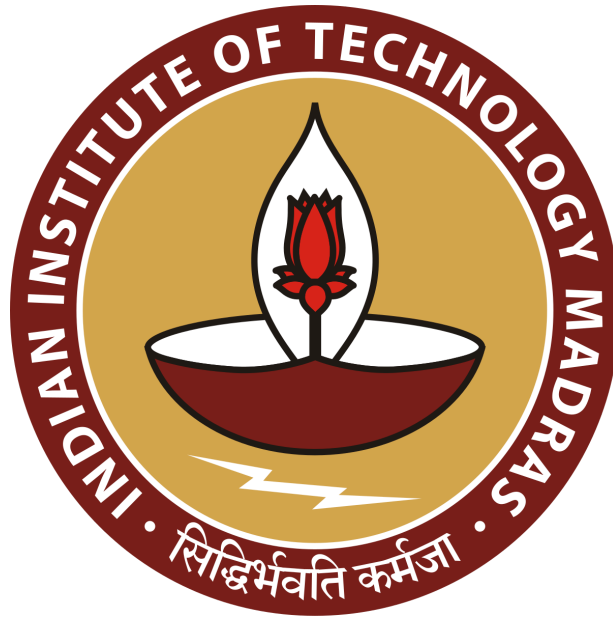# Project Report

Group 21

- Isha Nayar : CS21B035
- Janapati Varshita Devi : CS21B036
- Kumar Kshitiz Singh : CS21B044
- Lagudu Sree Teja Vardhan : CS20B046
- Nisanth D : CS20B057

PROBLEM STATEMENT

Online support ticket system for the IITM BS degree program : Integration with Discourse and webhook.

The support team at the IITM BS degree program often gets overwhelmed with emails from students regarding queries and concerns. Your task is to create an online support ticketing system for the IITM BS 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 prioritized 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 categorized, so that an updated FAQ will be readily available to students. The platform should allow users to enroll as students, support staff and admins.

   a. ***Discourse Integration:*** *In addition to the creation and listing of tickets, your system should also have the provision to create a Discourse thread for each ticket. This will involve integrating the Discourse system with the IITM BS ticketing system. You can think of different rules and configurations to create/edit/modify Discourse threads (for example - the thread can initially be private, but then can be converted to a public topic by moderators [(link)](link)). You can also think of additional features like notifications when a thread which you created has received a reply, like etc.*

   b. ***Webhooks Integration:*** *Certain tickets can be high priority and need to be addressed immediately. In such cases, the system has to integrate with webhooks to notify High Priority and Urgent tickets into GChat. This can then be used by higher authorities for handling escalations.*

LIST OF TABLES

User Stories for discourse integration:

Primary Users : Students, Support team
Secondary Users : Admins

USER	USER STORY
STUDENT	As a student, I want to be able to create a discourse thread for each ticket in portal, So that I can effectively communicate with support staff and obtain additional assistance or insights.
	As a student, While creating a ticket, I want to be able to choose if I want a new thread or add it to an existing thread, So that it provides me flexibility to choose convenient options
	As a student, I want the ability to initiate a new discourse thread for a pre-existing ticket, So that I can start a conversation even after creating a ticket previously.
	As a student, I want the Discourse thread related to support ticket to be initially private, So that I can discuss my concern confidentially with the support team before it is made public.
	As a student, I want the ability to view all public discourse threads, So that I understand the issues other students are facing within the community.

	As a student, I want the Discourse thread associated with my support ticket to be automatically closed or archived when the ticket is marked as resolved, So that discussions are concluded appropriately along with the resolution of the issue.
	As a student, I want to be able to reopen my closed thread, So that if I'm not satisfied with the solution, I can approach for more help.
	As a student, I want to know the status of my query through notification, So that I can know how long it will take to resolve.
	As a student, I want to be able to choose if my thread will be public or private, so that I can control the visibility of my posts and maintain my privacy.
SUPPORT STAFF	As a support staff I want the student to receive search results of similar discourse threads while creating a new ticket on the portal. So that repeated queries are avoided and I get to spend my time somewhere better.
	As a Support staff, I want to have the ability to merge threads of related tickets into a single thread, So that repeated queries on similar topics are consolidated, reducing redundancy and improving efficiency.

	As a Support staff, I want to notify the status of query to the student on discourse, So that they can know when the ticket will be resolved.
	As a Support staff, I want to get a notification if a thread has been created for a ticket, So that I can follow up on it further.
	As a Support staff, I want to create a Discourse thread for a support ticket, So that discussions related to the ticket can be easily managed and referenced.
	As a Support staff, I want to be able to close a thread, When the common issue in the thread is resolved.
	As a Support staff, I want to be able to be able to reopen a thread, When the issue can be solved further and better.
ADMIN	As an Admin, I want to be able to see the most active thread, So that I can turn it into a FAQ documentation for students.
	As an Admin, I want to have a creator access to a thread, So that I can delete any message that is offensive or irrelevant.

	As an Admin, I want to have a thread to support staff mapping So that the same support staff can be allocated for similar requests.
	As an Admin, I want to have a mapping of the discourse threads and the corresponding tickets So that I can ensure orderly resolution and delete any message that is offensive or irrelevant.

WEBHOOKs INTEGRATION

Primary Users : Students, Support team
Secondary Users: Admin
Tertiary Users: Future students who are going to use the ticketing system, Software developers.

USER STORIES FOR WEBHOOK INTEGRATION

USER	USER STORY
STUDENT	As a student, I want to be able to have a faster mode of ticket resolution, So that my very important and high-priority tickets can be resolved sooner.
SUPPORT STAFF	As a support Staff, I want to be able to mark a ticket as a high priority, So that it will send a notification to the higher authorities via Gchat.