Marathwada Mitramandal's

COLLEGE OF ENGINEERING, PUNE

An Autonomous Institute

'येथे बहुतांचे हित ।'

Project Based Learning

Title of Project :Educational Platform Enhancement: Improve the user interface and user experience of an online learning platform, incorporating features for better engagement and learning outcomes.

Sr.No	Name of Students	PRN No
1	Sairam Pampatwar	B24IT1051
2	Ranveer Shinde	B24IT1053
3	Aditya Patil	B24IT1127
4	Shivam Mandhani	B24IT1055

Date: 26/04/2025

Faculty In-Charge
Ms.P.B.Warungse

CHAPTER 1

Introduction

1.1 Brief overview of the project.

The aim of this project is to create an enhanced educational platform that redefines how learners interact with digital content. Traditional e-learning systems often focus on delivering information but lack the engagement, personalization, and accessibility that modern users expect. This project addresses those gaps by integrating user-centered design principles and advanced technology to create a more dynamic, effective, and inclusive learning experience.

This project is not only about aesthetics—it's about functionality and impact. By enhancing the UX/UI of the platform, we aim to increase user satisfaction, improve educational outcomes, and create an environment where learners feel motivated and supported. The platform will cater to a broad spectrum of users, including students, educators, and administrators, each benefiting from a streamlined and adaptive interface designed for their specific needs.

1.2 Objective:

1.Improve user engagement through intuitive and accessible design.
2.Enhance learning outcomes with interactive and personalized features.
3.Streamline course navigation and content consumption.
4.Foster collaboration and motivation through community-driven tools.

Importance of UX in Educational Platforms

A strong UX ensures that learners can easily focus on content without technical barriers or confusion. It reduces dropout rates, boosts motivation, and makes the platform inclusive for all types of learners. Well-designed UX builds trust, promotes consistent usage, and supports diverse learning styles effectively.

CHAPTER 2

UX Research Report

2.1 Research Methods

To understand the specific needs and challenges faced by NEET and MHT-CET aspirants, we conducted:

- **Surveys**: Distributed to high school students across Maharashtra and India preparing for NEET and MHT-CET.
- **User Interviews**: Conducted with students, coaching center teachers, and parents to get a well-rounded view.
- **Competitive Analysis**: Evaluated popular platforms like BYJU'S, Unacademy, Physics Wallah, and Embibe.

2.2 Survey Results & Interviews

Survey Insights

Common Challenges:

- Time Management: 62% struggle to balance school, coaching, and self-study.
- Concept Clarity: 49% need more visual aids and doubt-clearing sessions.
- Motivation: 41% lose momentum due to a lack of progress tracking or peer competition.

User Needs:

- Daily Study Planner with Timed Reminders
- Instant Doubt Solving & Mentorship
- Topic-wise Tests with AI Feedback
  Preferred Features:
- Live & recorded lectures
- Weekly mock tests with NEET/MHT-CET level difficulty
- Performance analytics dashboard
- Gamified leaderboards

Interview Summaries

Functional Requirements

Adaptive test generation

Interactive quizzes and revision tools

Subject-wise performance analysis

Bookmark & note-taking tools

Non-Functional Requirements

Low-latency streaming even on 3G networks

24/7 uptime during peak exam seasons

Data privacy for minors (GDPR-compliant)

Mobile-first design (90% users on phones)

Common Pain Points:

- Generic content, not exam-specific
- Lack of performance feedback after tests
- Slow or delayed doubt resolution
- Boring UI, especially for long study sessions

2.3 User Personas

Persona 1: Aryan – NEET 2025 Aspirant (Dropper Year)

- **Age**: 18
- **Goals**: Crack NEET and get into a government medical college
- **Frustrations**: Gets overwhelmed with syllabus
- **Behaviors**: Studies 10+ hours/day, prefers structured planning
- **Motivations**: Family pressure and personal ambition

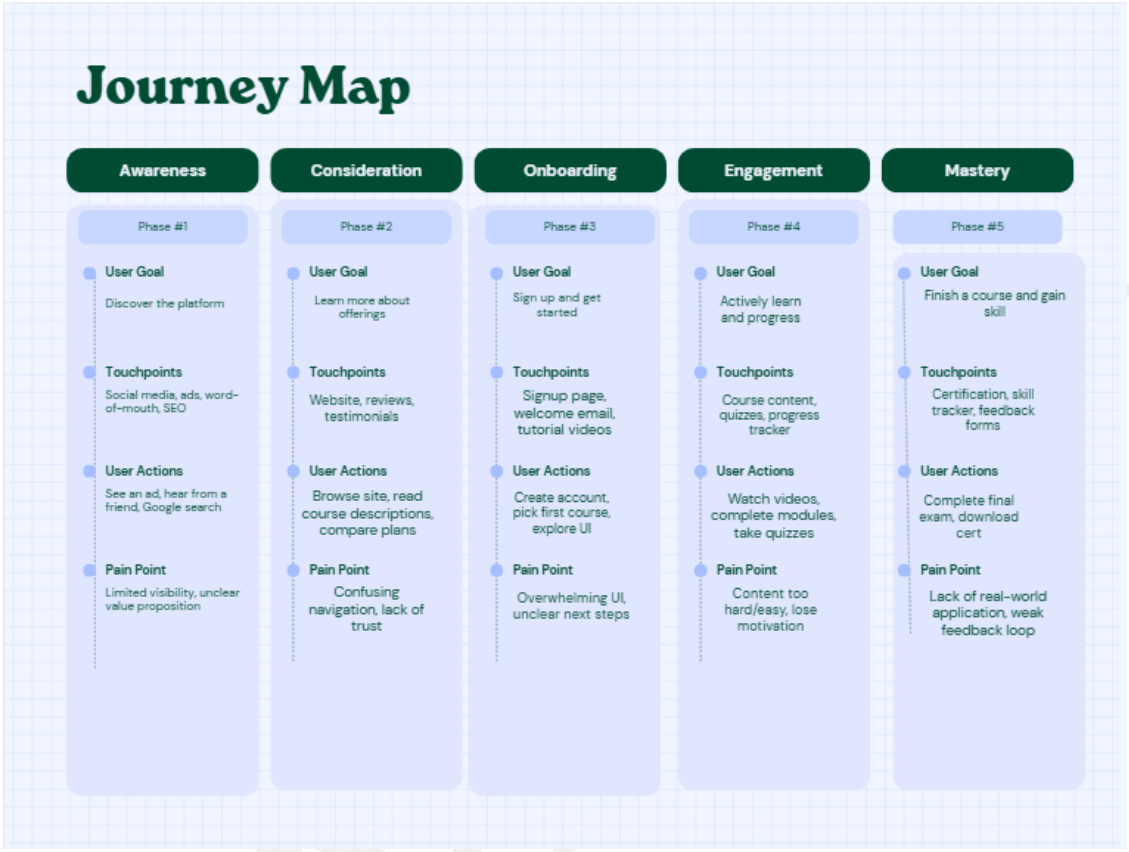
Persona 2: Kavya – MHT-CET 2025 Aspirant (State Board)

- **Age**: 17
- **Goals**: Score 99+ percentile for Engineering
- **Frustrations**: Difficult to find CET-specific mock tests
- **Behaviors**: Studies in the evening; prefers mobile learning
- **Motivations**: Wants to get into COEP/PCCOE

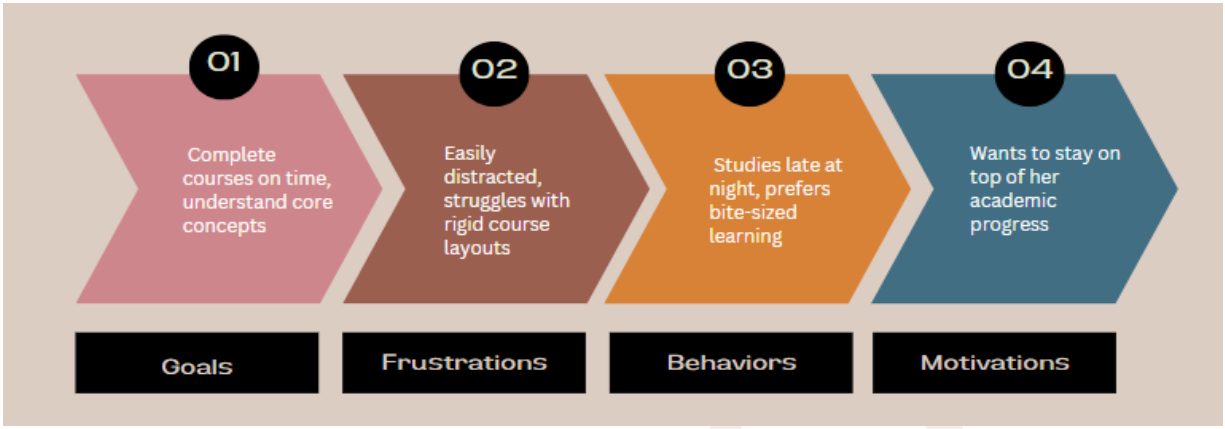
Persona 3: Ananya – NEET 2026 Aspirant (11th Grade)

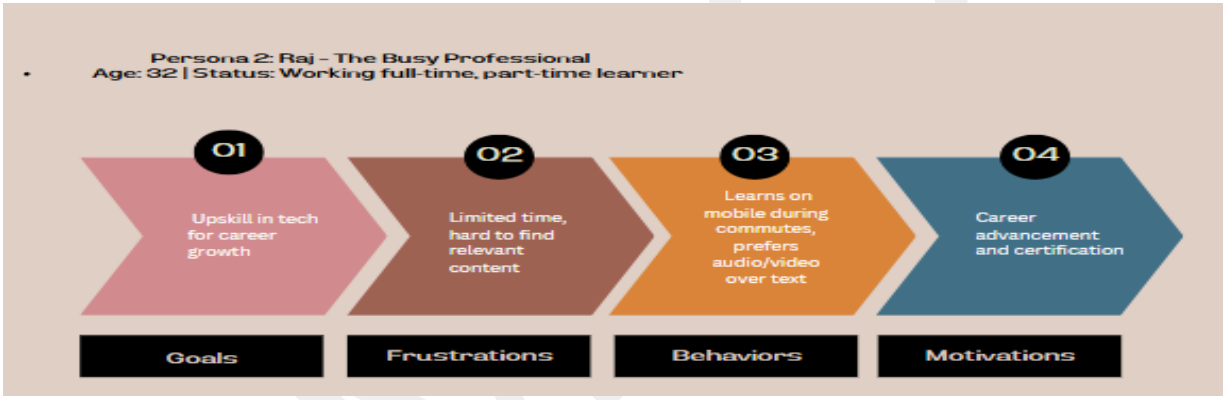
- **Age**: 16
- **Goals**: Build a strong foundation for NEET 2026
- **Frustrations**: Finds long videos boring and hard to retain
- **Behaviors**: Mixes coaching + self-study; uses flashcards
- **Motivations**: Dreams of becoming a pediatrician

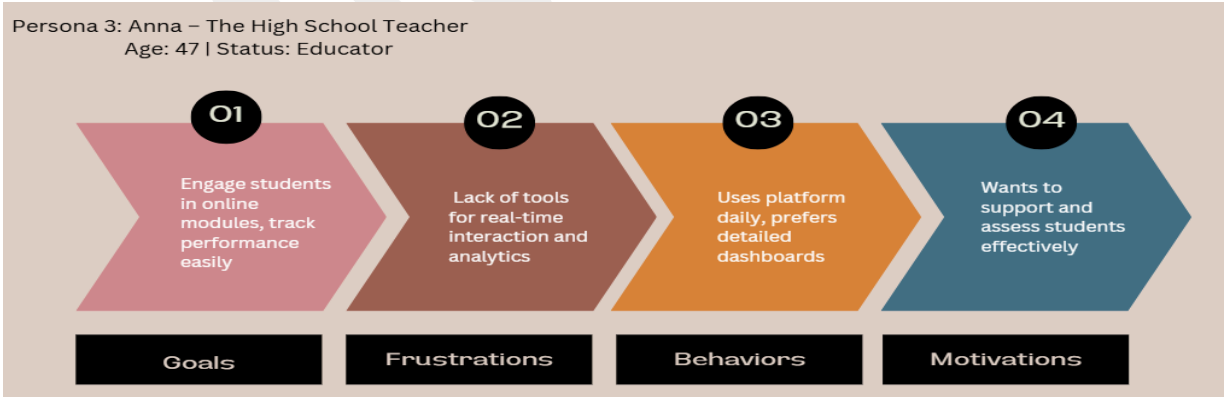
2.4 Journey Maps



Persona 1: Aryan – NEET 2025 Aspirant (Dropper Year)



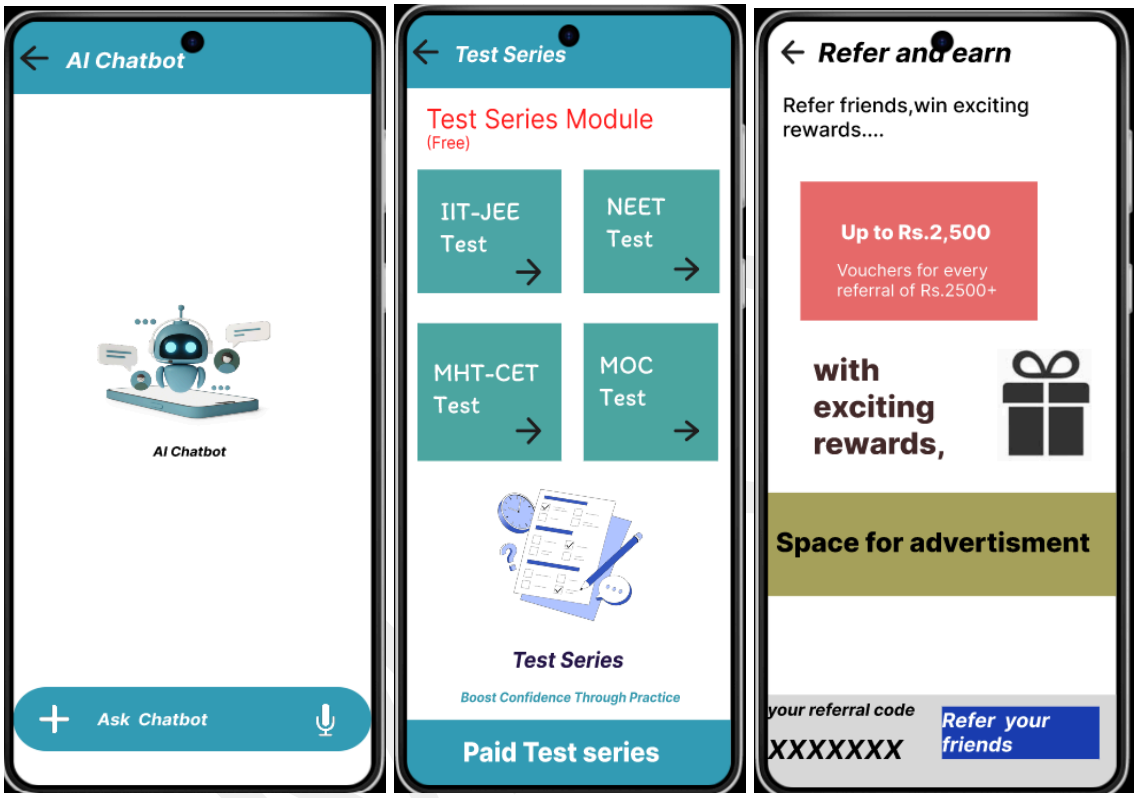




CHAPTER 3

UX Audit Document

3.1 Key UX Issues Identified



1. AI-Powered Personalized Learning Paths

Recommends courses, videos, and exercises based on the learner's performance, preferences, and goals.
Adapts difficulty level in real time for quizzes and tasks.

2. Smart Tutor / Chatbot Assistant

24/7 support for answering doubts or explaining concepts using natural language.
Can assist with navigation, assignment reminders, and FAQs.

3.Automated Grading and Feedback

Instantly evaluates multiple-choice, fill-in-the-blank, and short answer questions.
Provides personalized feedback on essays using NLP (Natural Language Processing).

4. Predictive Analytics

Identifies students at risk of falling behind and alerts educators.
Tracks learning behavior to forecast outcomes and recommend interventions.

5 Voice-to-Text & Text-to-Speech

Students can dictate notes or answers.
Lessons and quizzes can be read aloud for accessibility and multitasking.

6.Plagiarism Detection

Scans student submissions for originality using AI-powered plagiarism detection tools.

7. Content Summarization & Highlighting

Automatically generates concise summaries of long articles or lecture transcripts.
Highlights key points and definitions to aid in revision.

8 Image Recognition for Assignments

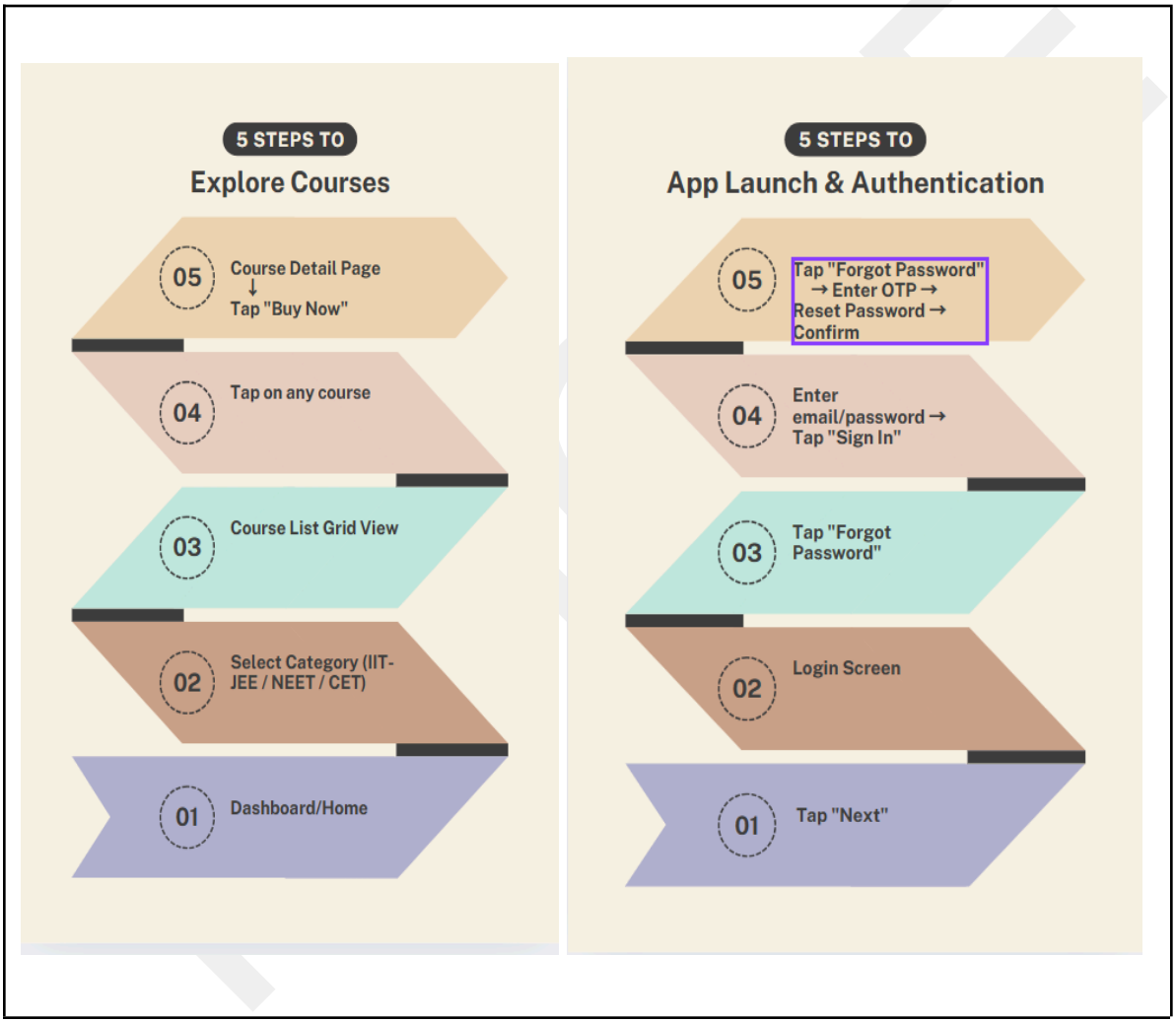
Students can upload handwritten or scanned documents; AI can read and convert them into editable text.
Useful for math equations, diagrams, or offline homework.

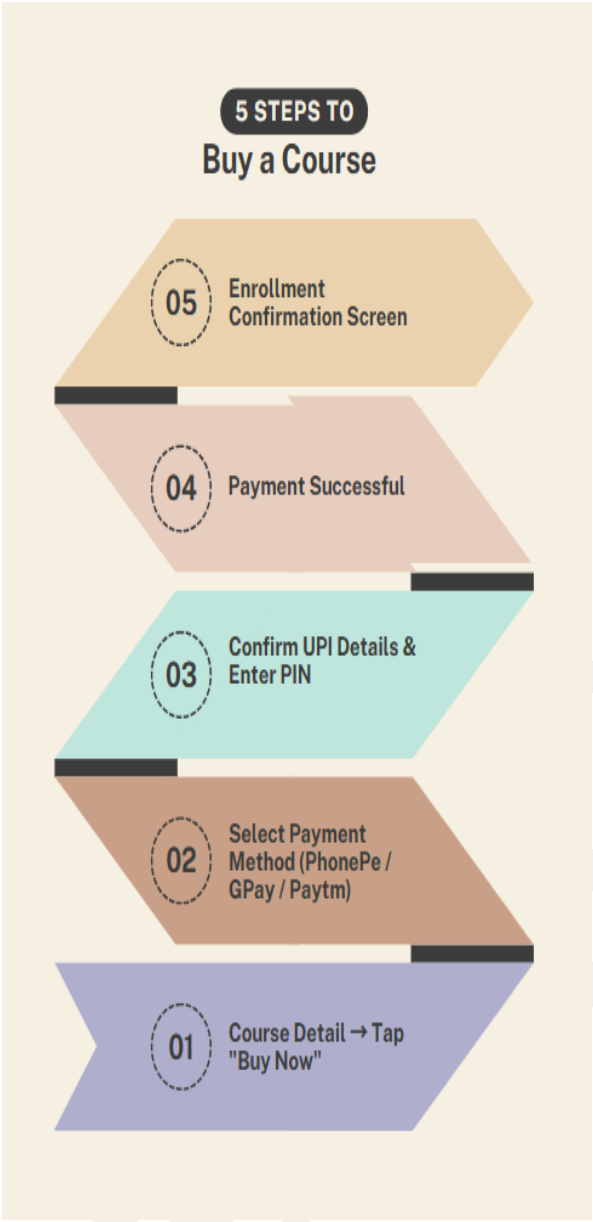
Chapter 4

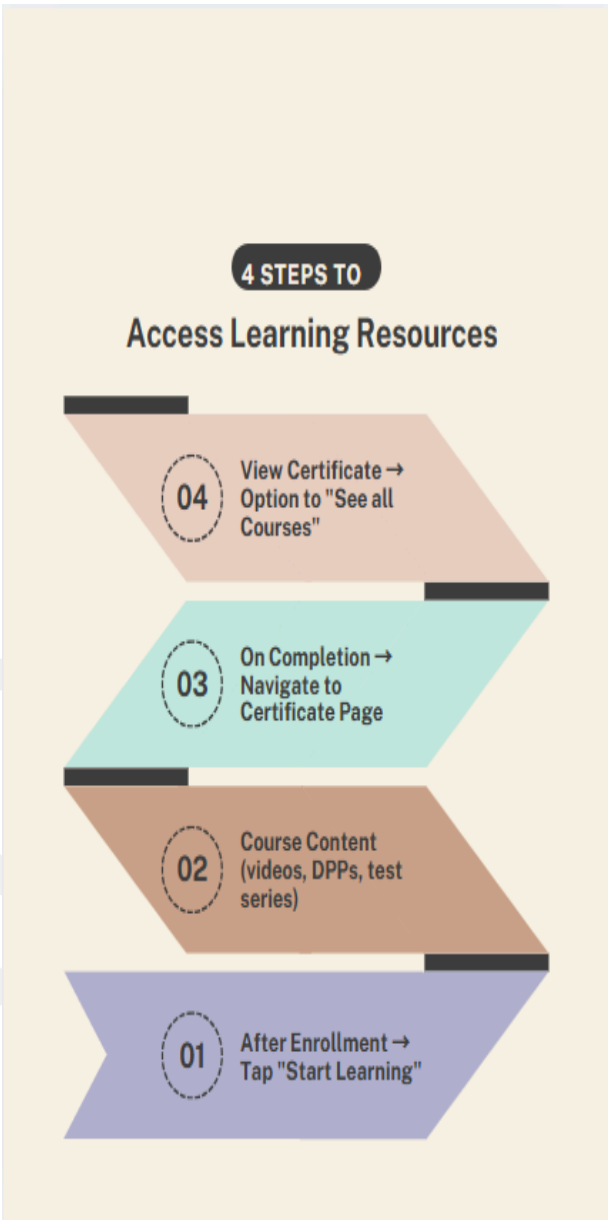
Task Flows & Sitemap

4.1 Task Flows

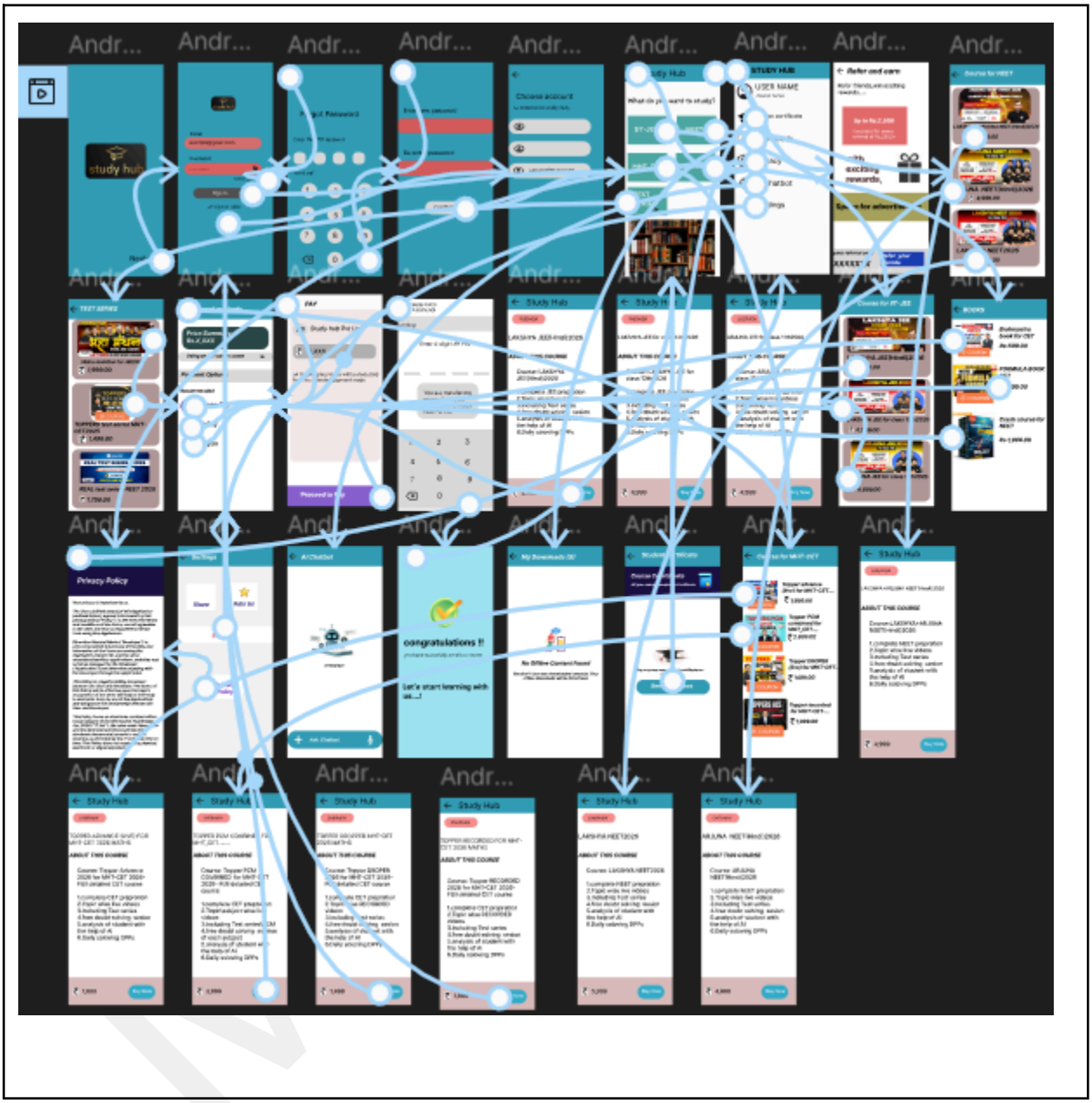
- Define step-by-step user interactions for:




5 STEPS TO
Buy a Course
05
Enrollment Confirmation Screen
04
Payment Successful
03
Confirm UPI Details & Enter PIN
02
Select Payment Method (PhonePe / GPay / Paytm)
01
Course Detail → Tap "Buy Now"


4 STEPS TO
Access Learning Resources
04
View Certificate → Option to "See all Courses"
03
On Completion → Navigate to Certificate Page
02
Course Content (videos, DPPs, test series)
01
After Enrollment → Tap "Start Learning"

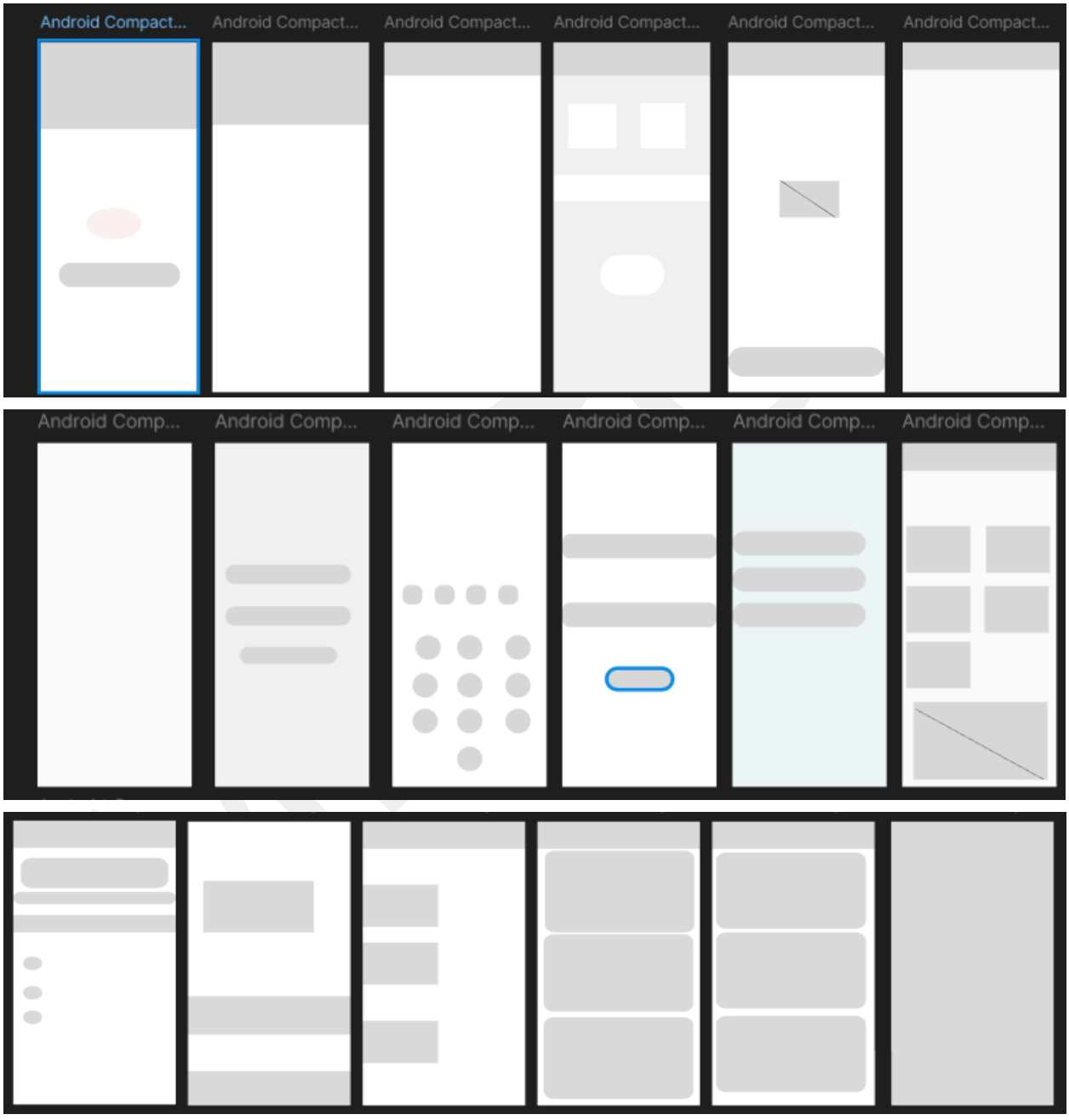
4.2 Sitemap

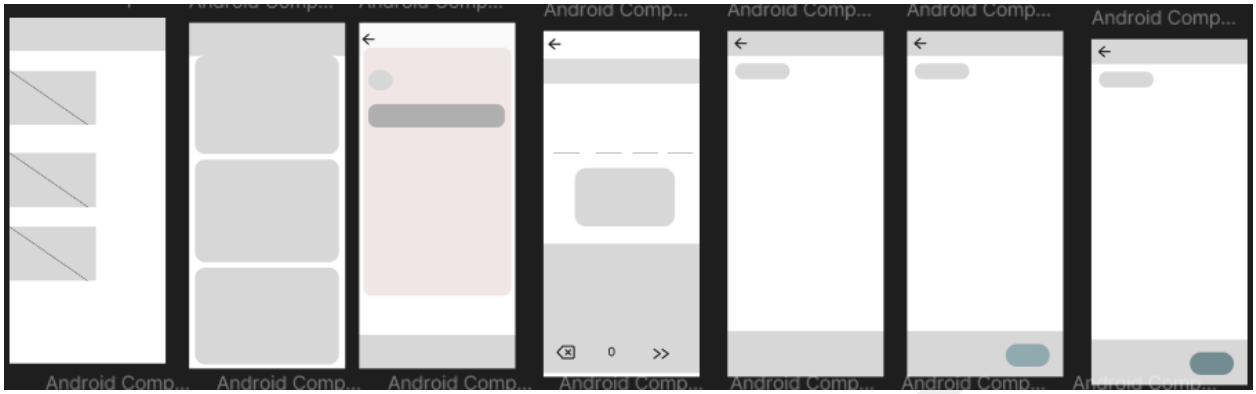


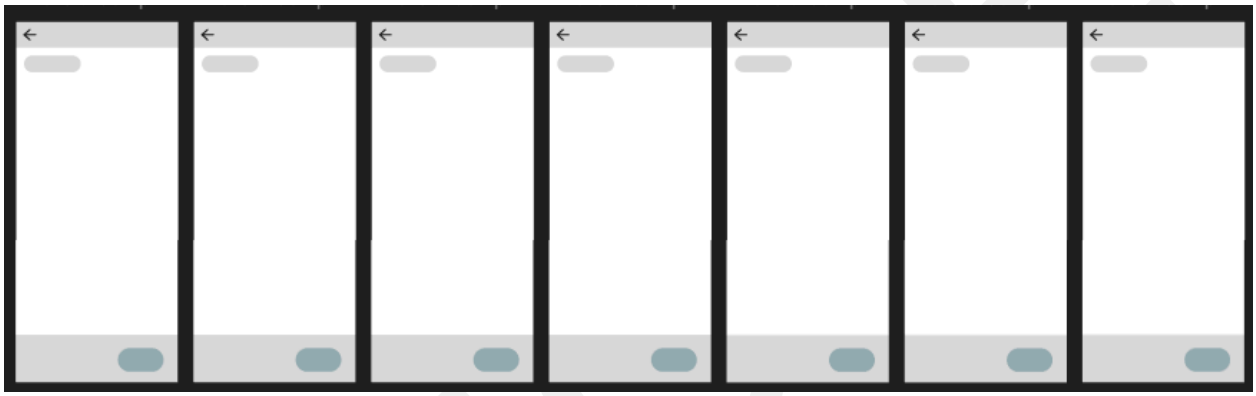
Chapter 5

Wireframes & Interactive Prototype (Figma)

5.1 Low-Fidelity Wireframes







5.2 High-Fidelity Wireframes

Prototype

Chapter 6

Style Guide (UI Components, Typography, Color Scheme)

- **Typography** (Primary & secondary fonts).

Typography

Headings (H1, H2, H3): "DM Sans"
Body Text & Labels: "Manrope"
Buttons & Inputs: "Space Grotesk"

H1 The quick brown fox jumps over the lazy dog

H2 The quick brown fox jumps over the lazy dog

H3 The quick brown fox jumps over the lazy dog

Text The quick brown fox jumps over the lazy dog

puts The quick brown fox jumps over the lazy dog

Color Palette (Financially trustworthy colors like blue, green, neutral tones).

Chapter 7

Findings, Designs & Improvements

7.1 Key Research Insights

Navigation Issues: Complex menus and cluttered dashboards make course discovery difficult.

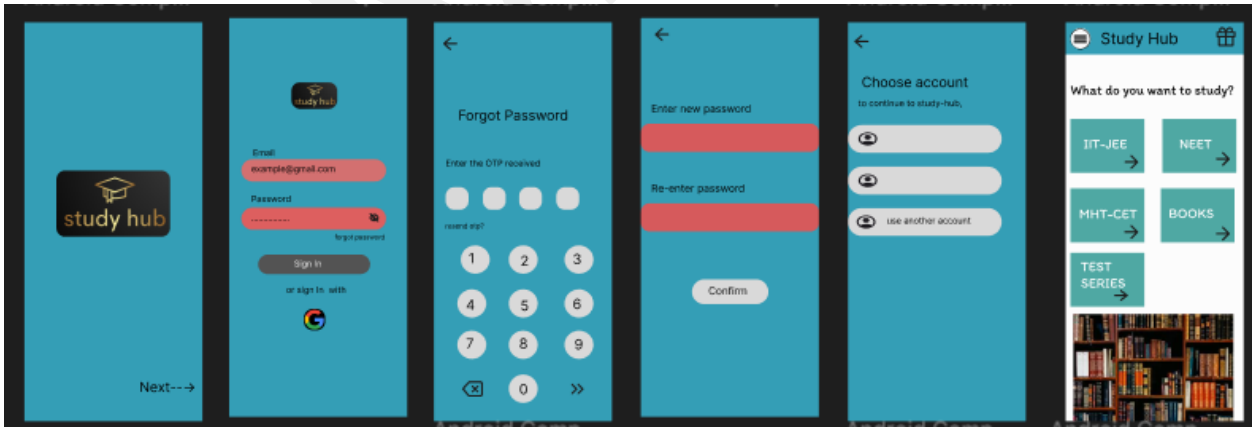
Engagement Challenges: Passive content (videos) leads to disengagement.

Lack of Personalization: No tailored recommendations or adaptive learning paths.

Progress Tracking: Unclear visual progress feedback.

Community Features: Limited interaction spaces for peer support.

7.2 Final Design Showcase

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course certificate
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AI chatbot
Settings
Refer and earn
Refer friends,win exciting rewards....
Up to Rs.2,500
Vouchers for every referral of Rs.2500+
with exciting rewards,
Space for advertisment
your referral code
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LAKSHYA JEE(Hindi)2026
₹ 2,799.00
LAKSHYA JEE for class 12th2026
₹ 4,999.00
ARJUNA JEE for class 11th2026
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Course for NEET
LAKSHYA+ARJUNA NEET(Hindi)2026
₹ 4,999.00
ARJUNA NEET(Hindi)2026
₹ 4,999.00
LAKSHYA NEET2026
₹ 5,999.00
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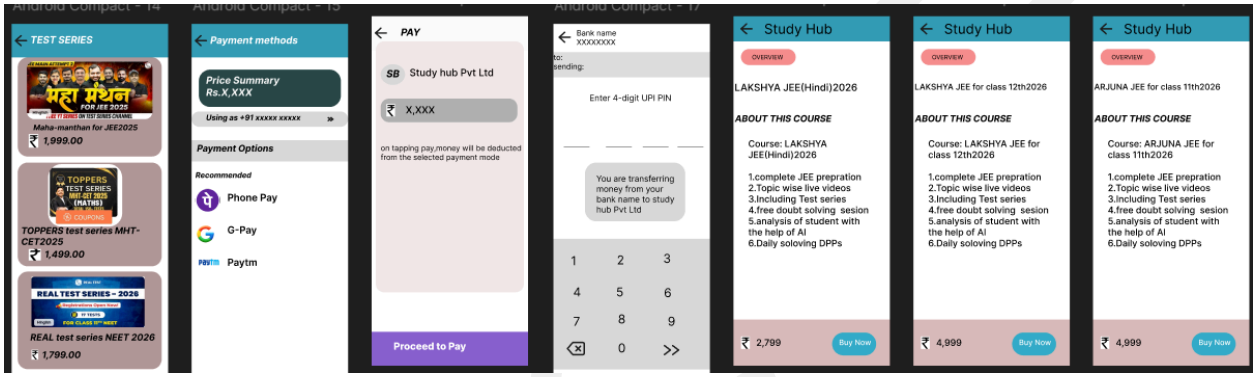
Rs.599.00
FORMULA BOOK CET
Rs.399.00
Crash course for NEET
Rs.1,999.00


TEST SERIES
Maha-manthan for JEE2025
₹ 1,999.00
TOPPERS test series MHT-CET2025
₹ 1,499.00
REAL test series NEET 2026
₹ 1,799.00
Payment methods
Price Summary
Rs.X,XXX
Using as +91 xxxxx xxxxx
Payment Options
Recommended
Phone Pay
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Study hub Pvt Ltd
X,XXX
on tapping pay,money will be deducted from the selected payment mode
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You are transferring money from your bank name to study hub Pvt Ltd
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OVERVIEW
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ABOUT THIS COURSE
Course: LAKSHYA JEE(Hindi)2026
1.complete JEE prepration
2.Topic wise live videos
3.Including Test series
4.free doubt solving sesion
5.analysis of student with the help of AI
6.Daily soloving DPPs
₹ 2,799
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Course: LAKSHYA JEE for class 12th2026
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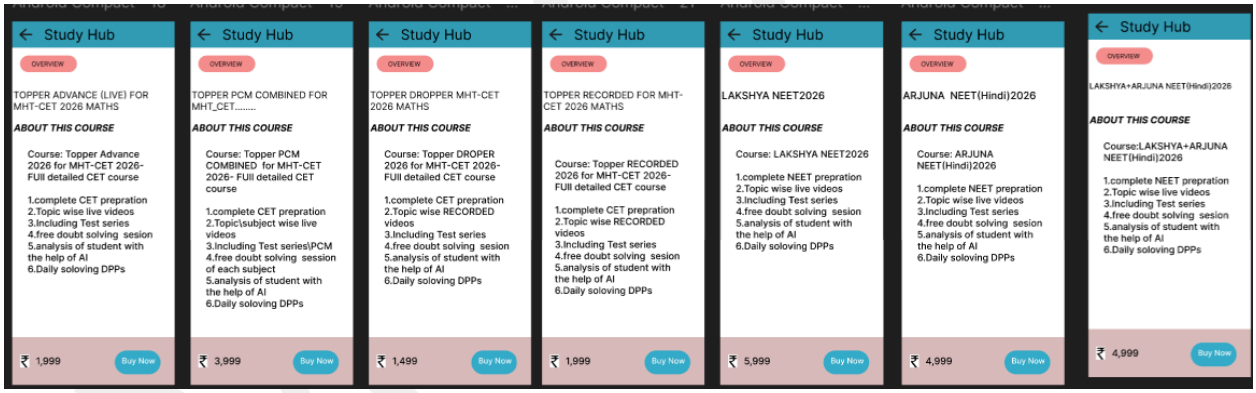
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OVERVIEW
TOPPER ADVANCE (LIVE) FOR MHT-CET 2026 MATHS
ABOUT THIS COURSE
Course: Topper Advance 2026 for MHT-CET 2026- FUll detailed CET course
1.complete CET prepration
2.Topic wise live videos
3.Including Test series
4.free doubt solving sesion
5.analysis of student with the help of AI
6.Daily soloving DPPs
₹ 1,999
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TOPPER PCM COMBINED for MHT_CET.....
Course: Topper PCM COMBINED for MHT-CET 2026- FUll detailed CET course
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3.Including Test series\PCM
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2.Topic wise RECORDED videos
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4.free doubt solving sesion
5.analysis of student with the help of AI
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2.Topic wise RECORDED videos
3.Including Test series
4.free doubt solving sesion
5.analysis of student with the help of AI
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Course: LAKSHYA NEET2026
1.complete NEET prepration
2.Topic wise live videos
3.Including Test series
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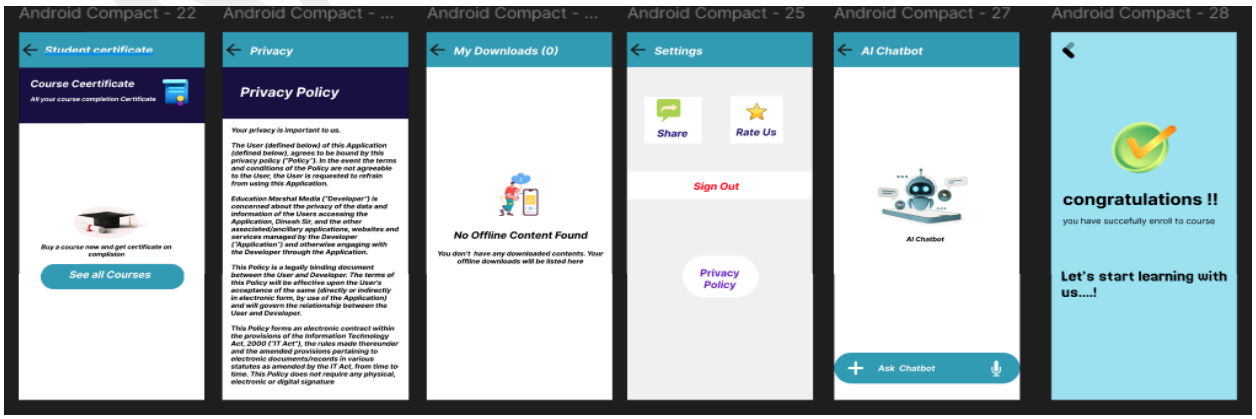
₹ 4,999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The User (defined below) of this Application (defined below), agrees to be bound by this privacy policy ("Policy"). In the event the terms and conditions of the Policy are not agreeable to the User, the User is requested to refrain from using this Application.
Education Marshal Media ("Developer") is concerned about the privacy of the data and information of the Users accessing the Application, Dinesh Sir, and the other associated/ancillary applications, websites and services managed by the Developer ("Application") and otherwise engaging with the Developer through the Application.
This Policy is a legally binding document between the User and Developer. The terms of this Policy will be effective upon the User's acceptance of the same (directly or indirectly in electronic form, by use of the Application) and will govern the relationship between the User and Developer.
This Policy forms an electronic contract within the provisions of the Information Technology Act, 2000 ("IT Act"), the rules made thereunder and the amended provisions pertaining to electronic documents/records in various statutes as amended by the IT Act, from time to time. This Policy does not require any physical, electronic or digital signature
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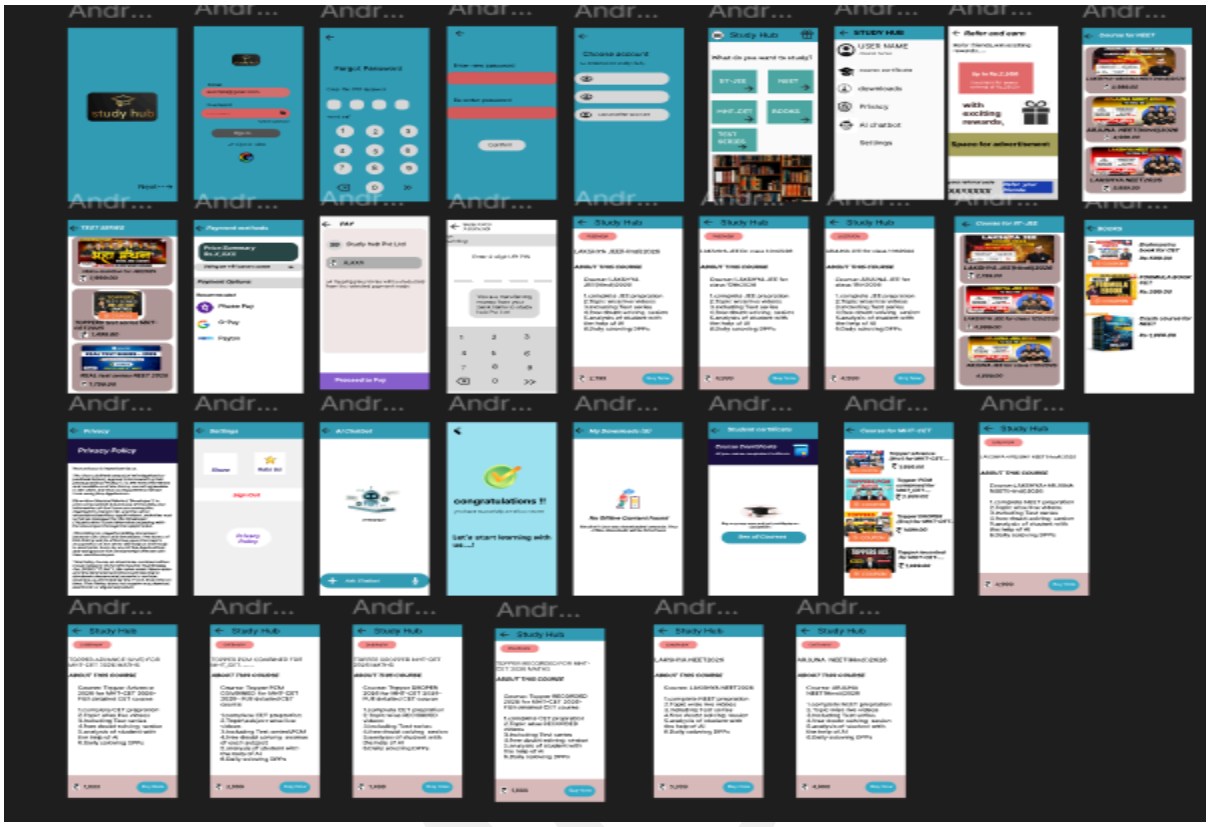
No Offline Content Found
You don't have any downloaded contents. Your offline downloads will be listed here
Settings
Share
Rate Us
Sign Out
Privacy Policy
AI Chatbot
AI Chatbot
Ask Chatbot
congratulations !!
you have succefully enroll to course
Let's start learning with us....!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Choose account
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What do you want to study?
IIT-JEE
NEET
MHT-CET
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courses and Batch
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Refer and earn
with exciting rewards,
Payment Options
Phone Pay
G-Pay
Paytm
Proceed to Pay
Privacy Policy
congratulations !!
Let's start learning with us....!
No Offline Content found
Study Hub

7.3 Future Improvements

1.AI-Powered Tutors:
Integrate AI chatbots or voice assistants to help students with instant doubt resolution.
2.**AR/VR Learning Modules:**
Add immersive Augmented/Virtual Reality experiences for subjects like science, history, or engineering.
3.**Learning Analytics Dashboard:**
Provide deep insights into learner behavior, weak areas, and predictive performance using data analytics.
4.**Community-Driven Content:**
Allow teachers and students to contribute, rate, and share custom content or learning resources.
5.**Offline Learning Mode:**
Enable content downloads for offline access, especially for users with limited internet connectivity.
6.**Multi-language Support:**
Offer content and interface in multiple regional and global languages to cater to diverse learners.
7.**Integration with External Tools:**
Connect with tools like Google Classroom, Microsoft Teams, or Notion for a seamless workflow.
8.**Personalized Goal Setting:**
Let learners set personal goals, receive reminders, and track completion milestones.
9.**Gamified Career Pathways:**
Show progress toward career goals with skill trees, certification maps, and portfolio builders.
10.**Parental Engagement Dashboard:**
Provide parents with insights into their child's progress, strengths, and areas of concern.
11.**Voice-Based Navigation:**
Implement voice commands for easier accessibility and hands-free navigation.
12.**Credential Verification System (Blockchain):**
Securely issue and verify certificates using blockchain technology to prevent fraud.

Links

1)Finlytic Figma Prototype:
Prototype

2)Finlytic Youtube Video Link :

video link

3)Finlytic Github Link :
Github