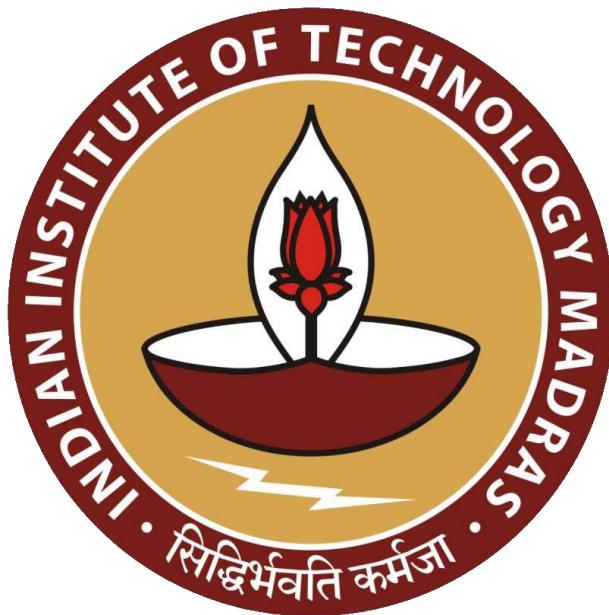


# Software Engineering Project

*Sept 2024 Term - Team 8*

*Milestone - 1*



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## 1. IDENTIFYING TYPES OF USERS

### 1.1 Primary Users

**Instructors:** They will use the application to manage and monitor student projects, set milestones, review submissions, and analyze progress.

**Students:** They will use the system to track project milestones, upload progress reports and documents, and view feedback from instructors.

### 1.2 Secondary Users

**Project Administrators:** They manage user accounts, project assignments, and oversee the general operation of the system.

**Teaching Assistants (TAs):** Assist the instructor in reviewing student work, giving feedback, and tracking progress.

### 1.3 Tertiary Users

**IT Support Staff:** They will use the system for maintenance, updates, and integrating new features.

**Employers/Recruiters:** Companies potentially reviewing project work for hiring or internships.

**External Evaluators/Mentors:** Experts or mentors outside the university providing feedback on student projects.

## 2. User Stories

### 2.1 Milestone Generation using GenAI

**As an instructor,**

I want to provide a project statement so that the GenAI tool can generate milestones, tasks, and deadlines automatically, giving me a structured project plan to start from.

### 2.2 Monitoring Progress with Dashboards

**As an instructor,**

I want to track team progress through a dashboard with real-time updates, so I can identify stalled tasks or missing contributions early.

### 2.3 Tracking Individual Student Contributions

**As an instructor,**

I want to monitor each student's contribution, so that I can ensure fair participation within a team and validate their claims in the documents.

### 2.4 Assessing Submissions with GenAI-Powered Review

**As an instructor,**

I want to use GenAI So that I can compare student submissions with planned milestones and receive suggestions for improvement.

### 2.5 GenAI Assisted Evaluation and Feedback

**As an instructor,**

I want to use GenAI to help me evaluate student submissions and generate constructive feedback, so that I can provide more comprehensive and consistent assessments.

### 2.6 GenAI Powered Progress Tracking System

**As an instructor,**

I want a GenAI-powered dashboard to monitor each student's progress on the project and their engagement with the project management tool, so that I can ensure students are working consistently.

## 2.7 Automated Reminders

**As an instructor,**

I want to provide timely reminders, so that students receive prompt and detailed reminders.

## 2.8 Git Powered Version Controlling System

**As an instructor,**

I want to monitor student code changes through a version control system integrated with GenAI, so that I can track project progress, highlight large refactors or deletions, and ensure students are following good version control practices.

## 2.9 Viewing Milestones

**As a student,**

I want to view detailed milestones with templates and checklists, so that I can easily understand what is expected.

## 2.10 Submission Work with GenAI Validation

**As a student,**

I want to use GenAI to validate my work before submission, so that I can ensure it aligns with the milestone requirements.

## 2.11 Project Documentation Chatbot

**As a student,**

I want access to a chatbot that can answer questions about project documentation and guidelines, so that I can quickly find information without waiting for instructor responses.

## 2.12 Milestone Progress Alerts

**As a student,**

I want to receive automated alerts when a milestone deadline is approaching, so that I can stay on track and meet project deadlines.

## 2.13 Team Contribution Overview

**As a student,**

I want to see a breakdown of my team's contributions, so that I can track everyone's efforts and ensure we are progressing together.

## 2.14 Student Performance Prediction

**As a teaching assistant,**

I want an AI model to predict student performance based on coding activity and task completion, so that I can identify students who are falling behind and provide timely support.

## 2.15 Multiple Team Management

**As a project administrator,**

I want to track and manage multiple teams' milestones and tasks, so that I can ensure each team is progressing at an appropriate pace across different tasks.

## 2.16 Notifications for Instructor Feedback

**As a project administrator,**

I want to receive notifications when instructors provide feedback or make updates, so that I can stay informed and coordinate support for students when needed.

## 2.17 Peer Review System

**As a project administrator,**

I want to implement a peer review system where students can evaluate each other's code and project contributions, with GenAI providing structured guidance on evaluation criteria such as code quality, documentation, and task management, so that I can foster collaborative learning and provide students with diverse feedback opportunities.

## 2.18 System Maintenance

**As an IT support staff,**

I want access to system logs and error reports, so that I can maintain system stability and troubleshoot issues quickly.