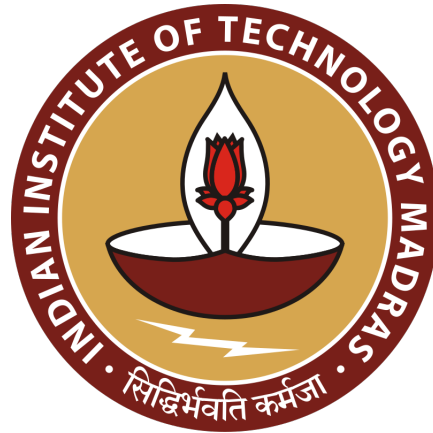# INDIAN INSTITUTE OF TECHNOLOGY, MADRAS

SOFTWARE ENGINEERING PROJECT

MILESTONE 1 SUBMISSION

A Learning-Path Recommendation System for IIT(M) B.S. Degree

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Contents

1   User Requirements

Tasks

1. Identify Primary, Secondary and Tertiary users of the application.
2. Write user stories for the requirements, based on the SMART guidelines.

1.1   Various users of the application

Primary Users

Students enrolled in the BS Degree are the primary users of the application. They can add their course-related information, interests, and other relevant details into the app, and get course recommendations for the upcoming terms.

Secondary Users

Admins and the **Course Team Members** are the secondary users of the application. They can add courses into the app, update information about individual courses and ensure that the system is working well.

Tertiary Users

IITM Management is the tertiary user of the application. They can benefit from the knowledge base generated by the course feedback and improve the overall structure of the degree as well as the course availability based on popularity of courses.

1.2   User Stories

As a Student

➔ **As a Student**,
   I want to be able to register with my IITM Email ID,
   So that I am able to access the app.

➔ **As a Student**,
   I want to create my profile after registration and add my completed courses, their marks, number of hours I can give per week, the maximum number of subjects I can take per term,
   So that So that the app can recommend courses accustomed to my needs.

➔ **As a Student**,
   I want to be able to choose between Data Science, Programming or Both as my primary interests,
   So that the recommendations system is able to provide my favorite subjects in earlier terms.

➔ **As a Student**,
   I want to update my profile after each term and add the courses I have completed with their marks and their feedbacks,
   So that this data can be used by the app to provide recommendations to other students.

➔ **As a Student**,
   I want to view the list of courses as per the prerequisites with their feedbacks and Difficulty Ratings from other students,
   So that I can see which courses are available in the upcoming terms.

➔ **As a Student**,
   I want to view the recommendations for the upcoming terms,
   So that i can make right decisions about course selection according to my educational goal.

➔ **As a Student**,
   I want a Statistical summary of my Academic progress so far,
   So that I can judge my performance.

➔ **As a Student**,
   I want to see details about individual course, the feedbacks provided by other students, and the ability to +1 the feedbacks I find helpful,
   So that I get a better overview about the courses.

As an Admin

➔ **As an Admin**,
   I want to load enrollment data from previous terms using a single Excel file in 2 seconds,
   So that the system can use this data to generate accurate recommendations for students.

➔ **As an Admin**,
   I want to manage and update the course database, including the details about which courses are available in which term,
   So that the recommendations are based on the most up-to-date course offerings.

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   I want to manage and update the course database, including the details about which courses are available in which term,
   So that the recommendations are based on the most up-to-date course offerings.

➔ **As an Admin**,
   I want to add and update the details about which courses are available in which term,
   So that the students can get valid term-wise recommendations.

As a Course Team Member

➔ **As a Course Team Member**,
   I want to access the feedback received from the students,
   So that we can make informed improvements and enhancements to the course content and structure.

➔ **As a Course Team Member**,
   I want to be able to add and update details about a course,
   So that the students can get the most up to date information.

As an IITM Management Member

➔ **As an IITM Management Member**,
   I want to access the individual course feedback received from the students,
   So that we can make informed improvements and enhancements to the course structure.

➔ **As an IITM Management Member**,
   I want a Statistical Summary of the student data,
   So that we can efficiently manage and plan the program based on statistical information and performance trends.