

Software Engineering

Project



TEAM 16

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MILESTONE 2

USER INTERFACES

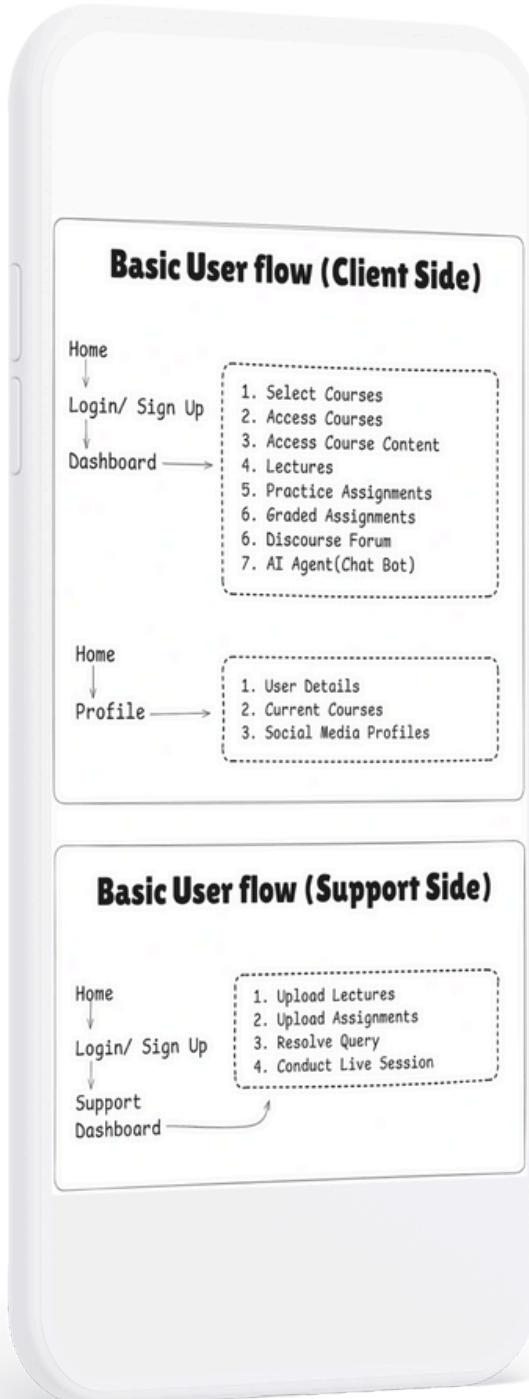
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APP USERFLOW



SEEK Portal User Workflow

The SEEK Portal simplifies academic activities for students, instructors, and administrators through AI-powered automation, ensuring efficient learning and support.

On the client side, students log in to access the Dashboard, where they can select courses, review content, complete assignments, and track progress. An AI chatbot provides instant query resolution, while deadline alerts help manage submissions.

The Profile section lets students manage details and track courses, with AI-driven insights offering study recommendations and progress tracking.

On the support side, instructors and TAs use the Support Dashboard to upload content, resolve queries, and conduct live sessions. AI automates query resolution and assignment hints, reducing manual workload.

For administrators, AI enhances scheduling, content verification, and issue resolution, streamlining operations and improving efficiency.

Overall, the SEEK Portal ensures instant support, personalized learning, and efficient faculty assistance, making academic workflows seamless.

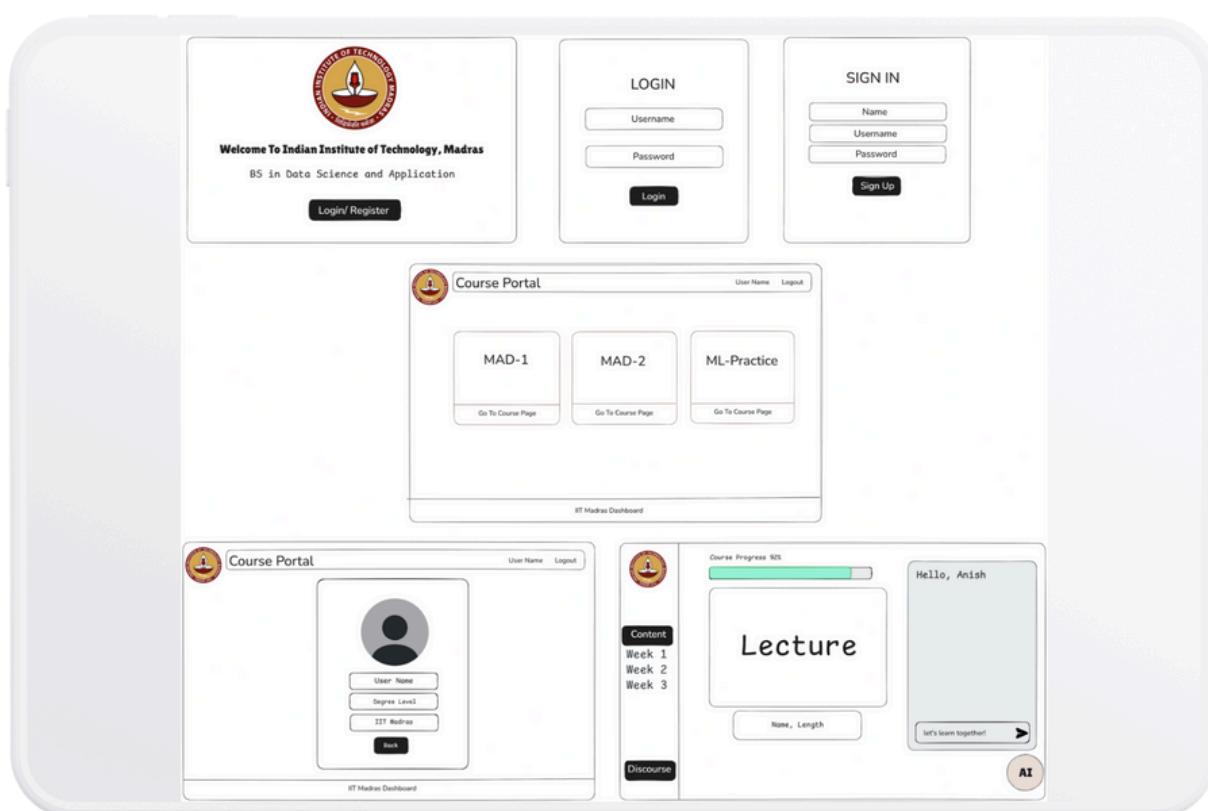
WIREFRAMES

(Low Fidelity)

The wireframes for the AI-powered academic guidance system depict an intuitive user journey with GenAI enhancements. Students begin at the Dashboard, where the AI Study Assistant recommends resources based on coursework, while the AI Progress Insights feature tracks performance and suggests areas for improvement. The GenAI Chatbot provides instant query responses, reducing reliance on discourse forums, while the Smart Debugging Assistant offers hints for programming assignments. Deadline Alerts ensure students stay on track with assignments and exams.

For Instructors and TAs, the AI-Powered Dashboard automates query resolution, suggests AI-generated practice assignments, and provides insights into student performance trends. The Assignment Hint System allows GenAI to guide students before TA intervention, while Lecture & Course Insights help identify struggling topics.

Professors, Admin Staff, and IT Support benefit from AI-enhanced content verification, automated query screening, and complaint resolution suggestions, reducing manual workload. AI-driven predictive analytics assist in student enrollment trends, scheduling, and system monitoring, proactively flagging potential issues before they impact users. These AI-powered wireframes ensure a seamless, efficient, and personalized academic experience for all users.





User stories provide a structured way to define user needs, outlining their roles, actions, and expected outcomes. They help ensure that the development process aligns with user expectations by focusing on real-world scenarios. In the AI-powered academic guidance system, user stories capture how students, instructors, and administrators interact with the SEEK portal to enhance their learning and teaching experiences.

With GenAI integration, user interactions become more efficient and personalized. Students benefit from instant AI-driven support, tailored study recommendations, and real-time progress insights, reducing the effort needed to find relevant resources. Instructors and TAs gain from automated query resolution, AI-generated practice assignments, and performance tracking, making student support more seamless. Professors and administrative staff leverage AI-powered content verification, predictive scheduling, and automated issue resolution, minimizing manual workload and streamlining operations.

By incorporating GenAI, user stories evolve into intelligent, automated workflows, improving accessibility, efficiency, and engagement. This transformation makes the SEEK portal a more adaptive and student-focused learning environment that enhances the overall academic experience.

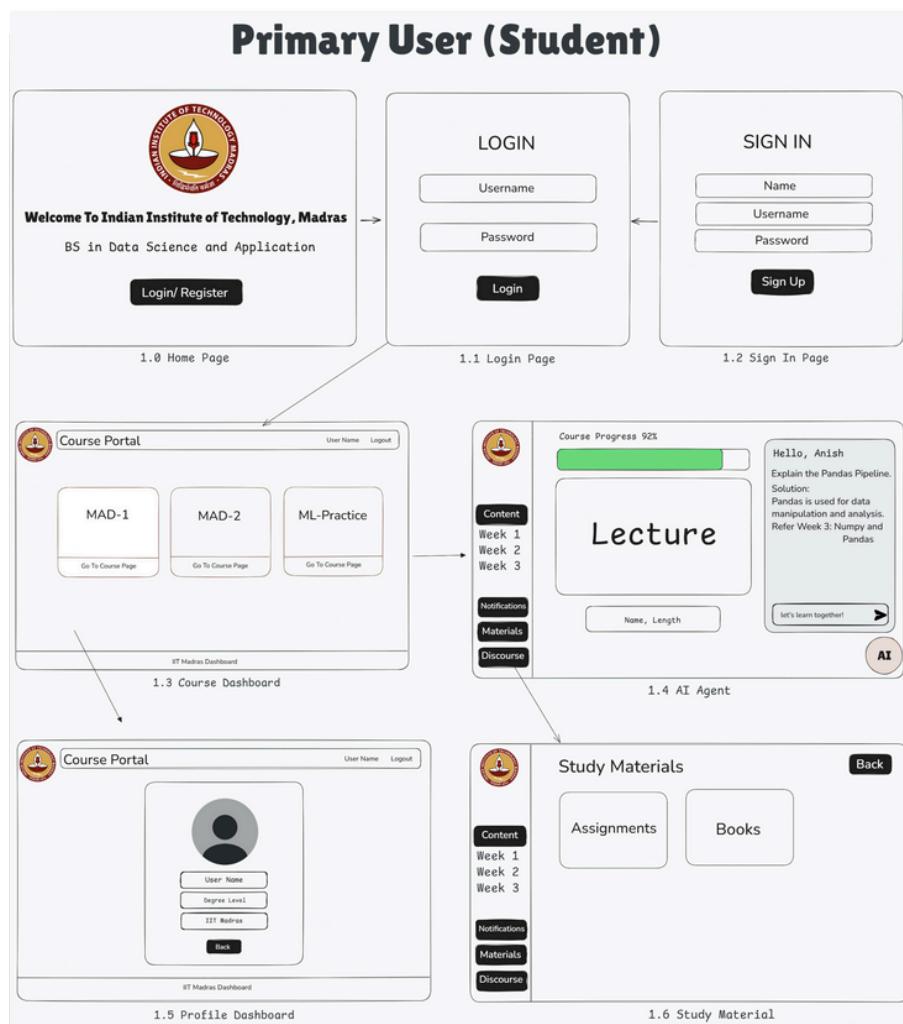
User Stories | Primary User | Scenario 1

Searching Course Resources



USERFLOW

HOME → LOGIN → COURSE PORTAL → COURSES → STUDY MATERIALS



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User Stories | Primary User | Scenario 2

Course Progress Performance Insights



USERFLOW

HOME → LOGIN → COURSE PORTAL → COURSES → COURSES PROGRESS



1.0 Home Page

The image shows the Course Portal dashboard. At the top, there is a header with the IIT Madras logo, "Course Portal", "User Name", and "Logout". Below the header, there are three course cards: "MAD-1", "MAD-2", and "ML-Practice", each with a "Go To Course Page" button. At the bottom, it says "IIT Madras Dashboard".

1.1 Course Dashboard

The image shows the AI Agent interface. It features a sidebar with "Content" sections for "Week 1", "Week 2", and "Week 3", along with "Notifications", "Materials", and "Discourse". The main area displays "Course Progress 92%" with a green progress bar. A large "Lecture" section contains a "Name, Length" input field. On the right, a message box says "Hello, Anish" and "let's learn together! >". A circular "AI" icon is in the bottom right corner.

1.2 AI Agent



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User Stories | Primary User | Scenario 3

Interactive Programming Help



Meet Achin
He's a Learner



I need GenAI to provide hints and debugging tips for my programming assignments so I can solve problems on my own and enhance my coding skills.

USERFLOW
HOME → LOGIN → COURSE PORTAL → COURSES → CHATBOT



1.0 Home Page

1.1 Course Dashboard

1.2 AI Agent



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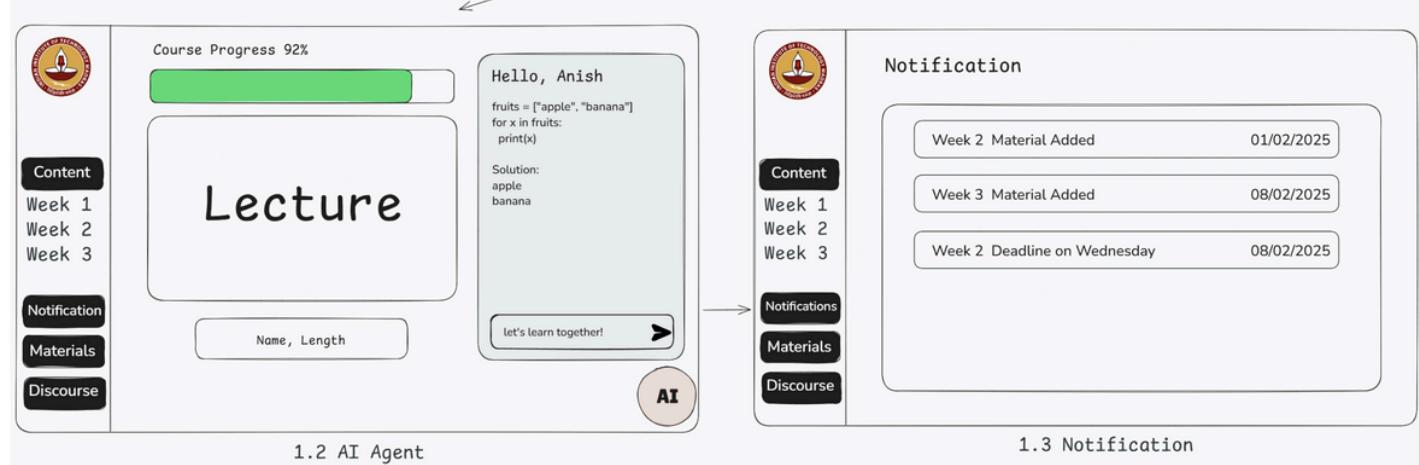
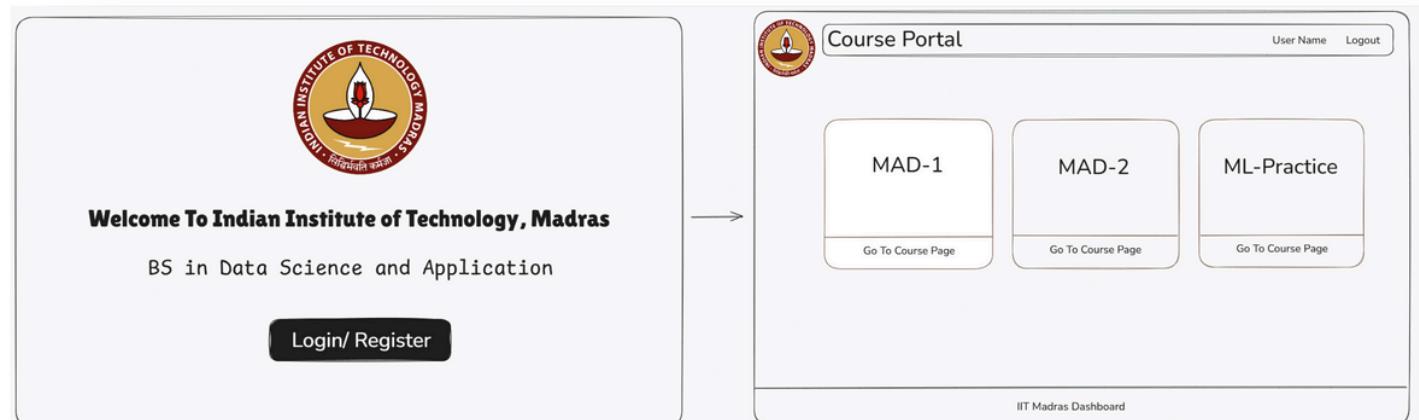
User Stories | Primary User | Scenario 4

Checking Proactive Alerts

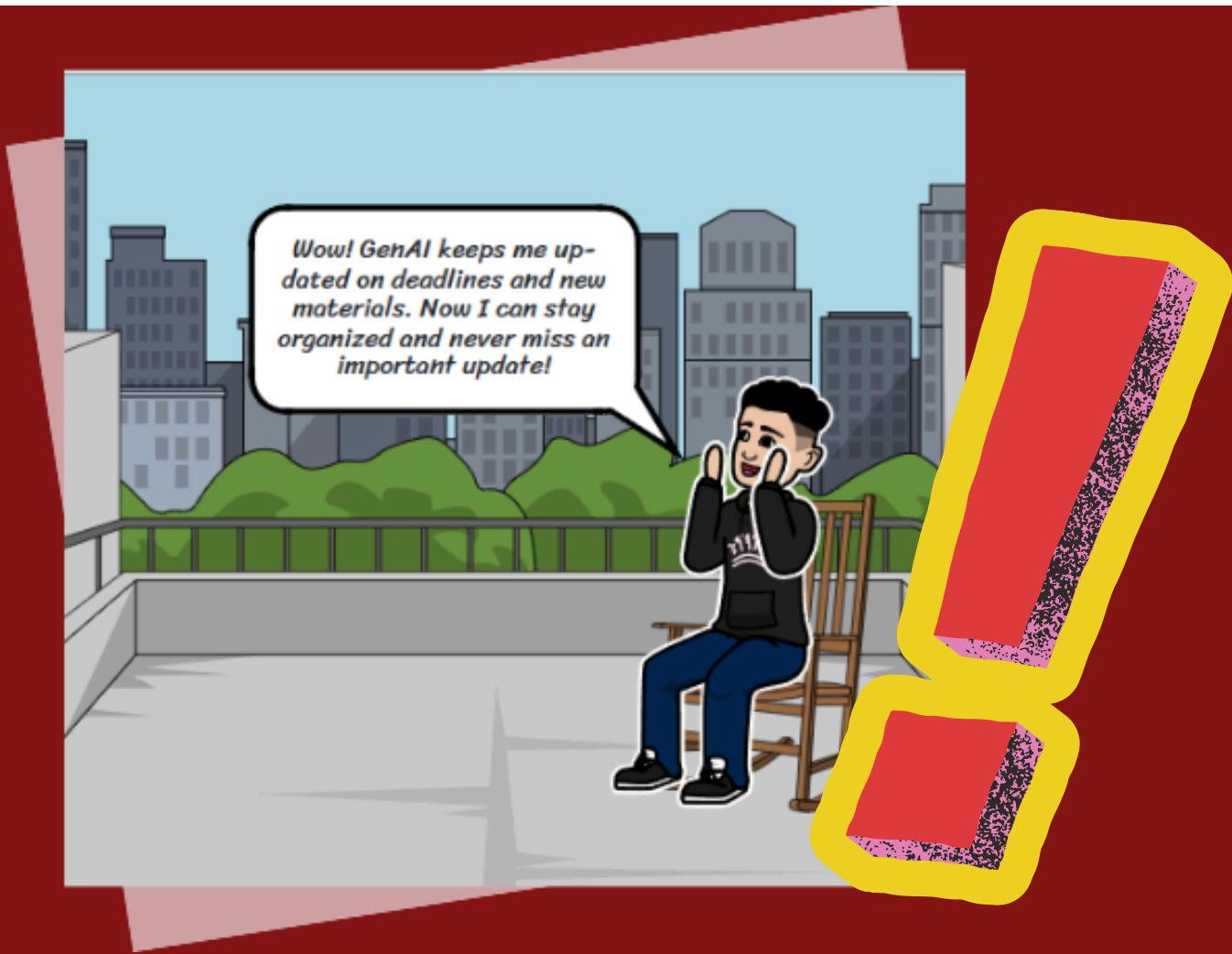


USERFLOW

HOME → LOGIN → COURSE PORTAL → COURSE MATERIALS → NOTIFICATIONS



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User Stories | Primary User | Scenario 5

Quick Responses to Queries



USERFLOW

HOME → LOGIN → COURSE PORTAL → COURSE MATERIALS → CHATBOT



Welcome To Indian Institute of Technology, Madras

BS in Data Science and Application

Login/ Register

1.0 Home Page

Course Portal

User Name Logout

MAD-1 Go To Course Page

MAD-2 Go To Course Page

ML-Practice Go To Course Page

IIT Madras Dashboard

1.1 Course Dashboard

Lecture

Name, Length

Content

Week 1
Week 2
Week 3

Notifications

Materials

Discourse

Hello, Anish
What is the difference between bagging and boosting?
Solution:
Bagging reduces variance (parallel), while boosting reduces bias (sequential).
let's learn together! ➤

AI

1.2 AI Agent

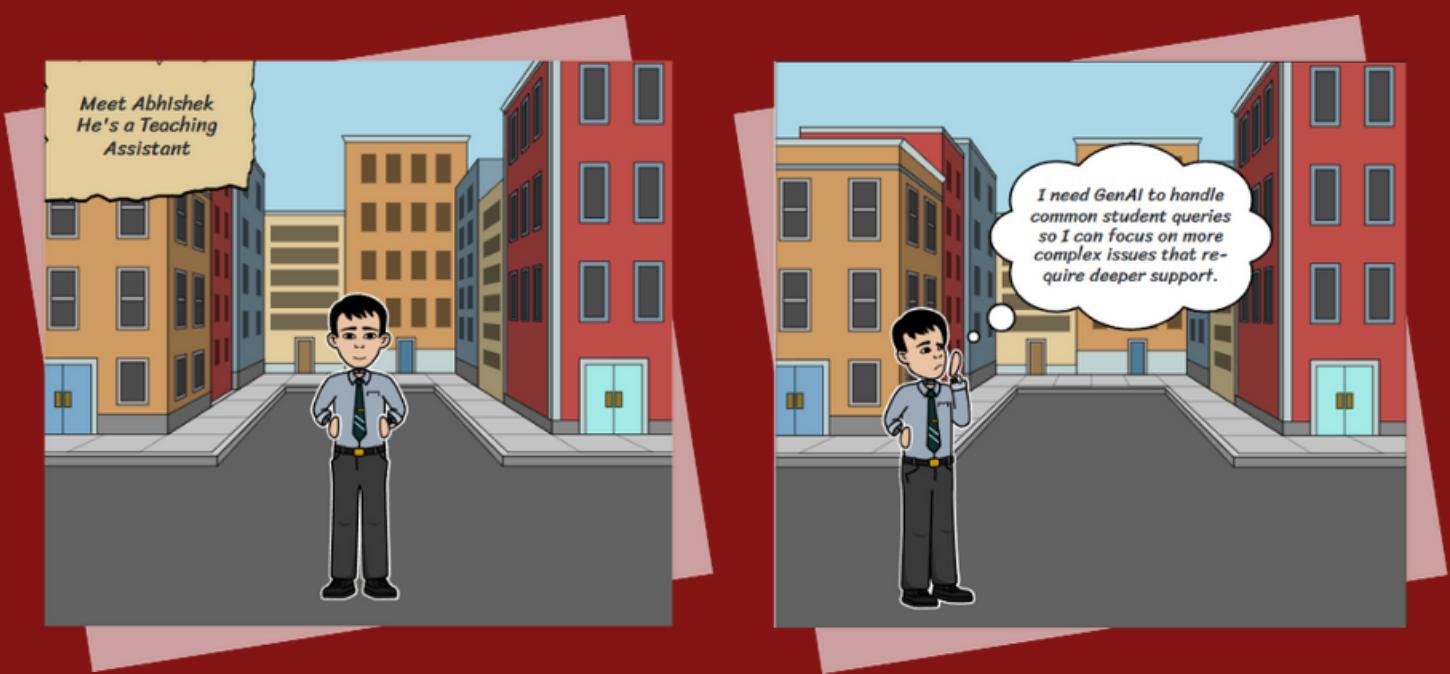


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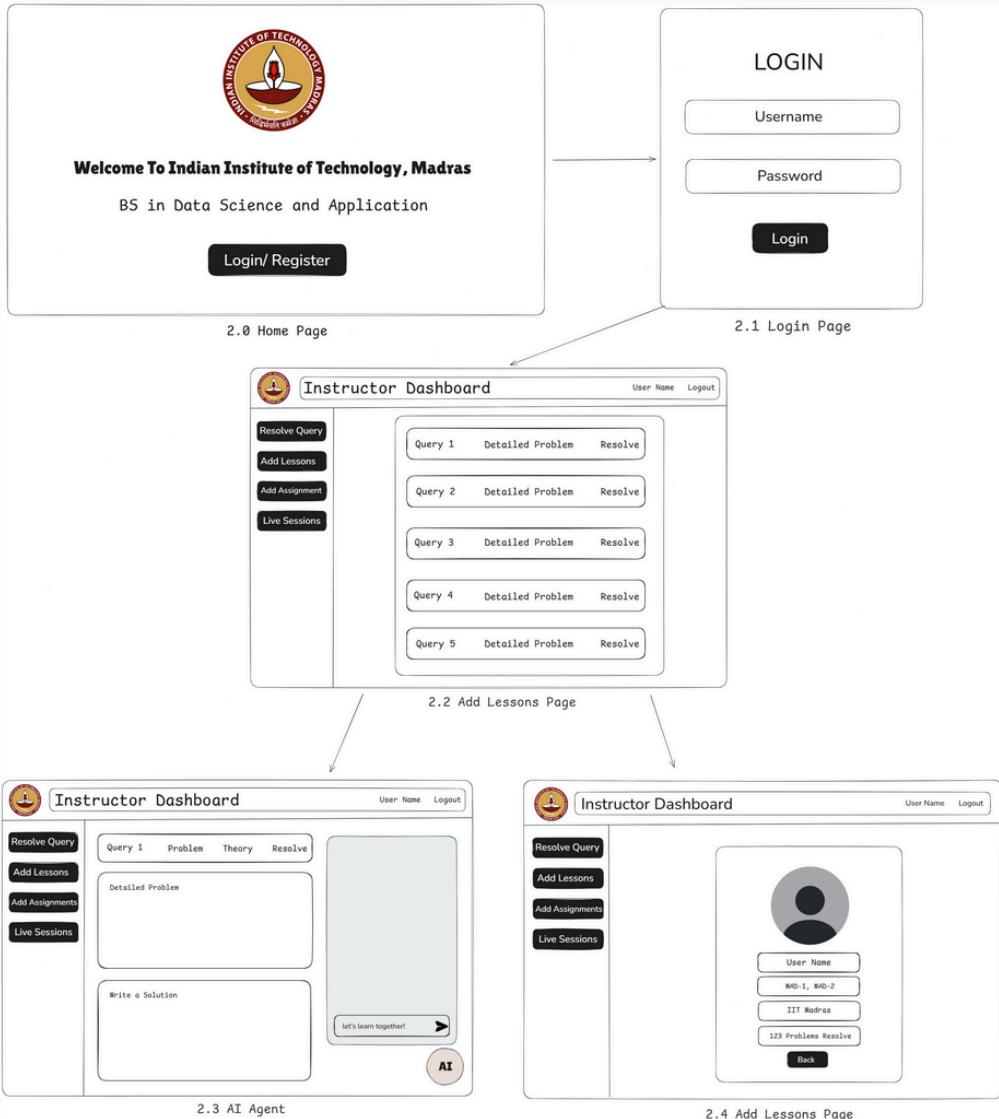
User Stories | Secondary User | Scenario 1

Automated Query Resolution

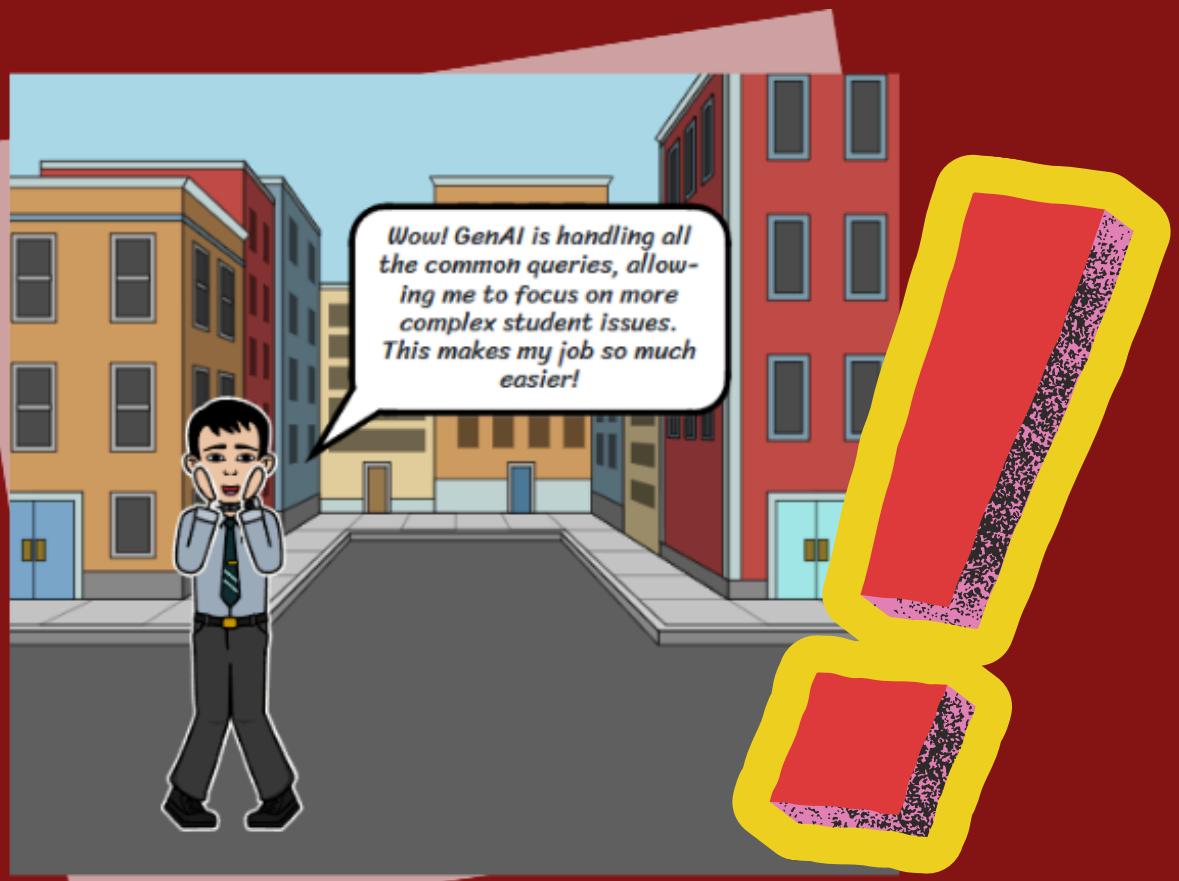


USERFLOW

HOME → LOGIN → INSTRUCTOR DASHBOARD → QUERIES → RESOLVE QUERY



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User Stories | Secondary User | Scenario 2

Assignment Assistance



USERFLOW

HOME → LOGIN → INSTRUCTOR DASHBOARD → QUERIES → RESOLVE QUERY



2.0 Home Page

Query	Problem	Action
Query 1	Detailed Problem	Resolve
Query 2	Detailed Problem	Resolve
Query 3	Detailed Problem	Resolve
Query 4	Detailed Problem	Resolve
Query 5	Detailed Problem	Resolve

2.1 Add Lessons Page

Query 1 Problem Code Resolve

```
num1 = 1.5
num2 = 6.3
# Add two numbers
sum = num1 + num2
# Display the sum
print(sum)
```

Add a Solutions

let's learn together! ➤

2.2 AI Agent

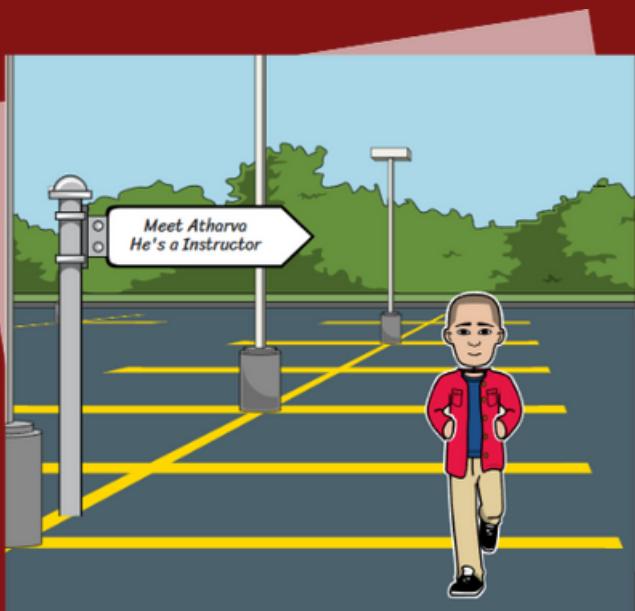


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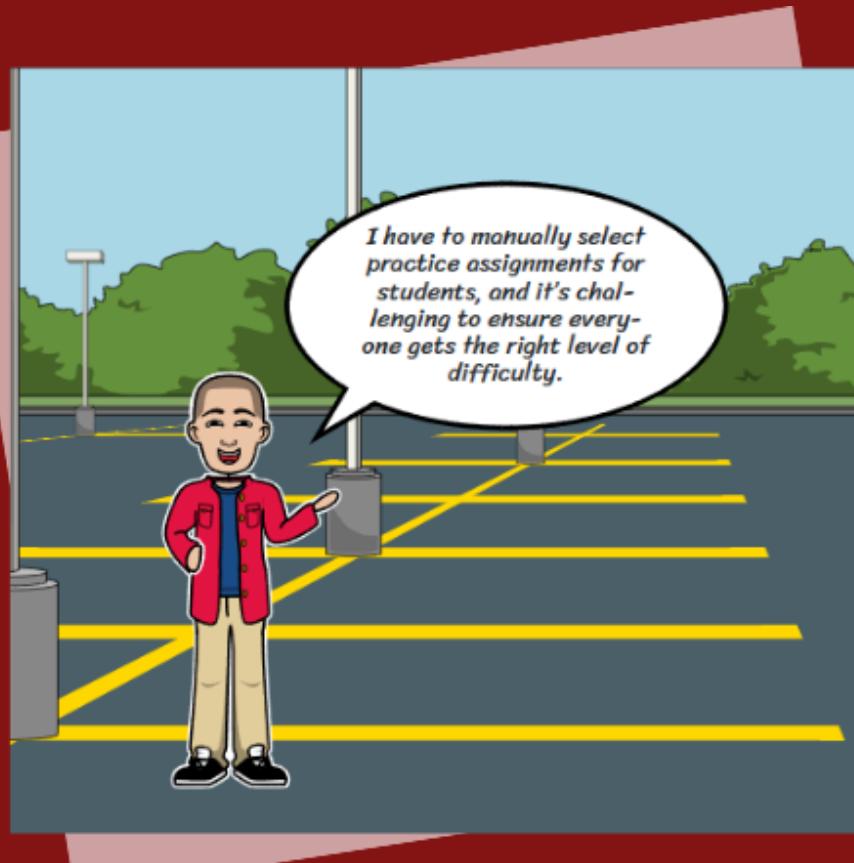
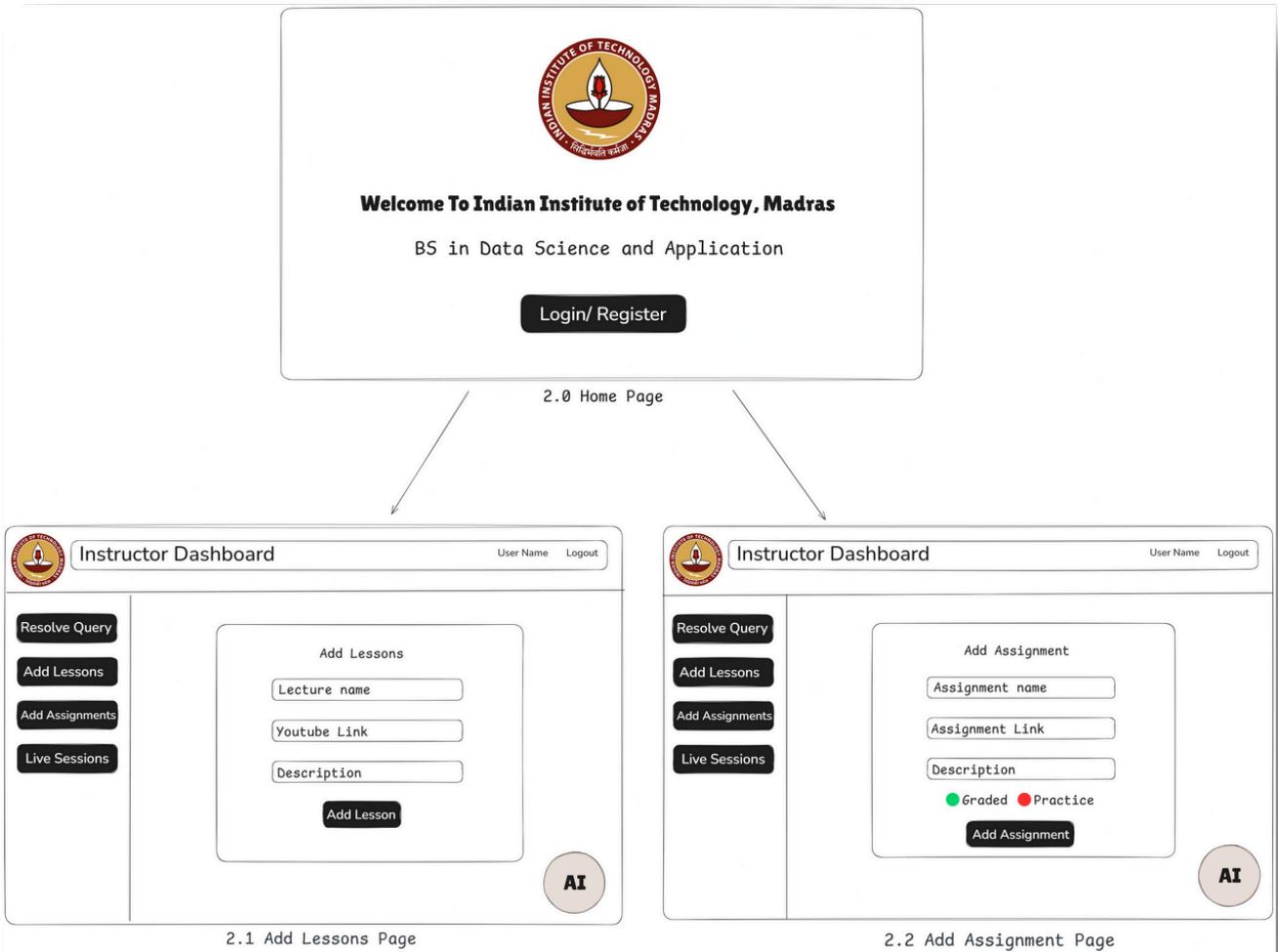
User Stories | Secondary User | Scenario 3

Assignment Recommendations

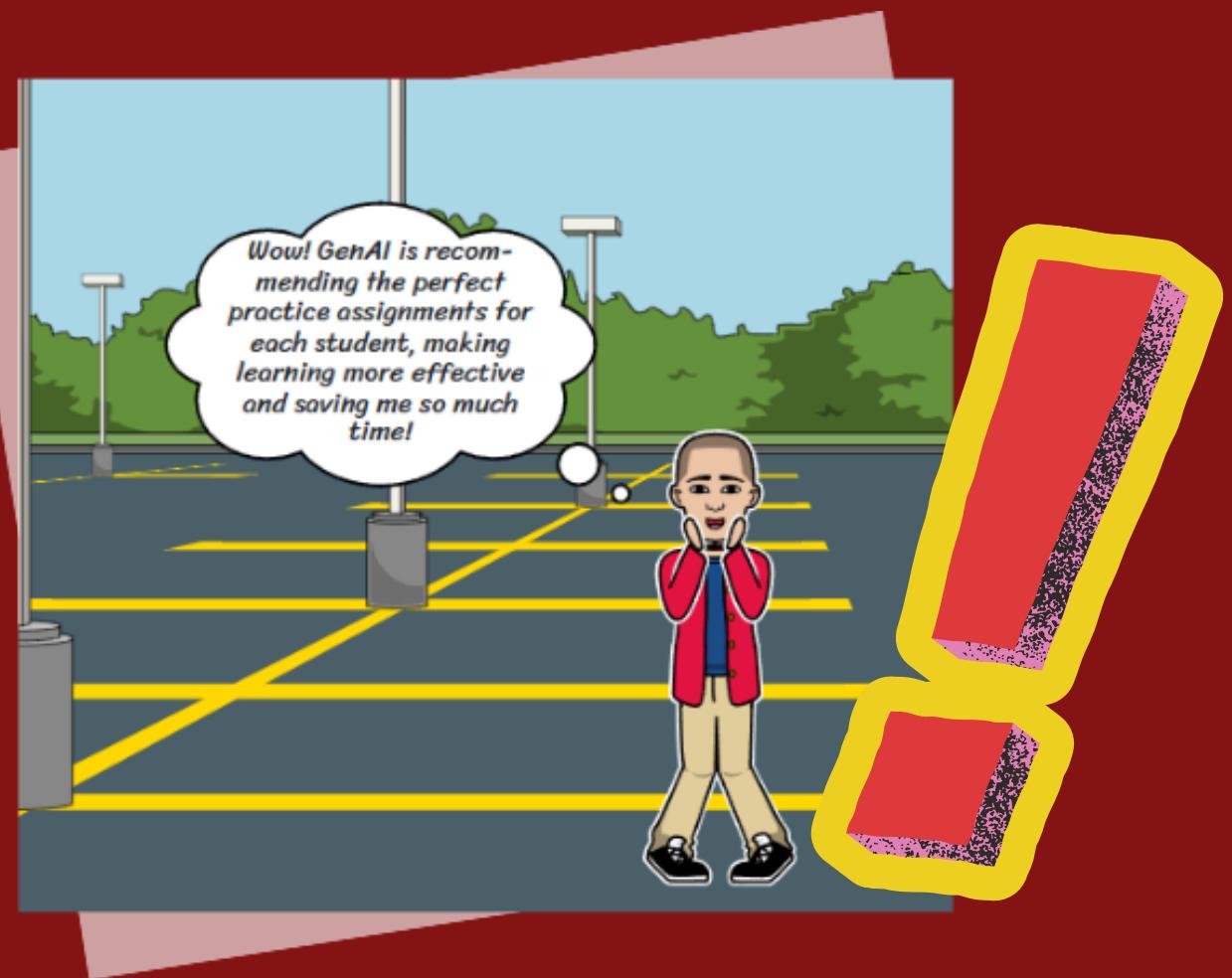


USERFLOW

HOME → LOGIN → INSTRUCTOR DASHBOARD → ADD LESSONS → ADD ASSIGNMENTS



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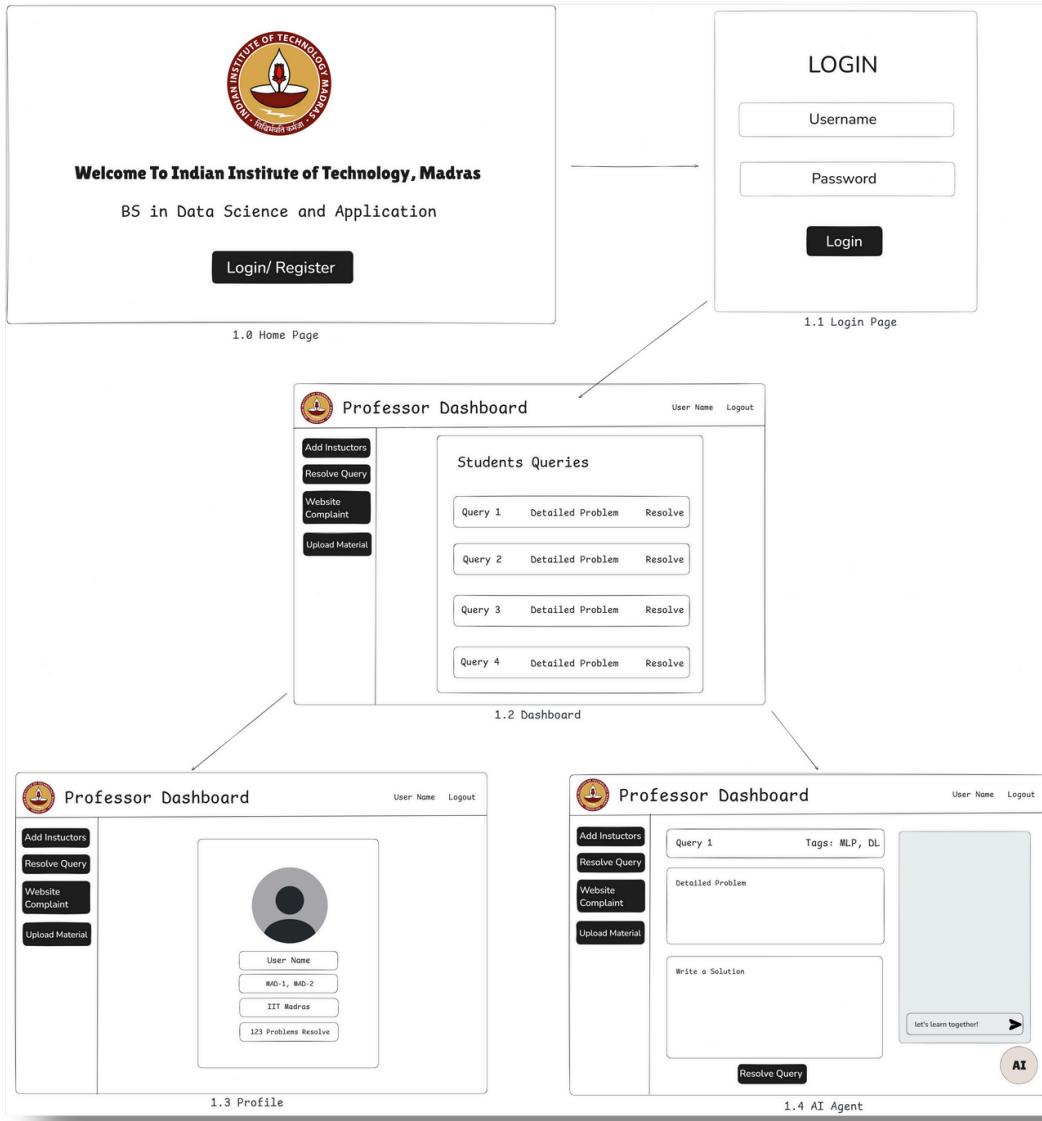
User Stories | Tertiary User | Scenario 1

Advanced Query Escalation



USERFLOW

HOME → LOGIN → PROFESSOR DASHBOARD → QUERIES → CHATBOT



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User Stories | Tertiary User | Scenario 2

Complaint Resolution Suggestions



USERFLOW

HOME → LOGIN → ADMIN DASHBOARD → WEBSITE COMPLAINT → RESOLVE QUERY



1.0 Home Page

1.1 Home Page

1.2 AI Agent



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User Stories | Tertiary User | Scenario 3

Content Uploading



USERFLOW

HOME → LOGIN → ADMIN DASHBOARD → UPLOAD MATERIAL

The diagram illustrates the user flow from the Home Page to the Admin Dashboard. On the left, the "1.0 Home Page" shows the Indian Institute of Technology Madras logo, the text "Welcome To Indian Institute of Technology, Madras", "BS in Data Science and Application", and a "Login/ Register" button. An arrow points from this page to the "1.1 Home Page" on the right. The "1.1 Home Page" is titled "Admin Dashboard" and includes "User Name" and "Logout" links. It features a sidebar with "Add Instructors", "Resolve Query", "Website Complaint", and "Upload Material" buttons. A section titled "Most Frequent Ask Week" lists "1. Week3-MLP", "2. Week2-BDM", and "3. Week5-MAD-2", each with a "Upload Material" button.



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