

# MINI PROJECT LOGBOOK

(CSM601: Mini Project 2B)

## GROUP MEMBERS

1. Jiten Purswani D12B (43)
2. Srimathi Srinivasan D12B (55)
3. Laveena Mirani D12B (30)
4. Kareena Lachhani D12B (26)

Name of the Mentor

Prof. Pallavi Saindane



**Department of Computer Engineering**

**Vivekanand Education Society's Institute of Technology,**

**HAMC, Collector's Colony, Chembur,**

**Mumbai-400074**

**University of Mumbai (AY 2024-25)**

## **INSTITUTE VISION & MISSION**

### **VISION:**

To create a vibrant knowledge oriented environment with innovative teaching practices and to inculcate a tradition of socially conscious application of technology.

### **MISSION:**

- To inculcate a culture of value based education.
- To enthuse students to develop in an ambient environment of caring and of sharing information.
- To enable students to work towards excellence in their chosen field with a professional bent of mind.

## **COMPUTER ENGINEERING DEPARTMENT**

### **VISION:**

To reach international standards by empowering students with Computing skills and cutting edge technology

### **MISSION:**

- To sustain excellence in teaching and research and create centre of excellence
- To provide broad Educational and Research experiences through interdisciplinary and industrial collaboration programs.
- To prepare students to enter the world of computing and make them ready for productive employment in the public or private sectors, enhance their entrepreneurship skills and motivate them to pursue advanced degrees.

## PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

|     |  |
|-----|--|
| I   | To provide students with a solid foundation in their core concepts of mathematical, scientific and computer engineering fundamentals required to comprehend, analyze and design solutions for real life problems.        |
| II  | To inculcate in students, a balanced outlook with professional and ethical attitude, develop effective communication skills, teamwork and leadership qualities with multidisciplinary approach.                          |
| III | To prepare students to excel in postgraduate programs through an excellent academic environment and make them ready for productive employment in the public or private sectors and provide lifelong learning experience. |
| IV  | To provide broad educational and research experience through interdisciplinary and industry centric programs.  |

## PROGRAM OUTCOMES (POs)

| <b>Program Outcome Code</b> | <b>Program Outcome Description</b>   |
|-----------------------------|--|
| PO1                         | Basic Engineering knowledge: An ability to apply the fundamental knowledge in mathematics, science and engineering to solve problems in Computer engineering.  |
| PO2                         | Problem Analysis: Identify, formulate, research literature and analyze computer engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and computer engineering and sciences  |
| PO3                         | Design/ Development of Solutions: Design solutions for complex computer engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations. |
| PO4                         | Conduct investigations of complex engineering problems using research-based knowledge and research methods including design of experiments, analysis and   |

|      |   |
|------|---|
|      | interpretation of data and synthesis of information to provide valid conclusions.   |
| PO5  | Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern computer engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.  |
| PO6  | The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to computer engineering practice.   |
| PO7  | Environment and Sustainability: Understand the impact of professional computer engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.  |
| PO8  | Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of computer engineering practice.   |
| PO9  | Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.  |
| PO10 | Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions. |
| PO11 | Project Management and Finance: Demonstrate knowledge and understanding of computer engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.  |
| PO12 | Life-long Learning: Recognize the need for and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.   |

## PROGRAM SPECIFIC OUTCOMES (PSOs)

|      |   |
|------|---|
| PSO1 | <b>Professional Skills</b> - The ability to develop programs for computer based systems of varying complexity and domains using standard practices.   |
| PSO2 | <b>Successful Career</b> - The ability to adopt skills, languages, environment and platforms for creating innovative career paths, being successful entrepreneurs or for pursuing higher studies. |

## STUDENT INFORMATION

### **Project Title: LearnEase: Adaptive Learning Hub**

|                            | Student 1                             | Student 2                               | Student 3                           | Student 4                         |
|----------------------------|---------------------------------------|---|-------------------------------------|-----------------------------------|
| <b>Roll No.</b>            | 43                                    | 55                                      | 30                                  | 26                                |
| <b>Name</b>                | Jiten Purswani                        | Srimathi Srinivasan                     | Laveena Mirani                      | Kareena Lachhani                  |
| <b>Class with Division</b> | TE/D12B                               | TE/D12B                                 | TE/D12B                             | TE/D12B                           |
| <b>Contact No.</b>         | 8805950446                            | 9167239107                              | 9021943867                          | 9320988878                        |
| <b>E-mail</b>              | 2022.jiten.purswani@ves.ac.in         | 2022.srimathi.srinivasan@ves.ac.in      | 2022.laveena.mirani@ves.ac.in       | 2022.kareena.lachhani@ves.ac.in   |
| <b>Address</b>             | Behind Bk 799,                        | Room no. 202/2/A-wing<br>Regency Estate | 606, VES girls<br>hostel            | BK 576, room no 8,<br>OT section, |
|                            | Opp:- Bhatia<br>bungalow, near netaji | Dyaneshwar Nagar                        | Hashu Advani<br>Memorial<br>Complex | near fish market                  |
|                            | High school, nutan<br>nagar           | Kalyan Shil Rd                          | Collector colony                    | opposite Kailash<br>Tower         |
|                            | Ulhasnagar-421005                     | Dombivli (E)- 421201                    | Chembur - 400071                    | Ulhasnagar-421003                 |

## **INSTRUCTIONS TO STUDENTS:**

1. The logbook must be submitted to the Guide or Co-Guide for verification and evaluation of project activities at least once in a week.
2. Logbook duly signed by the guide must be submitted with a project report for evaluation at the end of semester to the department.

## **DECLARATION**

I declare that this project represents my ideas in my own words and wherever others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my project work. I promise to maintain minimum 75% attendance, as per the University of Mumbai norms. I understand that any violation of the above will be cause for disciplinary action by the Institute.

Yours Faithfully

1. Jiten Purswani D12B (43)
2. Srimathi Srinivasan D12B (55)
3. Laveena Mirani D12B (30)
4. Kareena Lachhani D12B (26)

(Signature of Students)

## Letter of Acceptance

I undersigned, **Prof. Mrs. Pallavi Saindane** working in the Computer Engineering department, willing to guide the project titled ***Learn Ease: Adaptive Learning Hub*** for the Mini Project 2 B Semester VI respectively for the ***Academic Year 2024-25***. The names of the students are:

1. **Jiten Purswani D12B**
2. **Srimathi Srinivasan D12B**
3. **Laveena Mirani D12B**
4. **Kareena Lachhani D12B**

\_\_\_\_\_  
(Project Mentor)

\_\_\_\_\_  
(Mini Project Coordinator)

\_\_\_\_\_  
(HOD Computer)

## COURSE OUTCOMES

| CO No. | COURSE OUTCOME   | POs covered                | PSOs covered |
|--------|--|----------------------------|--------------|
| CO1    | Identify problems based on societal /research needs.   | PO1, PO2,PO4               | PSO1,PSO2    |
| CO2    | Apply Knowledge and skill to solve societal problems in a group.                                   | PO1,PO2,PO4, PO5,PO6,PO8   | PSO1,PSO2    |
| CO3    | Develop interpersonal skills to work as a member of a group or leader.                             | PO1,PO2,PO4, PO9,PO11      | PSO1,POS2    |
| CO4    | Draw the proper inferences from available results through theoretical/ experimental/simulations.   | PO1,PO2,PO4, PO5,PO6,PO12  | PSO1,POS2    |
| CO5    | Analyze the impact of solutions in societal and environmental context for sustainable development. | PO2,PO3,PO4, PO7,PO12      | PSO1,POS2    |
| CO6    | Use standard norms of engineering practices  | PO1,PO2,PO4, PO12          | PSO1         |
| CO7    | Excel in written and oral communication.   | PO1,PO4,PO8, PO9,PO10,PO12 | PSO1         |
| CO8    | Demonstrate capabilities of self-learning in a group, which leads to lifelong learning.            | PO1,PO2,PO4, PO12          | PSO1         |
| CO9    | Demonstrate project management principles during project work.                                     | PO1,PO2,PO4, PO11,PO12     | PSO1,POS2    |

## CO-PO-PSO MAPPING

|     | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| CO1 | 1   | 2   | -   | 2   | -   | -   | -   | -   | -   | -    | -    | -    | 1    | 1    |
| CO2 | 2   | 2   | -   | 2   | 3   | 2   | -   | 2   | -   | -    | -    | -    | 2    | 1    |
| CO3 | 1   | 1   | -   | 2   | -   | -   | -   | -   | 3   | 3    | -    | -    | 1    | 1    |
| CO4 | 2   | 1   | -   | 1   | 2   | 2   | -   | -   | -   | -    | -    | 2    | 2    | 1    |
| CO5 | -   | 2   | 1   | 2   | -   | -   | 3   | -   | -   | -    | -    | 1    | 1    | 2    |
| CO6 | 1   | 2   | -   | 1   | -   | -   | -   | -   | -   | -    | -    | 2    | 2    | -    |
| CO7 | 1   | -   | -   | 1   | -   | -   | -   | 3   | 2   | 2    | -    | 1    | 1    | -    |
| CO8 | 1   | 3   | -   | 3   | -   | -   | -   | -   | -   | -    | -    | 2    | 1    | -    |
| CO9 | 1   | 1   | -   | 2   | -   | -   | -   | -   | -   | -    | 2    | 2    | 1    | 2    |



## SCHEDULE FOR MINI PROJECT

| Date    | Week | Contents   | Remark                                | Guide Sign |
|---------|------|--|---------------------------------------|------------|
| 30/1/25 | 1    | Discussion about the Quiz integration and functionality improvement.                                 | Finalizing the quiz structure         |            |
| 11/2/25 | 2    | Designed architecture for quiz and recommendation components.  | Architecture approved                 |            |
| 18/2/25 | 3    | Quiz module flow discussed and revised.  | Changes Reviewed and progress updated |            |
| 28/2/25 | 4    | Made the BMC architecture, Roadmap and all the architecture of all the models.                       | Architecture needs refinement         |            |
| 1/3/25  | 5    | Reviewing algorithm performance, refining prediction accuracy  | Quiz needs proper evaluation method   |            |
| 7/3/25  | 6    | Bug fixes in quiz model and reviewed the changes   | Improvement in quiz model             |            |
| 18/3/25 | 7    | Implementing core modules of the project, focusing on adaptive learning algorithm integration        | Implementation phase on track         |            |
| 19/3/25 | 8    | Implemented Login system   | Login system approved                 |            |
| 21/3/25 | 9    | Completed the UI of the app  | UI approved                           |            |
| 29/3/25 | 10   | Began implementation of recommendation model with adaptive logic with 2 flows discussed and decided. | Discuss next steps for submission     |            |
| 1/4/25  | 11   | Completed the recommendation system.   | Properly implemented both flows       |            |
| 7/4/25  | 12   | Final feature addition discussion and future scope planning  | Ready for final submission            |            |

## PROGRESS/ATTENDANCE REPORT

|  |   |
|--|---|
| Title of the Project: <b>Learn Ease: Adaptive learning hub</b> |   |
| 44   | <b>Jiten Purswani D12B</b><br><b>Srimathi Srinivasan D12B</b><br><b>Laveena Mirani D12B</b><br><b>Kareena Lachhani D12B</b> |
| Name of the Supervisor: Mrs. Pallavi Saindane                  |   |

| Sr. No | Date    | Attendance |   |   |   | Progress/Suggestion  | Mapping |                                |            |
|--------|---------|------------|---|---|---|--|---------|--------------------------------|------------|
|        |         | 1          | 2 | 3 | 4 |  | CO      | PO                             | PSO        |
| 1      | 30/1/25 | ✓          | ✓ | ✓ | ✓ | Discussion about the quiz integration and functionality improvement. Finalized quiz structure. | CO1     | PO1,PO2, PO4                   | PSO1,PS O2 |
| 2      | 11/2/25 | ✓          | ✓ | ✓ | ✓ | Designed architecture for quiz and recommendation components. Architecture approved.           | CO2     | PO1, PO2, PO4, PO5             | PSO1, PSO2 |
| 3      | 18/2/25 | ✓          | ✓ | ✓ | ✓ | Quiz module flow discussed and revised.  | CO3     | PO1, PO2, PO4, PO9, PO11       | PSO1, PSO2 |
| 4      | 28/2/25 | ✓          | ✓ | ✓ | ✓ | BMC, roadmap, and model architecture created, needs refinement                                 | CO4     | PO1, PO2, PO4, PO5, PO6, PO12  | PSO1, PSO2 |
| 5      | 1/3/25  | ✓          | ✓ | ✓ | ✓ | Algorithm refined for better accuracy  | CO6     | PO1, PO2, PO4, PO12            | PSO1       |
| 6      | 7/3/25  | ✓          | ✓ | ✓ | ✓ | Quiz model bugs fixed, improved functionality  | CO6     | PO1, PO2, PO4, PO12            | PSO1       |
| 7      | 18/3/25 | ✓          | ✓ | ✓ | ✓ | Core modules, adaptive learning algorithm integration started                                  | CO2     | PO1, PO2, PO4, PO5, PO6, PO8   | PSO1, PSO2 |
| 8      | 19/3/25 | ✓          | ✓ | ✓ | ✓ | Login system implemented and approved  | CO6     | PO1, PO2, PO4, PO12            | PSO1       |
| 9      | 21/3/25 | ✓          | ✓ | ✓ | ✓ | App UI completed and approved  | CO7     | PO1, PO4, PO8, PO9, PO10, PO12 | PSO1       |
| 10     | 29/3/25 | ✓          | ✓ | ✓ | ✓ | Recommendation logic with 2 flows implemented  | CO5     | PO2, PO3, PO4, PO7, PO12       | PSO1, PSO2 |
| 11     | 1/4/25  | ✓          | ✓ | ✓ | ✓ | Recommendation system completed  | CO9     | PO1, PO2, PO4, PO11, PO12      | PSO1, PSO2 |
| 12     | 7/4/25  | ✓          | ✓ | ✓ | ✓ | Final features discussed, ready for submission   | CO8     | PO1, PO2, PO4, PO12            | PSO1       |

Sign of the Project Mentor

## EXAMINER'S FEEDBACK FORM

Name of External examiner: \_\_\_\_\_

College of External examiner: \_\_\_\_\_

Name of Internal examiner: \_\_\_\_\_

Date of Examination: \_\_\_\_/\_\_\_\_/\_\_\_\_

No. of students in project team: \_\_\_\_\_

Availability of separate lab for the project: Yes / No

### Student Performance Analysis (Put Tick as per your Observation)

|         | Excellent (3)  | Very Good (2) | Good (1) |     |     |
|---------|--|---------------|----------|-----|-----|
| Sr. No. | Observation  |               |          | (3) | (2) |
| 1       | Quality of problem and Clarity                               |               |          |     |     |
| 2       | Innovativeness in solutions                                  |               |          |     |     |
| 3       | Cost effectiveness and Societal impact                       |               |          |     |     |
| 4       | Full functioning of working model as per stated requirements |               |          |     |     |
| 5       | Effective use of skill sets                                  |               |          |     |     |
| 6       | Effective use of standard engineering norms                  |               |          |     |     |
| 7       | Contribution of an individual's as member or leader          |               |          |     |     |
| 8       | Clarity in written and oral communication                    |               |          |     |     |
| 9       | Overall performance  |               |          |     |     |

o Can the same mini project extend to next semester by adding new objectives/ideas? ( Yes/ No)

o If yes, suggest new Innovative Technique/Idea/ objectives related to this project.

Signature of External Examiner

Signature of Internal Examiner