatti, Nr. Parekh Prints Company, Goregoan (E), Mumbai - 83, and Shubhangi Ghorai, agree to undertake and abide by the following terms of this Bond for Training Cost Reimbursement, respectively

This Bond shall become effective from 10<sup>th</sup> April 2023

- a. The Employee agrees that eBrandz LLP will incur significant amount of "Training Costs" in the on-boarding process and on-job training of the Employee. The costs may be spread over monetary costs, mentoring time from management, formal and informal training or in any other manner. The Employee specifically undertakes not to ask for any detailed breakup of such costs as they may be intangible in nature.
- b. The Employee undertakes to reimburse eBrandz LLP a sum of Rupees One Lakh (Rs.1,00,000/- only) as a lump-sum in case their employment is terminated by eBrandz LLP or the Employee resigns before 1 year from the date the Employee signs this agreement to cover the Training Costs. The reasons for termination or resignation will be immaterial for the applicability of this clause.
- c. The amount in Clause (b) shall payable within 30 days of termination or resignation notice. In the event that the Bond amount is not paid within stipulated 30 days, eBrandz LLP reserves its right to undertake appropriate civil and/or other legal proceedings against the Employee.

IN WITNESS WHEREOF, both the parties have duly executed this Bond in as of the date set forth above.

For and on behalf of eBrandz LLP: Name: <u>Amit Saha</u> Designation: <u>Director, SEO</u> Date: <u>16/4/23</u> Signature: <u>[Signature]</u>	For and on behalf of Employee: Name: <u>Shubhangi Ghoshal</u> Designation: <u>Jr. Content Writer</u> Date: <u>10th April 2023</u> Signature: <u>[Signature]</u>
Witness Signature and Name: <u>[Signature]</u> <u>Tarun Ansari</u>	Witness Signature and Name: <u>[Signature]</u> <u>Ayushi Shah</u>



**TANVI AILSINGHANI**  
PERSONAL SHOPPER & WEDDING  
STYLIST

+91 9049392000  
@styledbytanvi

Hello Siddhi  
Greetings!

27th September, 2023

We are so happy to have you with us on board as a Social Media Manager. We absolutely love your Enthusiasm & Creative Ideas. Looking forward to working with you in the long run!

As discussed, here are the details

- Working hours: 12 noon to 8.30/9 pm
- Kindly update the excel sheet every single day & join the stand-up call
- Duration: 3 Months
- DOJ: 1st October.
- Stipend: 20k inclusive of all expenses
- Scope of Work: SMM, Engagement Activity, Influencer Marketing & whatever floats our boat in the working hours mentioned + Co-ordination with clients and designers + Email Writing + Some admin work that may come
- Stipend would be credited to you by the 10th of each month

Hoping to receive your acceptance within a week to take this forward  
We will be sharing an Appointment Letter post your acceptance  
Looking forward to a long-term association with you!

Warm Regards  
Tanvi Ailsinghani Rupani  
9049392000 | tanvistylist@gmail.com  
Mumbai



**TANVI AILSINGHANI**  
PERSONAL SHOPPER & WEDDING  
STYLIST

+91 9049392000  
@styledbytanvi

Hello Siddhi  
Greetings!

29th September, 2023

It is with great pleasure that we would like to offer you the position of Social Media Manager at StyledbyTanvi(@styledbytanvi).

The whole team extends their congratulations and looks forward to welcoming you.

Now that your role is a little heroic, please remember that "With great power comes great responsibility" and you must deliver whatever it takes at your end to give it your best.

As a company, we firmly believe that all communication made either internal or external needs to be extremely transparent and truthful in nature.

Do note you will be required to submit the following documents on your joining:

- a. Aadhaar Card
- b. Pan Card
- c. Bank Details

If you have any questions, please feel free to reach out at any time and we'll be more than happy to help you.

Warm Regards  
Tanvi Ailsinghani Rupani  
9049392000 | tanvistylist@gmail.com  
Mumbai



**TANVI AILSINGHANI**  
PERSONAL SHOPPER & WEDDING  
STYLIST

+91 9049392000  
@styledbytanvi

5th February, 2024

Subject - Internship Completion Certificate for Siddhi Pingle

To Whom It May Concern,  
Greetings!

This is to certify that:

Siddhi Pingle has successfully completed the internship program as a Social Media Manager at StyledByTanvi (@styledbytanvi). The internship duration was from 1st October 2023 to 5th February 2024.

During this period, Siddhi demonstrated exceptional skills and dedication in managing our social media platforms. Her creativity, strategic thinking, and attention to detail significantly contributed to the success of our online presence. She successfully executed social media campaigns, engaged with our audience effectively, and contributed valuable insights to our marketing strategies.

Some of her Key Achievements during this internship were::

- Developed and executed social media content calendars.
- Created engaging and shareable content across various platforms(Instagram).
- Monitored and analyzed social media metrics to optimize performance.
- Interacted with followers and responded to inquiries and comments.
- Collaborated with the Influencers to align social media efforts with overall Influencer marketing goals.
- Additionally, she assisted in various styling projects and helped design our Brand Stationary and Look Books.

This certificate is awarded in recognition of Siddhi's hard work, dedication, and valuable contributions during the internship period.



**TANVI AILSINGHANI**  
PERSONAL SHOPPER & WEDDING  
STYLIST

+91 9049392000  
@styledbytanvi

5th February, 2024

Date of Issue: 4th February 2024

Congratulations on the successful completion of your internship! We wish you continued success in your future endeavors.

Warm Regards  
Tanvi Ailsinghani Rupani  
9049392000 | tanvistylist@gmail.com  
Mumbai

# UNIVERSITY OF MUMBAI



Revised Syllabus for T.Y.B.Sc.  
Programme- B.Sc.  
Course- Biotechnology (USBT)  
(Third Year – Sem. V & VI)

(Credit Based Semester and Grading System with effect from  
the academic year 2018-2019)

This syllabus is applicable for <sup>A.Y. 2023-2024</sup>  
A.Y. 2022-23 for  
T.Y.B.Sc. Biotechnology.



## Semester VI

Course code USBT	Title	Theory/ Practical	Marks	Credits	Nos of Lectures & Practical
601	Biochemistry	Theory	100	2.5	60
602	Industrial Microbiology	Theory	100	2.5	60
603	Pharmacology and Neurochemistry	Theory	100	2.5	60
604	Environmental Biotechnology	Theory	100	2.5	60
P 601-P 602	Biochemistry & Industrial Microbiology	Practical	100	3	72
P 603-P 604	Pharmacology - Neurochemistry and Environmental Biotechnology (50M)+ Project work (50M)	Practical	100	3	72
Applied component	Agribiotechnology	Theory	100	2.0	48
Applied component	Agribiotechnology	Practical	100	2.0	48
	<b>TOTAL</b>		<b>800</b>	<b>20</b>	<b>480</b>

### Teaching pattern:

One (01) Credit would be of thirty- forty (30-40) learning hours; of this more than fifty percent of the time will be spent on class room instructions including practical as prescribed by the University. Rest of the time spent invested for assignments, projects, journal writing, case studies, library work, industrial visits, attending seminars / workshops, preparations for examinations etc. would be considered as notional hours. The present syllabus considers (60L as class room teaching and 15 lectures as Notional hours/ paper). Each lecture duration would be for 48 min

The names of the reference books provided in the syllabus are for guidance purpose only. Students and faculty are encouraged to explore additional reference books, online lectures, videos, science journals for latest/ additional information.



## Examination pattern for:

### Theory:

- The question paper for the Term End Exam would be of **100 marks** consisting of 5 Questions (20M each), of which one question would be common for all units in the syllabus.
- The question paper would be set for 150 marks including internal options.
- There shall be no internal exam for any paper.

### Practical:

- Would be conducted over a period of 3 days; 50M each paper.
- Each student to perform 2 major and 2 minor practical for Sem V and 2 major and project presentation for Sem VI ,
- Viva would be conducted during the practical during Sem V; Sem VI would have ONLY project presentation
- Journals would be uniform throughout all the centres; matter would be communicated to all the centres by the syllabus committee.
- Distribution of marks for the experiments carried out during the examination:

**Sem V (50M/ paper): Major: 20M; Minor: 10M; Viva: 10M; Journal 10M.**

**Sem VI (50M/paper): Major (x2): 40M; Journal: 10M; Project 50M**

The report could be around 25-30 pages with appropriate referencing and formatting. Marks distribution for the project would be as follows:

**25M documentation, 15M presentation, 10 M viva and interactions;**

- Students would undertake a **project for 1-2 months during the last semester for 50 M.** The project **should** include **either** of the following:
  1. One/ more major instrumentation OR
  2. One / more major technique/s required in the field of interest OR
  3. Bioinformatics OR
  4. Biostatistics





Laxmi Charitable Trust's

Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
Dr. S. Radhakrishnan Marg, Andheri (East), Mumbai 400 069.

T. Y. B.Sc. Biotechnology Semester VI (USBTP603-604) Project Details A.Y. 2023-2024

ROLL NO.	STUDENT NAME	PROJECT NAME
T 141	Chaurasia Janhavi Sanjay Sheetal	Formulation & Evaluation Of Natural Lip Balm Using Pomegranate And Rose Petals
T 142	Chavan Rutuja Mahesh Meghna	Cotton Fabric Dyeing With Spinach And Rose Natural Dye Using Mordants
T 143	Gupta Ajay Girijaprasad Pramila	From Dalry to Decomposition: Investigating Milk-Based Bio plastics and Microbial Breakdown
T 144	Gupta Dipali Ajit Manisha	Formulation & Evaluation Of Herbal Cleanser
T 145	Hattangadi Isha Durgesh Swati	Synergistic Antimicrobial activity of Antibiotics in combination with ZnO and CuO Nanoparticles against <i>E. coli</i>
T 146	Jha Vicky Balbodh Sunita	Extraction of Caffeine From Used Tea Leaves And Antioxidant Activity Analysis
T 147	Lokhande Shweta Dattatray Sunita	Extraction of Amylase enzyme form corn and studying their activity
T 148	Mhaskar Nupur Sandeep Ankita	Extraction Of Dye From Natural Sources Red Cabbage And Replacing Synthetic Textile Dye From Natural Dyes
T 149	Mishra Swastika Satishkumar Madhuri	Extraction Of Chitosan From Head Part Of Shrimp Shell Waste
T 150	Naik Vedanti Dinesh Prachi	Extraction Of Enzyme From Natural Source (Amylase From Spinach) And Studying There Activity
T 151	Ojha Nandini Chandramohan Radhika	In Vitro Analysis Of The Efficacy Of Selected Bar Soap As Antibacterial Agents
T 152	Pandey Abhishek Ramkrishna Tara Devi	Production, Physical and chemical tests and the Applications of Paper Based on Bagasses (a sugarcane residue)
T 153	Pandey Ankita Suryaprakash Reeta	Extraction of Enzyme Amylase from Sweet Potato and It's Activity
T 154	Pathak Gunjan Jignesh Harsha	Natural Dyeing With Amaranthus Plant Harnessing natural colours
T 155	Pillai Adwaith Saji Bindu	Synthesis and Evaluation of Neem Extract Reinforced Bio plastics for Sustainable Packaging
T 156	Pujare Amruta Ravindra Vrushali	Extraction Of Chitosan From Tail Part Of Shrimp Shells And Testing Its Solubility
T 157	Sahani Rajeshwari Rajendra Premila	Paper Making Process Using Cotton Fibres



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Laxmi Charitable Trust's

**Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce**  
**Dr. S. Radhakrishnan Marg, Andheri (East), Mumbai 400 069.**

T 158	Sahu Annu Kumari Bhupendra Asha Devi	Testing of Physiochemical and antimicrobial properties of honey.
T 159	Sahu Pushpa Kailashprasad Ramiyadevi	Utilizing Natural Ingredients for Hand Wash Formulation
T 160	Shah Hital Manoj Damayanti	To Study Enhancement in Plant Growth: A Comparative Study of Copper and Zinc Oxide Nanoparticle
T 161	Shaikh Saayama Sattar Heena Kousar	Papermaking Process Using Banana Fibre
T 162	Siddiqui Alfiya Mohd Wasim Saba	Analysis On Photocatalyst Degradation Of Phenol Using UV
T 163	Singh Disha Sunil Shweta	Extraction Of Enzyme From Ginger And Studying Its Enzymatic Activity
T 164	Singha Chitrangana Gyawali Niva Rani	Comparative Study of ZnO and CuO Nanoparticles for UV Deflection on <i>E. coli</i> and <i>S.aureus</i> in MHA Media.
T 165	Tiwari Aparna Sanjay Durga	Unveiling Dye Extraction from pomegranate peels & Turmeric powder.
T 166	Yadav Sapna Dinanath Shobhavati	Extraction Of Amylase Enzyme Form Banana And It's Activity
T 167	Budhan Ravina Humal Singh Jona Devi	Extraction of dye from natural sources Bougainvillea. ( <i>Bougainvillea glabra</i> )
T 168	Chauhan Jyoti Jivmohan Phooladevi	Extraction of dye from natural sources from beetroot.
T 169	Anawadiya Dimpal Bharat Jayashree	Evaluation Of Handmade Soap
T 170	Shukla Amit Sanjay Vimal	Exploring Gelatin-Based Bioplastic
T 171	Tiwari Khushi Avinash Aruna	Extraction Of Dye From Natural Sources (Carica Papaya)
T 172	Sayyed Mohammed Qaem	Optimizing the Extraction of Ascorbic Acid from Orange Peel and Evaluating its Antioxidant Capacity through DPPH Assay
T 173	Jeffrey Stanley Sherly	Synthesis of Biodegradable Plastic from Potato Starch.



04

# **Extraction Of Chitosan From Tail Part Of Shrimp Shells And Testing Its Solubility**

A Project Report

Submitted in partial fulfilment of the requirement for  
the award of the Degree of  
**BACHELORS OF SCIENCE (BIOTECHNOLOGY)**

By

**PUJARE AMRUTA RAVINDRA**

Seat Number

1105408

Under the esteemed guidance of

**Prof. Dnyanada Ghadi**



**DEPARTMENT OF BIOTECHNOLOGY  
SHEETH L.U.J. COLLEGE OF ARTS & SIR M.V. COLLEGE OF  
SCIENCE & COMMERCE**

(Affiliated to University of Mumbai)

Dr. S. Radhakrishnan Marg, Andheri (E), Mumbai-400069

**MAHARASHTRA**

2023-2024



**SHETH L.U.J. COLLEGE OF ARTS & SIR M.V.COLLEGE OF  
SCIENCE & COMMERCE**

Affiliated to University of Mumbai

Dr. S. Radhakrishnan Marg, Andheri (E), Mumbai-400069

**Dr. Mahendra Kanojia**

Principal

**Prof. Shweta Khopde**

Coordinator, Dept. of Biotechnology

Email: [principal@mvlucollege.in](mailto:principal@mvlucollege.in)

Email: [biotech.mvlu@gmail.com](mailto:biotech.mvlu@gmail.com)

**Department of Biotechnology**

**Certificate**

This is to certify that **Miss Pujare Amruta Ravindra** has satisfactorily completed the  
Research Project entitled "**Extraction Of Chitosan From Tail Part  
Of Shrimp Shells And Testing Its Solubility**", as prescribed by  
the University of Mumbai, towards Partial Fulfilment of the Degree  
of BSc Biotechnology during the Academic Year 2023 -2024.

*Shweta Khopde*  
27/04/2024

Examiner

University of Mumbai

*S. Shinde*  
24/4/24

Head

Department of Biotechnology

Date

College Seal



*Examined*  
*@*  
*06/05/24*

*Amruta Ravindra*  
INCHARGE  
PRINCIPAL

Sath L. U. & Sir M. V. College of  
Arts, Science & Commerce  
Andheri (East), Mumbai - 400 069.

**Extraction of enzyme from ginger and studying its enzymatic activity**

**A Project Report**

Submitted in partial fulfilment of the requirement for  
the award of the Degree of

**BACHELORS OF SCIENCE (BIOTECHNOLOGY)**

By

**SINGH DISHA SUNIL**

Seat Number

1105429

Under the esteemed guidance of

**Prof. Dnyanada Ghadi**



**DEPARTMENT OF BIOTECHNOLOGY**

**SHETH L.U.J. COLLEGE OF ARTS & SIR M.V. COLLEGE OF**

**SCIENCE & COMMERCE**

**(Affiliated to University of Mumbai)**

**2023-2024**



Laxmi Charitable Trust's

**SHETH L.U.J. COLLEGE OF ARTS & SIR M.V. COLLEGE OF  
SCIENCE & COMMERCE**

Affiliated to University of Mumbai

Dr. S. Radhakrishnan Marg, Andheri (E), Mumbai-400069

**Dr. Mahendra Kanojia**

Principal

**Prof. Shweta Khopde**

Coordinator, Dept.  
Of Biotechnology

Email: [principal@mvlcollege.in](mailto:principal@mvlcollege.in)

Email: [biotech.mvlcollege@gmail.com](mailto:biotech.mvlcollege@gmail.com)

**Department of Biotechnology**

**Certificate**

This is to certify that **Miss SINGH DISHA SUNIL** has satisfactorily completed the Research Project entitled "**Extraction of enzyme from ginger and studying its enzymatic activity**", as prescribed by the University of Mumbai, towards Partial Fulfilment of the Degree of BSc Biotechnology during the Academic Year 2023 -2024.

*M. Kanojia*  
29/04/2024  
Examiner

University of Mumbai

*S. Khopde*  
29/04/24  
Head

Department of Biotechnology

Date

College Seal



*Examined*  
*Q*  
*07/05/24*

*[Signature]*  
26/05/24

INCHARGE  
PRINCIPAL

Seth L. U. & Sir M. V. College of  
Arts, Science & Commerce  
Andheri (East), Mumbai - 400 069

# Synthesis and Evaluation of Neem Extract Reinforced Bioplastics for Sustainable Packaging

A Project Report

Submitted in partial fulfilment of the requirement for the award of the  
Degree of

**BACHELORS OF SCIENCE (BIOTECHNOLOGY)**

By ADWAITH PILLAI

Seat Number

1105407

Under the esteemed guidance of

Prof. Shweta Khopde



DEPARTMENT OF BIOTECHNOLOGY

SHETH L.U.J. COLLEGE OF ARTS & SIR M.V.COLLEGE OF  
SCIENCE & COMMERCE

(Affiliated to University of Mumbai)

Dr. S. Radhakrishnan Marg, Andheri (E), Mumbai- 400069

MAHARASHTRA



Laxmi Charitable Trust's

**SHETH L.U.J. COLLEGE OF ARTS & SIR  
M.V.COLLEGE OF SCIENCE & COMMERCE**

Affiliated to University of Mumbai

Dr. S. Radhakrishnan Marg, Andheri (E), Mumbai-400069

Dr. Mahendra Kanojia

Prof. Shweta Khopde

Principal

Coordinator, Dept. of Biotechnology

Email: [principal@mvlucollege.in](mailto:principal@mvlucollege.in)

Email: [biotech.mvlu@gmail.com](mailto:biotech.mvlu@gmail.com)

Department of Biotechnology

**Certificate**

This is to certify that Mr Adwaith Pillai has satisfactorily completed the Research Project entitled "Synthesis and Evaluation of Neem Extract Reinforced Bioplastics for Sustainable Packaging", as prescribed by the University of Mumbai, towards Partial Fulfilment of the Degree of B.Sc. Biotechnology during the Academic Year 2023 -2024.

*S. Shinde*  
27/4/24  
Examiner

*S. Shinde*  
27/4/24  
Head

University of Mumbai

Department of Biotechnology

Date 27/04/24

Examined

College Seal



*J. K.*  
06/05/24

*[Signature]*  
26/7/24

INCHARGE  
PRINCIPAL

Seth L. U. & Sir M. V. College of  
Arts, Science & Commerce  
Andheri (East), Mumbai - 400 069

**UNVEILING DYE EXTRACTION FROM POMEGRANATE  
PEELS & TURMERIC POWDER.**

A Project Report

Submitted in partial fulfillment of the  
requirement for the award of the Degree of

**BACHELORS OF SCIENCE (BIOTECHNOLOGY)**

By

**APARNA SANJAY TIWARI**

Seat Number

1105434

Under the esteemed guidance of

Prof. Dr. Priyanka Vartak



**DEPARTMENT OF BIOTECHNOLOGY**

**SHETH L.U.J. COLLEGE OF ARTS & SIR M.V. COLLEGE OF**

**SCIENCE & COMMERCE**

(Affiliated to University of Mumbai)

Dr. S. Radhakrishnan Marg, Andheri (E), Mumbai -400069

MAHARASHTRA

2023-2024



Laxmi Charitable Trust's  
SHETH L.U.J. COLLEGE OF ARTS & SIR M.V.COLLEGE OF  
SCIENCE & COMMERCE

Affiliated to University of Mumbai  
Dr. S. Radhakrishnan Marg, Andheri (E), Mumbai-400069

**Dr. Mahendra Kanojia**

Principal

Email: [principal@mvlucollege.in](mailto:principal@mvlucollege.in)

**Prof. Shweta Khopde**

Coordinator, Dept. of Biotechnology

Email: [biotech.mvlu@gmail.com](mailto:biotech.mvlu@gmail.com)

**Department of Biotechnology**

**Certificate**

This is to certify that **Miss Aparna Sanjay Tiwari** has satisfactorily completed the Research Project entitled "**Unveiling Dye Extraction from Pomegranate peels & Turmeric Powder**", as prescribed by the University of Mumbai, towards Partial Fulfillment of the Degree of Bsc Biotechnology during the Academic Year 2023 -2024.

*PP Vatek*  
*27/04/24*  
Examiner

Head *SB Shinde*  
*27/4/24*  
Department of Biotechnology

University of Mumbai

Date *27/04/2024*

College Seal



*Examined*  
*JV*  
*06/05/24*

*Amurys*

INCHARGE  
PRINCIPAL

Seth L. U. & Sir M. V. College of  
Arts, Science & Commerce  
Andheri (East), Mumbai - 400 059

# Utilizing Natural Ingredients for Hand Wash Formulation

## A Project Report

Submitted in partial fulfilment of the requirement for the award of  
BACHELOR OF SCIENCE (BIOTECHNOLOGY)

BY

PUSHPA SAHU

SEAT NO. 1105413

Under the guidance of  
PROF.DHWANI KAPADIA



DEPARTMENT OF BIOTECHNOLOGY

SHETH L. U. J. COLLEGE OF ARTS & SIR M. V. COLLEGE OF SCIENCE &  
COMMERCE

(Affiliated to University of Mumbai)

Dr. S. Radhakrishnan Marg, Andheri (E), Mumbai-400069

MAHARASHTRA

2023-2024



Laxmi Charitable Trust's

**SHETH L. U. J. COLLEGE OF ARTS & SIR M. V. COLLEGE OF SCIENCE & COMMERCE**

Affiliated to University of Mumbai

Dr. S. Radhakrishnan Marg, Andheri (E), Mumbai-400069

**Dr. Mahendra Kanojia**

Principal

Email: principal@mvlucollege.in

**Prof. Dhvani Kapadia**

Coordinator, Dept. of Biotechnology

Email: biotech.mvlucollege@gmail.com

**Department of Biotechnology**

**Certificate**

This is to certify that Miss Pushpa Sahu has satisfactorily completed the Research Project entitled "Utilizing Natural Ingredients for Hand Wash Formulation" as prescribed by the University of Mumbai, towards Partial Fulfilment of the Degree of BSc Biotechnology during the Academic Year 2023-24.

*for S/Shinde*  
*24/04/24*

Examiner

University of Mumbai

*S/Shinde*  
*24/04/24*

Head

Department of Biotechnology

COLLEGE SEAL



*[Signature]*  
*26/1/24*

INCHARGE  
PRINCIPAL

Seth L. U. & Sir M. V. College of  
Arts, Science & Commerce  
Andheri (East), Mumbai - 400 069.

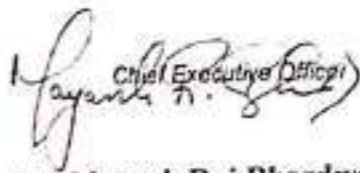
**CERTIFICATE**

This is to certify that Ms. Tahura Shaikh, D/o Mr. Mohammed Farhan Shaikh, student of Second year B.Sc. Biotechnology, from SIR M.V.L.U COLLEGE OF SCIENCE & COMMERCE, Mumbai has successfully completed her "Advanced Technical Modules" training program of 15 days, starting from 26<sup>th</sup> April 2024 to 10<sup>th</sup> May 2024, under the guidance of Dr. Rinkal Patel in our Biotechnology division at Mumbai Campus, with A+ Grade on the topics as follows:

- Formulations of Vegan Products & its sensory & Nutritional Evaluation
- Nano Biotechnology

We wish for her bright future.

For RAPTURE BIOTECH

  
Chief Executive Officer

**Mr. Mayank Raj Bhardwaj**  
Chief Executive Officer  
Rapture Biotech, India

Certificate number: RTPMU-2404/07

CENTER DIRECTOR  
RAPTURE BIOTECH  
MUMBAI



**Dr. Rinkal Patel**  
Managing Director  
Rapture Biotech, Mumbai







*Let's renovate life*

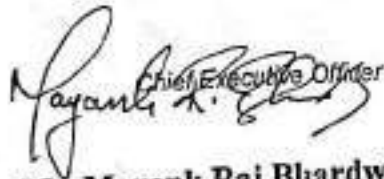
## CERTIFICATE

This is to certify that Mr. Vasu Vanani, S/o Mr. Nilesh Vanani, student of Second year B.Sc. Biotechnology, from SIR M.V.L.U COLLEGE OF SCIENCE & COMMERCE, Mumbai has successfully completed his "Advanced Technical Modules" training program of 15 days, starting from 26<sup>th</sup> April 2024 to 10<sup>th</sup> May 2024, under the guidance of Dr. Rinkal Patel in our Biotechnology division at Mumbai Campus, with A+ Grade on the topics as follows:

- Food Industries - Quality Analysis & Control Skills
- Nano Biotechnology

We wish for his bright future.

For RAPTURE BIOTECH

  
Chief Executive Officer

Mr. Mayank Raj Bhardwaj  
Chief Executive Officer  
Rapture Biotech, India

Certificate number: RTPMU-2404/08

CENTER DIRECTOR  
RAPTURE BIOTECH  
MUMBAI



Dr. Rinkal Patel  
Managing Director  
Rapture Biotech, Mumbai



SBShinde

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**CERTIFICATE**

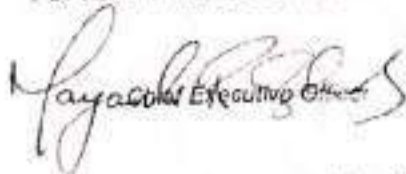
This is to certify that Mr. Jeet Kharote, S/o Mr. Ganesh Kharote, student of Second year B.Sc. Biotechnology, from SIR M.V.L.U COLLEGE OF SCIENCE & COMMERCE, Mumbai has successfully completed his "Advanced Technical Modules" training program of 15 days, starting from 26<sup>th</sup> April 2024 to 10<sup>th</sup> May 2024, under the guidance of Dr. Rinkal Patel in our Biotechnology division at Mumbai Campus, with A+ Grade on the topics as follows:

- Food Industries - Quality Analysis & Control Skills
- Nano Biotechnology

We wish for his bright future.

Certificate number: RTPMU-2404/06

For RAPTURE BIOTECH



**Mr. Mayank Raj Bhardwaj**  
Chief Executive Officer  
Rapture Biotech, India

CENTER DIRECTOR  
RAPTURE BIOTECH  
MUMBAI



**Dr. Rinkal Patel**  
Managing Director  
Rapture Biotech, Mumbai

*SVShinde*



*DUR*

**edureka!**  
a Xorianta Enterprise

# CERTIFICATE OF ATTENDANCE

This certificate is proudly presented to

**Vedanti Naik**

\_\_\_\_\_

for attending

Full Stack Web Development Internship Program

Demo Session organized by Edureka

30th May, 2024

\_\_\_\_\_

Date

*Debidutta M*

Program Head



*Debidutta M*

DUS

# INTERNSHIP

# Certificate

THIS CERTIFICATE IS PROUDLY PRESENTED TO

*Ravina Budhan*

A student of Biotechnology from LUMV College, has successfully completed an Internship program at EOS Laboratories, Vasai - a Microbiology Consumables manufacturing facility. and was found sincere & hardworking.

Duration: From 20/06/24

to 9/07/24

He/She has gained experience in the following aspects-

1. Manufacturing of all types of ready to use media-including Lowenstein Jensen media
2. Formulation and Sterilization of Viral Transport Media (For COVID-19)
3. Performing GPT (Growth Potential Testing)
4. Manufacturing of Sensitivity Discs and Polydiscs
5. Sterility testing and microbiological testing of raw materials
6. Performance and Maintenance of Quality Control standards



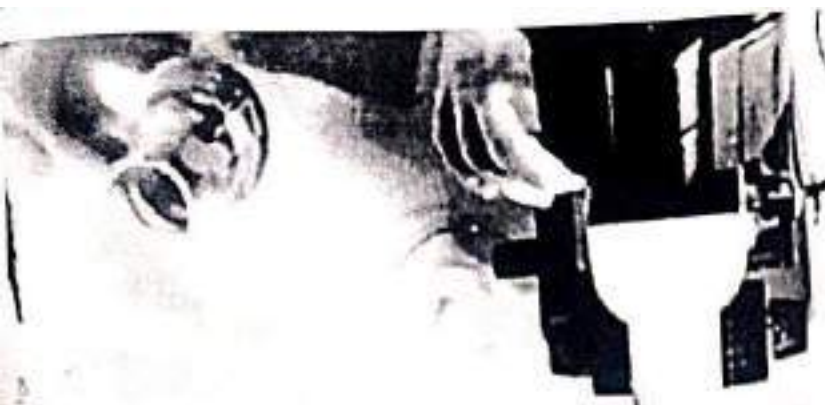
*Paramita*  
PARAMITA

GENERAL MANAGER



*Sushinde*

*DS*



# UNIVERSITY OF MUMBAI



**Syllabus**

**For the**

**Program: F.Y.B.Sc. Sem -I & II CBCS**

**Course: Computer Science**

(Choice Based and Credit System with effect from the  
academic year 2021-22)  
This syllabus was applicable for A.Y. 2023-24 for  
F.Y.B.Sc. CS



## Academic year 2021-2022

Semester – 1				
Course Code	Course Type	Course Title	Credits	Lectures/Week
USCS101	Core Subject	Digital Systems & Architecture	2	3
USCSP101	Core Subject Practical	Digital Systems & Architecture – Practical	1	3
USCS102	Core Subject	Introduction to Programming with Python	2	3
USCSP102	Core Subject Practical	Introduction to Programming with Python – Practical	1	3
USCS103	Core Subject	LINUX Operating System	2	3
USCSP103	Core Subject Practical	LINUX Operating System – Practical	1	3
USCS104	Core Subject	Open Source Technologies	2	3
USCSP104	Core Subject Practical	Open Source Technologies – Practical	1	3
USCS105	Core Subject	Discrete Mathematics	2	3
USCSP105	Core Subject Practical	Discrete Mathematics – Practical	1	3
USCS106	Core Subject	Descriptive Statistics	2	3
USCSP106	Core Subject Practical	Descriptive Statistics – Practical	1	3
USCS107	Ability Enhancement Course	Soft Skills	2	3



**F.Y.B.Sc. Computer Science Syllabus**  
**Choice Based Credit System (CBCS)**  
*with effect from*

**Academic year 2021-2022**

**Semester – II**

Course Code	Course Type	Course Title	Credits	Lectures/Week
USCS201	Core Subject	Design & Analysis of Algorithms	2	3
USCSP201	Core Subject Practical	Design & Analysis of Algorithms – Practical	1	3
USCS202	Core Subject	Advanced Python Programming	2	3
USCSP202	Core Subject Practical	Advanced Python Programming – Practical	1	3
USCS203	Core Subject	Introduction to OOPs using C++	2	3
USCSP203	Core Subject Practical	Introduction to OOPs using C++ – Practical	1	3
USCS204	Core Subject	Database Systems	2	3
USCSP204	Core Subject Practical	Database Systems – Practical	1	3
USCS205	Core Subject	Calculus	2	3
USCSP205	Core Subject Practical	Calculus – Practical	1	3
USCS206	Core Subject	Statistical Methods	2	3
USCSP206	Core Subject Practical	Statistical Methods – Practical	1	3
USCS207	Ability Enhancement Course	E-Commerce & Digital Marketing	2	3



Course Code	Course Title	Credits	Lectures /Week
USCS102	Introduction to Programming with Python	2	3

**About the Course:**  
 This course aims at introducing one of the fastest growing programming language of current time and enables learners to understand the fundamentals of programming with Python. Learners will be able to write programs to solve real-world problems, and produce quality code. It will help to develop strong skills of programming for implementing applications for emerging fields including data science and machine learning.

**Course Objectives:**

- To learn how to design and program Python applications.
- To explore the innards of Python Programming and understand components of Python Program
- To define the structure and components of a Python program.
- To learn how to write loops and decision statements in Python
- To learn about inbuilt input/output operations and compound data types in Python

**Learning Outcomes:**

After successful completion of this course, students would be able to:

- Ability to store, manipulate and access data in Python
- Ability to implement basic Input / Output operations in Python
- Ability to define the structure and components of a Python program.
- Ability to learn how to write loops and decision statements in Python.
- Ability to learn how to write functions and pass arguments in Python.
- Ability to create and use Compound data types in Python

Unit	Topics	No of Lectures
I	<p><b>Overview of Python:</b> History &amp; Versions, Features of Python, Execution of a Python Program, Flavours of Python, Innards of Python, Python Interpreter, Memory Management in Python, Garbage Collection in Python, Comparison of Python with C and Java, Installing Python, Writing and Executing First Python Program, Getting Help, IDLE</p> <p><b>Data Types, Variables and Other Basic Elements:</b> Comments, Docstrings, Data types- Numeric Data type, Compound Data Type, Boolean Data type, Dictionary, Sets, Mapping, Basic Elements of Python, Variables</p> <p><b>Input and Output Operations:</b> Input Function, Output Statements, The print() function, The print("string") function, The print(variables list) function, . The print(object) function, The print(formatted string) function, Command Line Arguments</p> <p><b>Control Statements:</b> The if statement, The if ... else Statement, The ,if ...</p>	15

	<p>elif ... else' Statement, Loop Statement- while loop, for loop, Infinite loop, Nested loop, The else suite, break statement, continue statement, pass statement, assert statement, return statement</p>	
II	<p><b>Operators:</b> Arithmetic operators, Assignment operators, Unary minus operator, Relational operators, Logical operators, Bitwise operators, Membership operators, Identity operators, Precedence of Operators, Associativity of Operators</p> <p><b>Arrays:</b> Creating Arrays, Indexing and Slicing of Arrays, Basic Array Operations, Arrays Processing, Mathematical Operations on Array, Aliasing Arrays, Slicing and Indexing in NumPy Arrays, Basic slicing, Advanced Indexing, Dimensions of Arrays, Attributes of an Array, The ndim Attribute, The shape Attribute, The size Attribute, The itemsize Attribute</p> <p><b>Functions:</b> Function definition and call, Returning Results, Returning Multiple Values from a Function, Built-in Functions, Difference between a Function and a Method, Pass Value by Object Reference, Parameters and Arguments, Formal and Actual Arguments, Positional Arguments, Keyword Arguments, Default Arguments, Arbitrary Arguments, Recursive Functions, Anonymous or Lambda Functions, Using Lambda with the filter() Function, Using Lambda with the map() Function, Using Lambda with the reduce() Function</p> <p><b>Modules:</b> Introduction to Modules in Python</p>	15
III	<p><b>Strings:</b> Creating Strings, Functions of Strings, Working with Strings, Length of a String, Indexing and Slicing, Repeating and Concatenating Strings, Checking Membership, Comparing Strings, Removing Spaces, Finding Substrings, Counting Substrings, Immutability, Splitting and Joining Strings, Changing Case, Checking Starting and Ending of a String, Sorting Strings, Searching in the Strings, Testing Methods, Formatting Strings, Finding the Number of Characters and Words, Inserting Substrings into a String</p> <p><b>List and Tuples:</b> Lists, List Functions and Methods, List Operations, List Slices, Nested Lists, Tuples, Functions in Tuple</p> <p><b>Dictionaries:</b> Creating a Dictionary, Operators in Dictionary, Dictionary Methods, Using for Loop with Dictionaries, Operations on Dictionaries, Converting Lists into Dictionary, Converting Strings into Dictionary, Passing Dictionaries to Functions, Sorting the Elements of a Dictionary using Lambda, Ordered Dictionaries</p>	15
<p><b>Textbooks:</b></p> <ol style="list-style-type: none"> <li>1. Practical Programming: An Introduction to Computer Science Using Python 3, Paul Gries , Jennifer Campbell, Jason Montojo, Pragmatic Bookshelf, 2nd Edition, 2014</li> <li>2. Programming through Python, M. T Savaliya, R. K. Maurya&amp; G M Magar, Sybgen Learning India, 2020</li> </ol>		



**Additional References**

1. Python: The Complete Reference, Martin C. Brown, McGraw Hill, 2018
2. Beginning Python: From Novice to Professional, Magnus Lie Hetland, Apress, 2017
3. Programming in Python 3, Mark Summerfield, Pearson Education, 2nd Ed, 2018
4. Python Programming: Using Problem Solving Approach, Reema Thareja, Oxford University Press, 2017
5. Let Us Python, Yashwant. B. Kanekar, BPB Publication, 2019

Course Code	Course Title	Credits	Lectures /Week
USCSP102	Introduction to Programming with Python - Practical	1	3
1	Write a program to design and develop python program to implement various control statement using suitable examples		
2	Write program in Python to define and call functions for suitable problem.		
3	Write Python program to demonstrate different types of function arguments.		
4	Write a Python program to demonstrate the precedence and associativity of operators.		
5	Write suitable Python program to implement recursion for problems such as Fibonacci series, Factorial, Tower of Hanoi etc.		
6	Write Python program to implement and use lambda function in python		
7	Write a python program to create and manipulate arrays in Python. Also demonstrate use of slicing and indexing for accessing elements from the array.		
8	Write a program to implement list in Python for suitable problem. Demonstrate various operations on it.		
9	Write a program to implement tuple in Python for suitable problem. Demonstrate various operations on it.		
10	Write a program to implement dictionary in Python for suitable problem. Demonstrate various operations on it.		



Course Code	Course Title	Credits	Lectures /Week
USCS202	Advanced Python Programming	2	3

**About the Course:**

This course aims to explore and enable learners to master the skills of advanced topics in Python Programming. It helps learners develop advanced skills such as working with databases, matching patterns, implementing threads and exception handling and GUI in Python. It also highlights and why Python is a useful scripting language for all developers.

**Course Objectives:**

- To learn how to design object-oriented programs with Python classes.
- To learn about reading, writing and implementing other operation on files in Python.
- To implement threading concept and multithreading on Python
- To design GUI Programs and implement database interaction using Python.
- To know about use of regular expression and handling exceptions for writing robust python programs.

**Learning Outcomes:**

After successful completion of this course, students would be able to

- Ability to implement OOP concepts in Python including Inheritance and Polymorphism
- Ability to work with files and perform operations on it using Python.
- Ability to implement regular expression and concept of threads for developing efficient program
- Ability to implement exception handling in Python applications for error handling.
- Knowledge of working with databases, designing GUI in Python and implement networking in Python

Unit	Topics	No of Lectures
I	<p><b>Working with files:</b> Files, opening and closing a file, working with text files containing strings, knowing whether a file exists or not, working with binary files, the „with“ statement, the seek() and tell() methods, random accessing of binary files, zipping and unzipping files, working with directories, running other programs from python program</p> <p><b>Regular expressions:</b> What is a regular expression?, sequence characters in regular expressions, quantifiers in regular expressions, special characters in regular expressions, using regular expression on files, retrieving information from an html file,</p> <p><b>Threads in python:</b> Difference between process and thread, types of threads, benefits of threads, creating threads, single tasking and multitasking, thread synchronization, deadlock in threads, daemon threads</p> <p><b>Date and time in python:</b> Date and time now, combining date and time,</p>	15



	formatting dates and times, finding durations using "time delta", comparing two dates, sorting dates, stopping execution temporarily, knowing the time taken by a program, calendar module	
II	<p><b>Database in python:</b> Using SQL with python, retrieving rows from a table, inserting rows into a table, deleting rows from a table, updating rows in a table, creating database tables through python, Exception handling in databases.</p> <p><b>Exceptions in python:</b> Errors in a python program, compile &amp; run-time errors, logical error, exceptions-exception handling, types of exceptions, the except block, the assert statement, user-defined exceptions, logging the exceptions</p> <p><b>Networking:</b> Protocols, server-client architecture, tcp/ip and udp communication</p> <p><b>Graphical user interface:</b> Creating a GUI in python, Widget classes, Working with Fonts and Colours, working with Frames, Layout manager, Event handling</p>	15
III	<p><b>OOPs in python:</b> Features of Object Oriented Programming system (oops)- classes and objects, encapsulation, abstraction, inheritance, polymorphism, constructors and destructors</p> <p><b>Classes and objects:</b> Creating a class, the self-variable, types of variables, namespaces, types of methods, instance methods, class methods, static methods, passing members of one class to another class, inner classes</p> <p><b>Inheritance and polymorphism:</b> Inheritance in python, types of inheritance- single inheritance, multilevel inheritance, hierarchical inheritance, multiple inheritance, constructors in inheritance, overriding super class constructors and methods, the super() method, method resolution order (mro), polymorphism, duck typing, operator overloading, method overloading, method overriding,</p> <p><b>Abstract classes and interfaces:</b> Abstract class, abstract method, interfaces in python, abstract classes vs. Interfaces</p>	15

**Textbooks:**

1. Paul Gries, Jennifer Campbell, Jason Montojo, Practical Programming: An Introduction to Computer Science Using Python 3, Pragmatic Bookshelf, 3rd Edition, 2018
2. Programming through Python, M. T Savaliya, R. K. Maurya, G M Magar, Revised Edition, Sybgen Learning India, 2020

**Additional References:**

1. Advanced Python Programming, Dr. Gabriele Lanaro, Quan Nguyen, SakisKasampalis, Packt Publishing, 2019
2. Programming in Python 3, Mark Summerfield, Pearson Education, 2nd Ed, 2018
3. Python: The Complete Reference, Martin C. Brown, McGraw Hill, 2018
4. Beginning Python: From Novice to Professional, Magnus Lie Hetland, Apress, 2017
5. Programming in Python 3, Mark Summerfield, Pearson Education, 2nd Ed, 2018



Course Code	Course Title	Credits	Lectures /Week
USCSP202	Advanced Python Programming – Practical	1	3
1	Write a program to Python program to implement various file operations.		
2	Write a program to Python program to demonstrate use of regular expression for suitable application.		
3	Write a Program to demonstrate concept of threading and multitasking in Python.		
4	Write a Python Program to work with databases in Python to perform operations such as <ol style="list-style-type: none"> <li>Connecting to database</li> <li>Creating and dropping tables</li> <li>Inserting and updating into tables.</li> </ol>		
5	Write a Python Program to demonstrate different types of exception handling.		
6	Write a GUI Program in Python to design application that demonstrates <ol style="list-style-type: none"> <li>Different fonts and colors</li> <li>Different Layout Managers</li> <li>Event Handling</li> </ol>		
7	Write Python Program to create application which uses date and time in Python.		
8	Write a Python program to create server-client and exchange basic information		
9	Write a program to Python program to implement concepts of OOP such as <ol style="list-style-type: none"> <li>Types of Methods</li> <li>Inheritance</li> <li>Polymorphism</li> </ol>		
10	Write a program to Python program to implement concepts of OOP such as <ol style="list-style-type: none"> <li>Abstract methods and classes</li> <li>Interfaces</li> </ol>		



# University of Mumbai



Revised Syllabus for

**S.Y. B.Sc. (Computer Science)**

**Semester - III & IV**

**(Choice Based Credit System)**

**(With effect from the academic year 2022-23)**

This syllabus was applicable for A.Y. 2023-24  
for S.Y. B.Sc. CS



**S.Y.B.Sc. Computer Science Syllabus**  
**Choice Based Credit System (CBCS)**  
*with effect from*

**Academic year 2022-2023**

<b>Semester – III</b>				
<b>Course Code</b>	<b>Course Type</b>	<b>Course Title</b>	<b>Credits</b>	<b>Lectures/Week</b>
USCS301	Core Subject	Principles of Operating Systems	2	3
USCSP301	Core Subject Practical	Principles of Operating Systems – Practical	1	3
USCS302	Core Subject	Linear Algebra	2	3
USCSP302	Core Subject Practical	Linear Algebra – Practical	1	3
USCS303	Core Subject	Data Structures	2	3
USCSP303	Core Subject Practical	Data Structures – Practical	1	3
USCS304	Core Subject	Advanced Database Concepts	2	3
USCSP304	Core Subject Practical	Advanced Database Concepts – Practical	1	3
USCS305	Skill Enhancement Course (SEC)	Java based Application Development	2	3
USCSP305	Skill Enhancement Course (SEC) Practical	Java based Application Development – Practical	1	3
USCS306	Skill Enhancement Course (SEC)	Web Technologies	2	3
USCSP306	Skill Enhancement Course (SEC) Practical	Web Technologies – Practical	1	3
USCS3071	Generic Elective	Creative Content Writing	2	3
USCS3072	Generic Elective	Green Technologies	2	3

*\* Any one Generic Elective has to be selected by the student.*



**S.Y.B.Sc. Computer Science Syllabus**  
**Choice Based Credit System (CBCS)**  
*with effect from*

**Academic year 2022-2023**

<b>Semester – IV</b>				
<b>Course Code</b>	<b>Course Type</b>	<b>Course Title</b>	<b>Credits</b>	<b>Lectures/Week</b>
USCS401	Core Subject	Theory of Computation	2	3
USCSP401	Core Subject Practical	Theory of Computation – Practical	1	3
USCS402	Core Subject	Computer Networks	2	3
USCSP402	Core Subject Practical	Computer Networks – Practical	1	3
USCS403	Core Subject	Software Engineering	2	3
USCSP403	Core Subject Practical	Software Engineering – Practical	1	3
USCS404	Core Subject	IoT Technologies	2	3
USCSP404	Core Subject Practical	IoT Technologies – Practical	1	3
USCS405	Skill Enhancement Course (SEC)	Android Application Development	2	3
USCSP405	Skill Enhancement Course (SEC) Practical	Android Application Development – Practical	1	3
USCS406	Skill Enhancement Course (SEC)	Advanced Application Development	2	3
USCSP406	Skill Enhancement Course (SEC) Practical	Advanced Application Development – Practical	1	3
USCS4071	Generic Elective*	Research Methodology	2	3
USCS4072	Generic Elective*	Management & Entrepreneurship	2	3

\* Any one Generic Elective has to be selected by the student.



Course Code	Course Title	Credits	Lectures /Week
USCS306	Web Technologies	2	3

**About the Course:**

The course provides an insight into emerging technologies to design and develop state of the art web applications using client-side scripting, server-side scripting, and database connectivity

**Course Objectives:**

- To understand the concepts of Hyper Text Markup Language and Cascading Style Sheets.
- To learn JavaScript for creating dynamic websites.
- To learn various operations performed on data among web applications using XML.
- To learn Server-Side Programming using PHP

**Learning Outcomes:**

After successful completion of this course, students would be able to

- Design valid, well-formed, scalable, and meaningful pages using emerging technologies.
- Understand the various platforms, devices, display resolutions, viewports, and browsers that render websites
- Develop and implement client-side and server-side scripting language programs.
- Develop and implement Database Driven Websites.
- Design and apply XML to create a markup language for data and document centric applications.

Unit	Topics	No of Lectures
I	<p><b>HTML5:</b> Fundamental Elements of HTML, Formatting Text in HTML, Organizing Text in HTML, Links and URLs in HTML, Tables in HTML, Images on a Web Page, Image Formats, Image Maps, Colors, FORMs in HTML, Interactive Elements, Working with Multimedia - Audio and Video File Formats, HTML elements for inserting Audio / Video on a web page</p> <p><b>CSS:</b> Understanding the Syntax of CSS, CSS Selectors, Inserting CSS in an HTML Document, CSS properties to work with background of a Page, CSS properties to work with Fonts and Text Styles, CSS properties for positioning an element.</p>	15
II	<p><b>JavaScript:</b> Using JavaScript in an HTML Document, Programming Fundamentals of JavaScript – Variables, Operators, Control Flow Statements, Popup Boxes, Functions – Defining and Invoking a Function, Defining Function arguments, defining a return Statement, Calling Functions with Timer, JavaScript Objects - String, RegExp, Math, Date, Browser Objects - Window, Navigator, History, Location, Document, Cookies, Document Object Model, Form Validation using JavaScript</p> <p><b>XML:</b> Comparing XML with HTML, Advantages and Disadvantages of XML, Structure of an XML Document, XML Entity References, DTD, XSLT: XSLT Elements and Attributes - xsl:template, xsl:apply-templates,</p>	15



	xsl:import, xsl:call-template, xsl:include, xsl:element, xsl:attribute,xsl:attribute-set, xsl:value-of	
III	<p><b>AJAX:</b> AJAX Web Application Model, How AJAX Works, XMLHttpRequest Object – Properties and Methods, handling asynchronous requests using AJAX</p> <p><b>PHP:</b> Variables and Operators, Program Flow, Arrays, working with Files and Directories, working with Databases, Working with Cookies, Sessions and Headers</p> <p><b>Introduction to jQuery:</b> Fundamentals, Selectors, methods to access HTML attributes, methods for traversing, manipulators, events, effects.</p>	15

**Textbooks:**

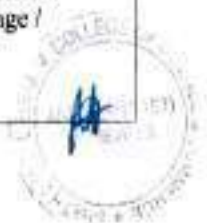
1. HTML 5 Black Book, Covers CSS 3, JavaScript, XML, XHTML, AJAX, PHP and jQuery, 2ed, Dreamtech Press, 2016
2. Web Programming and Interactive Technologies, scriptDemics, StarEdu Solutions India, 2018
3. PHP: A Beginners Guide, VikramVaswani, TMH

**Additional References:**

1. HTML, XHTML, and CSS Bible Fifth Edition, Steven M. Schafer, WILEY, 2011
2. Learning PHP, MySQL, JavaScript, CSS & HTML5, Robin Nixon, O'Reilly, 2018
3. PHP, MySQL, JavaScript & HTML5 All-in-one for Dummies, Steve Suehring, Janet Valade Wiley, 2018



Course Code	Course Title	Credits	Lectures /Week
USCNP306	Web Technologies – Practical	1	3
1	Design a webpage that makes use of <ol style="list-style-type: none"> <li>Document Structure Tags</li> <li>Various Text Formatting Tags</li> <li>List Tags</li> <li>Image and Image Maps</li> </ol>		
2	Design a webpage that makes use of <ol style="list-style-type: none"> <li>Table tags</li> <li>Form Tags (forms with various form elements)</li> <li>Navigation across multiple pages</li> <li>Embedded Multimedia elements</li> </ol>		
3	Design a webpage that make use of Cascading Style Sheets with <ol style="list-style-type: none"> <li>CSS properties to change the background of a Page</li> <li>CSS properties to change Fonts and Text Styles</li> <li>CSS properties for positioning an element</li> </ol>		
4	Write JavaScript code for <ol style="list-style-type: none"> <li>Performing various mathematical operations such as calculating factorial / finding Fibonacci Series / Displaying Prime Numbers in a given range / Evaluating Expressions / Calculating reverse of a number</li> <li>Validating the various Form Elements</li> </ol>		
5	Write JavaScript code for <ol style="list-style-type: none"> <li>Demonstrating different JavaScript Objects such as String, RegExp, Math, Date</li> <li>Demonstrating different JavaScript Objects such as Window, Navigator, History, Location, Document,</li> <li>Storing and Retrieving Cookies</li> </ol>		
6	Create a XML file with Internal / External DTD and display it using <ol style="list-style-type: none"> <li>CSS</li> <li>XSL</li> </ol>		
7	Design a webpage to handle asynchronous requests using AJAX on <ol style="list-style-type: none"> <li>Mouseover</li> <li>button click</li> </ol>		
8	Write PHP scripts for <ol style="list-style-type: none"> <li>Retrieving data from HTML forms</li> <li>Performing certain mathematical operations such as calculating factorial / finding Fibonacci Series / Displaying Prime Numbers in a given range / Evaluating Expressions / Calculating reverse of a number</li> <li>Working with Arrays</li> </ol>		



	d. Working with Files (Reading / Writing)
9	Write PHP scripts for a. Working with Databases (Storing Records / Retrieving Records and Display them) b. Storing and Retrieving Cookies c. Storing and Retrieving Sessions
10	Design a webpage with some jQuery animation effects.



Course Code	Course Title	Credits	Lectures /Week
USCS404	IoT Technologies	2	3

**About the Course:**

The course aims to provide basic understanding of SoC architectures; IoT, different types of IoT platforms and different types of applications that can be built.

**Course Objectives:**

- Introduce concepts of SoC and IoT
- Introduce various types of IoT platforms
- Interfacing various types of devices using different protocols with IoT
- Understand practical applications of IoT in real life world

**Learning Outcomes:**

After successful completion of this course, students would be able to

- understand SoC and IoT
- use different types of IoT Platforms and interfaces
- understand and implement an idea of various types of applications built using IoT

Unit	Topics	No of Lectures
I	<p><b>Fundamentals of IoT:</b> Introduction, Definitions &amp; Characteristics of IoT, IoT Architectures, Physical &amp; Logical Design of IoT, Enabling Technologies in IoT, History of IoT, About Things in IoT, The Identifiers in IoT, About the Internet in IoT, IoT frameworks, IoT and M2M.</p> <p><b>System on Chip:</b> What is System on chip? Structure of System on Chip. SoCElements: FPGA, GPU, APU, Compute Units.</p> <p><b>Different types of IoT/SoC Platforms:</b> Introduction to Raspberry Pi, Arduino &amp; NodeMCU, Introduction to SoC-ARM Architecture, atmega328 architecture</p>	15
II	<p><b>Interfacing with IoT Platforms:</b> Basic hardware components like LED, Button, Camera, 8X8 LED Grid, Motor etc and interfacing them for input/output with IoT devices using PWM, UART, GPIO, I2C, SPI</p> <p><b>Using Sensor &amp; Actuators:</b> Overview of Sensors working, Analog and Digital Sensors, Interfacing of Temperature, Humidity, Motion, Light and Gas Sensor, Level Sensors, Ultrasonic sensors, Interfacing of Actuators, Interfacing of Relay Switch and Servo Motor</p> <p><b>IoT and Protocols IoT Security:</b> HTTP, UPnP, CoAP, MQTT, XMPP, Privacy and Security Issues in IoT.</p>	15
III	<p><b>IoT &amp; Web:</b> Web server for IoT, Sending/Receiving data between web server &amp; IoT device, Cloud for IoT, Node RED, M2M vs IoT</p>	15



Communication Protocols, Basics of WSNs, WSN architecture and types,

**IoT Applications:** Modern IoT case studies / applications used in the areas of transportation, agriculture, health care etc

**Edge Computing:** Edge computing purpose and definition, Edge computing use cases, Edge computing hardware architectures, Edge platforms, Edge vs Fog Computing, Communication Models - Edge, Fog and M2M.

**Textbooks:**

1. Introduction to IoT Paperback by Sudip Misra , Anandarup Mukherjee , Arijit Roy , Cambridge Press, 2022
2. Jain, Prof. Satish, Singh, Shashi, "Internet of Things and its Applications", 1st Edition, BPB, 2020.
3. Shriram K Vasudevan, Abhishek S Nagarajan, RMD Sundaram, Internet of Things, Wiley, India, 2019
4. IoT and Edge Computing for Architects - Second Edition, by Perry Lea, Publisher: Packt Publishing, 2020

**Additional References:**

1. Internet of Things by Vinayak Shinde, SYBGEN Learning India Pvt. Ltd, 2020
2. Internet of things, Dr. Kamlesh Lakhwani, Dr. Hemant kumar Gianey, Josef Kofi Wireko, Kamalkant Hiran, BPB Publication, 2020
3. Arduino, Raspberry Pi, NodeMCU Simple projects in easy way by Anbazhagan k and Ambika Parameswari k, 2019.
4. IoT based Projects: Realization with Raspberry Pi, NodeMCU Paperback – February 2020, by Rajesh Singh Anita Gehlot, 2020
5. Mastering the Raspberry Pi, Warren Gay, Apress, 2014



Course Code	Course Title	Credits	Lectures /Week
USCSP404	IoT Technologies – Practical	1	3
1	Preparing Raspberry Pi: Hardware preparation and Installation		
2	Demonstrate Arduino Uno and its pins interfacing with IDE.		
3	GPIO: Light the LED with Python with/without a button using either Uno/Raspberry Pi.		
4	SPI: Camera Connection and capturing Images/Videos using SPI		
5	GPIO: LED Grid Module: Program the 8X8 Grid with Different Formulas		
6	Stepper Motor Control: PWM to manage stepper motor speed using Uno/Raspberry Pi.		
7	Node RED: Connect LED to Internet of Things		
8	Use different types of sensors (LDR, Temperature) with Raspberry Pi/Uno.		
9	Trigger a set of led GPIO on any IoT platform via any related web server		
10	Interface with any sensor and send its value over the internet to the server using any suitable protocol		



AC - 27/06/2023

Item No. 6.2 (R)

# UNIVERSITY OF MUMBAI



Revised Syllabus for

**T.Y.B.Sc. (Computer Science)**

**(Sem. V & VI)**

**(CBCS)**

(With effect from the academic year 2023-24)



**T.Y.B.Sc. Computer Science Syllabus**  
**Choice Based Credit System (CBCS)**  
*with effect from*

**Academic year 2023-2024**

Semester – V				
Course Code	Course Type	Course Title	Credits	Lectures/Week
USCS501	Core Subject	Artificial Intelligence	3	3
USCSP501	Core Subject Practical	Artificial Intelligence – Practical	1	3
USCS502	Core Subject	Information & Network Security	3	3
USCSP502	Core Subject Practical	Information & Network Security – Practical	1	3
USCS5031	Skill Enhancement Elective 1* (SEE)	Linux Server Administration	3	3
USCSP5031	Skill Enhancement Elective 1* Practical (SEEP)	Linux Server Administration – Practical	1	3
USCS5032	Skill Enhancement Elective 1* (SEE)	Software Testing & Quality Assurance	3	3
USCSP5032	Skill Enhancement Elective 1* Practical (SEEP)	Software Testing & Quality Assurance – Practical	1	3
USCS5041	Skill Enhancement Elective 2* (SEE)	Cyber Forensics	3	3
USCSP5041	Skill Enhancement Elective 2* Practical (SEEP)	Cyber Forensics – Practical	1	3
USCS5042	Skill Enhancement Elective 2* (SEE)	Game Programming	3	3
USCSP5042	Skill Enhancement Elective 2* Practical (SEEP)	Game Programming – Practical	1	3
USCS5051	Generic Elective**	Project Management	2	3
USCS5052	Generic Elective**	Operations Research	2	3
USCSP505	Project	Project Work – I	2	3

\* One course each from Skill Enhancement Elective 1 and Skill Enhancement Elective 2 should be selected by the student.

\*\* One course from Generic Elective should be selected by the student



**T.Y.B.Sc. Computer Science Syllabus**  
**Choice Based Credit System (CBCS)**  
*with effect from*

**Academic year 2023-2024**

<b>Semester – VI</b>				
<b>Course Code</b>	<b>Course Type</b>	<b>Course Title</b>	<b>Credits</b>	<b>Lectures/Week</b>
USCS601	Core Subject	Data Science	3	3
USCSP601	Core Subject Practical	Data Science – Practical	1	3
USCS602	Core Subject	Cloud Computing and Web Services	3	3
USCSP602	Core Subject Practical	Cloud Computing and Web Services – Practical	1	3
USCS6031	Skill Enhancement Elective 1* (SEE)	Wireless and Sensor Networks	3	3
USCSP6031	Skill Enhancement Elective 1* Practical (SEEP)	Wireless and Sensor Networks – Practical	1	3
USCS6032	Skill Enhancement Elective 1* (SEE)	Information Retrieval	3	3
USCSP6032	Skill Enhancement Elective 1* Practical (SEEP)	Information Retrieval – Practical	1	3
USCS6041	Skill Enhancement Elective 2* (SEE)	Data Mining & Warehousing	3	3
USCSP6041	Skill Enhancement Elective 2* Practical (SEEP)	Data Mining & Warehousing – Practical	1	3
USCS6042	Skill Enhancement Elective 2* (SEE)	Ethical Hacking	3	3
USCSP6042	Skill Enhancement Elective 2* Practical (SEEP)	Ethical Hacking – Practical	1	3
USCS6051	Generic Elective**	Customer Relationship Management	2	3
USCS6052	Generic Elective**	Cyber Laws and IPR	2	3
USCSP605	Project	Project Work – II	2	3

\* One course each from Skill Enhancement Elective 1 and Skill Enhancement Elective 2 should be selected by the student.

\*\* One course from Generic Elective should be selected by the student



Course Code	Course Title	Credits	Lectures /Week
USCSP505	Project Work - I	2	3
<u>Refer to the Project Guidelines at the end</u>			



Course Code	Course Title	Credits	Lectures /Week
USCNP605	Project Work - II	2	3
<u>Refer to the Project Guidelines mentioned at the end</u>			



## Evaluation Scheme

### I. Internal Evaluation for Theory Courses – 25 Marks

#### (i) Mid-Term Class Test – 15 Marks

- It should be conducted using any **learning management system** such as **Moodle** (Modular object-oriented dynamic learning environment)
- The test should have **15 MCQ's** which should be solved in a time duration of **30 minutes**.

#### (ii) Assignment/ Case study/ Presentations – 10 Marks

- Assignment / Case Study Report / Presentation can be uploaded on any **learning management system**.

### II. External Examination for Theory Courses – 75 Marks

- Duration: **2.5 Hours**
- Theory question paper pattern:

All questions are compulsory.			
Question	Based on	Options	Marks
Q.1	Unit I	Any 4 out of 6	20
Q.2	Unit II	Any 4 out of 6	20
Q.3	Unit III	Any 4 out of 6	20
Q.4	Unit I, II and III	Any 5 out of 6	15

- All questions shall be compulsory with internal choice within the questions.
- Each Question may be sub-divided into sub questions as a, b, c, d, etc. & the allocation of Marks depends on the weightage of the topic.

### III. Practical Examination

- Each subject carries 50 Marks  
**40 marks + 05 marks (journal) + 05 marks (viva)**
- Duration: **2 Hours** for each practical course.
- Minimum **80% practical** from each core subjects are required to be completed.
- **Certified Journal is compulsory for appearing at the time of Practical Exam**
- The final submission and evaluation of **journal in electronic form** using a Learning Management System / Platform can be promoted by college.

### IV. Project



The evaluation of the project will include a viva voce, which will assess the project based on the following parameters:

- **Documentation – 30 Marks:** The completeness, accuracy, and professionalism of the project documentation, including the project report and supporting materials, will be considered.
- **Quality of the Project – 15 Marks:** The overall quality of the project, including its design, implementation, and user experience, will be evaluated.
- **Working of the Project – 20 Marks:** The functionality and performance of the project will be assessed to determine how well it meets the specified requirements and objectives.
- **Project Presentation – 15 Marks:** The clarity, organization, and effectiveness of the project presentation will be evaluated.
- **Viva – 20 Marks:** The viva voce session will provide an opportunity for the student to demonstrate their knowledge and understanding of the project, as well as to answer questions and engage in a discussion with the evaluators.



## Project Guidelines (for USCSP505 and USCSP605)

### Aim:

The Project Work as part of B.Sc. Computer Science program provides students with practical experience in applying their knowledge and skills to real-world projects, emphasizing hands-on experience in industry-standard project practices. It focuses on project development, implementation, and deployment using computer science principles and techniques. Students will work individually or in teams to design, develop, and present a substantial software project, gaining exposure to real-life project scenarios. It also covers project planning, requirements gathering, software design, coding, testing, debugging, documentation, and project management, following industry best practices. Through these projects, students will enhance their problem-solving abilities, gain proficiency in software development methodologies, and strengthen their practical skills in computer science.

### Objectives:

- Apply interdisciplinary knowledge to effectively solve real-life problems using acquired skills and concepts.
- Gain hands-on experience in the software development life cycle, encompassing requirements analysis, design, implementation, testing, and deployment.
- Familiarize with global IT industry standards, ethics, and professional practices to thrive in a professional environment.
- Develop teamwork and project management skills through structured collaboration, effective communication, and task delegation.
- Produce professional technical documentation aligning with industry practices, ensuring clarity, accuracy, and usability.
- Acquire time management, resource allocation, and personnel coordination skills for efficient project execution.

### Project Types:

- Developing a solution for a real-life problem:** In this case, the project focuses on addressing an existing requirement for a computer-based solution that has practical applications. The project should successfully implement the different stages of the system development life cycle. Examples: Secure Online Banking System, Machine Learning-based Disease Diagnosis System, Cloud-based Document Management System.
- Innovative Product Development:** These projects involve exploring and developing a computer-based solution with a unique and innovative utility. Examples: Cybersecurity Monitoring and Threat Detection System, Machine Learning-powered Predictive Maintenance System for Industrial Equipment, IoT-based Smart Energy Management System.
- Research-Level Project:** These projects involve conducting research and development to explore advanced technologies and solve complex problems. Examples: Deep Learning-based Image Recognition System for Medical Imaging, Cloud Computing Infrastructure Optimization for Big Data Processing, Data Science-driven Predictive Analytics for Sales Forecasting. The methodology and reporting of such projects may vary based on the project supervisor's guidance.

### Tools & Technologies:



In the project work, students are granted complete freedom to select platforms, tools, and programming languages without any imposed restrictions. This approach encourages creativity, flexibility, and exploration of various technologies. By prioritizing open-source technologies, students can leverage a vast array of resources and community support. Commonly employed tools include IDEs, version control systems (e.g., Git), programming languages (e.g., Python, Java), databases (e.g., MySQL), and web frameworks (e.g., Django, Ruby on Rails). The evaluation process focuses on the project's content and implementation rather than the specific tools chosen, ensuring a fair assessment of the students' skills and problem-solving abilities.

#### **Project Guide:**

Assigning a project guide to each project or group is a mandatory requirement to ensure the successful completion of the project work. The guide plays a crucial role as a mentor and technical expert, providing invaluable support and guidance to students. They are expected to facilitate effective communication and teamwork, review project proposals, assign schedules, and monitor progress on a regular basis. Additionally, guides are expected to offer timely feedback, provide guidance on project planning and implementation strategies, evaluate the quality of work, and promote professionalism and ethical conduct. Their expertise and involvement are essential in helping students navigate challenges, make informed decisions, and achieve their project goals effectively.

#### **Project Team Size: 1 – 2 members**

**Project Proposal:** The project proposal is a mandatory document that serves as a foundation for the project. It helps students define their project idea, receive early evaluation and feedback, establish clear communication with the project guide, and take ownership of the project's successful execution. A formal proposal ensures systematic and professional project planning, fostering critical thinking, effective communication, and project management skills. The proposal provides a roadmap and increases the chances of a successful outcome. Before initiating a project, it is mandatory to submit a project proposal for approval. The original duly approved project proposal should be attached to the final project report. The project proposal for UG computer science projects should include the following contents:

- Title
- Introduction
- Objectives: Clearly state the objectives of the project. What specific goals do you aim to achieve?
- Scope
- Methodology
- Tools and Technologies
- Timeline
- Resources
- Expected Outcomes
- References



#### **Project Report:**

The Certified Copy of Hard Bound Project Report must adhere to the following guidelines:

- No of Copies: Team Size + 1 (College / Department Copy)
- The project report should include the following
  - Title Page (*Sample attached in Appendix*)
  - Certificate (*Sample attached in Appendix*)
  - Declaration (*Sample attached in Appendix*)
  - Acknowledgement
  - Table of Contents
  - Original Copy of approved Project Proposal
  - Self-attested copy of Plagiarism Report from any open source tool.
  - Chapters / Sections depending upon the type of project
  - List of Tables and/or List of Figures
  - References (IEEE / Springer format)
  - Glossary
  - Appendices (Survey datasheets / Questionnaires, ect)
- Use of LaTeX for documentation purposes should be preferred.
- The text of the report should be set in 12 pt, Times New Roman font, and single-spaced.
- Chapter headings should be centered, written in 20 pt, Times New Roman font, bold, and in all caps.
- These guidelines ensure a standardized format for the project report, promoting clarity and readability.





LAXMI CHARITABLE TRUST'S  
SHETH L.U.J. COLLEGE OF ARTS & SIR M.V. COLLEGE OF  
SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

TYCS PROJECT WORK - II  
SEMESTER VI A.Y. 2023-24

ROLL NO	STUDENT NAME	PROJECT TITLE
T071	ABHAY MANOHAR AGATE	CRICKETSCORE PRO - ELEVATING THE GAME WITH PRECISION SCORING.
T072	AZAD SHIVKUMAR BHARDWAJ	VEHICLE PARKING MANAGEMENT SYSTEM
T073	DHRUV DAGLA	E-COMMERCE SHOPPING WEB APPLICATION
T074	PRANAY AJAYKUMAR DAS	MOOD DETECTION: MOOD METER
T075	SENRITA D'SOUZA	FOODZIE
T078	JESSICA JAYESH	AGENT SEGMENTATION TO INCREASE ACTIVATION & PRODUCTIVITY
T079	AAYUSH BASANT JHA	ONLINE BAKERY
T080	SONU KUMAR JHA	AUTOMATED ROBOT-CAR CONTROL SYSTEM WITH HAND GESTURES USING ARDUINO
T081	KHAN MOHAMMED TAUKEER NAZIR NASRIN	FILMSTACK IMDB EDITION-A MERN STACK MOVIE MANAGEMENT PLATFORM
T082	SAMEER SHAKIL AHMED KHAN	E-WASTE RECYCLING BUSINESS WEBSITE
T083	KRUTIK KOLI	SAMPOORA: THE WOMEN SAFETY APP
T085	KRUTIKA GANESH MALI	MOISTUREMASTER: ARDUINO SOIL DETECTION SYSTEM
T086	ROHIT SURENDRA MAURYA	WIREDWONDERS STORE
T088	MOHAMED NABIL ABDUL RAHIMAN	SPEEDY SALE: POINT OF SALE SYSTEM
T089	ASHISH MOHITE	FOODIE : FOOD DELIVERY APP USING FLUTTER
T090	SUBHASHISH NABAJJA	CHOLEDOCHAL CANCER REGION DETECTION IN HYPERSPECTRAL IMAGES USING U-NET BASED MODELS
T091	VAINAVI VINOD	INTEGRATING FACIAL EMOTION RECOGNITION INTO MUSIC RECOMMENDATION SYSTEMS USING YOLOV8
T092	PRITI RADHESHYAM PAL	CHAKRA: A YOGA WEBAPPLICATION
T093	RASHI DAYANAD PANCHAL	SIGN-MATE (HAND-SIGN DETECTION LANGUAGE)
T094	AMIT PATEL	STUDY NOTION AN ED-TECH PLATFORM WEB-APP
T095	VAIBHAV ANIL PATEL	EXPLORING THE POTENTIAL OF RESNET50 AND YOLOV8 IN IMPROVING BREAST CANCER DIAGNOSIS: A DEEP LEARNING PERSPECTIVE
T096	PRANJAL PRAMOD PAWAR	BLOOD BANK MANAGEMENT SYSTEM
T097	GANESH POOJARI	TALKBOT : YOUR CONVERSATIONAL COMPANION
T100	MEGHNA M. PRASAD	FIRESTORM FINISH(RACING GAME)





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SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

ROLL NO	STUDENT NAME	PROJECT TITLE
T102	AMAAN SAYED	ADVANCED SUBJECTIVE QUESTION BANK GENERATION USING RAG ARCHITECTURE
T103	SAHIL SHAMSHAD SHAIKH	HEALTH AND FITNESS CLUB TOOLKIT
T104	TAHA ISMAIL SHAIKH	SECTION ASSIGN ADVISOR
T107	SHREYA NAGENDRA SINGH	IMAGE SEARCH
T108	SHEETAL TAMBE	SCHOOL MANAGEMENT SYSTEM
T109	MOHAMMED VARALIYA	OPTIMIZING AUTOMATED CONVERSATIONAL LARGE LANGUAGE MODELS FOR HIGHER EDUCATIONAL INSTITUTION
T110	SACHIN VERMA	AR OCTO HUNT - AN AUGMENTED REALITY SHOOTING GAME IN UNITY
T111	GUDIYA SHRISHYAM YADAV	GROCERYGO: YOUR ONLINE GROCERY SHOPPING COMPANION
T112	HARSHADA SURENDRA DHAGE	BIBLIOPHILE CONNECT - A MODERN BOOKSTORE

Note: Student were asked to submit the project documentation online in the Google Classroom



  
Coordinator  
B.Sc. Computer Science



Laxmi Charitable Trust's  
Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
(Affiliated to University of Mumbai)  
Dr. S. Radhakrishnan Marg, Andheri (East) Mumbai 400 069  
☎: 22-66992022/23 | ✉: info@mvlucollege.in | www.mvlucollege.in



Department of Computer Science

# Certificate

This is to certify that Mr./Ms. VAINAVI VINOD NAIR  
\_\_\_\_\_ of T.Y.B.Sc. Sem-VI class has  
satisfactorily completed the Project INTEGRATING FACIAL EMOTION

RECOGNITION INTO MUSIC RECOMMENDATION,  
SYSTEMS USING YOLOv8, to be submitted in the partial  
fulfillment for the award of Bachelor of Science in  
Computer Science during the academic year **2023 -**  
**2024.**

Date of Submission:

  
16/04/24

Project Guide



College Seal

**Examined**  
9 MAY 2024

  
16/04/24.

Head / Incharge,  
Department of Computer Science

  
9/5/24

Signature of Examiner



Laxmi Charitable Trust's  
Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
(Affiliated to University of Mumbai)

Dr. S. Radhakrishnan Marg, Andheri (East) Mumbai 400 069  
☎: 22-66992022/23 | ✉: info@mvlucollege.in | www.mvlucollege.in



Department of Computer Science

# Certificate

This is to certify that Mr./Ms. SUDHAKTISH NARAJTA  
\_\_\_\_\_ of **T.Y.B.Sc. Sem-VI** class has  
satisfactorily completed the Project CHOLEDOCHAL CANCER REGION  
DETECTION IN HYPERSPECTRAL IMAGES  
USING U-NET BASED MODELS, to be submitted in the partial  
fulfillment for the award of Bachelor of Science in  
Computer Science during the academic year **2023 -  
2024.**

Date of Submission:

  
16/04/24

Project Guide




  
16/04/24

Head / Incharge,  
Department of Computer Science

## Examined

College Seal

15 MAY 2024

  
15/5/24  
Signature of Examiner



Laxmi Charitable Trust's  
Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
(Affiliated to University of Mumbai)  
Dr. S. Radhakrishnan Marg, Andheri (East) Mumbai 400 069  
☎: 22-66992022/23 | ✉: info@mvlucollege.in | www.mvlucollege.in



Department of Computer Science

# Certificate

This is to certify that Mr./MS. Vaibhav Patel

of **T.Y.B.Sc. Sem-VI** class has

satisfactorily completed the Project Exploring the potential  
Breast Cancer Diagnosis

of ResNet50 and YoloV8 in Improving, to be submitted in the partial

fulfillment for the award of Bachelor of Science in

Computer Science during the academic year **2023 -**

**2024.**

Date of Submission:

*Mamun*  
16/04/24

Project Guide



*Mamun*  
16/04/24

Head / Incharge,  
Department of Computer Science

**Examined**

- 9 MAY 2024

*Pa...*  
9/5/24

*A...*  
9/5/24

College Seal

Signature of Examiner



Laxmi Charitable Trust's  
 Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
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Department of Computer Science

# Certificate

This is to certify that Mr./Ms. Mohammed Varaliya  
 \_\_\_\_\_ of T.Y.B.Sc. Sem-VI class has  
 satisfactorily completed the Project optimizing Automated conver-  
 sational Large Language Models  
 for Higher Education Institutions to be submitted in the partial  
 fulfillment for the award of Bachelor of Science in  
 Computer Science during the academic year 2023 -  
 2024.

Date of Submission:

**Examined**

10 MAY 2024

Project Guide

*[Signature]*  
16/04/24

*[Signature]*

Head / Incharge,  
 Department of Computer Science

*[Signature]*  
16/04/24



College Seal

*[Signature]*  
10/5/24

*[Signature]*  
10/5/24

Signature of Examiner



Laxmi Charitable Trust's  
**Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce**  
 (Affiliated to University of Mumbai)  
 Dr. S. Radhakrishnan Marg, Andheri (East) Mumbai 400 069  
 ☎: 22-66992022/23 | ✉: info@mvlucollege.in | www.mvlucollege.in



**Department of Computer Science**

# Certificate

This is to certify that Mr./Ms. AMAAN SAYED  
 \_\_\_\_\_ of **T.Y.B.Sc. Sem-VI** class has  
 satisfactorily completed the Project ADVANCED SUBJECTIVE QUESTION  
BANK GENERATION USING RAG ARCHITECTURE, to be submitted in the partial  
 fulfillment for the award of Bachelor of Science in  
 Computer Science during the academic year **2023 -**  
**2024.**

Date of Submission:

*Munir*  
 16/05/24  
 Project Guide

*Munir*  
 Head / Incharge,  
 Department of Computer Science



College Seal

*Munir*  
 10/5/24  
**Examined**

*Munir*  
 10/05/24

Signature of Examiner

10 MAY 2024



LAXMI CHARITABLE TRUST'S  
SHETH L.U.J. COLLEGE OF ARTS & SIR M.V. COLLEGE OF  
SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

TYCS PROJECT WORK - I  
SEMESTER V A.Y. 2023-24

ROLL NO	NAME	TOPIC
T071	ABHAY MANOHAR AGATE	STREAMLINED APPOINTMENT SCHEDULING SYSTEM FOR PREMIUM CAR ASSURANCE: A DJANGO FRAMEWORK
T072	AZAD SHIVKUMAR BHARDWAJ	SAI JYOTI FABRICATION WEBSITE
T073	DHRUV MAHESH DAGLA	GYM WORKOUT PROGRESS DATA ANDROID APPLICATION
T074	PRANAY AJAKUMAR DAS	EXPENSE EASE
T075	SENRITA D'SOUZA	PROFILE WEBSITE
T076	KAUSHIK JAIN	VIBES MANAGEMENT SYSTEM
T078	JESSICA JAYESH	KNEUROMIND - EXPLORING MENTAL HEALTH AND PSYCHOLOGY
T079	AAYUSH BASANT JHA	MESSAGE ENCRYPTION & DECRYPTION
T080	SONU KUMAR JHA	NETADMIN PRO: CENTRALIZED NETWORK MANAGEMENT SYSTEM FOR EDUCATIONAL INSTITUTIONS.
T081	KHAN TAUKEER	MEDIBOOK: YOUR ONLINE HEALTHCARE APPOINTMENT SOLUTION
T082	SAMEER KHAN	SCRAP DADDIES (THE ONLINE SCRAP VENDORS)
T083	KRUTIK KOLI	EMPOWERING CREATIVITY - SREATION'S JEWELRY CAD CLASSES WEBSITE
T084	JAYESH MALI	FOOD EXPRESS
T085	KRUTIKA GANESH MALI	SOIL MOISTURE DETECTION AND IRRIGATION SYSTEM
T086	ROHIT MAURYA	SWEET DELIGHTS BAKERY:ORDER CAKE ONLINE
T088	MOHAMED NABIL ABDUL RAHIMAN	MUSIC MANIA (SPOTIFY CLONE)
T089	ASHISH MOHITE	AUTOMATED CANTEEN MANAGEMENT SYSTEM
T090	SUBHASHISH NABAJA	CHOLEDOCHAL CANCER REGION DETECTION IN HYPERSPECTRAL TISSUE IMAGES USING U-NET
T091	VAINAVI VINOD	MUSIC RECOMMENDER BASED ON THE FACIAL EMOTION OF THE USER IDENTIFIED USING YOLOV8
T092	PRITI RADHESHYAM PAL	ALWAYS TOGETHER: A WEDDING WEBSITE
T093	RASHI DAYANAND PANCHAL	R-INFO (DATA OPERATION MANAGEMENT SYSTEM)
T094	AMIT PATEL	EVO BEATS: ELEVATE YOUR LISTENING EXPERIENCE
T095	VAIBHAV ANIL PATEL	AN APPROACH TO BREAST CANCER DETECTION WITH HISTOPATHOLOGICAL IMAGES USING TRANSFER LEARNING
T096	PRANJAL PRAMOD PAWAR	LEARNING MANAGEMENT SYSTEM
T097	GANESH POOJARI	REAL-TIME OBJECT DETECTION WEB APPLICATION WITH TENSORFLOW.JS AND COCO-SSD
T099	MINAKSHEE PRAJAPATI	ATTENDANCE MANAGEMENT SYSTEM
T100	MEGHNA M. PRASAD	READY-TO-SAVOR (FOOD HOME BUSINESS WEBSITE)





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DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

ROLL NO	NAME	TOPIC
T101	PRATHMESH RAJPUROHIT	HOME INTERIOR DESIGN WEBSITE
T102	AMAAN SAYED	SUBJECTIVE QUESTION BANK GENERATION USING LARGE LANGUAGE MODELS WITH CUSTOM KNOWLEDGE BASE
T103	SAHIL SHAMSHAD SHAIKH	RESTAURANT MANAGEMENT SYSTEM
T104	TAHA ISMAIL SHAIKH	ONLINE PET'S ACCESSORIES STORE
T106	RAJ SINGH	E - NOTES PROVIDER
T107	SHREYA SINGH	E-COMMERCE SITE FOR ONLINE SHOPPING
T108	SHEETAL TAMBE	SCHOOL MANAGEMENT SYSTEM
T109	MOHAMMED VARALIYA	REVOLUTIONIZING HIGHER EDUCATION INSTITUTE QUERY SYSTEM BY LINKING CUSTOM KNOWLEDGE BASE WITH LARGE LANGUAGE MODELS
T110	SACHIN VERMA	STUDENTS RESULTS DATA VISUALIZATION WEB APP
T111	GUDIYA SHRISHYAM YADAV	OBJECT DETECTION IN ANDROID
T112	SACHIN YADAV	BET TASKR:- A TASK BETTING PLATFORM
T113	HARSHADA DHAGE	A PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF
T114	ABHISHEK MANE	FOREX MARKET FORECASTING USING MACHINE LEARNING.

Note: Student were asked to submit the project documentation online in the Google Classroom



  
Coordinator  
B.Sc. Computer Science

2220088



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Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
(Affiliated to University of Mumbai)  
Dr. S. Radhakrishnan Marg, Andheri (East) Mumbai 400 069  
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Department of Computer Science

# Certificate

This is to certify that Mr./Ms. VAINAVI VINOOD NAIR  
\_\_\_\_\_ of **T.Y.B.Sc. Sem-V** class has  
satisfactorily completed the Project MUSIC RECOMMENDER  
BASED ON THE FACIAL EMOTION OF  
THE USER IDENTIFIED USING VIDEO to be submitted in the partial  
fulfillment for the award of Bachelor of Science in  
Computer Science during the academic year **2023 -**  
**2024.**

Date of Submission:

All Analysis plus  
not seen.

Paper under  
publication.

Project Guide

18/12/23  
Head/Incharge,  
Department of Computer Science



College Seal

Examiner

18/12/23  
Signature of Examiner



Laxmi Charitable Trust

Joint L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
(Affiliated to University of Mumbai)

Dr. S. Radhakrishnan Marg, Andheri (East) Mumbai 400 069  
☎ 22 6692022/23 | ✉ info@mvlucollege.in | www.mvlucollege.in



Department of Computer Science

# Certificate

This is to certify that Mr./Ms. SUBHASHISH NABATSA  
\_\_\_\_\_ of **T.Y.B.Sc. Sem-V** class has  
satisfactorily completed the Project CHOLEDOCHAL CANCER REGION  
IN HYPER SPECTRAL TISSUE IMAGES  
USING U-NET., to be submitted in the partial  
fulfillment for the award of Bachelor of Science in  
Computer Science during the academic year **2023 -  
2024.**

Date of Submission: **16-12-2023**

Project Guide

Head / Incharge,  
Department of Computer Science



College Seal

Examined

Signature of Examiner



Laxmi Charitable Trust's  
Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
(Affiliated to University of Mumbai)

Dr. S. Radhakrishnan Marg, Andheri (East) Mumbai 400 069  
☎ 22-66992022/23 | ✉ info@mvlcollege.in | www.mvlcollege.in



Department of Computer Science

# Certificate

This is to certify that Mr./MS. Vaibhav Patel

\_\_\_\_\_ of T.Y.B.Sc. Sem-V class has satisfactorily completed the Project An approach to Breast

Cancer Detection using transfer learning, to be submitted in the partial fulfillment for the award of Bachelor of Science in Computer Science during the academic year **2023 -**

**2024.**

Date of Submission:

Project Guide

Head / Incharge,  
Department of Computer Science



College Seal

Signature of Examiner



Laxmi Charitable Trust

U. I. College of Arts & Sir M.V. College of Science & Commerce  
(Affiliated to University of Mumbai)

Dr. S. Radhakrishnan Marg, Andheri (East) Mumbai 400 089

22 88992022/23 | Email: info@mvlucollege.in | www.mvlucollege.in



Department of Computer Science

# Certificate

This is to certify that Mr./Ms. Mohammed Varadiys

\_\_\_\_\_ of T.Y.B.Sc. Sem-V class has

satisfactorily completed the Project Revolutionizing Higher Education

Institute Query System By

Linking Custom Knowledge with Large Language Model. to be submitted in the partial

fulfillment for the award of Bachelor of Science in

Computer Science during the academic year **2023 -**

**2024.**

Date of Submission: 16-12-2023

All development phases  
Scan.

Project Guide

Head / Incharge,  
Department of Computer Science



College Seal

Examined

Signature of Examiner



Laxmi Charitable Trust's  
Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
(Affiliated to University of Mumbai)  
Dr. S. Radhakrishnan Marg, Andheri (East) Mumbai 400 069  
☎: 22-66992022/23 | ✉: info@mvlucollege.in | www.mvlucollege.in



Department of Computer Science

# Certificate

This is to certify that Mr./Ms. Amaan Sayed  
\_\_\_\_\_ of T.Y.B.Sc. Sem-V class has  
satisfactorily completed the Project Subjective question bank  
generation using large  
language model with custom  
knowledge base, to be submitted in the partial  
fulfillment for the award of Bachelor of Science in  
Computer Science during the academic year **2023 -  
2024.**

Date of Submission: 16-12-2023



Project Guide

*AI development phen  
Scm*



Head / Incharge,  
Department of Computer Science



College Seal

Examined

  
18/12/23

Signature of Examiner



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SHETH L.U.J. COLLEGE OF ARTS & SIR M.V. COLLEGE OF  
SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

IOT TECHNOLOGIES PROJECT DETAILS  
SEMESTER IV A.Y. 2023-24

Sr No.	STUDENT NAME	PROJECT TITLE
1.	ATHAWALE SIDDHANT BALKRISHNA VISHAKHA	RFID Attendance system
	GALITAM ABHISHEK RAMSIROMANI SITA DEVI	
	ORPADIA UMANG MAHESH BHAVNA	
2.	YADAV SHIVAM PAPPU GEETA	IOT Enabled Smart City
	RAJPURE SAHIL SAGAR GAURI	
	CHALKE SIDDHESH RAMDASSWAMI SAYLI	
	NADAR JEYAMURUGAN GANESAPANDI	
	THIRUNAMAKANI	
	PAWAR SUJAL AMOL NIRMALA	
	SHETGE RUGVED RAVINDRA RASHMI	
	SINGH SHAILESH KUMAR DINESH PRASAD	
	SINGH ADITYA SANTOSH MEERA	
VISHWAKARMA GOPAL SHIVSHANKAR SARITA		
3.	MALKAR DARSHAN ASHOK SWAROOPA	RFID Door Lock System
	MISTRY TRISHA JITENDRA HEENA	
	SUTARI SHAUN NEIL SHARON	
	VISHWAKARMA SHIVAM KAMLESH SUNITA	
	KHAN ALEEM KALIM SUGAN	
4.	SINGH SHIVAM MARKANDE KAMALAVATI	Arduino Based Bluetooth Car
	SAYED SAQUIB SULEMAN SHABANA	
	SHAIKH SHARIQUE ISMAIL FARIDA	
	SINGH NIRAJ PRATAP SHEELA	
5.	GUPTA OMKAR LUV KUSH MANJU	Smart Blind Stick
	KHAN AFTAB MUKHTAR NOORJAH	
6.	DHOPAT PRADNYA RAMESH ROHINI	Free Bot
	KHAW SHITESH KESHAV ANITA	
	MAKNOJIA ABDULREHMAN JAVED HUMERA	
	MOURYA VIVEK GORAKHNATH NIRMALA	
	RAI ANJALI RAMESH VANDANA	
	YADAV EKTA VIRENDRA USHA	
	YADAV NITIN SHREERAM GEETA	
7.	BEHERA NARAYAN NIRANJAN JYOSNA	IOT Based Piggy Bank
	DAS VIVEK PRAKASH CHANDRA NAMITA	
	SASANE SHAILENDRA UTTAM PRAMILA	
8.	PARDALE AYUSH SANTOSH MANSI	ENHANCING SECURITY: IMPLEMENTATION OF INTRUSION
	REDKAR SHUBHAM RAJESH RUTIKA	
	NANDA ARYAN KISHORE AMISHA	
	SINGH RAKESH TILAK GANGADEVI	





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SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

Sr No.	STUDENT NAME	PROJECT TITLE
9.	BHOUD PRANAV PRADIP POOJA	IOT based smart agriculture monitoring System
	DEORUKHKAR ATHARVA RAJESH RAJASHRI	
	JAVRAT RAJ SUNIL SWATI	
	KHAN SAJID NAFIS SHAHNAJ	
	KHAN SAMIR JIKRULLAH ISRAT	
	RAUL HARSH SANTOSH SAKSHI	
	SONI YASH SURESH PRITI	
10.	GAIKWAD SHRUTI SHASHIKANT HEMLATA	Temperature and Humidity Monitor
	SHRIYAN SARAH RAVIRAJ ANITA	
11.	YADAV SAURABH AWADHESH KAVITA	Bluetooth Wireless Notice Board
	SHAVALI RAHUL VENKATESH PARVATI	
	CHATURVEDI SUMIT AWANISH MAMTA	
	MISHRA DHIRAJ SANJAY KIRANDEVI	
	HARIAKAR PRATHAM SANJEEV SMITA	
12.	CHAVAN DIPTI RAMESH SHASHIKALA	IOT Based Tsunami Alert System
	HIRAP NIKITA PRADEEP SAMATA	
	NAIR SURYA RAJAKRISHNAN SUDHA	
	PATRICIO ANEIRA RAYMOND CLARE	
	SAKHALE TANVI SANDIP KANCHAN	
	YADAV TAPASYA MANOJ KOMAL	

Note: Student were asked to submit the project documentation online in the Google Classroom

Subject Incharge



Coordinator  
B.Sc. Computer Science

Sem - IV A.Y. 2023-24

IoT Technologies

# IoT Enabled Smart City

(Advancing Towards Future)

A

PROJECT

SUBMITTED TO THE

**SHETH L.U.J AND SIR M.V. COLLEGE**

FOR THE DEGREE

OF

**BACHLEOR OF COMPUTER SCIENCE**

IN

COMPUTER SCIENCE



*Chander*

(Subject Teacher)



*Princy*

Coordinator  
B. Sc. Computer Science

Sem- IV A.Y. 2023-24

IOT Technologies

**SUBMITTED BY**

- Siddhesh Chalke (S-074)
- JeyaMurugan Nadar (S-095)
- Sujal Pawar (S-101)
- Sahil Rajpure (S-104)
- Rugved Shetge (S-112)
- Aditya Singh (S-114)
- Shailesh Singh (S-119)
- Gopal Vishwakarma (S-121)
- Shivam Yadav (S-126)

UNDER THE GUIDANCE OF

**Prof. Jyoti Chauhan**

&

**Dr. Mahendra Kanojia**

DEPARTMENT OF COMPUTER SCIENCE

**SHETH L.U.J AND SIR M.V. COLLEGE,**

DR. S. RADHAKRISHNAN MARG, ANDHERI EAST, MUMBAI -400069

*Chalke*

(Subject Teacher)



*Manoj*

Coordinator

B.Sc. Computer Science

Sem - IV A.Y. 2023-24

## IOT Technologies

Topic :- Wireless Notice Board With Bluetooth Module and Arduino

Team Name :- The Circuit 2k24

Member :- Sumit Chaturvedi S075

Rahul Shavali S111

Dhiraj Mishra S092

Saurabh Yadav S125

Pratham Hariakar S083



*Chaturvedi*

(Subject Teacher)

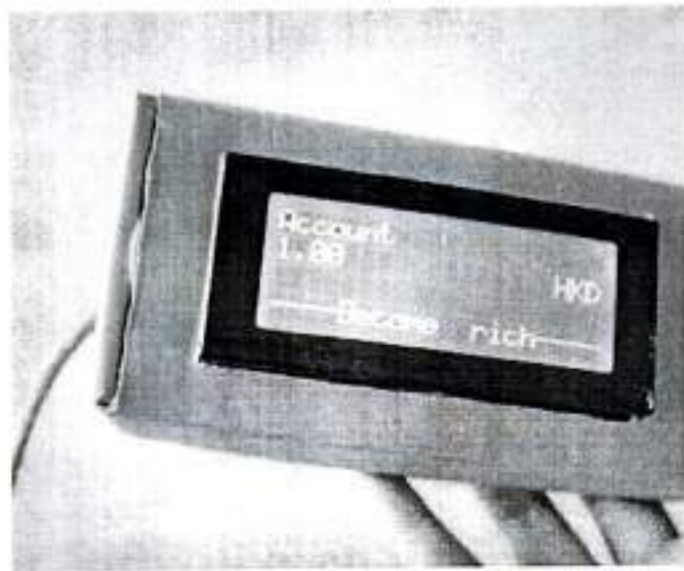


*Chaturvedi*

Coordinator  
B.Sc. Computer Science

Sem - IV A.Y. 2023-24

IoT Technologies



THE IOT SMART PIGGY BANK

S072 Narayan Behera

S077 Vivek Das

S108 Shailendra Sasane

(Subject Teacher)



Coordinator  
B.Sc. Computer Science

Sem - IV A.Y. 2023-24

IOT Technologies

## IoT-BASED TSUNAMI ALERT SYSTEM

### TEAMMATES:

ANEIRA PATRICIO - S100

DIPTI CHAVAN - S076

NIKITA HIRAP - S084

TANVI SAKHALE - S107

SURYA NAIR - S096

TAPASYA YADAV - S128



*Dr. Anurag*

(Subject Teacher)



*Anurag*

Coordinator  
B.Sc. Computer Science

Sem- IV A.Y. 2023-24

IoT Technologies

# Introduction to the Smart Blind Stick

S082 - OMKAR GUPTA

S086 - AFTAB KHAN



(Subject Teacher)





Coordinator  
B.Sc. Computer Science



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SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

WEB TECHNOLOGIES PROJECT DETAILS  
SEMESTER III A.Y. 2023-24

Roll No.	STUDENT NAME	PROJECT TITLE
S 071	ATHAWALE SIDDHANT BALKRISHNA VISHAKHA	Online T-shirt store-front
S 072	BEHERA NARAYAN NIRANJAN JYOSNA	Restaurant bill
S 073	BHOUD PRANAV PRADIP POOJA	Industrial business company
S 074	CHALKE SIDDHESH RAMDASSWAMI SAYLI	Gymnasium Management System
S 075	CHATURVEDI SUMIT AWANISH MAMTA	INVENTORY MANAGEMENT SYSTEM
S 076	CHAVAN DIPTI RAMESH SHASHIKALA	Cake Shop Website
S 077	DAS VIVEK PRAKASH CHANDRA NAMITA	MENTAL HEALTH
S 078	DEORUKHKAR ATHARVA RAJESH RAJASHRI	I.t startup company log in page
S 079	DHOPAT PRADNYA RAMESH ROHINI	Cake Shop Website
S 081	GAUTAM ABHISHEK RAMSIROMANI SITA DEVI	NEXTFLEX CLONE WEBSITE
S 083	HARIAKAR PRATHAM SANJEEV SMITA	Library Database Management System
S 084	HIRAP NIKITA PRADEEP SAMATA	Furniture website
S 087	KHAN SAJJID NAFIS SHAHNAJ	My World (Death Note- Death Day Predictor)
S 089	KHAW SHITESH KESHAV ANITA	Employee Leave Management System
S 090	MAKNOJIA ABDULREHMAN JAVED HUMERA	Online Food Management System
S 091	MALKAR DARSHAN ASHOK SWAROOPA	website for a party club
S 092	MISHRA DHIRAJ SANJAY KIRANDEVI	Arena Villa Booking Website
S 093	MISTRY TRISHA JITENDRA HEENA	sports club website
S 094	MOURYA VIVEK GORAKHNATH NIRMALA	Library Management System
S 098	ORPADIA UMANG MAHESH BHAVNA	Shopping Website
S 099	PARDALE AYUSH SANTOSH MANSI	Hotel Billing System
S 103	RAI ANJALI RAMESH VANDANA	grocery store
S 104	RAJPURE SAHIL SAGAR GAURI	Online movie site
S 105	RAUL HARSH SANTOSH SAKSHI	Car Rental Service
S 107	SAKHALE TANVI SANDIP KANCHAN	ONLINE BOOKS WEBSITE
S 111	SHAVALI RAHUL VENKATESH PARVATI	Gymnasium website
S 114	SINGH ADITYA SANTOSH MEERA	Educational website
S 116	SINGH RAKESH TILAK GANGADEVI	Indian Tourism Places Website
S 119	SONI YASH SURESH PRITI	Car selling
S 120	SUTARI SHAUN NEIL SHARON	Funnel Growth Agency website
S 121	VISHWAKARMA GOPAL SHIVSHANKAR SARITA	Portfolio Website
S 127	YADAV TAPASYA MANOJ KOMAL	Pet Ecommerce Website
S 128	KHAN ALEEM KALIM SUGAN	portfolio website

Note: Student were asked to submit the project documentation online in the Google Classroom

Subject Incharge



Coordinator  
B.Sc. Computer Science

Sem-III A.Y. 2023-24

Web Technologies

## WEB TECHNOLOGY PROJECT

NAME: SHITESH KHAW

ROLL NO: S089


PROJECT NAME: EMPLOYEE MANAGEMENT SYSTEM

CLASS: SYCS

COLLEGE NAME: MVLU COLLEGE

  
(Subject Teacher)



  
Coordinator  
B. Sc. Computer Science

Sem - III A.Y. 2023-24

Web Technologies

## WEB TECHNOLOGY PROJECT

**NAME:** PRADNYA RAMESH DHOPAT

**ROLL NO:** S079


**PROJECT NAME:** CAKE SHOP WEBSITE

**CLASS:** SYCS

**COLLEGE NAME:** MVLU COLLEGE

  
(Subject Teacher)



  
Coordinator  
B.Sc. Computer Science

Sem III A.Y. 2023-24

Web Technologies

# WEB TECHNOLOGY PROJECT

## GYM MANAGEMENT SYSTEM



NAME :- PAWAR SUJAL AMOL


SUBJECT :- WEB TECH

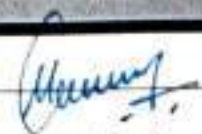
TOPIC :- GYM MANAGEMENT SYSTEM

ROLL NO :- S101

CLASS :- SYCS

COLLEGE :- MVLU COLLEGE

  
(Subject Teacher)

  
Coordinator  
B.Sc. Computer Science

Name: Gopal Vishwakarma

Year: SYBSc. Computer  
Science

Roll no.: S121

Subject: Web Technology  
Final Project



---

  
(Subject Teacher)





---

  
Coordinator  
B. Sc. Computer Science

## # WEB TECHNOLOGY PROJECT #



Name: SAHIL S. RAJPURE

Rollno: S104

Subject: WEB TECHNOLOGY

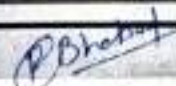
Topic: An online site website with registration form  
Connected with the database.

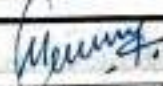
Languages: HTML, CSS, JAVASCRIPT, PHP, DATABASE.

NAME: SAHIL S. RAJPURE

ROLLNO: S104

CLASS: S.Y.CS

  
(Subject Teacher)

  
Coordinator  
B.Sc. Computer Science



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SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

ADVANCED PYTHON PROGRAMMING PROJECT DETAILS  
SEMESTER II A.Y. 2023-24

Roll No.	STUDENT NAME	PROJECT TITLE
F 071	ANSARI AZAD MUMTAZ HASIBUL	Student Courses Register system
F 072	BERA NITINKUMAR NOBOKUMAR ANITA	GUI-JEWELLERY SHOPPING APP
F 073	BHARDWAJ RAJANISH KUMAR SARJU SHABNAM	sim card viewer application using python GUI
F 074	DEBBO KERMEEN SOLI GULSHAN	Mortality Rate Management Application
F 075	DESAI SHREERAJ NANDKUMAR SNEHLATA	Desai Enterprises Billing System
F 076	DUBAL AMAN RAJESH NEETA	Health information form
F 077	GHOSH SHIBSHANKAR TARUN SUJATA	Shopping App
F 078	GUPTA ADITYA KUMAR AJAY KUMAR SUMAN	YouTube video and MP3 downloader Application
F 079	GUPTA GAURAV GAGAN RANNODEVI	US Stock Trainer.
F 081	GUPTA SURAJ UMESH SUNITA	CONTACT BOOK
F 082	HALAI ISMAIL HAROON SHEHNAZ	Nutri Track application
F 083	HALSE SHOBIT SUNIL SUNITA	Atom AI: Chatbot for Periodic Elements
F 084	JADHAV ATHARVA ASHISH VIDYA	CAR RENTAL APPLICATION
F 086	JOSHI KUNAL DURGESH PRAMILA	Government website for creating and updating identity
F 087	KANOJIYA GHANSHYAM LALBAHADUR SUNITA	Shyamiz: Music player
F 088	KUBAL OMKAR SANTOSH SANJANA	MY FLASHCARD APP
F 089	KUMBHAR JYOTI BHARAT YOGITA	Payroll Management System
F 090	LEWIS CLIVE RALPH BIBIANA	Restaurant management system
F 091	MAHAJAN SWATI NARESH SARLA	ATKT form using GUI
F 092	MANE SHUBHANGI NANDKUMAR SAVITA	Banking application
F 094	NADAR JENCY RAJAN PUNITHA	Resume Builder
F 095	NAIK SIDDHI YASHWANT YOGITA	QUIZ application
F 096	NAIK YESHWANT CHANDRASHEKHAR VANITA	Basic Hotel Management System
F 097	NAVAL MOHANRAJ M VIJAYABHARTI	Typing speed test
F 098	PANDEY MUSKAN RAMBACHAN ALKA	Movie Ticket Booking Application Using Python Gui
F 099	PARBATANI MAHID MEHMOOD FARZANA	Inventory Management system
F 100	PATEL HENCY ASHOK URVASHI	Employee Management System (EMS) using Python GUI
F 101	PATIL VEDANT SACHIN PRAGATI	Course enrollment form
F 102	PAWAR PRIYANKA SIDDHESHWAR ARCHANA	Recipe Book
F 103	PEREIRA ZIVEN LEANORD PATRICIA	Mental Health Self Diagnosis Tool
F 104	PILLAI ABIN PRASANNAKUMAR MARIYAMMA	Student Detail Management System using Python GUI
F 106	QURESHI SANIA KAYYUMALI TAHSEENBANU	Movie ticket booking system using python GUI
F 108	SAHU SANJANAKUMARI PRAMOD SUNITADEVI	Student Management System using Python GUI
F 109	SALVI MIHIR SUHAS SHRADDHA	Restaurant Billing System
F 110	SHAH GAUTAM DILIP PINKY	Student subjects Marks analyzer
F 111	SHAIKH ABDULLAH SHAHID PARVEEN	Employee Management System using GUI
F 112	SHARMA HARSH SHEKHAR SUDHA	Random Quiz.
F 113	SHARMA SACHIN MAHESH GEETA	Voter id information system
F 114	SHELAR ANUSHKA SADASHIV MANISHA	VIBES Participation Form
F 115	SHELAR BHUMIKA ROHIDAS UJWALA	Student ID Card Generator using Python GUI
F 116	SHELAR SHRUTI SURYAKANT VAISHALI	GYM Membership App






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SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

Roll No.	STUDENT NAME	PROJECT TITLE
F 117	SHINDE SUMEET ANANTHA SANGEETA	welcome to Trinity music academy
F 119	SHUKLA ADARSH SHIVSHANKAR GEETA	Hotel management system
F 120	SINGH MANJIT SURENDRA SINDHUDEVI	Vote Manager using python GUI
F 121	SINGH RAMKUMAR DHANANJAYKUMAR ANJUDEVI	BANKING SYSTEM USING PYTHON GUI
F 122	SWAMI SHIVA VASUDEVA KIRAN	STUDENT REGISTRATION APP USING PYTHON
F 124	TIWARI VIVEK SANJAY RENU	DATA ENTRY FORM
F 125	TODGIRE SHWETA MAHENDRA DAMAYANTI	My Journal: JOURNAL APPLICATION
F 126	YADAV AAYUSH DURGAPRASAD AARTIDEVI	Novel Library Management Application
F 129	YADAV PRINCE LAXMIKANT SURMILA	Quiz application using python GUI
F 130	ZAGRAL AHMED FAIYAZ FARHIN	Student Profile management

Note: Student were asked to submit the project documentation online in the Google Classroom

  
Subject Incharge



  
Coordinator  
B.Sc. Computer Science

Sem - II A.Y. 2023-24  
Advanced Python Programming

Sem II Project

Title : Resume Builder



Name: Jency Rajan Nadar

Class : FY Computer Science

Roll no.: F094

Subject : Advance Python

A handwritten signature in blue ink, appearing to read 'Jency Rajan Nadar'.

(Subject Teacher)



A handwritten signature in blue ink, appearing to read 'Jency Rajan Nadar'.

Coordinator  
B.Sc. Computer Science

Sem- II A.Y. 2023-24  
Advanced Python Programming

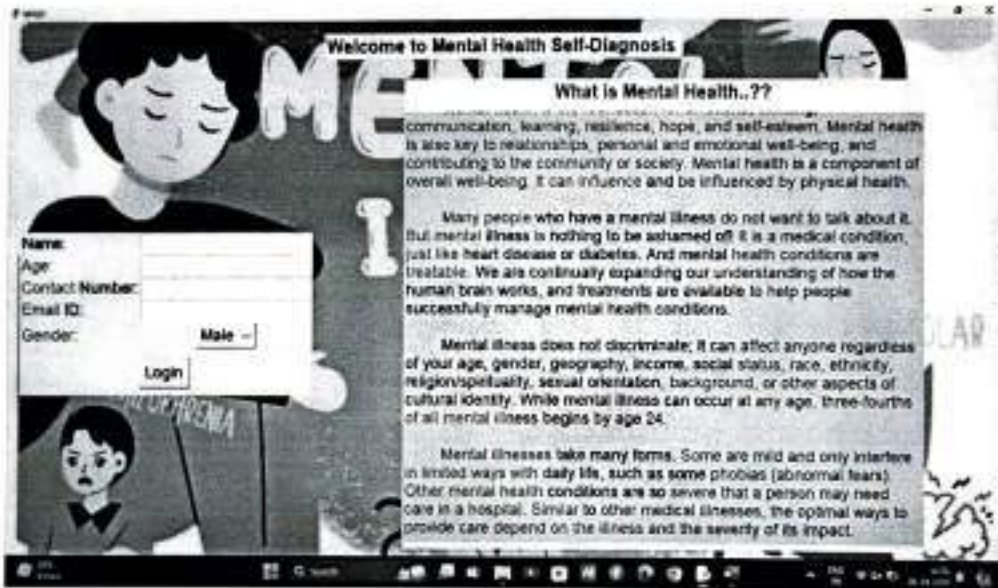
ADVANCED PYTHON PROJECT SEM 2

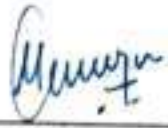
Name: Ziven Pereira

Roll no : F103

Project Title : Mental Health Self Diagnosis Tool

GitHub: <https://github.com/Zivi09/Mental-Health-Self-Diagnosis-App>




---

(Subject Teacher)



---

Coordinator  
B.Sc. Computer Science

PROJECT TITLE  
COLLEGE O

# Sem-II A.Y. 2023-24 Advanced Python Programming

Advance Python Project Sem2  
Project output:

Name: Muskan Rambachan Pandey

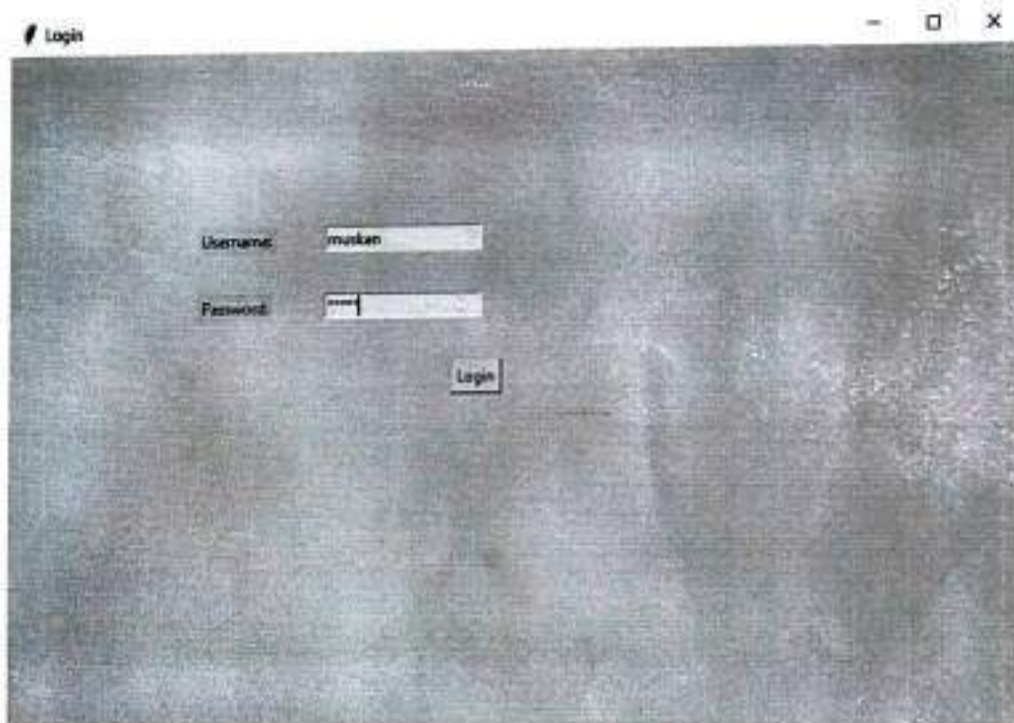
Roll No: F098

Project Title : Movie Ticket Booking System

Concept has used in this project :

- Python Gui using Tkinter
- Sql Database using module sqlite3
- Exception handling
- Oops concept using Inheritance
- Date and Time using module datetime
- GitHub:  
<https://github.com/pandeymuskan30/MovieTicketBooking.git>

Login Page:-



---

(Subject Teacher)



---

Coordinator  
B.Sc. Computer Science

Sem - II A.Y. 2023-24  
Advanced Python Programming

ADVANCED PYTHON PROJECT SEM 2

Name : Abin Pillai

Roll no : F104

Project Title : Student Detail Management System

Concepts Used :


- Python GUI using Tkinter
- SQL Database using sqlite3 module
- Date and time module
- SMTP library
- Calendar module
- Regular expression(re)

GitHub: <https://github.com/Abin2112/Student-Detail-Management-System>


OUTPUT:

MAIN PAGE

The screenshot shows a web application interface for a Student Detail Management System. The main heading is 'STUDENT DETAIL MANAGEMENT SYSTEM'. The interface is divided into several sections: a registration form at the top with fields for 'Registration No.', 'Name', 'Full Name', 'Date of Birth', 'Gender', 'Class', 'Address', and 'Email ID'; a 'Parent's Details' section below it with fields for 'Father's Name', 'Mother's Name', and 'Occupation'; and a right-hand sidebar containing a profile picture placeholder, an 'Upload' button, and 'Next' and 'RESET' buttons. A 'Save' button is positioned at the bottom center of the form area.

  
(Subject Teacher)



  
Coordinator  
B.Sc. Computer Science

Sem-II A.Y. 2023-24  
Advanced Python Programming

ADVANCE PYTHON PROJECT

PROJECT OUTPUT

NAME: PRIYANKA PAWAR

ROLL NO : F 102 CLASS: FYCS

TITLE: RECIPE BOOK MANAGEMENT SYSTEM

1) PYTHON GUI USING TKINTER

2) SQL DATABASE USING MODULE SQLITE3

3) EXCEPTION HANDLING

4) OOPS CONCEPT

<https://github.com/Priyankapawar1224/Recipe-book.git>



(Subject Teacher)



Coordinator  
B.Sc. Computer Science



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SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

INTRODUCTION TO PROGRAMMING WITH PYTHON PROJECT DETAILS  
SEMESTER I A.Y. 2023-24

Roll No.	STUDENT NAME	PROJECT TITLE
F 071	ANSARI AZAD MUMTAZ HASIBUL	Personal Finance Manager in Python
F 072	BERA NITINKUMAR NOBOKUMAR ANITA	Dictionary datatype: It's Methods and Types
F 073	BHARDWAJ RAJANISH KUMAR SARJU SHABNAM	Sim Card Information Viewer
F 074	DEBOO KERMEEN SOLI GULSHAN	Python program for Mortality Management
F 075	DESAI SHREERAJ NANDKUMAR SNEHLATA	Clock Application
F 076	DUBAL AMAN RAJESH NEETA	Online Shopping Application Using Python Program
F 077	GHOSH SHIBSHANKAR TARUN SUJATA	Railway Yatri - Ticket Generation
F 078	GUPTA ADITYA KUMAR AJAY KUMAR SUMAN	Login ID User Interface
F 079	GUPTA GAURAV GAGAN RANNODEVI	Gym Training
F 080	GUPTA MANISHA PRAMOD MALTIDEVI	Pandas Library
F 081	GUPTA SURAJ UMESH SUNITA	Ticket Booking
F 082	HALAI ISMAIL HAROON SHEHNAZ	BMI Calculator using Python
F 083	HALSE SHOBIT SUNIL SUNITA	Indian Identity Document Government Website
F 084	JADHAV ATHARVA ASHISH VIDYA	Waffle Bill Printing
F 085	JAIN GUNGUN SANJAYKUMAR REKHADEVI	DIGI-Chest
F 086	JOSHI KUNAL DURGESH PRAMILA	Indian Identity Document Government Website
F 087	KANOJIYA GHANSHYAM LALBAHADUR SUNITA	Simple Music Player Using GUI
F 088	KUBAL OMKAR SANTOSH SANJANA	Contact Book
F 089	KUMBHAR JYOTI BHARAT YOGITA	Unit and Currency Converter
F 090	LEWIS CLIVE RALPH BIBIANA	DIGI-Chest
F 091	MAHAJAN SWATI NARESH SARLA	Password Generator
F 092	MANE SHUBHANGI NANDKUMAR SAVITA	Food Delivery
F 093	MISHRA RITIKA ARUN PUSHPA	DIGI-Chest
F 094	NADAR JENCY RAJAN PUNITHA	Digital clock using GUI
F 095	NAIK SIDDHI YASHWANT YOGITA	Food Delivery
F 096	NAIK YESHWANT CHANDRASHEKHAR VANITA	Alarm with to-do list
F 097	NAVAL MOHANRAJ M VIJAYABHARTI	Alarm with to-do list
F 098	PANDEY MUSKAN RAMBACHAN ALKA	Online train ticket booking
F 099	PARBATANI MAHID MEHMOOD FARZANA	To-Do List using Loop Function
F 100	PATEL HENCY ASHOK URVASHI	Unit and Currency Converter
F 101	PATIL VEDANT SACHIN PRAGATI	Timer
F 102	PAWAR PRIYANKA SIDDHESHWAR ARCHANA	Pandas Library
F 103	PEREIRA ZIVEN LEANORD PATRICIA	Word Guessing Game
F 104	PILLAI ABIN PRASANNAKUMAR MARIYAMMA	Password Generator
F 105	POTNAGARI YASHRAJ BABU LAXMI	Billing System
F 106	QURESHI SANIA KAYYUMALI TAHSEENBANU	Python program for Mortality Management
F 108	SAHU SANJANAKUMARI PRAMOD SUNITADEVI	Online train ticket booking
F 110	SHAH GAUTAM DILIP PINKY	Weather API
F 111	SHAIKH ABDULLAH SHAHID PARVEEN	To-Do List using Loop Function
F 112	SHARMA HARSH SHEKHAR SUDHA	Gym Training
F 113	SHARMA SACHIN MAHESH GEETA	Password Manager






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SCIENCE & COMMERCE

DR. S. RADHAKRISHNAN MARG, ANDHERI(EAST), MUMBAI - 400069

Roll No.	STUDENT NAME	PROJECT TITLE
F 114	SHELAR ANUSHKA SADASHIV MANISHA	Word Guessing Game
F 115	SHELAR BHUMIKA ROHIDAS UJWALA	Digital clock using GUI
F 116	SHELAR SHRUTI SURYAKANT VAISHALI	Word Guessing Game
F 117	SHINDE SUMEET ANANTHA SANGEETA	Billing System
F 119	SHUKLA ADARSH SHIVSHANKAR GEETA	Bank Service Provider
F 120	SINGH MANJIT SURENDRA SINDHUDEVI	Word Guessing Game
F 121	SINGH RAMKUMAR DHANANJAYKUMAR ANJUDEVI	Bank Service Provider
F 122	SWAMI SHIVA VASUDEVA KIRAN	Tuple and Tuple Functions
F 125	TODGIRE SHWETA MAHENDRA DAMAYANTI	Waffle Bill Printing
F 126	YADAV AAYUSH DURGAPRASAD AARTIDEVI	Timer
F 127	YADAV ANANYA SHAMBHUNATH MANJUDEVI	To Do List
F 128	YADAV PRINCE KUMAR UMESH KUMAR NITUDEVI	Railway Yatri - Ticket Generation
F 129	YADAV PRINCE LAXMIKANT SURMILA	Password Manager
F 130	ZAGRAL AHMED FAIYAZ FARHIN	BMI Calculator using Python

Note: Student were asked to submit the project documentation online in the Google Classroom

  
Subject Incharge



  
Coordinator  
B.Sc. Computer Science

Sem I A.Y. 2023-24  
Introduction to Programming with Python

10/13/23, 4:26 PM

ONLINE TRAIN TICKET BOOKING.ipynb - Colaboratory

ONLINE TRAIN TICKET BOOKING

NAME : Muskan R. Pandey

F098

NAME : Sanjana Sahu

F108

Algorithm :-

Step 1 : start the program

Step 2 : take a input from passenger to entered there location.

Step 3 : take a input from passenger the destination they want to travel form given list.

Step 4 : using if and else condition the check the given destination they want to travel is available or not in list or not.

Step 5 : take a input from passenger train name you want to travel from.

Step 6 : take a input from passenger's name, date you to travel form the train.

Step 7 : using the dictionaries define the price of class of train tickets.

Step 8 : using if condition define the time and paltform no. of train.

Step 9 : print the detail of ticket for passengers.

Step 10 : take input form passenger the number of ticket they want to buy but they can only buy 6 ticket at a time.

Step 11 : take a required booking amount from passenger.

Step 12 : if amountpy is less than pyticket print("PLEASE PAY PROPER AMOUNT")

STEP 13 : elif amountpy is equal to pyticket print("SUCCESSFULLY BOOKING OF TICKET")

Step 14 : print("thank you . have a safe journey.")

Step 15 : End of the program.

```
# RAILWAY SERVICE Online Train ticket Booking.
print("WELCOME TO RAILWAYS SERVICE. ( R.S)")
print("HOPE YOU LIKE OUR SERVICE.")
print()
# entered yourLocation by user
yourloc = input("Enter the your Location \n\t")
destination = ["Amaravati", "Kolkata", "Mysore"] #Train According To Destination entered by user
print("Your Destination Options have to from given List Accordingly Are - ", destination)
travel = input("Enter The Destination You Want To Travel form given list ? -->\n\t")

# we have given 3 Lists of trains we can choose the any Express that we want
TrainList3 = ["Bengaluru Express", "Mysore Express", "Vijayapura Express"]
TrainList2 = ["Darjeeling Express", "Kolkata Express", "Lava Express"]
TrainList1 = ["Bhubaneswar Express", "Amaravati Express", "Jagannath Express"]
train_list = TrainList1 + TrainList2 + TrainList3

# check the given destination they want to travel is available or not in list or not.
if (travel not in destination):
    print("Please Enter Proper Destination. Your Process is Terminated.")
    exit()
if (travel == "Amaravati"):
    print("To Travel To (travel) Choose From your Train Options --> {TrainList1}")
```

<https://colab.research.google.com/drive/12XDWGST8aW99qRGiPNlgbHLPR5aw4b#scrollTo=0kmpWkP2qWh-8prin/Mode=true>

(Subject Teacher)

Coordinator  
B.Sc. Computer Science

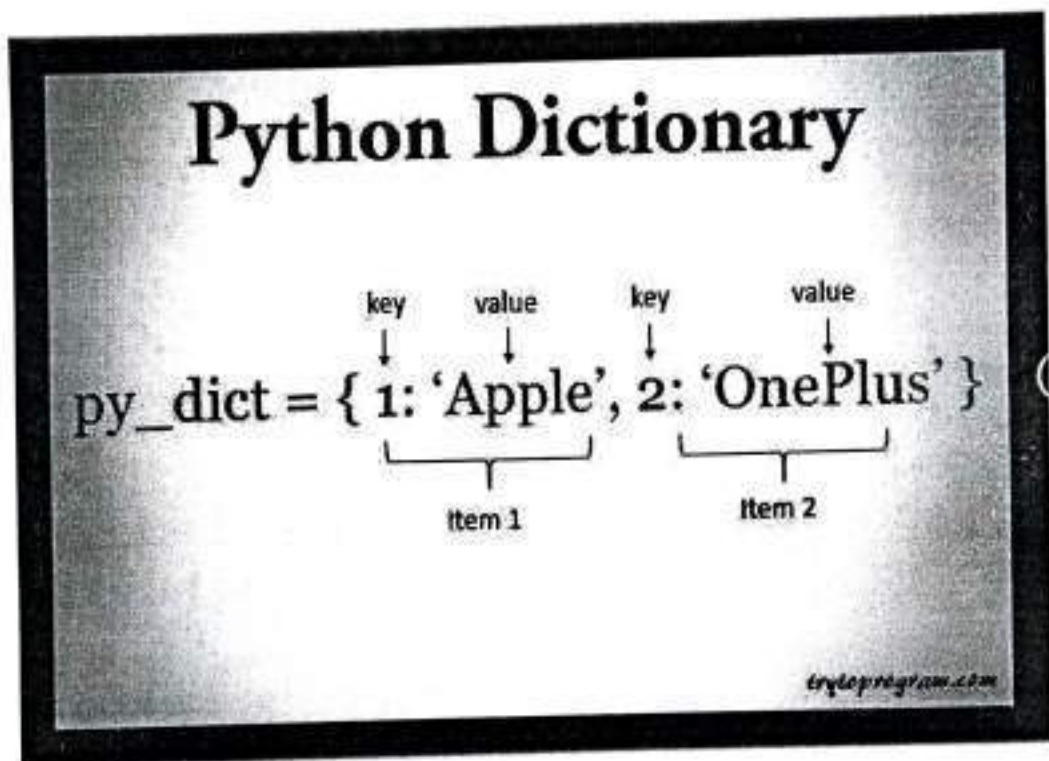


Sem I A.Y. 2023-24  
Introduction to Programming with Python

# PYTHON PRESENTATION

Topic: Dictionary Datatype.

It's Methods and Types



Name : Bera Nitin Kumar Nobo Kumar

Class : F.Y.BSc.Computer Science.


Div : A

Roll No : F072

Topic : Dictionary Datatype, It's Methods and Types.

  
( Subject Teacher)



  
Coordinator  
B.Sc. Computer Science

Sem I A-Y. 2023-24  
Introduction to Programming with Python

# Random Password Generator using GUI(tkinter)



ABIN PILLAI - F104 &  
SWATI MAHAJAN - F091

  
(Subject Teacher)



  
Coordinator  
B.Sc. Computer Science


# DIGITAL CLOCK USING GUI

---


PYTHON PROJECT

Jency Nadar , F094

Bhumika Shelar, F115

  
(Subject Teacher)



  
Coordinator  
B.Sc. Computer Science

Sem-I A.Y. 2023-24  
Introduction to Programming with Python  
Untitled2.ipynb - Colabatory

10/14/23, 8:32 PM

NAME- Manjit singh

ROLL NO- F120

NAME- Ziven Periera

ROLL NO- F103

SUBJECT- Introduction to Programming with python

Python Presentation Topic- word Guessing Game

Colab Link- <https://colab.research.google.com/drive/1rAtmhJan6SMu2b-f1Avr5i2mZrcJG?usp=sharing>



(Subject Teacher)



Coordinator  
B. Sc. Computer Science

7/22/24, 3:41 PM

Gmail - Offer of Internship Position at The Naval Connection



Pratham Hariakar <prathamhariakar16@gmail.com>

## Offer of Internship Position at The Naval Connection

Shoukat Mukherjee <shoukat@thenavalconnection.com>  
To: Pratham Hariakar <prathamhariakar16@gmail.com>  
Cc: TNC Accounts <accounts@thenavalconnection.com>

22 March 2024 at 17:26

22 March 2024

Dear Pratham Hariakar

Based on the campus interview conducted at your college, we are pleased to extend an offer of Internship to you for the position of Graphic Designer and Social Media Intern at The Naval Connection. We believe your skills and experience align with the responsibilities outlined for the position.

### Position Details:

Intern Name: Mr. Pratham Hariakar	Job Role: Social Media and Events Intern	Responsibilities: Designing and developing social strategies for TNC and client brands, posting reels and creatives on various social media platforms, and assisting in event planning and execution for TNC and clients.
-----------------------------------	--	---

### Terms and Conditions:

<b>Working Hours:</b> Minimum 7 hours per day, including hybrid style working (both in-office and work from home).	<b>Reporting:</b> You are required to report on work within specified timings and may be expected to work beyond office hours when the job demands.	<b>Compensation:</b> A stipend of Rs 8000 per month will be payable within the 5th of every month.	<b>Documents Required:</b> You must provide KYC documents to the accounts department and sign the Non-Disclosure Agreement (NDA) before commencing employment.
--	---	--	--

A detailed Internship Agreement will be mutually signed between us after your official joining

We believe this internship opportunity will provide you with valuable experience and growth opportunities in your chosen field.

Kindly confirm your acceptance of this offer by 25th of March 2024

Please read and sign a copy of the attached NDA and send to us with your confirmation of acceptance of this offer

We look forward to welcoming you to the team and wish you a successful tenure with us.

Regards

Capt. Shoukat Mukherjee  
Founder & CEO







## Offer of Internship Position at The Naval Connection

3 messages

Shoukat Mukherjee <shoukat@thenavalconnection.com>  
To: kamleshshivam295@gmail.com  
Cc: TNC Accounts <accounts@thenavalconnection.com>

Fri, 22 Mar, 2024 at 5:23 pm

22 March 2024

Dear Shivam Viswakarma

Based on the campus interview conducted at your college, we are pleased to extend an offer of internship to you for the position of Graphic Designer and Social Media Intern at The Naval Connection. We believe your skills and experience align with the responsibilities outlined for the position.

### 1. Position Details:

- Intern Name: Mr. Shivam Viswakarma
- Job Role: Graphic Designer and Social Media Intern
- Responsibilities:
  - Social Media design and management, including designing creatives and reels, posting social media content for both TNC and client handles, and assisting in building marketing strategies for brands and events.
  - any other job related to designing and social media posting and management including planning and coordination

### Terms and Conditions related to this offer:

- Working Hours: Minimum 7 hours per day for 6 days a week, including hybrid style working (both in-office and work from home).
- Reporting: You are required to report on work on or before 4th April 2024
- Compensation: A stipend of Rs 8000 per month will be payable within the 5th of every month.
- Documents Required: You must provide KYC documents to the accounts department and sign the Non-Disclosure Agreement (NDA) before commencing employment.

A detailed Internship Agreement will be mutually signed between us after your official joining

We believe this internship opportunity will provide you with valuable experience and growth opportunities in your chosen field.

Kindly confirm your acceptance of this offer by 25th of March 2024

Please read and sign a copy of the attached NDA and send to us with your confirmation of acceptance of this offer

We look forward to welcoming you to the team and wish you a successful tenure with us.

Regards

Capt. Shoukat Mukherjee  
Founder & CEO



The Naval Connection - 'Building Value for the Future'

Editor, Sealink

Email: shoukat@thenavalconnection.com

Tel: +91 9433078830

Website: www.thenavalconnection.com

www.sealink.online



Shivam Kamlesh <kamleshshivam295@gmail.com>  
To: Shoukat Mukherjee <shoukat@thenavalconnection.com>

Sun, 24 Mar, 2024 at 6:48 pm

Yes Sir! I'm accepting the offer.

[Quoted text hidden]

**Shivam Kamlesh** <kamleshshivam295@gmail.com>  
To: Shoukat Mukherjee <shoukat@thenavalconnection.com>

Wed, 3 Apr, 2024 at 4:15 pm

I accept the offer. I look forward to working with you. I will join From 8th April 2024, due to college presentations.

[Quoted text hidden]



June 25, 2024

To Yash Soni,

### Offer Letter

Dear Yash,

With reference to the interview, you had with us, we are pleased to offer you the post of as Social Media Intern, on the following terms:

#### 1. COMMENCEMENT DATE:

Your date of joining the Company will be **April 01, 2024** and you will report to our Mumbai office located at:

506, Corporate Corner,  
Mandlik nagar, Sunder nagar,  
Nr. Dalmia College, Malad West  
Mumbai – 400064

#### 2. JOB ASSIGNMENT/REPORTING

In your assignment, you will be working as "A Social Media Intern" and will be responsible for duties as laid down in the job description for this position. You will report to Mr. Chirag Sharma.

#### 3. COMPENSATION

You would be entitled to a net monthly salary as **INR 7,500/-**

#### 4. PLACE OF WORK

Your place of employment will be our Mumbai office, but at present you will be working remotely from your hometown, until further communication from the organization. Your working days would be 6 days a week between Monday to Saturday. You are also liable to be sent on deputation, for service at any place in which the Company may have an interest. Upon such transfer, the rules and regulations applicable to such a post or at the place of transfer will automatically become applicable to you.



## 5. JOB ROLE

Your responsibilities will include:

Additionally:

- Creating a good network on all social media platforms such as, Instagram, Facebook, Quora and all other networks.
- Promoting and presenting the company information on all the above social media platforms.
- Handling social media pages.
- Writing engaging content.
- Assisting with relevant banner creations.
- Handling of inquiries related to the posts.
- Seeking out new opportunities for online marketing campaigns.
- Writing copy for social media & email marketing campaigns.
- Manage the brand's social media accounts and post content.
- Develop engaging, creative, innovation content for regularly scheduled posts, which enlighten audiences and promote brand-focused message.
- Reach out for collaborations, associations, and calling the leads.

Please confirm your acceptance of these terms and conditions of agreement by signing below. You are required to submit the documents stated in the attached **Appendix B** at the time of joining.

*Chirag Sharma*

Name: Chirag Sharma

Designation: Partner

Place: Mumbai



*Yash*

Name: Yash Soni

# Signature Certificate

Hexapaca number: JWCJQ-EKGAB-TGGDJ-KAEZN

Signer	Timestamp	Signature
<b>Chirag Sharma</b> Email: chirag@supporthives.com		
Sent	26 Jun 2024 11:14:55 UTC	
Viewed	26 Jun 2024 11:15:49 UTC	
Signed	26 Jun 2024 11:15:58 UTC	
<b>Recipient Verification:</b> ✓Email verified	26 Jun 2024 11:15:49 UTC	IP address: 205.84.238.121 Location: Mumbai, India

<b>Yash Soni</b> Email: yashsureshsoni12@gmail.com		
Sent	26 Jun 2024 11:14:55 UTC	
Viewed	26 Jun 2024 14:19:31 UTC	
Signed	26 Jun 2024 14:21:59 UTC	
<b>Recipient Verification:</b> ✓Email verified	26 Jun 2024 14:19:31 UTC	IP address: 202.148.60.240 Location: Mumbai, India

Document completed by all parties on:  
26 Jun 2024 14:21:59 UTC

Page 1 of 1



Signed with PandaDoc

PandaDoc is a document workflow and certified eSignature solution trusted by 50,000+ companies worldwide.





June 25, 2024

To Gopal Vishwakarma,

## Offer Letter

Dear Gopal Vishwakarma,

With reference to the interview, you had with us, we are pleased to offer you the post of as **DevOps Intern**, on the following terms:

### 1. COMMENCEMENT DATE:

Your date of joining the Company will be **April 01, 2024** and you will report to our Mumbai office located at:

506, Corporate Corner,  
Mandlik nagar, Sunder nagar,  
Nr. Dalmia College, Malad West  
Mumbai – 400064

### 2. JOB ASSIGNMENT/REPORTING

In your assignment, you will be working as “**DevOps Intern**” and will be responsible for duties as laid down in the job description for this position. You will report to **Mr. Chirag Sharma**.

### 3. COMPENSATION

You would be entitled to a net monthly stipend of **INR 5,000/-**

### 4. PLACE OF WORK

Your place of employment will be our Mumbai office, but at present you will be working remotely from your hometown, until further communication from the organization. Your working days are set between Monday - Saturday. You are also liable to be sent on deputation, for service at any place in which the Company may have an interest. Upon such transfer, the rules and regulations applicable to such a post or at the place of transfer will automatically become applicable to you.



Regd. Addr: B-1301, RiddhiSiddhi Hts, Yashwant Ngr Rd No 1, Goregaon West, Mumbai-400104  
| [hey@supporthives.com](mailto:hey@supporthives.com) | [www.supporthives.com](http://www.supporthives.com)



## 5. JOB ROLE

Your responsibilities will include, but not limited to:

- Assists your reporting manager for Deploy updates and fixes
- Working with Team Lead to Provide Level 2 technical support
- Learn how to Build tools to reduce occurrences of errors and improve customer experience
- Develop software to integrate with internal back-end systems under the guidance of your Team Lead.
- Learn to Perform root cause analysis for production errors
- Assists your reporting manager in Investigating and resolving technical issues
- Learn to Develop scripts to automate visualization
- Assists your reporting manager in Design procedures for system troubleshooting and maintenance

## 6. GENERAL CONDITIONS OF WORK

Your probation period will be for three months starting from the date of your joining. However, this period can be cut short or extended based on the individual's performance and at the discretion of the management. Post your probation and review you will be confirmed for the job.

Please confirm your acceptance of these terms and conditions of agreement by signing below. You are required to submit the documents stated in the attached **Appendix A** at the time of joining.

For Support Hives Technology LLP

*Chirag Sharma*

Name: Chirag Sharma

Designation: Partner

Place: Mumbai



DECLARATION BY: **Gopal Vishwakarma**

I have carefully read and understood the above offer including the terms and conditions and accept the same. I would abide by the confidentiality of this document and I agree to be bound by rules and regulations of the company as amended from time to time.

*Gopal Vishwakarma*

Signature: \_\_\_\_\_

## APPENDIX A

(List of documents to be submitted at the time of joining)

1. Aadhar Card & Pan card
2. Academic Certificates and Marksheets
3. Photograph : 2
4. Blood Group certificate





June 25, 2024

To Rahul Shavali,

## Offer Letter

Dear Rahul Shavali,

With reference to the interview, you had with us, we are pleased to offer you the post of as **DevOps Intern**, on the following terms:

### 1. COMMENCEMENT DATE:

Your date of joining the Company will be **April 01, 2024** and you will report to our **Mumbai office** located at:

506, Corporate Corner,  
Mandlik nagar, Sunder nagar,  
Nr. Dalmia College, Malad West  
Mumbai – 400064

### 2. JOB ASSIGNMENT/REPORTING

In your assignment, you will be working as **"DevOps Intern"** and will be responsible for duties as laid down in the job description for this position. You will report to **Mr. Chirag Sharma**.

### 3. COMPENSATION

You would be entitled to a net monthly stipend of **INR 5,000/-**.

### 4. PLACE OF WORK

Your place of employment will be our **Mumbai office**, but at present you will be working remotely from your hometown, until further communication from the organization. Your working days are set between **Monday - Saturday**. You are also liable to be sent on deputation, for service at any place in which the Company may have an interest. Upon such transfer, the rules and regulations applicable to such a post or at the place of transfer will automatically become applicable to you.





## 5. JOB ROLE

Your responsibilities will include, but not limited to:

- Assists your reporting manager for Deploy updates and fixes
- Working with Team Lead to Provide Level 2 technical support
- Learn how to Build tools to reduce occurrences of errors and improve customer experience
- Develop software to integrate with internal back-end systems under the guidance of your Team Lead.
- Learn to Perform root cause analysis for production errors
- Assists your reporting manager in Investigating and resolving technical issues
- Learn to Develop scripts to automate visualization
- Assists your reporting manager in Design procedures for system troubleshooting and maintenance

## 6. GENERAL CONDITIONS OF WORK

Your probation period will be for three months starting from the date of your joining. However, this period can be cut short or extended based on the individual's performance and at the discretion of the management. Post your probation and review you will be confirmed for the job.

Please confirm your acceptance of these terms and conditions of agreement by signing below. You are required to submit the documents stated in the attached **Appendix A** at the time of joining.

For Support Hives Technology LLP

*Chirag Sharma*

Name: Chirag Sharma

Designation: Partner

Place: Mumbai





# Support Hives Technology LLP

The Tech Place to BEE

DECLARATION BY: **Rahul Shavali**

I have carefully read and understood the above offer including the terms and conditions and accept the same. I would abide by the confidentiality of this document and I agree to be bound by rules and regulations of the company as amended from time to time.

*Rahul Shavali*

Signature: \_\_\_\_\_

## APPENDIX A



(List of documents to be submitted at the time of joining)

1. Aadhar Card & Pan card
2. Academic Certificates and Marksheets
3. Photograph : 2
4. Blood Group certificate



# Signature Certificate

Reference number: GGJRJ-TXSND-RAQPI-QPRRH

Signer	Timestamp	Signature
<b>Chirag Sharma</b> Email: chirag@supporthives.com		
Sent:	25 Jun 2024 15:10:32 UTC	
Viewed:	25 Jun 2024 15:12:35 UTC	
Signed:	25 Jun 2024 15:13:56 UTC	
<b>Recipient Verification:</b>		IP address: 139.5.25.236 Location: Mumbai, India
✓ Email verified	25 Jun 2024 15:12:35 UTC	
<b>Rahul Shavali</b> Email: rahulshavali07@gmail.com		
Sent:	25 Jun 2024 15:10:32 UTC	
Viewed:	25 Jun 2024 15:32:18 UTC	
Signed:	25 Jun 2024 16:40:04 UTC	
<b>Recipient Verification:</b>		IP address: 152.58.43.82 Location: Mumbai, India
✓ Email verified	25 Jun 2024 15:32:18 UTC	

Document completed by all parties on  
25 Jun 2024 16:40:04 UTC

Page 1 of 1



Signed with PandaDoc

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Academic Council 14/06/2018

Item No: 4.49

**UNIVERSITY OF MUMBAI**



**Syllabus for T.Y.B.Sc.**

**Programme: B.Sc.**

**Subject: Information Technology**

**with effect from the academic year**

**2018 – 2019**

This syllabus was applicable for  
A.Y. 2023-24 for TYBSc IT:

B



Semester – 5			
Course Code	Course Type	Course Title	Credits
			2
USIT501	Skill Enhancement Course	Software Project Management	2
USIT502	Skill Enhancement Course	Internet of Things	2
USIT503	Skill Enhancement Course	Advanced Web Programming	2
USIT504	Discipline Specific Elective (Any One)	Artificial Intelligence	2
USIT505		Linux System Administration	
USIT506	Discipline Specific Elective (Any One)	Enterprise Java	2
USIT507		Next Generation Technologies	
USIT5P1	Skill Enhancement Course Practical	Project Dissertation	2
USIT5P2	Skill Enhancement Course Practical	Internet of Things Practical	2
USIT5P3	Skill Enhancement Course Practical	Advanced Web Programming Practical	2
USIT5P4	Discipline Specific Elective Practical (Any One)*	Artificial Intelligence Practical	2
USIT5P5		Linux Administration Practical	
USIT5P6	Discipline Specific Elective Practical (Any One)*	Enterprise Java Practical	2
USIT5P7		Next Generation Technologies Practical	
<b>Total Credits</b>			<b>20</b>

*(All the practical mentioned in the syllabi are compulsory as per the courses chosen)*

Semester – 6			
Course Code	Course Type	Course Title	Credits
USIT601	Skill Enhancement Course	Software Quality Assurance	2
USIT602	Skill Enhancement Course	Security in Computing	2
USIT603	Skill Enhancement Course	Business Intelligence	2
USIT604	Discipline Specific Elective (Any One)	Principles of Geographic Information Systems	2
USIT605		Enterprise Networking	
USIT606	Discipline Specific Elective (Any One)	IT Service Management	2
USIT607		Cyber Laws	
USIT6P1	Skill Enhancement Course Practical	Project Implementation	2
USIT6P2	Skill Enhancement Course Practical	Security in Computing Practical	2
USIT6P3	Skill Enhancement Course Practical	Business Intelligence Practical	2
USIT6P4	Discipline Specific Elective Practical (Any One)*	Principles of Geographic Information Systems Practical	2
USIT6P5		Enterprise Networking Practical	
USIT6P6	Skill Enhancement Course Practical	Advanced Mobile Programming	2
<b>Total Credits</b>			<b>20</b>

\*The choice of Practical course is based on the theory Course. For Semester V, USIT504, USIT505, USIT506 and USIT507, the practical courses are USIT5P4, USIT5P5, USIT5P6, USIT5P7. For Semester VI, USIT604, USIT605 the practical courses are USIT6P4, USIT6P5 respectively. Practical Course USIT6P6 is compulsory.

②



<b>B. Sc. (Information Technology)</b>		<b>Semester – V</b>	
Course Name: Project Dissertation		Course Code: USIT5PI	
Periods per week (1 Period is 50 minutes)		3	
Credits		2	
Evaluation System		Hours	Marks
	Practical Examination	2½	50
	Internal	--	--

The details are given in Appendix – I



R

<b>B. Sc. (Information Technology)</b>		<b>Semester – VI</b>	
<b>Course Name: Project Implementation</b>		<b>Course Code: USIT6P1</b>	
Periods per week (1 Period is 50 minutes)		3	
Credits		2	
Evaluation System		Hours	Marks
	Practical Examination	2½	150
	Internal	--	-

The details are given in Appendix – I



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Laxmi Charitable Trust's  
Sheth L.U.J. College of Arts & Sir M.V. College of Science & Commerce  
Dr. S. Radhakrishnan Marg, Andheri (East), Mumbai 400 069.

TY PROJECT TOPICS - Academic Year 2023-24

ROLL NO.	STUDENT NAME	PROJECT NAME
T001	AMBADSKAR PRATIK SANTOSH PRACHI	Ecommerce ShopZone
T002	BHARADWAJ PREETI ARUN SHARMILA	Art Gallery
T003	CHOWDHARY ABDUL HAQ SHABBIR AHMED MOMINA	Pulse sensor
T004	GOWDA MANJUNATH DHARANESHA	Yoga Master
T005	JAIWAR ADITI RAM BACHCHAN DURGAVATI DEVI	Interior design
T006	KESHRWANI SHIVAM SHYAMBABU SUSHMA	Fit-Fusion AI
T007	KHAN MOHAMMAD AAIMAN ISHRAT NUSRAT	Mental health tracker app
T008	LAVHATE APURVA SANJAY JAYSHRI	Smart tour guide
T009	MISHRA KASHISH SANJAY BABITA	Automated driver drowsiness detection
T010	MISHRA VINAYAK MANOJ KUMAR POONAM	AGROHELP
T011	MUJAWAR SHAHNAWAAZ SALIM HASINA	ABSENT
T012	MUNGEKAR DHARMESH MAHESH SUVARNA	COLLEGE CLUB WEBSITE
T013	NAYAK SMRUTI NAGESH USHA	Spotspy- Fake product identification
T014	PRAJAPATI SANDHYA UMESH MINAKSHI	CODEWAVE
T015	PUROHIT ASHWIN RAMESHWAR NARMADA	Evaluating the Impact of Data Bias in AI on Everyday Decision Making
T016	QURESHI AASIYA MOHD YUNUS RIZWANA	The impact of Artificial intelligence on Jobs
T017	RAJPUT GANPATSING BHURSING MEERA	Mahavir Electronic
T018	SHAIKH FAHAD FAIZ MOHD NAJMEEN	E-health care management system
T019	SHAIKH FIZA SALIM ZARIANA	AI quresh Arabic food
T020	SHAIKH IQRA ARIF SHAHEEDA BANO	Web-Based Health Monitoring System

*Signature*





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T021	SHARMA TANNU MAHENDRA SARITA	Noise Detection System
T022	SHETTY TILAK VASANT SHIVANGI	Fit-Fusion AI
T023	SINGH PIYUSH RAMSAMUJ SANGEETA	Scorify
T024	SUVARNA ADITI ASHOK MUKTI	Cloud - Enabled Pharma Supply Chain Web App
T025	TIWARI ROHAN KALIPRASAD SUNITA	AGROHELP
T026	TRIPATHI ANKLESHA DHARMENDRA SHARDA	Battle medic
T027	UTTARE AMRUTA EKNATH MANISHA	Healpet
T028	VISHWAKARMA RAUNAK MANOJ SUNEETA	Mental health tracker app
T029	VISHWAKARMA SACHIN GHANSHYAM ANITA	Stock Market Prediction
T030	YADAV JYOTI KAMLESH MEERA	TECHNOLOGICAL ADVANCEMENT OF ACADEMIC LIBRARIES IN 21st CENTURY
T031	YADAV POOJA DHANESH SHEELA	Noise Detection System
T032	ROHIT KUMAR YADAV	ABSENT
T033	YADAV SURAJ JAGDAMBA RAJAVATI	Face recognition attendance system for students
T034	SHAIKH SAHIL PIR MOHD AYESHA	Pulse sensor
T035	PRAJAPATI SAVITA MAHENDRA KUMAR KRANTI DEVI	Dream wedding
T036	PAL SANDESH SAHEBLAL AMLADEVI	ABSENT
T037	VIKAS SINGH	Fitness management system

*Agolankh*



**Stock Market Prediction  
WEB APPLICATION**

**A Project Report  
Submitted in partial fulfilment of the  
Requirements for the award of the Degree of**

**BACHELOR OF SCIENCE  
(INFORMATION TECHNOLOGY)**

**By**

**SACHIN VISHWAKARMA  
Seat Number: 1069179**

**Under the esteemed guidance of  
Asst.Prof. ROHINI JAGADALE**



**DEPARTMENT OF INFORMATION TECHNOLOGY**

**Laxmi Charitable Trust's  
SHETH L.U.J. & SIR M.V. COLLEGE OF ARTS,  
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**2023-2024**



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DEPARTMENT OF INFORMATION TECHNOLOGY



CERTIFICATE

This is to certify that the project entitled, "Stock Market Prediction", is bonafied work of Sachin Vishwakarma bearing Seat.No: 1069179 submitted in partial fulfilment of the requirements for the award of degree of BACHELOR OF SCIENCE in INFORMATION TECHNOLOGY from University of Mumbai.

for   
Internal Guide

  
Coordinator

  
External Examiner

Date: 2 MAY 2024.



College Seal





Examined

**Fit-Fusion AI  
WEB-APPLICATION**

**A Project Report  
Submitted in partial fulfilment of the  
Requirements for the award of the Degree of**

**BACHELOR OF SCIENCE  
(INFORMATION TECHNOLOGY)**

**By**

**SHIVAM KESHARWANI  
Seat Number: 1068764**

**Under the esteemed guidance of  
Asst. Prof. ROHINI JAGADALE**



**DEPARTMENT OF INFORMATION TECHNOLOGY**

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DEPARTMENT OF INFORMATION TECHNOLOGY



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*[Signature]*  
Internal Guide

*M.V. Shetty*  
02/05/24  
External Examiner

*[Signature]*  
Coordinator



College Seal

Date: - 2 MAY 2024,



**Examined,**

*[Signature]*

# ART GALLERY

A Project Report

Submitted in partial fulfilment of the

Requirements for the award of the Degree of

**BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)**

By

Preeti Bhardwaj

Seat number: 1068587

Under the esteemed guidance of

PROF. Sumit Tripathi



**DEPARTMENT OF INFORMATION TECHNOLOGY**

Laxmi Charitable Trust's

**SHETH L.U.J & SIR M.V COLLEGE OF ARTS, SCIENCE & COMMERCE**

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This is to certify that the project entitled, "Art Gallery", is bonafied work of Ms. Preeti Bhardwaj bearing Seat No: 1068587 submitted in partial fulfilment of the requirements for the award of BACHELOR OF SCIENCE in INFORMATION TECHNOLOGY from University of Mumbai.

  
Internal Guide

  
External Examiner

  
Coordinator

Date: 2 MAY 2024

College Seal



Examined

# MAHAVIR ELECTRONIC

**A Project Report**

Submitted in partial fulfillment of  
the requirements for the award of the Degree of

**BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)**

By

**GANPAT RAJPUT**

SEAT NO : 1068961

Under the esteemed guidance of

**Asst. Prof. ROHINI JAGADALE**



**DEPARTMENT OF INFORMATION TECHNOLOGY**

Laxmi Charitable Trust's

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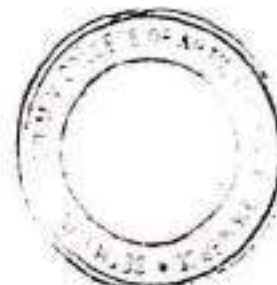
CERTIFICATE

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*[Signature]*  
Internal Guide

*[Signature]*  
Coordinator

*[Signature]*  
mv.Shelji  
22/05/24  
External Examiner



Date **E** 2 MAY 2024.

College Seal



Examined.

**AGROHELP  
WEB APPLICATION**

**A Project Report**

Submitted in partial fulfilment of the Requirements for the award of the Degree of

**BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)**

By

**ROHAN KALIPRASAD TIWARI**

SEAT NO:

1069145

Under the esteemed guidance of  
Asst Prof: Merina Gheevarghese



**DEPARTMENT OF INFORMATION TECHNOLOGY**

Laxmi Charitable Trust's

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*Rohan*

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DEPARTMENT OF INFORMATION TECHNOLOGY



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Internal Guide

  
External Examiner

  
Coordinator

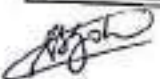


College Seal

Date: 2 MAY 2024



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**Stock Market Prediction  
WEB APPLICATION**

**A Project Report  
Submitted in partial fulfilment of the  
Requirements for the award of the Degree of**

**BACHELOR OF SCIENCE  
(INFORMATION TECHNOLOGY)**

**By**

**SACHIN VISHWAKARMA  
Seat Number: 1069179**

**Under the esteemed guidance of  
Asst.Prof. ROHINI JAGADALE**



**DEPARTMENT OF INFORMATION TECHNOLOGY**

**Laxmi Charitable Trust's  
SHETH L.U.J. & SIR M.V. COLLEGE OF ARTS,  
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**Dr. S Radhakrishnan Marg, Andheri (E), Mumbai – 400 069.**

**MAHARASHTRA**

**2023-2024**



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DEPARTMENT OF INFORMATION TECHNOLOGY



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for   
Internal Guide

  
Coordinator

  
External Examiner

Date: 2 MAY 2024.



College Seal





Examined

**Fit-Fusion AI  
WEB-APPLICATION**

**A Project Report  
Submitted in partial fulfilment of the  
Requirements for the award of the Degree of**

**BACHELOR OF SCIENCE  
(INFORMATION TECHNOLOGY)**

**By**

**SHIVAM KESHARWANI  
Seat Number: 1068764**

**Under the esteemed guidance of  
Asst. Prof. ROHINI JAGADALE**



**DEPARTMENT OF INFORMATION TECHNOLOGY**

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SHETH L.U.J. & SIR M.V. COLLEGE OF  
ARTS,  
SCIENCE & COMMERCE**

*(Affiliated to University of Mumbai)*

**Dr. S Radhakrishnan Marg, Andheri (E), Mumbai – 400 069.**

**MAHARASHTRA**

**2023-2024**



*SS*

Laxmi Charitable Trust's  
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SCIENCE & COMMERCE.  
(Affiliated to University of Mumbai)  
MUMBAI-MAHARSHTRA-400 069

DEPARTMENT OF INFORMATION TECHNOLOGY



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*for*  
*[Signature]*  
Internal Guide

*M.V. Shetty*  
*02/05/24*  
External Examiner

*[Signature]*  
Coordinator



College Seal

Date: - 2 MAY 2024.



**Examined,**

*[Signature]*

# ART GALLERY

A Project Report

Submitted in partial fulfilment of the

Requirements for the award of the Degree of

**BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)**

By

Preeti Bhardwaj

Seat number: 1068587

Under the esteemed guidance of

PROF. Sumit Tripathi



**DEPARTMENT OF INFORMATION TECHNOLOGY**

Laxmi Charitable Trust's

**SHETH L.U.J & SIR M.V COLLEGE OF ARTS, SCIENCE & COMMERCE**

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Dr. S.Radhakrishnan Marg, Andheri (E)

MUMBAI- 400 069

MAHARASHTRA

2023-2024



Laxmi Charitable Trust's  
SHETH L.U.J & SIR M.V COLLEGE OF ARTS, SCIENCE & COMMERCE

(Affiliated to University of Mumbai)

Dr. S.Radhakrishnan Marg, Andheri (E)

MUMBAI- 400 069

MAHARASHTRA


2023-2024

DEPARTMENT OF INFORMATION TECHNOLOGY



CERTIFICATE

This is to certify that the project entitled, "Art Gallery", is bonafied work of Ms. Preeti Bhardwaj bearing Seat No: 1068587 submitted in partial fulfilment of the requirements for the award of BACHELOR OF SCIENCE in INFORMATION TECHNOLOGY from University of Mumbai.

  
Internal Guide

  
External Examiner

  
Coordinator

Date: 2 MAY 2024.

College Seal



Examined

# MAHAVIR ELECTRONIC

**A Project Report**

Submitted in partial fulfillment of  
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**BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)**

By

**GANPAT RAJPUT**

SEAT NO : 1068961

Under the esteemed guidance of

**Asst. Prof. ROHINI JAGADALE**



**DEPARTMENT OF INFORMATION TECHNOLOGY**

Laxmi Charitable Trust's

**SHETH L.U.J. & SIR M.V. COLLEGE OF ARTS, SCIENCE &  
COMMERCE**

(Affiliated to University of Mumbai)

MUMBAI-400 069

MAHARASHITRA

2023 - 2024



*Signature*

Laxmi Charitable Trust's  
SHETH L.U.J. & SIR M.V. COLLEGE OF ARTS,  
SCIENCE & COMMERCE

(Affiliated to University of Mumbai)

MUMBAI-MAHARASHTRA-400 069

DEPARTMENT OF INFORMATION TECHNOLOGY



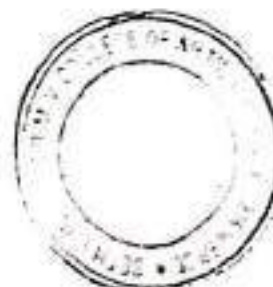
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*[Signature]*  
Internal Guide

*[Signature]*  
Coordinator

*[Signature]*  
mv.Shelji  
22/05/24  
External Examiner



Date **2 MAY 2024.**

College Seal



**Examined.**

**AGROHELP  
WEB APPLICATION**

**A Project Report**

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**BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)**

By

**ROHAN KALIPRASAD TIWARI**

SEAT NO:

1069145

Under the esteemed guidance of  
Asst Prof: Merina Gheevarghese



**DEPARTMENT OF INFORMATION TECHNOLOGY**

Laxmi Charitable Trust's

**SHETH L.U.J. & SIR M.V. COLLEGE OF ARTS, SCIENCE & COMMERCE**

(Affiliated to University of Mumbai) MUMBAI-400 069

**MAHARASHTRA**

(2023-2024)



*Handwritten signature*

Laxmi Charitable Trust's  
SHETH L.U.J. & SIR M.V. COLLEGE OF ARTS,  
SCIENCE AND COMMERCE  
(Affiliated to University of Mumbai)  
MUMBAI-MAHARSHTRA-400 069

DEPARTMENT OF INFORMATION TECHNOLOGY



CERTIFICATE

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Internal Guide

  
External Examiner

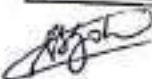
  
Coordinator



Date: 2 MAY 2024



Examined



# INTERNSHIP CERTIFICATE

This is to certify that

*Yadar deepika kamlesh*

has successfully completed 14 days - Campus Ambassador Program with Herody.  
Throughout the duration of this internship, she demonstrated dedication, diligence,  
and a keen eye for detail in carrying out tasks assigned.

We extend our heartfelt congratulations to

*Yadar deepika kamlesh*

on the successful completion of this program.

We believe that the skills and experience gained during this period will serve as a  
solid foundation for her future endeavours

Given this 27th of June, 2024

  
Rajdeep Singh,  
CEO, Herody





# SSZone Technologies



2nd Floor Near Khushi Motors  
GMS Road Dehradun 248001



[www.sszonetechologies.com](http://www.sszonetechologies.com)



+91 7505856171

+91 6395548831



[support@sszonetechologies.in](mailto:support@sszonetechologies.in)

**ID - SS/07/0010**

Dear **Sonu Yadav**,

Congratulations! We are pleased to offer you an appointment with our company as a **Web Development Intern** starting on **01 April 2024**.

As an intern, you will have the opportunity to gain valuable experience. Please note that as a temporary employee, you will not be eligible for the benefits that our regular employees receive. We expect you to comply with our company policies and practices including those related to conduct, safety, and confidentiality.

We are confident that your internship with us will be rewarding and wish you all the best as you embark on this exciting opportunity.

**Starting date - 01 April 2024**

**Duration - 1 month**





# CERTIFICATE OF COMPLETION



-----  
ID - SS/07/0010

This is presented to :

**Sonu Yadav**

Has successfully completed virtual Internship on **Web Development**

at NovaNectar Services Pvt. Ltd. for a span of one month from

April 01, 2024 to May 01, 2024.

  
Chief Executive Officer

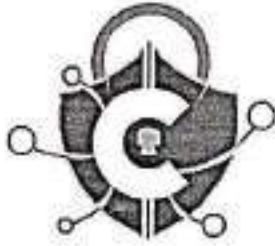


**M** MINISTRY OF  
**G** CORPORATE  
**A** AFFAIRS  
GOVERNMENT OF INDIA



**MSME**  
MICRO, SMALL & MEDIUM ENTERPRISES  
OUR STRENGTH • १९९० ई.पू.  
Ministry of MSME, Govt. of India





**Cryptonet Technologies Private Limited**  
8, Alka Building, 2nd floor, Near Ice Factory Bus Stop,  
Gokhale Road, Naupada, Thane - 400 602  
email : [support@cryptonet.technology](mailto:support@cryptonet.technology)  
☎ : 8080706197 / 022 25401652  
CIN : U72900MH2019PTC320170

13<sup>th</sup> September 2023

**"Blender Intern" Offer at Cryptonet Technologies Private Limited**

Dear Abhay Sharma,

Cryptonet Technologies is a young product-based startup in its early stage; Here you will be working directly with the core team making maximum impact on all our products through your day-to-day activities. We are extremely excited and look forward to having you onboard.

Cryptonet Technologies Pvt. Ltd. (the "Company") is pleased to offer you "Blender Intern" position on the following terms.

- Start Date
  - 18<sup>th</sup> September 2023
- Internship Work Description
  - We need you to create 3D Characters for our upcoming game using Blender.
  - Each Character will also require 7 animations to be considered complete: Spawning, Standing, Attacking, Defending, Fainting.
  - Attacking and Defending Animations need to be valid in both directions
  - All the animations shall have pre-determined co-ordinates, you will need to ensure the character is moving between such co-ordinates properly during the above animations to help the game look consistent.
  - Character needs to have good colouring and textures according to the type of character, eg: Fire should actually look like burning Fire.
  - You will need to follow all the technical instructions given by our team to make the character compatible and useable in our specific product.
  - You need to ensure you use the correct number of details such that FPS is not affected too much during gameplay.
- Internship Completion Conditions
  - All the characters you design will only be considered as a completed/payable submission when you manager approves the files submitted by you.
  - The internship will be considered complete when you design a minimum of 5 unique characters including all their animations as specified above.
  - To avoid confusion/uncertainty, ask your manager to maintain an excel sheet online that tracks your progress in terms of completed submissions.
  - It is your responsibility to Track the status and completion of all your submissions.



Candidate Name: Abhay Sharma Sign: Abhay Sharma Date: 14/09/2023

- **Pay Structure**
  - **Fixed Stipend: INR 0/- (No Fixed Stipend)**
  - **INR 500/- per 3D Character including all 7 animations (Final Submission Requires Manager Approval to be considered as complete)**
  
- **Time Schedule**
  - Since you are a student, we understand that sticking to a specific time every day will be difficult for you.
  - Hence, this is a fully remote internship position, and the hours are flexible and completely up to you.
  - On Completion of 5 Characters your internship is considered complete, and you become eligible for the Certificate.
  - You will be required to attend a 1:1 meeting with your manager once every 2 weeks to discuss your personal progress and performance.
  - You will be required to attend 30 min team sync-up meetings 2-3 days a week.
  - You can continue working until we have character development requirements. The terms set in this Offer Letter shall remain in effect during such an extended period. Management Reserves the rights to terminate your internship at any time during such an extended period.
  - Your Internship Certificate will specify your start date, end date, number of characters designed, and may also contain a brief review describing the quality of work you provided.
  
- **Withholding Taxes**
  - All forms of compensation referred in this letter agreement are subject to reduction to reflect applicable withholding and payroll taxes and any other deductions required by law.
  
- **Probation/Evaluation and Voluntary Termination Notice**
  - Probation/Evaluation Period : First 6 month from Start Date
  - Voluntary Termination Notice Period : 1 day
  
- **Intellectual Property (IP)**
  - All the IP created including but not limited to design, development, invention done by you during the employment period will be the property of the company. You cannot replicate or reproduce any of this IP for your own personal or professional use during or after your employment at Cryptonet Technologies.
  
- **Copyrights of the Images, Videos, and all other files created by you during the internship**
  - Cryptonet shall be the 100% owner of all the Images, Gifs, Videos, and all other files created by you during the internship, and by signing this offer letter, you agree to forfeit all your rights towards these files in favour of the company.
  - You don't have permission to share these files with anyone outside the company without prior permission in writing from the company.




Candidate Name: Abhay Sharma Sign: Asharma Date: 14/09/2023

- o You cannot replicate or reproduce any of this copyrighted material for your own personal or professional use during or after your employment at Cryptonet Technologies.
- Other Terms and Conditions
  - o This is a remote internship position with 100% of the payment based on your performance. While you render services to the Company, you will not engage in any other employment, consulting, or other business activity (whether full-time or part-time) that would create a conflict of interest with the Company. By signing this letter agreement, you confirm to the Company that you have no contractual commitments or other legal obligations that would prohibit you from performing your duties for the Company.

We hope you will accept this offer to join Cryptonet Technologies. You may indicate your agreement with these terms and accept this offer by signing and dating the enclosed duplicate original of this letter agreement and returning them to me. This offer, if not accepted, will expire at the close of business on 15<sup>th</sup> September 2023.

Yours Truly,  
Cryptonet Technologies Private Limited



By: Rijul Luman  
Title: Founder & CEO



Candidate Name: Abhay Sharma Sign: Asharma Date: 14/09/2023

### Letter from Candidate

1. By signing this offer letter, I agree that I am currently a student or was recently a student and I understand that this is an internship position and not a Job offer. I also agree and understand that accepting this Internship position doesn't warrant employment.
2. I own a personal desktop or laptop that is capable of performing my day-to-day responsibilities within your organization and I agree to only use Hardware owned by me to work on the Company's tasks.
3. I will not use a device that is owned by another organization. If caught performing Company activity on a device owned by some other organization, I will take full responsibility of the legal repercussions, and any lawsuits against me from the external organization shall be 100% my responsibility and I agree that Cryptonet will not help or pay me in any way towards such fighting litigations.
4. All the designs I submit will be 100% created by me specifically for Cryptonet Technologies and I agree to transfer 100% of the ownership to Cryptonet any work I submit. I accept full responsibility for any copyright infringement caused due to my work and agree that Cryptonet shall not be responsible for any copyright infringement occurring within my submitted work items.

I have read all the terms and conditions mentioned above and I accept this internship offer:

Asharma

Signature of Abhay Sharma

14/09/2023

Date

#### Details to be Provided by Candidate

Legal Full Name	Abhay Vinod Sharma
Date of Birth	14/02/2004
PAN Number	PHVPS3175K
Aadhar	476885266032 (also attach your Aadhar Copy in your email response)
Address	Room, no. 8, Pinto Chawl, Mulgaon Dongri, Andheri(E), Mumbai - 400093.
Phone Number	9097911676
Email Address	750936abhaysh@gmail.com
Emergency Contact Name & Phone Number	9969845568 / 9321582782

AS



Candidate Name: Abhay Sharma

Sign: Asharma

Date: 14/09/2023



**Cryptonet Technologies Private Limited**

8, Alka Building, 2nd floor, Near Ice Factory Bus Stop,  
Gokhale Road, Naupada, Thane - 400 602

email : [support@cryptonet.technology](mailto:support@cryptonet.technology)

☎ : 8080706197 / 022 25401652

CIN : U72900MH2019PTC320170

13<sup>th</sup> November 2023

**"Blender Intern" Offer at Cryptonet Technologies Private Limited**

Dear Ashish Yadav,

Cryptonet Technologies is a young startup in its early stage; Here you will be working directly with the core team making maximum impact on all our products through your day-to-day activities. We are extremely excited and look forward to having you onboard.

Cryptonet Technologies Pvt. Ltd. (the "Company") is pleased to offer you "Blender Intern" position on the following terms.

- Start Date
  - 15<sup>th</sup> November 2023
- End Date
  - 29<sup>th</sup> February 2024
- Internship Work Description
  - We need you to create 3D Characters for our upcoming game using Blender.
  - Each Character will also require 7 animations to be considered complete: Spawning, Standing, Attacking, Defending, Fainting.
  - Attacking and Defending Animations need to be valid in both directions
  - All the animations shall have pre-determined co-ordinates, you will need to ensure the character is moving between such co-ordinates properly during the above animations to help the game look consistent.
  - Character needs to have good colouring and textures according to the type of character, eg: Fire should actually look like burning Fire.
  - You will need to follow all the technical instructions given by our team to make the character compatible and useable in our specific product.
  - You need to ensure you use the correct number of details such that FPS is not affected too much during gameplay.
  - You will also need to assist with knowledge transfer to other interns.
- Pay Structure
  - Fixed Stipend: INR 3,000/- per month



Candidate Name: Ashish yadav Sign:  Date: 14/11/2023

- **Internship Completion Conditions**
  - All the characters you design will only be considered as a completed/payable submission when you manager approves the files submitted by you.
  - The internship will be considered complete when you design a minimum of 5 unique characters including all their animations as specified above.
  - To avoid confusion/uncertainty, ask your manager to maintain an excel sheet online that tracks your progress in terms of completed submissions.
  - It is your responsibility to Track the status and completion of all your submissions.
  
- **Time Schedule**
  - Since you are a student, we understand that sticking to a specific time every day will be difficult for you.
  - Hence, this is a fully remote internship position, and the hours are flexible and completely up to you.
  - However, you should be available between 5pm to 9pm on days when knowledge transfers are scheduled.
  - You will be required to attend a 1:1 meeting with your manager once every 2 weeks to discuss your personal progress and performance.
  - You will be required to attend 30 min team sync-up meetings 2-3 days a week.
  - You can continue working until we have character development requirements. The terms set in this Offer Letter shall remain in effect during such an extended period. Management Reserves the rights to terminate your internship at any time during such an extended period.
  - Your Internship Certificate will specify your start date, end date, number of characters designed, and may also contain a brief review describing the quality of work you provided.
  
- **Withholding Taxes**
  - All forms of compensation referred in this letter agreement are subject to reduction to reflect applicable withholding and payroll taxes and any other deductions required by law.
  
- **Probation/Evaluation and Voluntary Termination Notice**
  - Probation/Evaluation Period : First 6 month from Start Date
  - Voluntary Termination Notice Period : 1 day
  
- **Intellectual Property (IP)**
  - All the IP created including but not limited to design, development, invention done by you during the employment period will be the property of the company. You cannot replicate or reproduce any of this IP for your own personal or professional use during or after your employment at Cryptonet Technologies.
  
- **Copyrights of the Images, Videos, and all other files created by you during the internship**
  - Cryptonet shall be the 100% owner of all the Blender Files, Images, Gifs, Videos, and all other files created by you during the Internship, and by signing this offer

Candidate Name: Ashish yadav

Sign: 

Date: 14/11/2023



letter, you agree to forfeit all your rights towards these files in favour of the company.

- o You don't have permission to share these files with anyone outside the company without prior permission in writing from the company.
- o You cannot replicate or reproduce any of this copyrighted material for your own personal or professional use during or after your employment at Cryptonet Technologies.

• Other Terms and Conditions

- o This is a remote internship position with 100% of the payment based on your performance. While you render services to the Company, you will not engage in any other employment, consulting, or other business activity (whether full-time or part-time) that would create a conflict of interest with the Company. By signing this letter agreement, you confirm to the Company that you have no contractual commitments or other legal obligations that would prohibit you from performing your duties for the Company.
- o If your internship is elongated beyond End Date mentioned above, the Terms & Conditions set in this Offer Letter shall remain in effect while you work with us.
- o The company reserved the right to withdraw this internship offer at any time, even after you join the company. If we withdraw this offer within the first 2 weeks after you join the company, you will not be eligible for any stipend payments or certificate from the company.
- o If your performance is found inadequate or lacking, we reserve the right to withdraw our internship offer at any time, and the maximum monetary liability to the company shall be a single working month's Stipend amount. Though you will be given a fair opportunity to improve your performance by moving you to our performance improvement plan.
- o Stipend when moved to the performance improvement plan shall immediately drop to Rs. 0, and it's non-negotiable. You agree that Terminations and Resignations during or after being moved into our performance improvement plan may cause your internship stipend to become forfeit completely.

We hope you will accept this offer to join Cryptonet Technologies. You may indicate your agreement with these terms and accept this offer by signing and dating the enclosed duplicate original of this letter agreement and returning them to me. This offer, if not accepted, will expire at the close of business on 14<sup>th</sup> November 2023.

Yours Truly,  
Cryptonet Technologies Private Limited



By: Rijul Luman  
Title: Founder & CEO

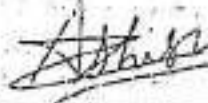


Candidate Name: Ashish yadav Sign: Ashish Date: 14/11/2023

### Letter from Candidate

1. By signing this offer letter, I agree that I am currently a student or was recently a student and I understand that this is an internship position and not a Job offer. I also agree and understand that accepting this internship position doesn't warrant employment.
2. I own a personal desktop or laptop that is capable of performing my day-to-day responsibilities within your organization and I agree to only use Hardware owned by me to work on the Company's tasks.
3. I will not use a device that is owned by another organization. If caught performing Company activity on a device owned by some other organization, I will take full responsibility of the legal repercussions, and any lawsuits against me from the external organization shall be 100% my responsibility and I agree that Cryptonet will not help or pay me in any way towards such fighting litigations.
4. All the designs I submit will be 100% created by me specifically for Cryptonet Technologies and I agree to transfer 100% of the ownership to Cryptonet any work I submit. I accept full responsibility for any copyright infringement caused due to my work and agree that Cryptonet shall not be responsible for any copyright infringement occurring within my submitted work items.

I have read all the terms and conditions mentioned above and I accept this internship offer:



Signature of Ashish Yadav

14/11/2023

Date

#### Details to be Provided by Candidate

Legal Full Name	Ashish Mahendra yadav
Date of Birth	09/09/2001
PAN Number	EMCP74633C
Aadhar	(also attach your Aadhar Copy in your email response)
Address	Abdul majid chahal no.2 room no.3 kajuwadi chala andheri east mumbai 40099
Phone Number	7738830286
Email Address	ay938389as11@gmail.com
Emergency Contact Name & Phone Number	



Candidate Name: Ashish yadav

Sign:



Date: 14/11/2023