# Ticket System Integration with Discourse and Webhooks

A Project Report for the

Software Engineering

(Milestone 2)

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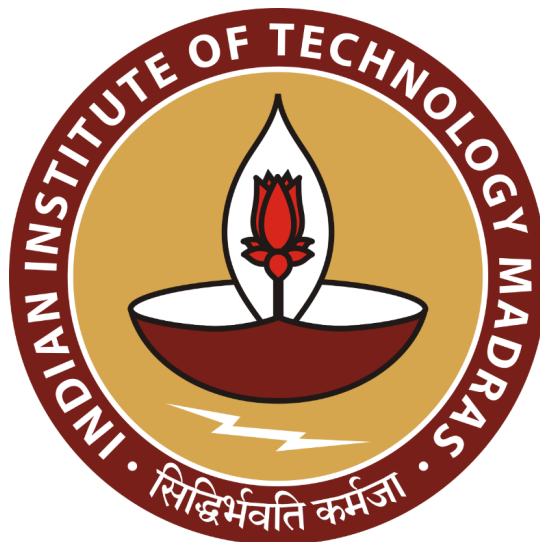
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Contents

2.1 Storyboard for the Application

Storyboard

A VISUAL TECHNIQUE TO DESIGN THE USER INTERFACE OF OUR APPLICATION.

Storyboard-1

SAMITA'S DILEMMA

Samita submits a query via the ticket system.

The instructor resolves Samita's query in the ticket system, but Samita is unaware of the resolution.

Samita notices that her query was resolved one hour after creation, which she only realizes now.

Samita discusses this feature with her friend, who informs her that the query had been resolved previously in discourse, making her sad.

Storyboard-1

This storyboard showcases illustrations and descriptions demonstrating how the Online Support Ticketing System at IITM can be improved by incorporating a transparent chat feature like Discourse, which would keep users informed about the status of their queries.

Samita submits a query via the ticket system.

The instructor resolves Samita's query in the ticket system, but Samita is unaware of the resolution.

One day later, Samita checks the ticket system and discovers her query has been resolved, making her happy.

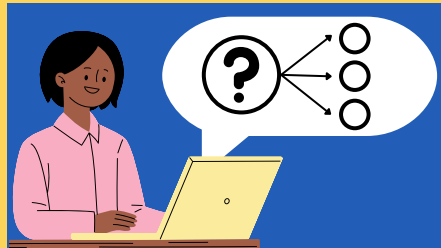Samita notices that her query was resolved one hour after creation, which she only realizes now.

Samita discusses this feature with her friend, who informs her that the query had been resolved previously in discourse, making her sad.

Storyboard-2

SUPPORT STAFF'S DILEMMA

Samita creates a ticket with a query in the ticket system

The IITMBS staff member checks the new query four hours later, realizing the need for timely notifications to enhance efficiency.

Despite not receiving a notification, the staff member proceeds to read and understand the query.

NO NOTIFICATION YET

While addressing the query, the staff member recalls having previously resolved a similar query in Discourse.

Despite this realization, the staff member unintentionally solves the query again within the ticket system.

Storyboard-2

This storyboard showcases illustrations and descriptions demonstrating how the Online Support Ticketing System at IITM can be improved by incorporating a transparent chat feature like Discourse, which would keep users informed about the status of their queries.

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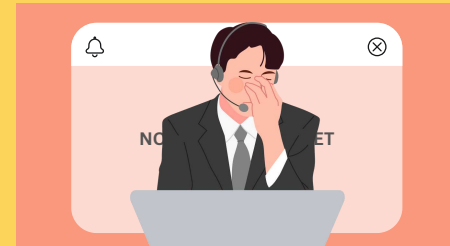
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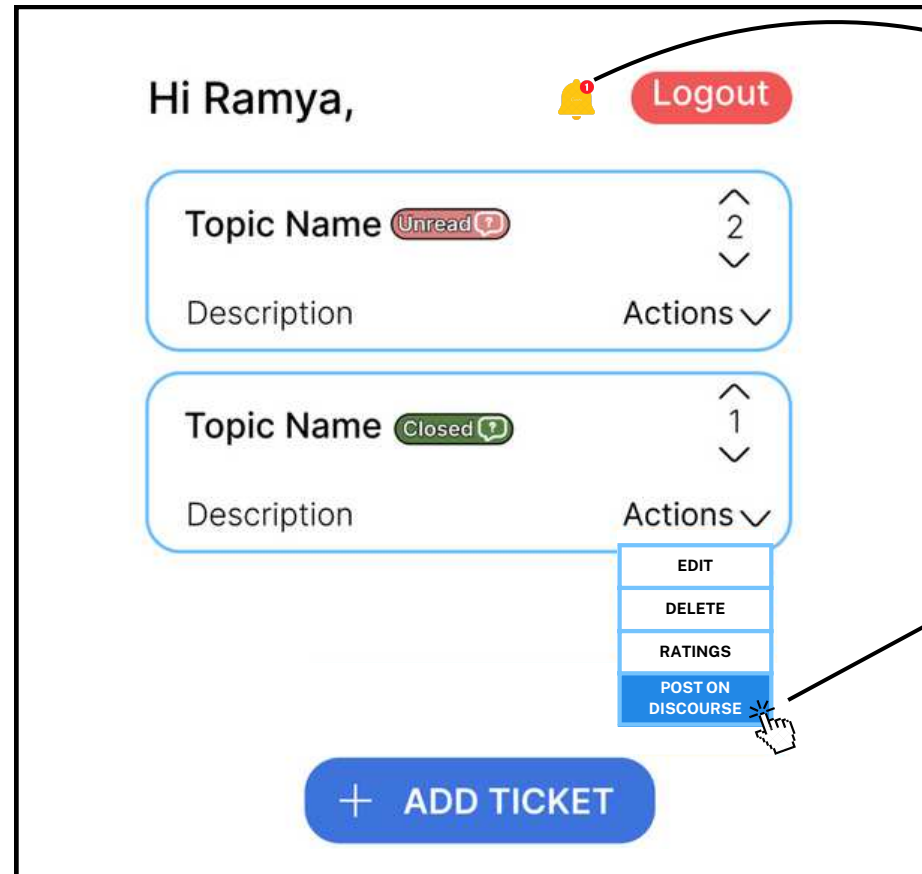
2.2 Low-Fidelity Wireframes

Wireframe

A DIGITAL PROTOTYPE TO MAP OUT
THE USER INTERFACE OF OUR
APPLICATION.

Wireframe: Student's view

A digital prototype to map out the user interface of our application.

Hi Ramya,

Logout

Topic Name (Unread ?) 2

Description Actions ⌄

Topic Name (Closed ?) 1

Description Actions ⌄

EDIT

DELETE

RATINGS

POST ON DISCOURSE

+ ADD TICKET

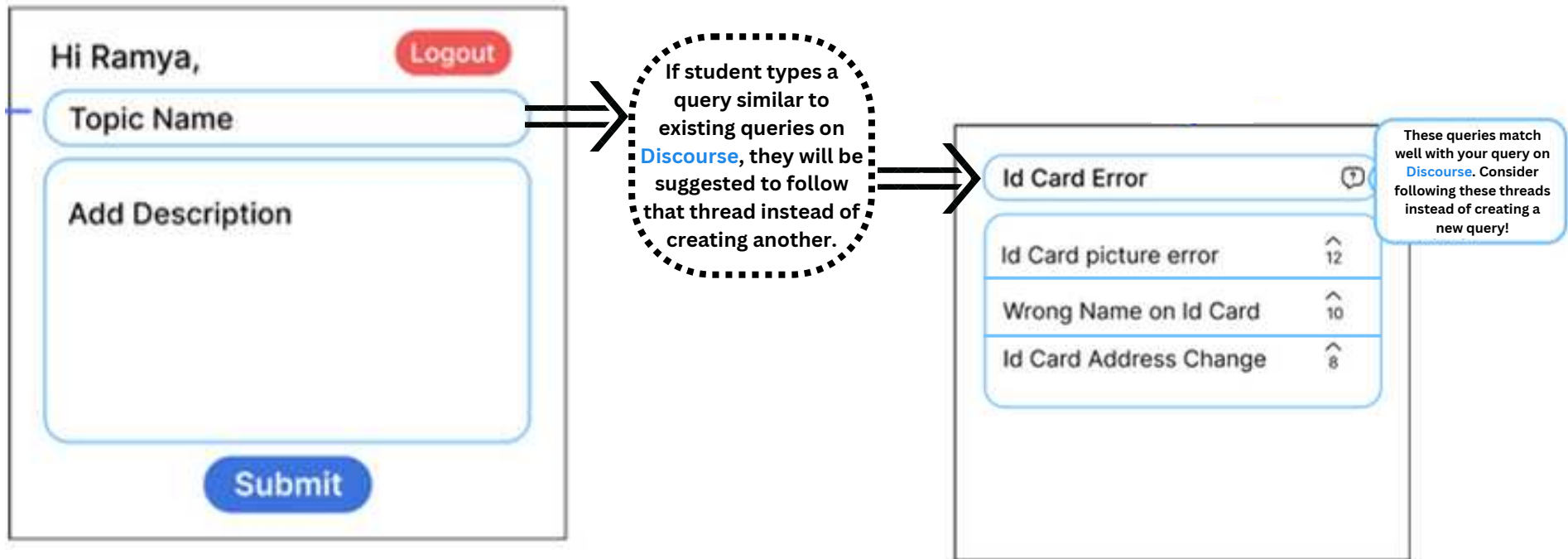Existing interface of the Online support ticket system

Added feature for students to receive timely notifications

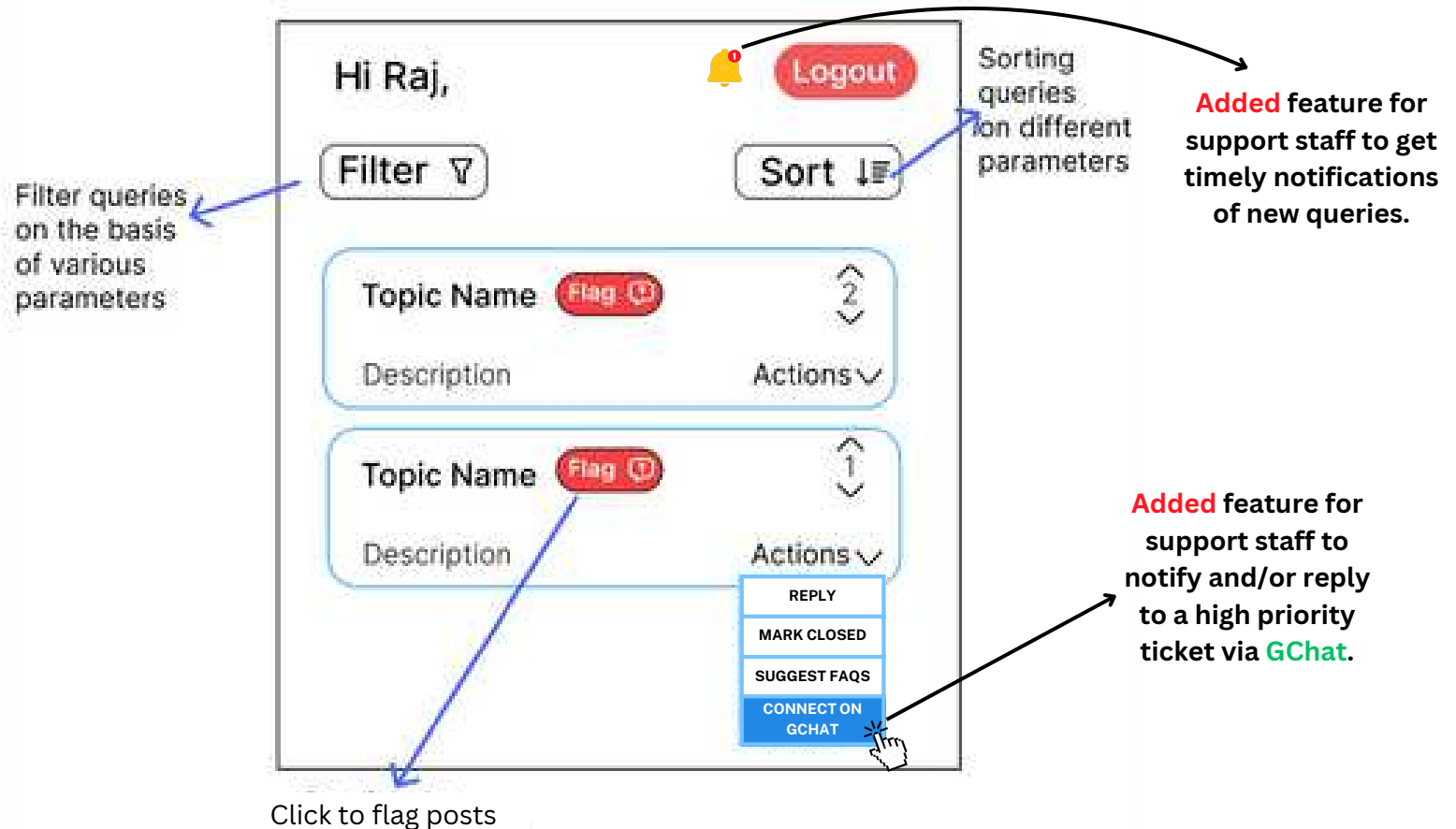**Added** feature for students to create a post of the issue on discourse

Wireframe: Student's view

Hi Ramya,

Logout

Topic Name

Add Description

Submit

If student types a query similar to existing queries on Discourse, they will be suggested to follow that thread instead of creating another.

Id Card Error

These queries match well with your query on Discourse. Consider following these threads instead of creating a new query!

Id Card picture error   12

Wrong Name on Id Card   10

Id Card Address Change   8

Wireframe: Staff's view

Hi Raj,

Logout

Filter ▽

Sort ↓≡

Filter queries on the basis of various parameters

Sorting queries on different parameters

Added feature for support staff to get timely notifications of new queries.

Topic Name   Flag ⚑

Description   Actions ⌄

Topic Name   Flag ⚑

Description   Actions ⌄

REPLY

MARK CLOSED

SUGGEST FAQS

CONNECT ON GCHAT

Added feature for support staff to notify and/or reply to a high priority ticket via **GChat**.

Click to flag posts

Wireframe: Staff's view

Hi Raj,

Logout

Topic Name

Description

Support Agents Response

Submit

Submit & Notify

Added feature for support staff that uses Google Chat webhooks to notify high priority tickets

Wireframe: Admin's view

Admin's view- to Manage FAQs

Hi Rahul,

Logout

MANAGE USERS
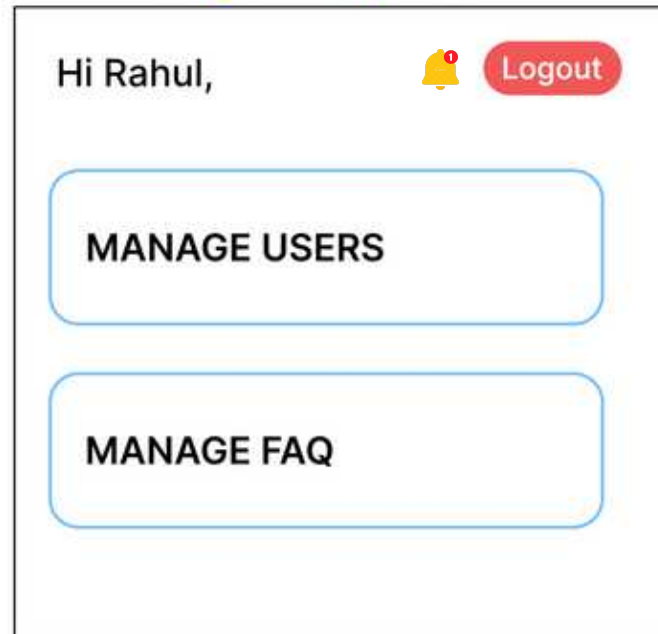
MANAGE FAQ

Inclusive of all the existing features

Wireframe: Admin's view

Admin's view- to Manage FAQs

Hi Rahul,   🔔 Logout

Topic Name   2
Description   Actions ∨

Topic Name   1
Description   Actions ∨
Edit
Delete
Change Category

Button to add FAQs for admins ←   + ADD FAQ

Hi Rahul,   🔔 Logout

FAQ Name   ∨

Add Description

Submit

Inclusive of all the existing features

2.3 Usability Design Guidelines and Heuristics

The wireframes have been developed by applying usability design guidelines and heuristics discussed above, ensuring that the interface is intuitive, efficient, and user-friendly. Some of the key principles considered during wireframe design include:

1. **Visibility of system status:** Users are provided with clear feedback about the status of their actions, such as when a ticket is successfully submitted or resolved.
2. **User control and freedom:** Users have the ability to navigate through the application easily and undo actions if necessary, promoting a sense of control over their interactions.
3. **Consistency and standards:** Interface elements and interactions are consistent across different screens, following established design patterns and standards to enhance usability.
4. **Error prevention:** Measures are implemented to prevent user errors, such as validation checks on form inputs and clear error messages to guide users in correcting mistakes.
5. **Recognition over recall:** Information and actions are presented in a way that minimi☐ es the need for users to remember details from previous interactions, reducing cognitive load and enhancing usability.
6. **Flexibility and efficiency of use:** The interface accommodates both novice and experienced users, providing shortcuts and advanced features for efficient task completion without overwhelming beginners.

By incorporating these usability design principles into the wireframes, the aim is to create an interface that meets the needs of users, facilitates their tasks effectively, and ensures a positive overall user experience with the ticketing system application.