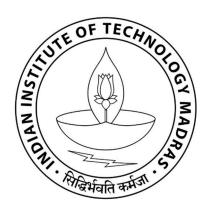
Software Engineering Project: Milestone 1

Project report submitted to
Indian Institute of Technology, Madras
In partial fulfilment of the requirements for the course

BSCSS3001: Software Engineering

by

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PROBLEM STATEMENT

Title: Online support ticket system for the IITM BSc degree program

Description:

The support team at the IITM BSc degree program often get overwhelmed with emails from students regarding queries and concerns. Your task is to create an online support ticketing system for the IITM BSc degree program. Students can create a support ticket for a particular concern or query. Before they create a ticket, the system should also show a list of similar tickets, and allow users to like or +1 an already existing support ticket, so that duplicates are not created. This way popular concerns or queries can be prioritised by the support team.

After the support team addresses the concern, they can mark the ticket as resolved, and an appropriate notification should be sent to concerned users. Another important feature of the ticketing system is dynamic FAQ updation. Many student concerns can be FAQs which will be useful for future students. If appropriate, the support query and response should be added to the FAQ section by support admins, and appropriately categorised, so that an updated FAQ will be readily available to students. The platform should allow users to enrol as students, support staff and admins. Apart from these standard requirements, you can also think of other features which can add value to users.

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MILESTONE 1: USER REQUIREMENTS

1.1 Various Types of Users

The users can be categorised into three types mainly 'Primary', 'Secondary' and 'Tertiary'. The different types and users are summarised in the table below.

[1.1] Identified Users

Category	Users	Remark
Primary	Students, Support Team	Student are primary users as they will create a
		ticket and then support team will resolve the ticket.
Secondary	System Software Developer,	System developers will get users feedback and
	Admins	improve functionality. Admins will validate users
		and also create FAQs.
Tertiary	IIT Madras, App Hosting	IITM may fund the software development process.
	Platforms, Future Students.	Hosting platform like Heroku, Replit will allot
		resources for the system.

1.2 User Stories

The common features for the support ticket system are listed below.

- Login, Logout, Register
- Create, Delete, Update Ticket
- View Tickets and Sort/Filter
- Vote Tickets
- Resolve Ticket
- View history of tickets
- View resolved tickets list
- Send Notifications
- Update FAQs

Based on these common features, the user stories for various users are defined with the help of SMART guidelines.

[1.2] User Stories for Primary Users

User		Story
Student	[1]	As a student, I want to register, So that I can start using support ticket system
	[2]	As a student, I want to login, So that I can use support ticket system
	[3]	As a student, I want to logout, So that I can successfully sign out from support ticket system
	[4]	As a student, I want to update my profile, So that I can change my credentials whenever required.
	[5]	As a student, I want to change password, So that I can keep my account safe.
	[6]	As a student, I want to create a ticket, So that I can get help from support staff.
	[7]	As a student, I want a ticket deleting option, So that I can delete a ticket whenever I wish to delete.
	[8]	As a student, I want to see the list of similar tickets, So that I can avoid creating duplicate ticket.
	[9]	As a student, I want to ticket filtering option, So that I can see list of tickets based on the tags I have selected.
	[10]	As a student, I want to able to like or add +1 to existing ticket, So that I can prioritize my concern and avoid duplication.
	[11]	As a student, I want to receive a notification from time to time, So that I can get the information about the current status of my ticket.
	[12]	As a student, I want to receive a notification for ticket resolve, So that I can go to solution provided by support staff and carry out my tasks.
Support Staff	[1]	As a support staff, I want to sign up, So that I can start using support ticket system
	[2]	As a support staff, I want to login, So that I can use support ticket system
	[3]	As a support staff, I want to logout, So that I can stop using support ticket system
	[4]	As a support staff, I want to update my profile, So that I can change my information whenever required

[5]	As a support staff, I want to see the list of tickets sorted as unresolved then resolved, So that I can differentiate between which needs to be answered and which has already been answered.
[6]	As a support staff, I want to see highest priority unsolved concerns first,
	So that they can be answered first.
	As a support staff,
[7]	I want to able to mark the ticket as resolved,
	So that a notification to the concerned student can be sent

[1.3] User Stories for Secondary Users

User		Story
Admin	[1]	As a system admin, I want to see list of most voted concerns, So that I can convert them into FAQ for future students.
	[2]	As a system admin, I want to see student credentials, So that I can validate them while creating new accounts.
	[3]	As a system admin, I want to sign up, So that I can start using support ticket system
	[4]	As a system admin, I want to login, So that I can start monitoring support ticket system
	[5]	As a system admin, I want to logout, So that I can safely get out of support ticket system
	[6]	As a system admin, I want to see support staff credentials, So that I can validate them while creating new accounts.
System Develo	[1]	As a system software developer, I want to get feedback from users, So that I can improve the functionality as well as add extra features.
per	[2]	As a system software developer, I want to get system performance report, So that I can track the performance and usability of the system.

[1.4] User Stories for Tertiary Users

User		Story
IIT	F17	As a IITM representative,
Madras R&D	[1]	I want to see the software performance and usability, So that I can fund the software development.

App Hosting Platfor	As a 3rd party hosting platform, I want to know the software specifications, number of users and related metadata, So that I can allot proper resources for the system to work without any lag.
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REFERENCES

[1] Software Engineering Project: <u>Problem Statement</u>