

Indian Institute of Technology, Madras

Software Engineering Project

Milestone-1

Roll Number	Name of Student
23F1000113	Tarunpreet Singh
21F3003123	Lalit Kumar
23F1000058	Vedant Maheshwari
22F2001094	Kisalay Pan
22F3002198	Harsh Kumar
21F1001746	Vitamaraju Praveen
21F3001362	Digpal Singh

## User Requirements

- i.     Navigation Assistance:  
Provide intuitive guidance to new and existing users for seamlessly navigating the homepage, tailored to their specific requirements and goals.
- ii.    Peer Study Group Recommendations  
Facilitate the formation of student study groups by recommending peers based on shared interests, complementary strengths, and performance metrics.
- iii.   Programming Assistance  
Support students in solving programming assignments by offering contextual guidance, debugging tips, and concept explanations without compromising academic integrity.
- iv.    Study Material Recommendations  
Provide personalized suggestions for study materials and resources, linking directly to course-specific content and supplementary references.
- v.     Generative AI-Powered Query Resolution  
Leverage generative AI to address a wide range of student queries, delivering precise, context-aware responses that enhance their learning experience.
- vi.    Data Analysis and Performance Reporting  
Enable professors to analyze student performance through insightful data visualizations and generate detailed, actionable reports to inform teaching strategies.

## User Identification

- Primary Users

Students enrolled in the IITM BS program and prospective students/other users who lands on the homepage.

- Secondary Users

Faculty members and teaching assistants who monitor the portal and student progress.

- Tertiary Users

Administrators of the SEEK portal and technical support teams responsible for maintaining the system.

## User Stories

1. As a new user (prospective student or any other user), I want the AI agent to guide me in navigating the homepage, So that I can quickly access the features or content I need without confusion.
2. As a student, I want the AI agent to suggest study group members based on shared goals and performance, So that I can collaborate with peers who complement my strengths and weaknesses.
3. As a student, I want the AI agent to help me debug my programming assignments and understand coding concepts, So that I can improve my programming skills without being given direct solutions.
4. As a student, I want the AI agent to recommend relevant study materials and resources for my selected subject, So that I can enhance my understanding and prepare effectively.
5. As a student, I want the AI agent to answer my academic queries using generative AI, So that I can resolve my doubts efficiently and stay focused on learning.
6. As a professor, I want the AI agent to analyze student performance and generate detailed reports, So that I can identify learning gaps and adjust my teaching strategies accordingly.