

DESIGN THINKING

**PERSONALISED LEARNING
SYSTEM**

Big Data And Artificial Intelligent New Innovation

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TEAM MEMBERS



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- 05 NUR FARRAH HA BINTI M WALED
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INTRODUCTION



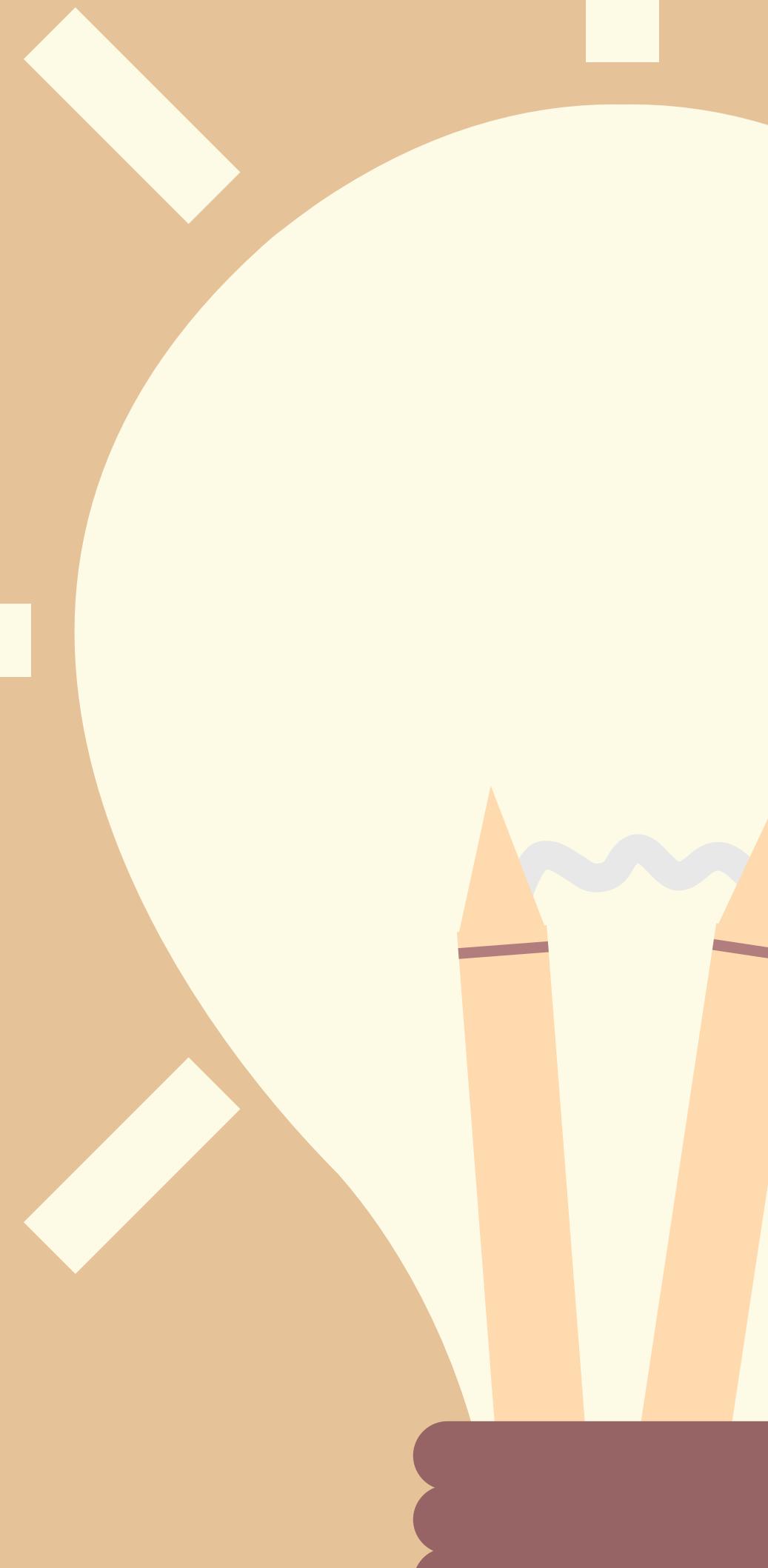
Big Data collects insights on student behavior and learning patterns.



AI uses this data to personalise learning and automate tasks.

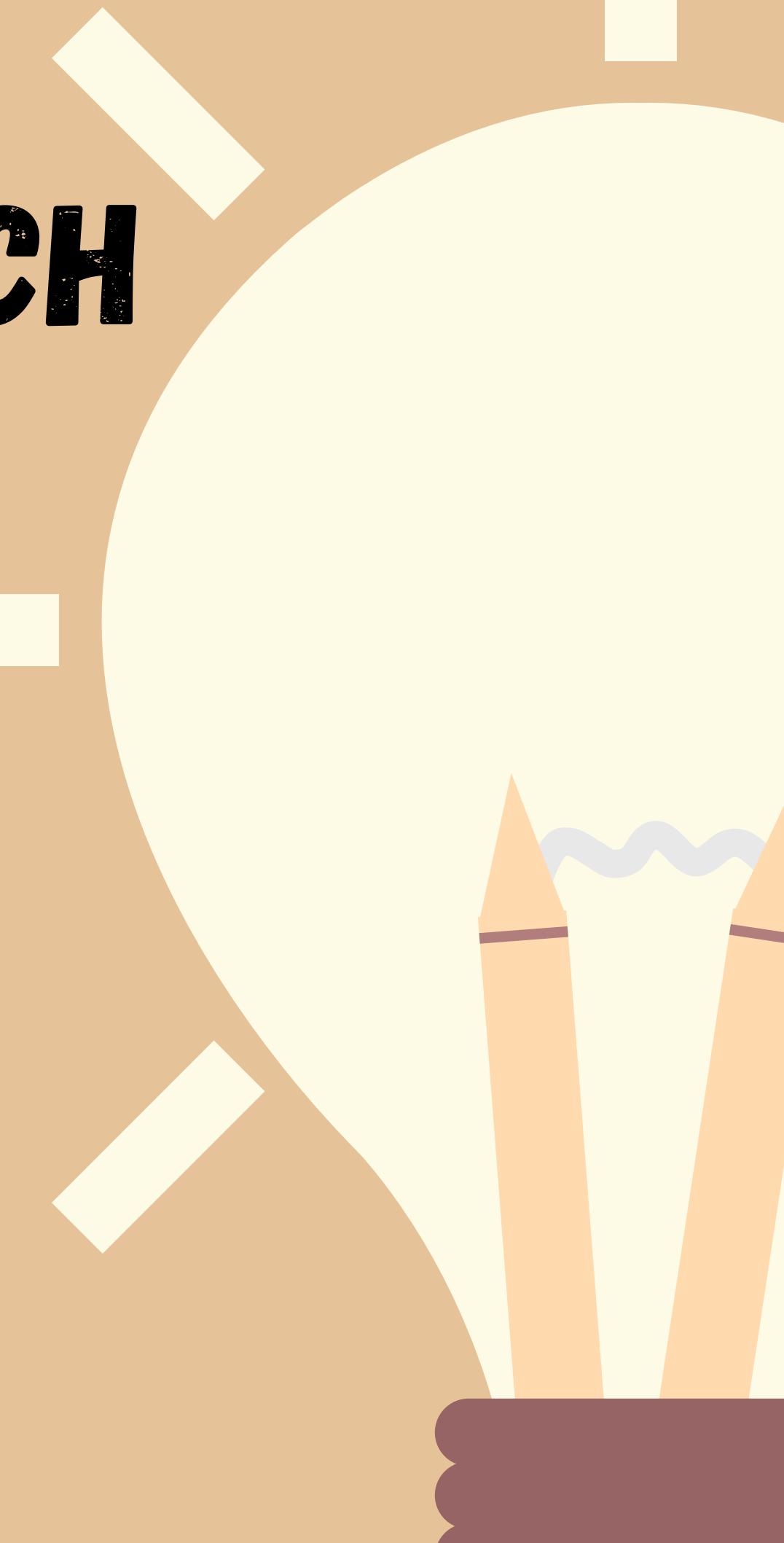


Together, they create adaptive, efficient, and inclusive learning environments.



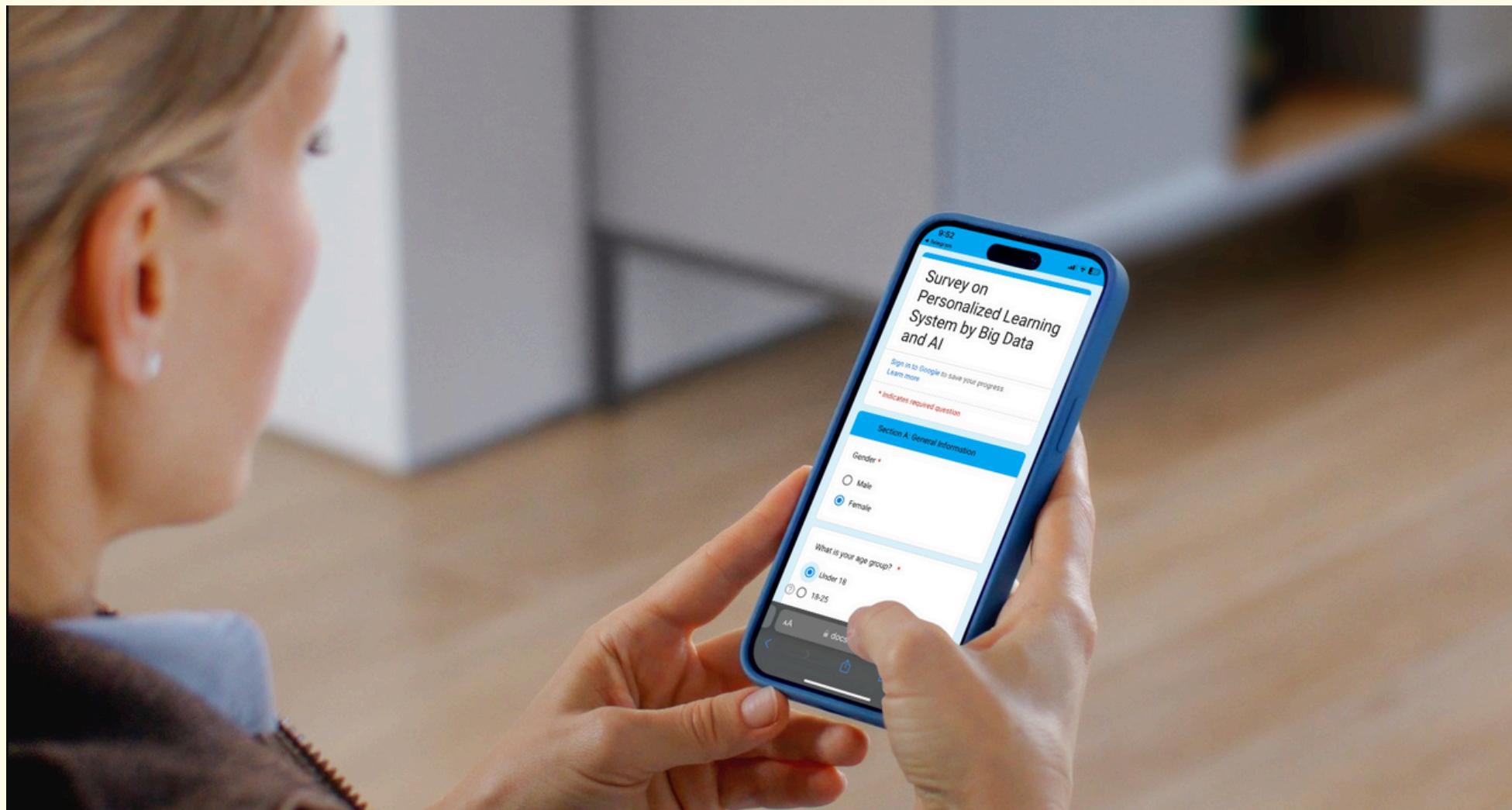
DESIGN THINKING APPROACH

- ✓ Empathize
- ✓ Define
- ✓ Ideate
- ✓ Prototype
- ✓ Test



EMPATHIZE

We use Interview and Questionnaire method to gain the insights of the challenges of learning to help us to gain better understanding of the students needs.



The questionnaire is distributed via Google Forms .

EMPATHIZE

Questions ask during interview :

1. How often do you feel lost or confused during class?
2. How well do you think your teacher's pace matches your learning speed?
3. What is the biggest challenge you face in class?
4. Which learning methods help you understand best?

Interviewee

Name : Sarah

Age : 23

Background : UTM Year 1 Student

Challenges : Feels left behind in fast-paced lesson &
is a visual learner.

DEFINE

Core problem

Traditional classrooms do not effectively support individual learning needs.



PROBLEM

01

Students struggle to ask questions and get personalized help

02

Many cannot complete tasks on time due to fixed pacing.

03

Students find it hard to stay focused during lessons.

04

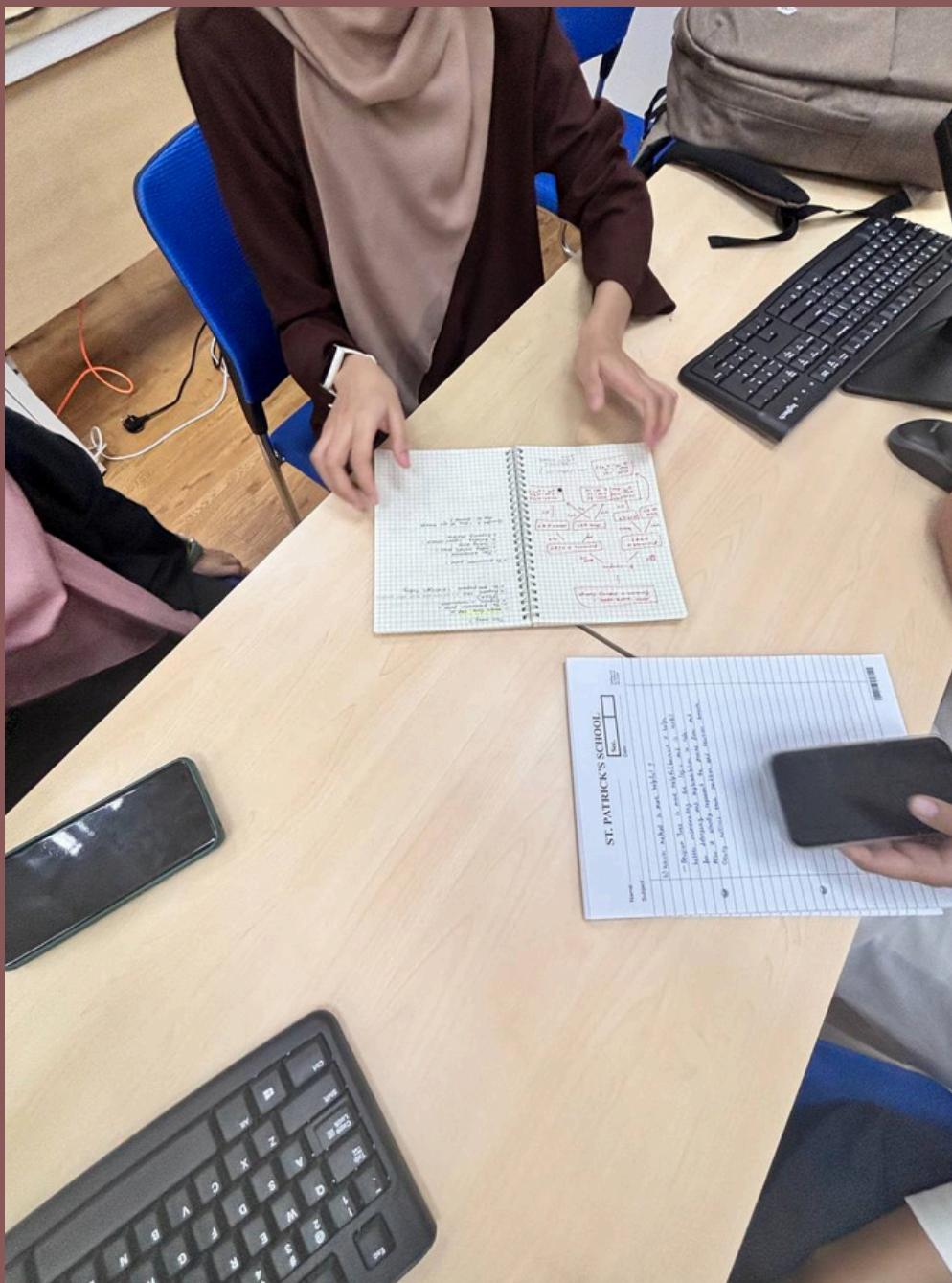
The one-size-fits-all teaching model fails to accommodate diverse learning styles, especially for special needs students.

05

Teachers lack tools to track student progress in real time, and assessments don't reflect ongoing learning

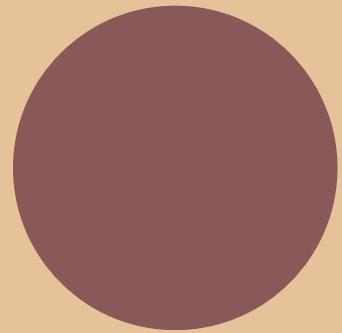


IDEATE



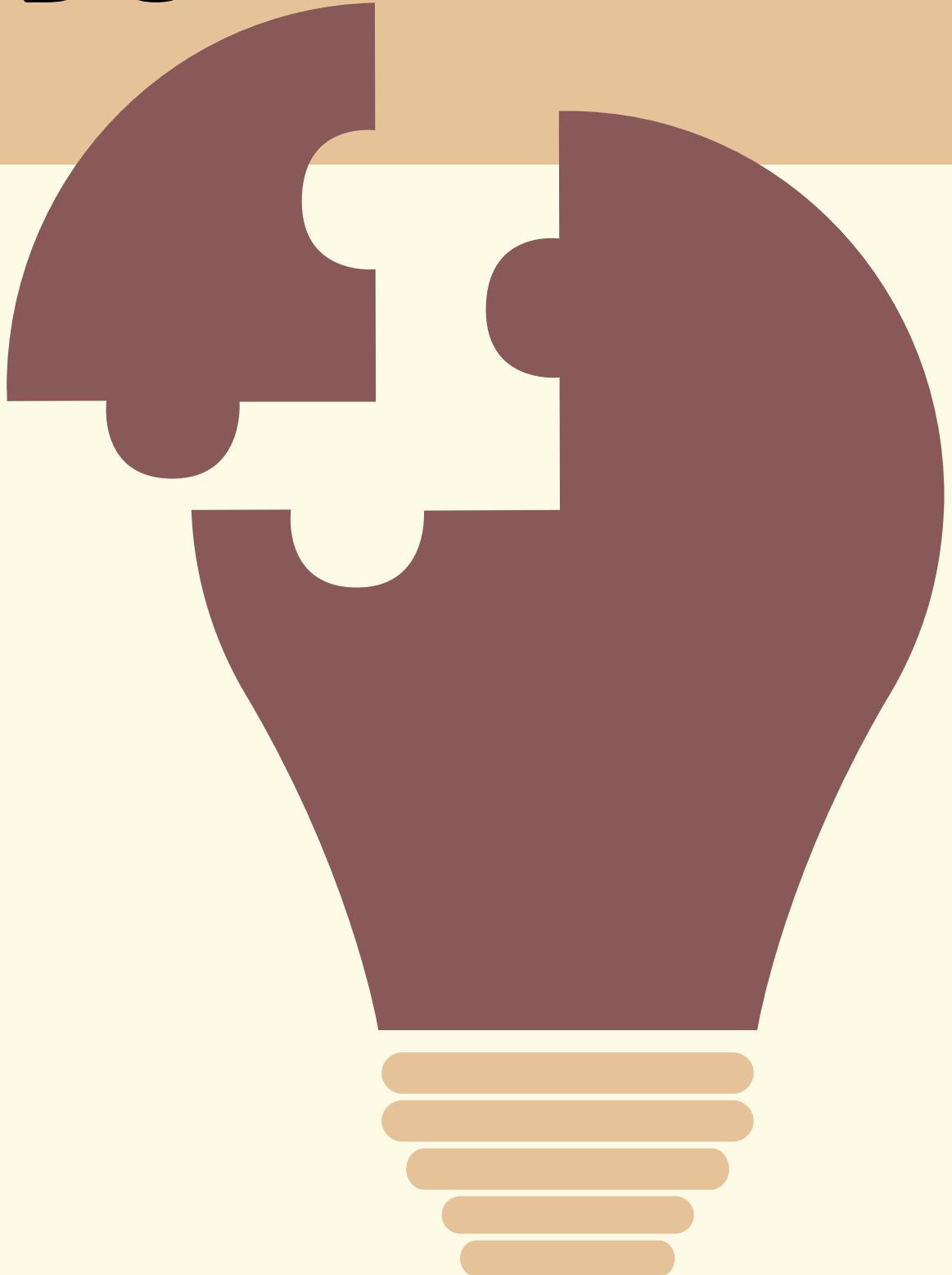
BRAINSTORMED SOLUTIONS

- Adaptive content delivery
- Audio summaries, flashcards
- Interactive and visual learning materials
- Gamification and real-time feedback
- Chose mobile app format for accessibility



SOLUTIONS - SMARTEDU

- Delivers content based on each student's style, pace, and interests.
- Uses real-time data to adapt lessons and keep students engaged.
- Supports special needs with tools like text-to-speech and focus aids.
- Replaces standard tests with interactive, gamified quizzes.



PROTOTYPE - LFP

Sketch Prototype (Mobile application : SmartEdu)

Main Page

SmartEdu

Are you ready ?

Click here

NextGen Learner

①

Sign up or Login

SmartEdu

Phone number, username, email

Password

OR

Log in with Gmail

Forget password ?

Don't have an account ?
Sign up

②

Profile

My Profile

Mannisa Aryan
mannisaary@gmail.com

Edit Profile

Favourites & Save >

Downloads >

Achievement >

Language >

Change Password >

Clear dustbin >

Clear history >

Log out >

Home Quiz/Game Summary Profile

③

PROTOTYPE

PROTOTYPE - LFP

Sketch Prototype (Mobile application : Smart Edu)

The sketch prototype illustrates a mobile application interface for "Smart Edu".

Profile Screen (4): Shows the "Edit Profile" screen with fields for First Name (Marrisa), Last Name (Aryan), Username (@marrisa), Email (marrisary@gmail.com), Phone Number (+91 2348196), Birth, Gender, and Type of student.

Home Screen (5): Shows the main "Smart Edu" screen with a "Notes" section. It includes "Upload Notes" (with "Add file" and "File" options), a "Convert files to" section with checkboxes for Speech or Audio, Visual, Mind Map, Flashcard, and Short Notes, and a navigation bar at the bottom with icons for Home, Quiz/Game, Summary, and Profile.

Notes Screen (6): Shows a list of "New Notes" with icons and labels: Speech or Audio, Visual, Mindmap, Flashcard, and Short notes. A note on the left indicates that users can click on each new note to go to another page or choose to download it. The navigation bar at the bottom is identical to the Home screen.

PROTOTYPE

PROTOTYPE - LFP

Sketch Prototype (Mobile application : Smart Edu)

Home

(7)

Quiz or Game

(8)

Quiz or Game

(9)

PROTOTYPE

PROTOTYPE - LFP

Sketch Prototype (Mobile application : Smart Edu)

Summary

≡

Smart Edu



Analytical Dashboard

Total score : 70%.

Answer correctly : 7 / 10

Answer wrongly : 3 / 10

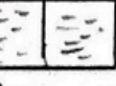
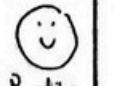
Percentage(%)

↑
80
60
40
20
0

Day 1 Day 2 Days →

Areas need to improve

- Spend more time to practice with calculation
- Make sure you did not do careless mistakes.

 Home Quiz/Game Summary Profile

(10)

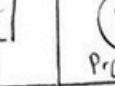
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Smart Edu



Thank you for using SmartEdu.

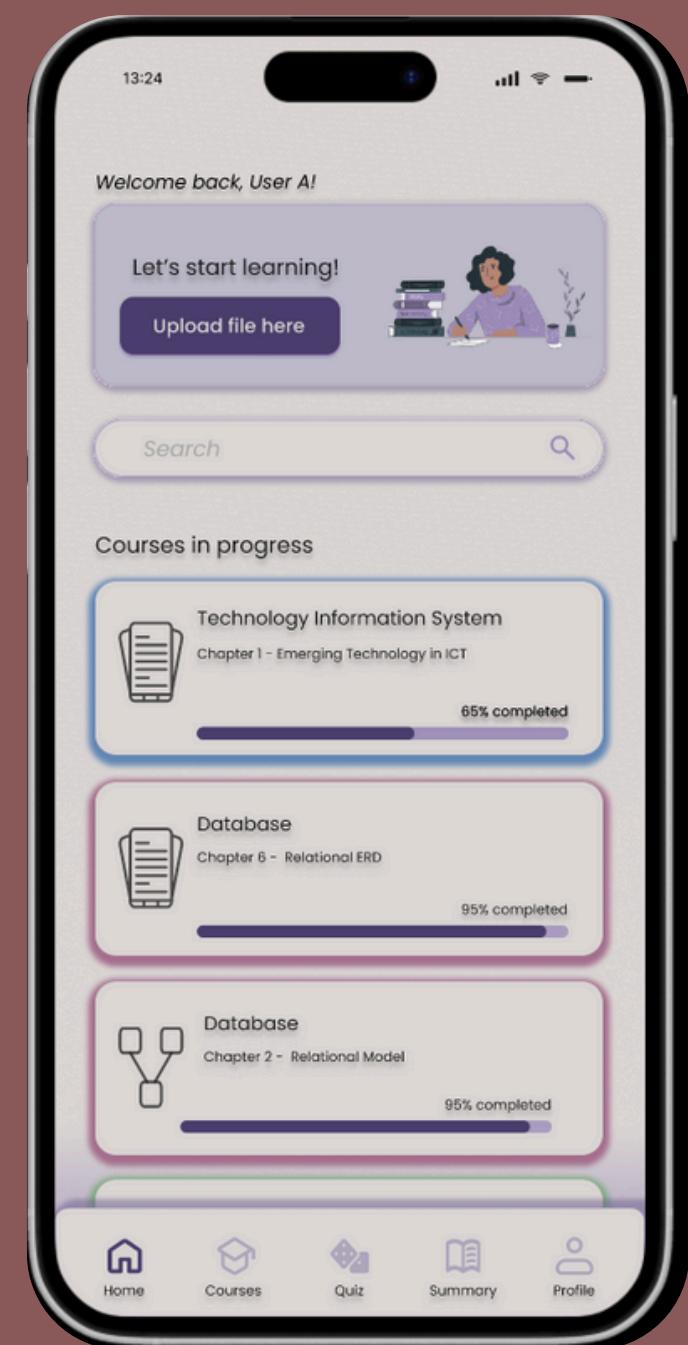
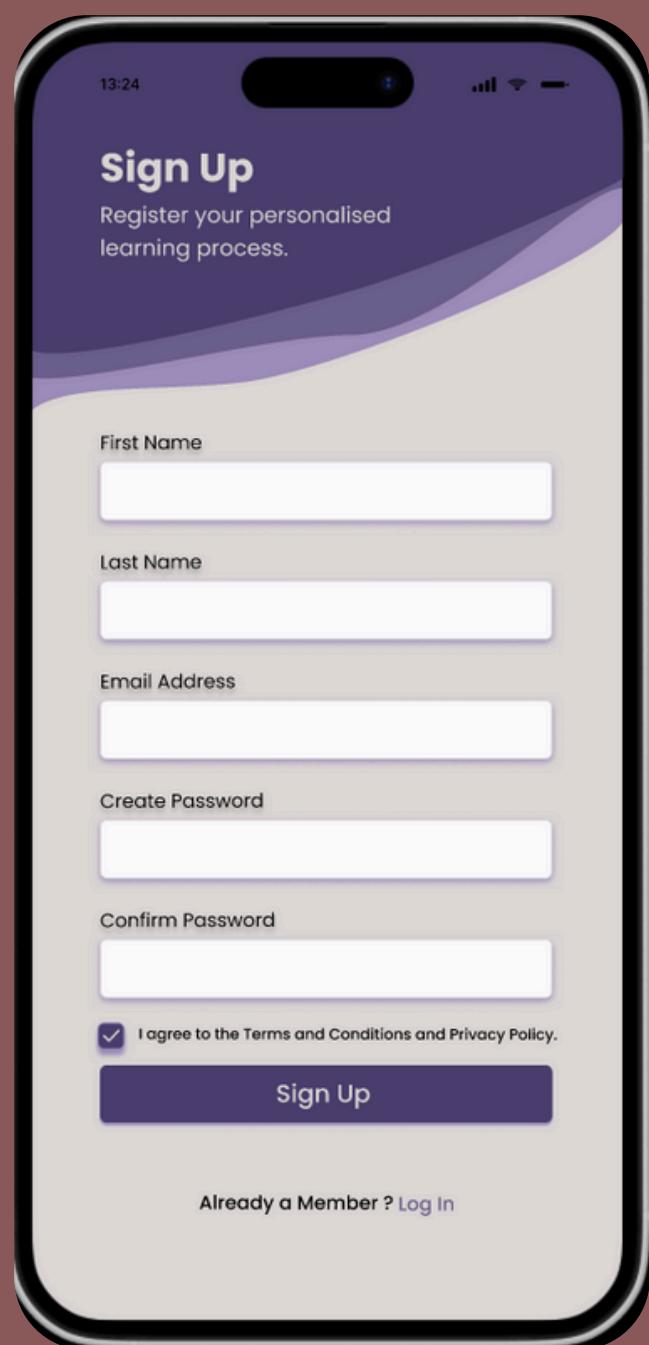
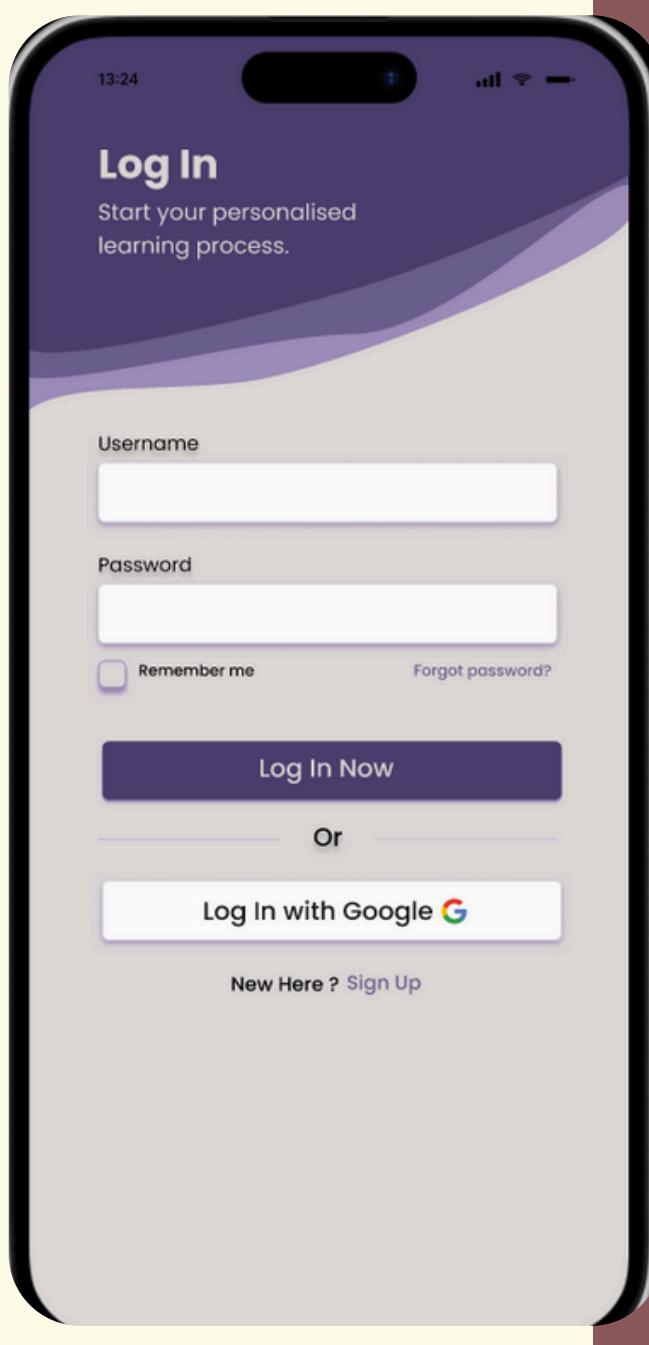
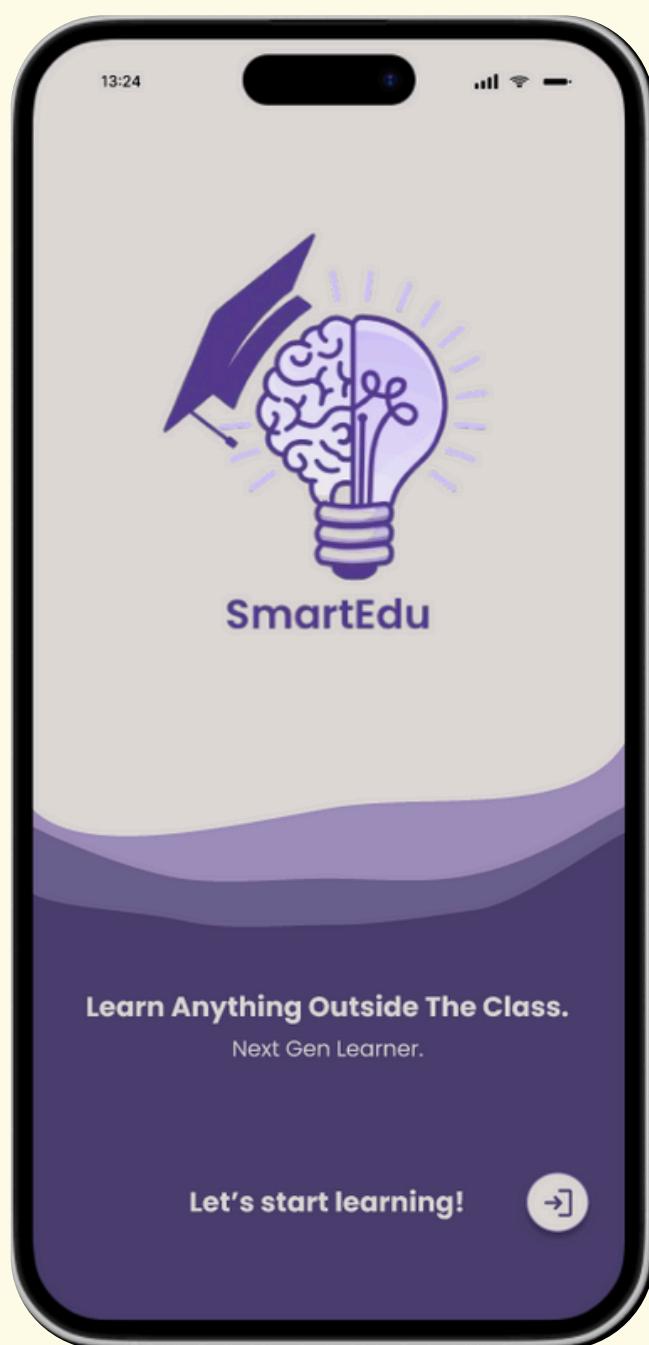
Please login everyday to get point for your badge (1)

 Home Quiz/Game Summary Profile

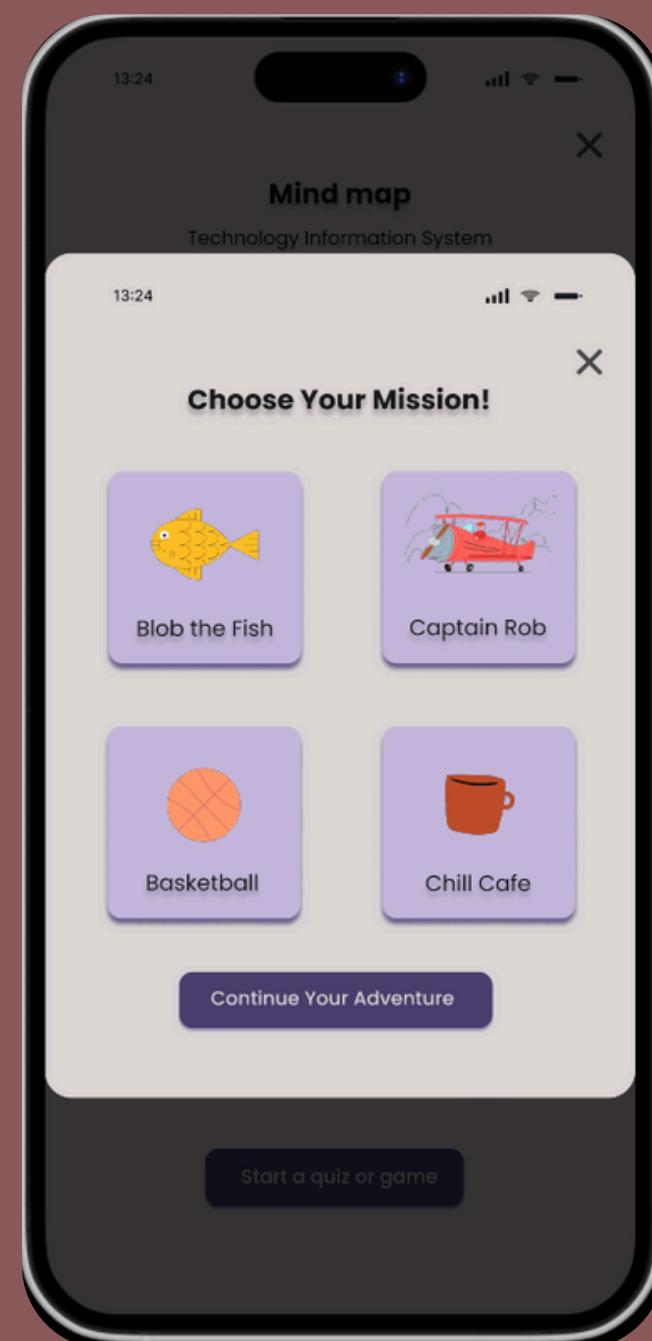
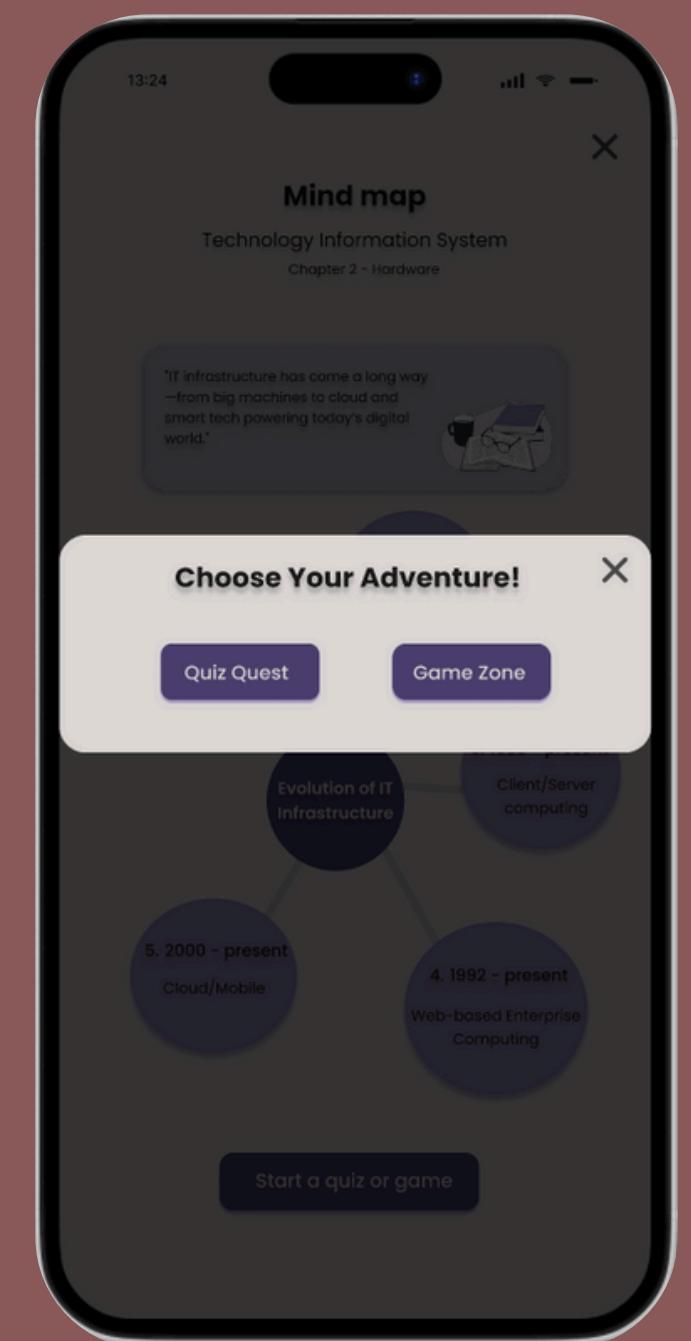
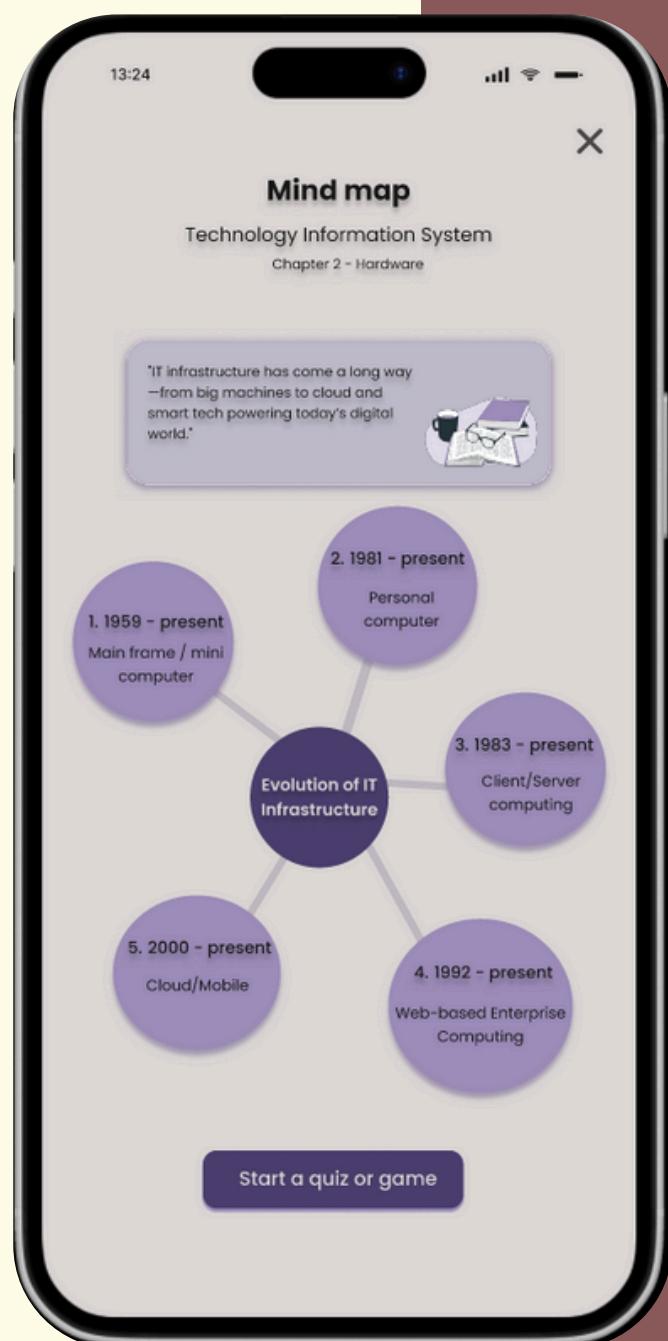
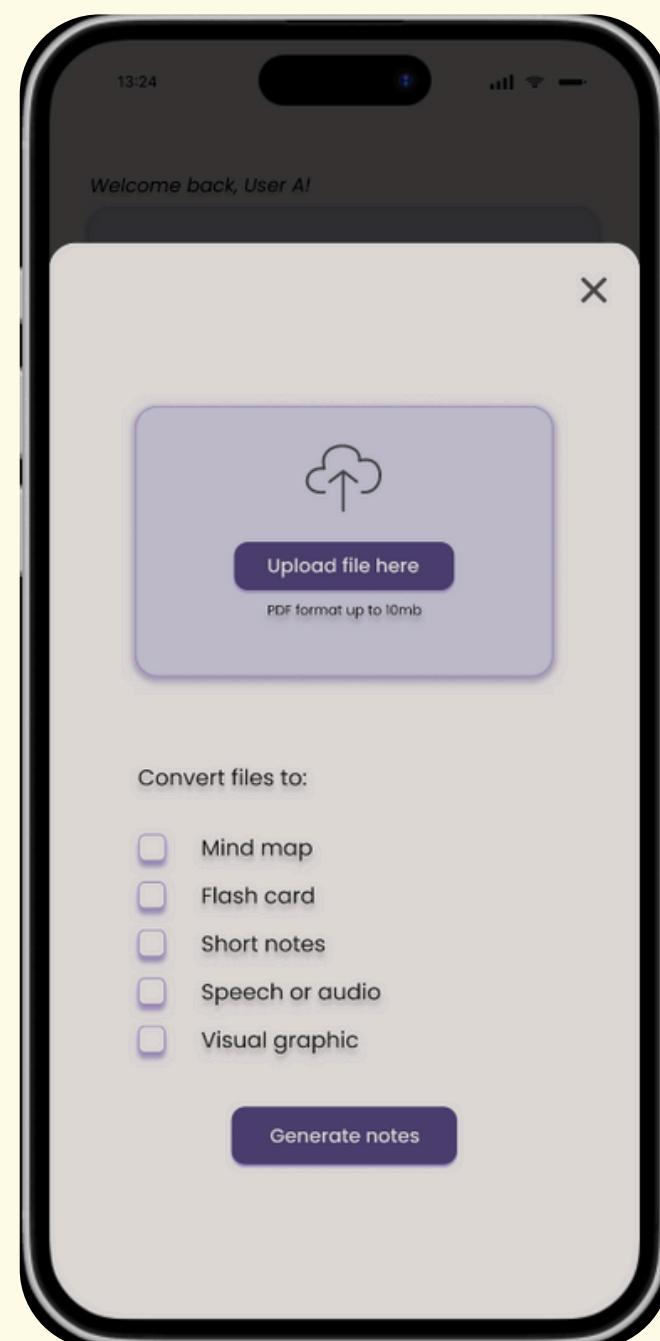
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PROTOTYPE

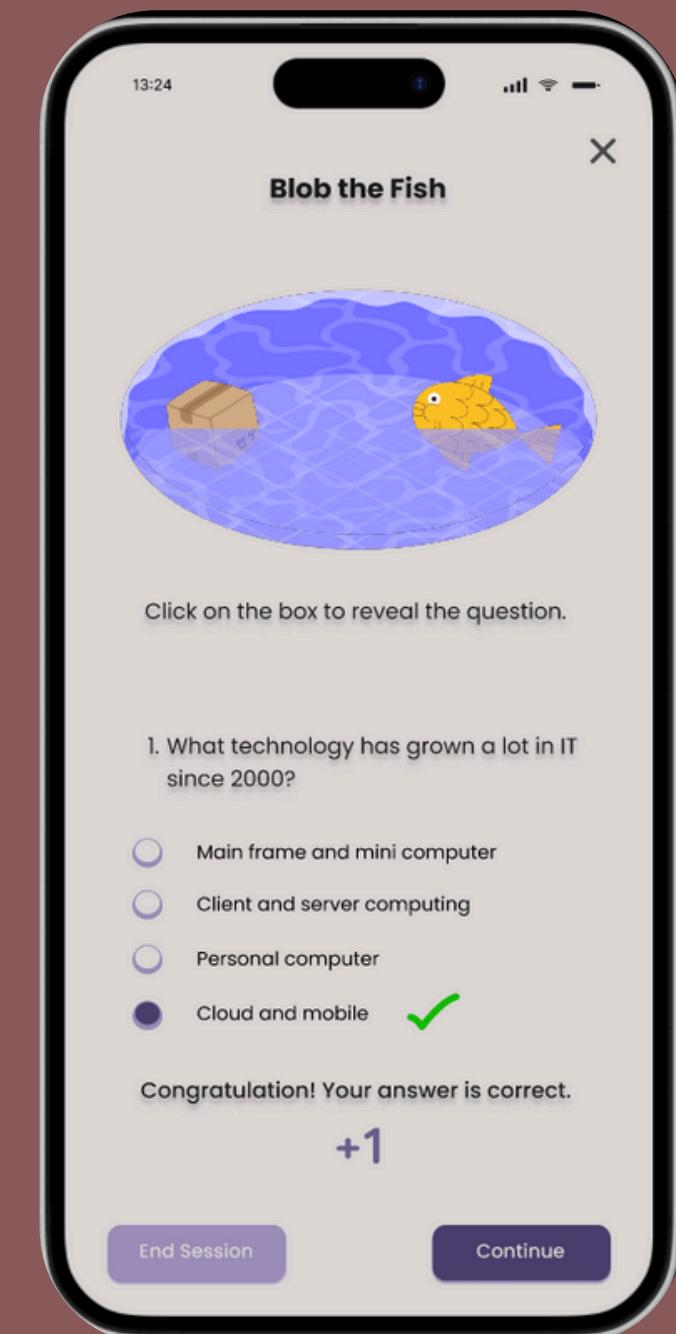
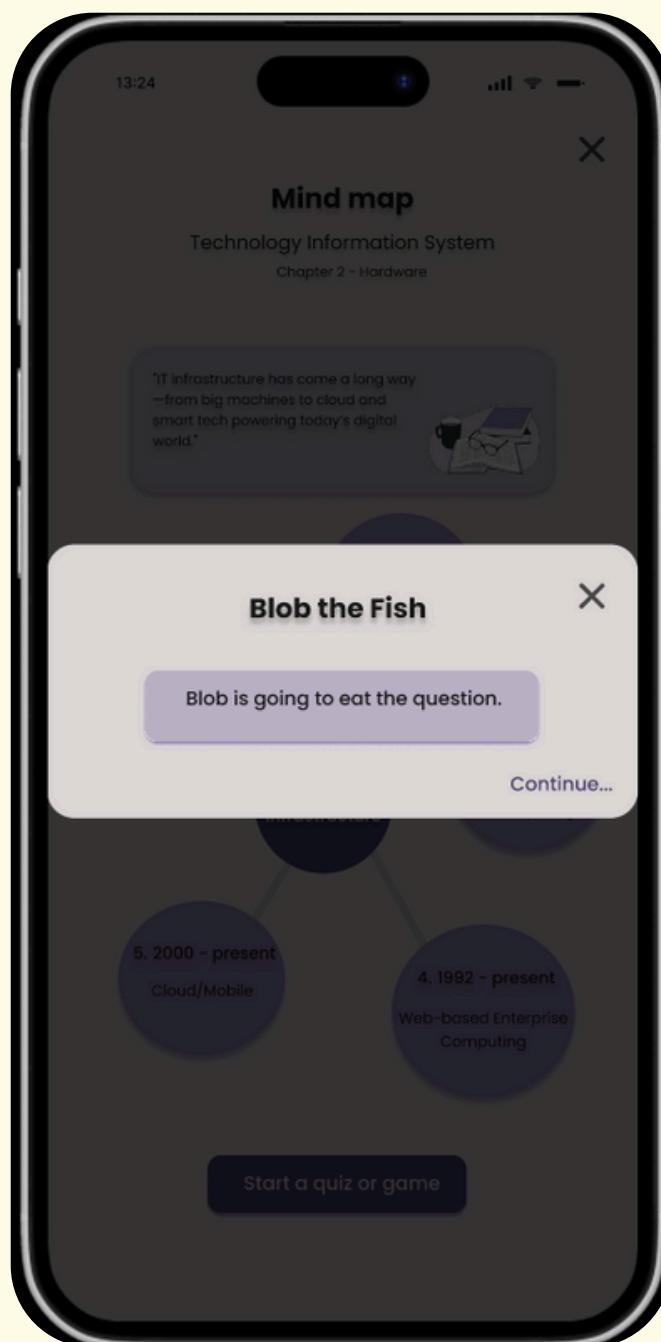
PROTOTYPE - FIGMA



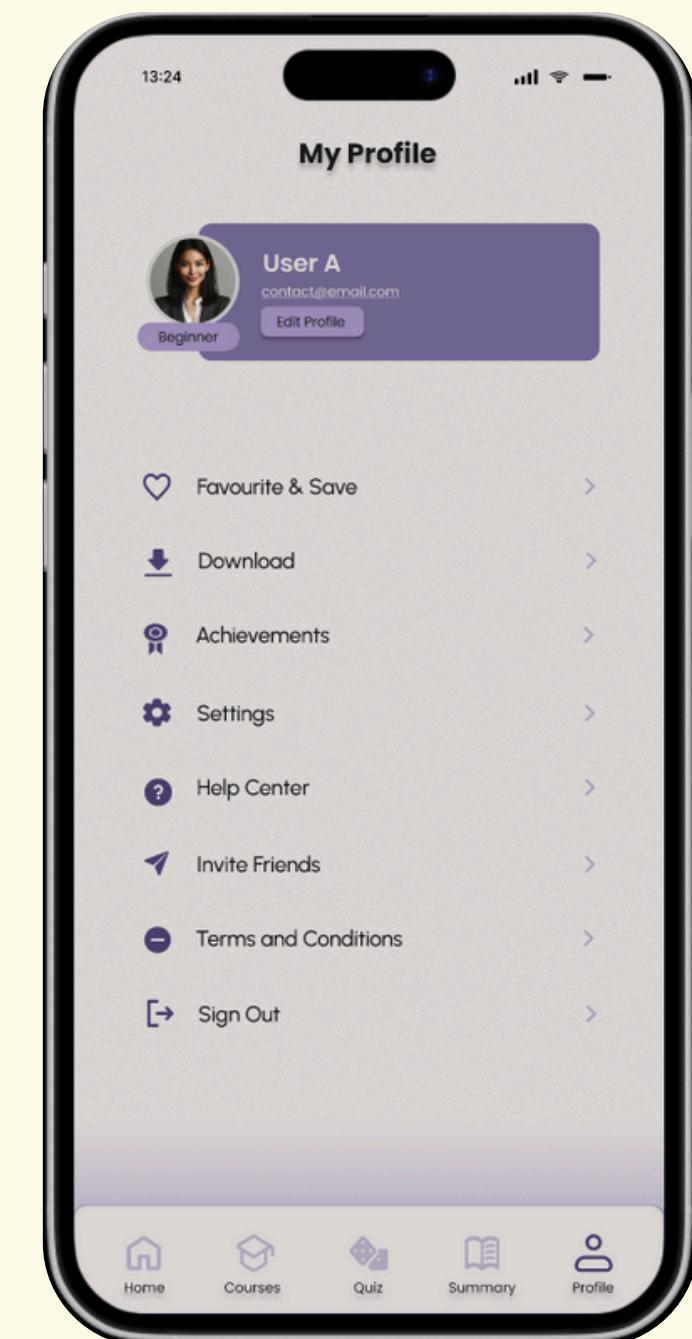
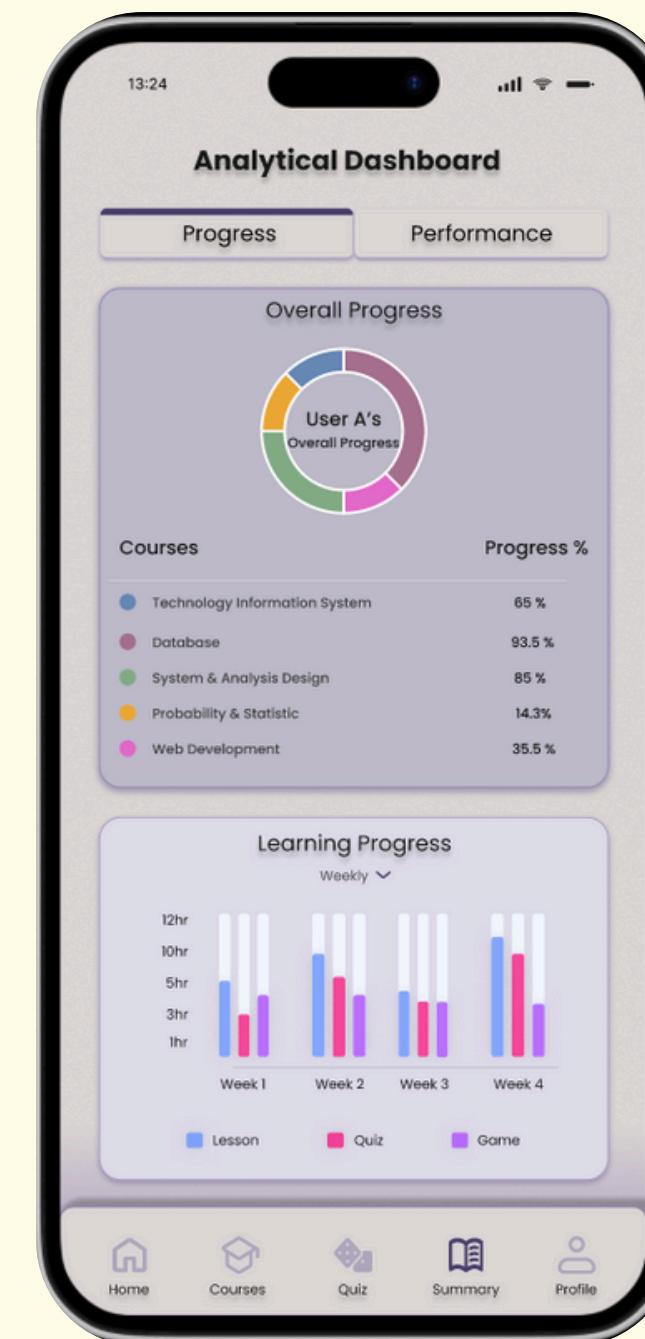
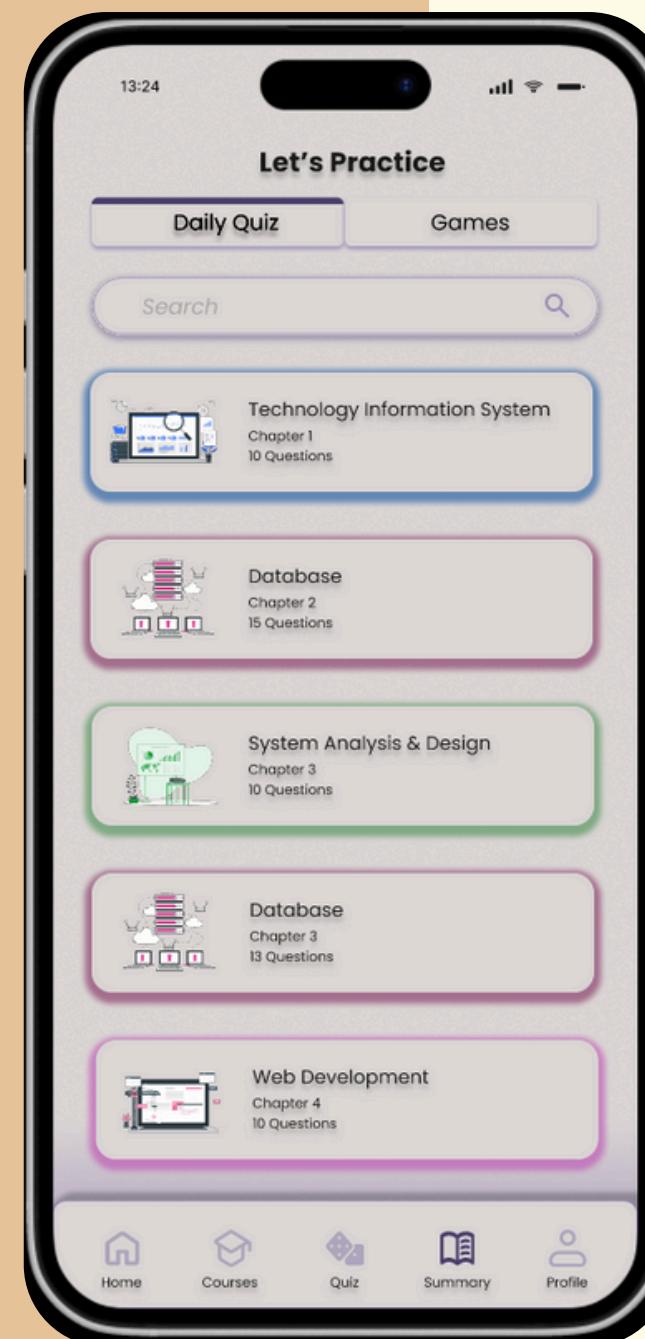
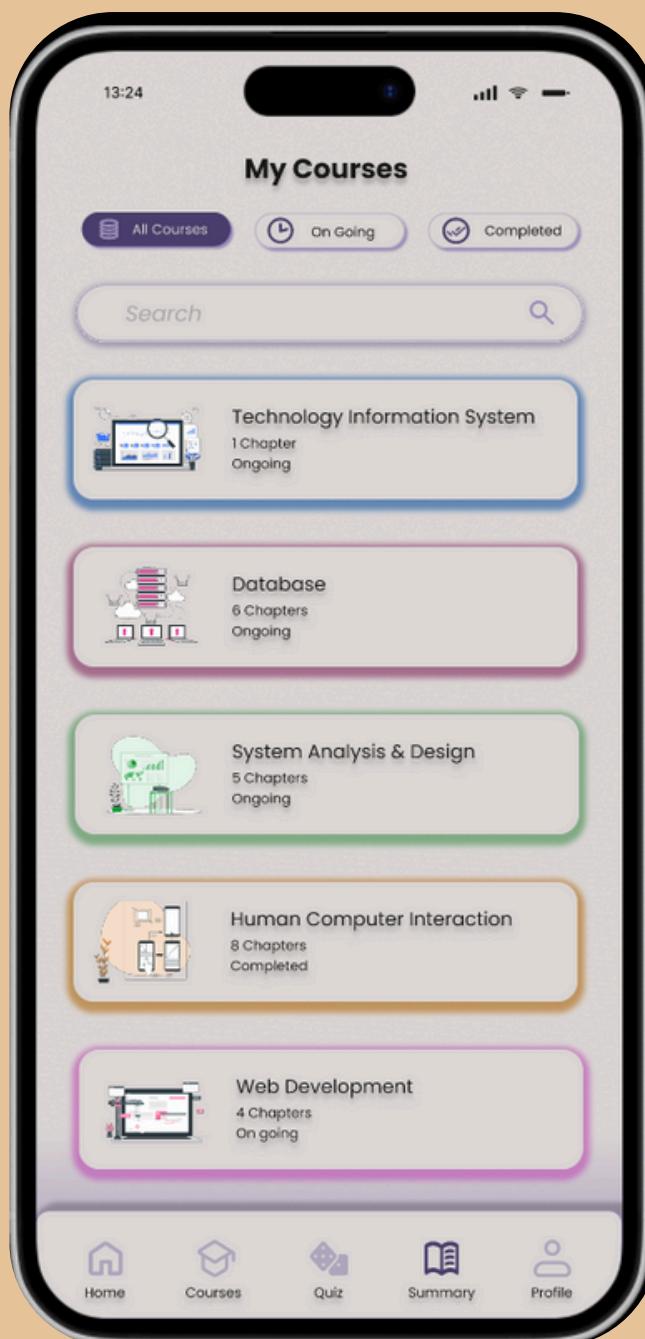
PROTOTYPE - FIGMA



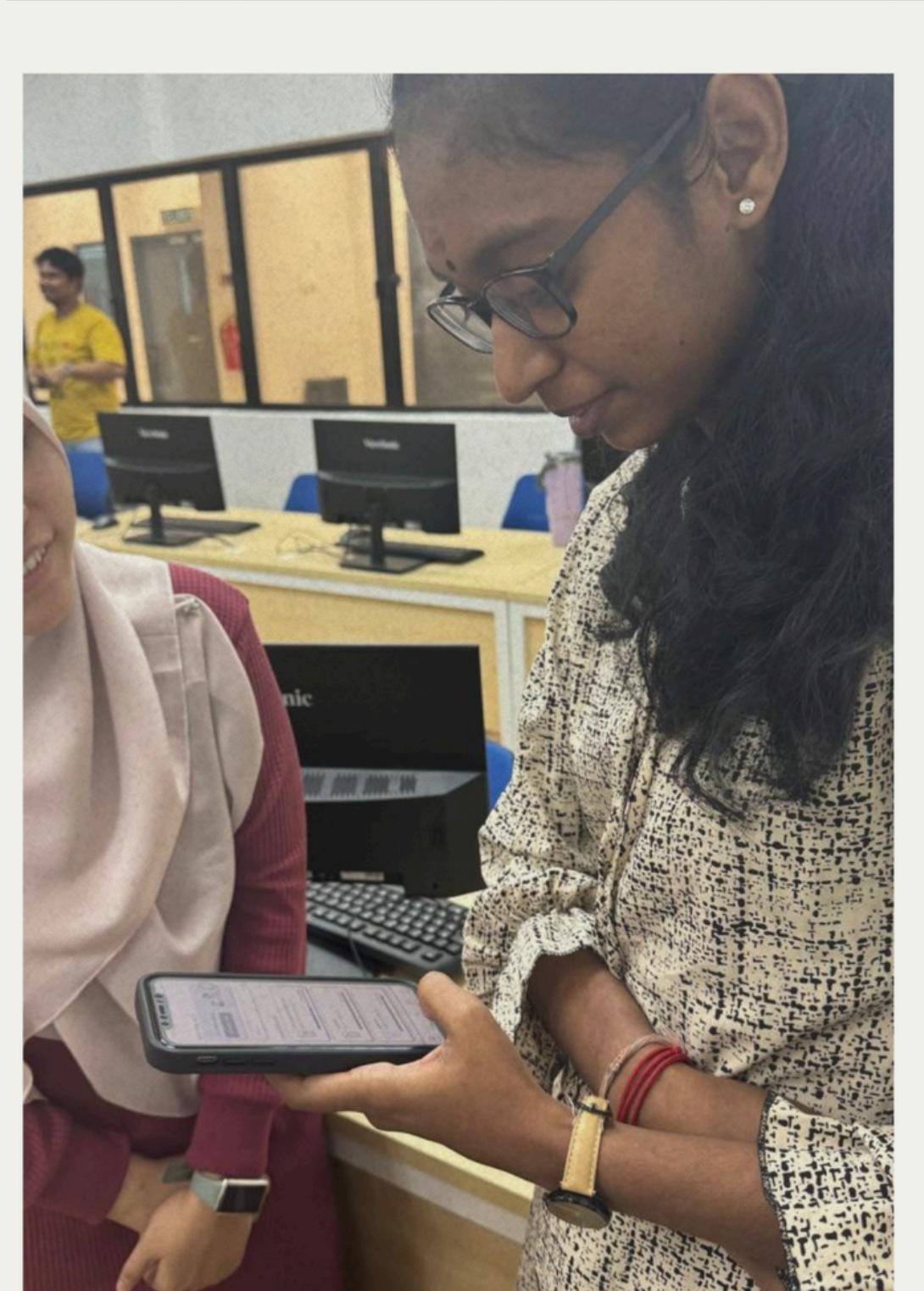
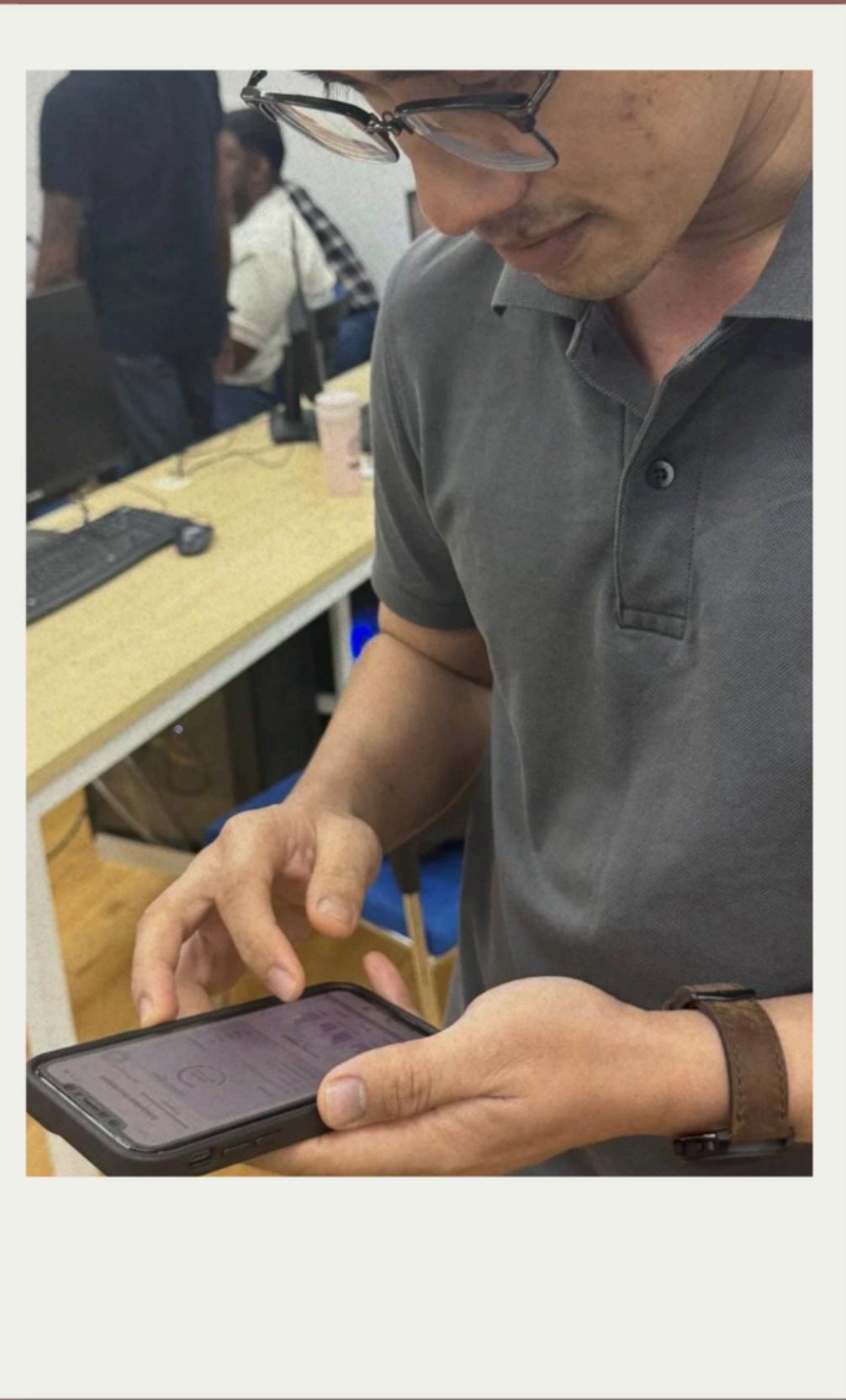
PROTOTYPE - FIGMA



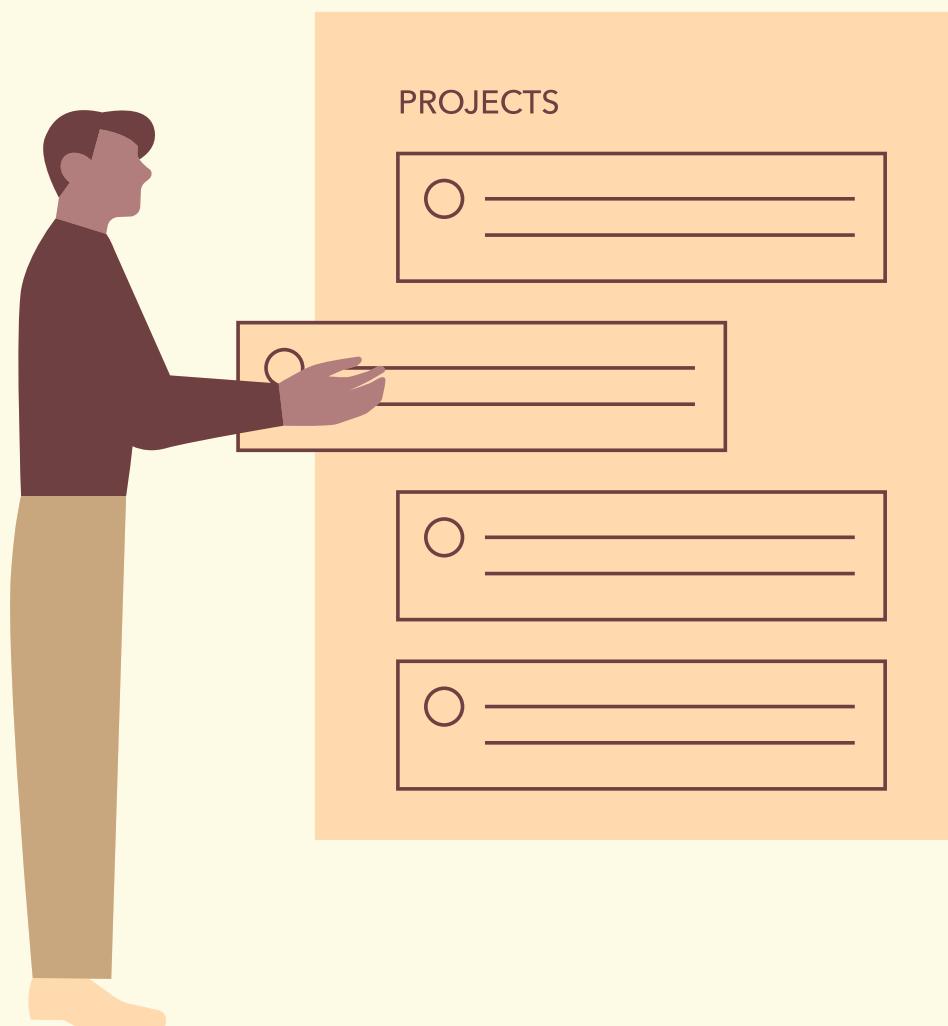
PROTOTYPE - FIGMA



USER TESTING



CONCLUSION



- SmartEdu responds to real student challenges
- Design Thinking helped ensure user focused development
- The app promotes engagement, inclusion, and academic success
- Big Data and AI are powerful tools for educational innovation

♪..THANK YOU!..♪

