INTERNSHIP PROJECT REPORT

on

"ONLINE LEARNING PLATFORM USING UI/UX DESIGN"

Submitted by

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In partial fulfillment for the award of the degree of

BACHELOR OF COMPUTER APPLICATIONS

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Submitted to

ZIDIO DEVELOPMENT

Internship Role: UI/UX Designer Intern

Internship Duration: 15th June 2025 to 15th July 2025

DECLARATION

We hereby declare that the work entitled "**ONLINE LEARNING PLATFORM USING UI/UX DESIGN**" under the guidance Mrs.Tavishi, Mentor, Zidio Development. The extent and source of Information are derived from the existing literatue and have been indicated through the dissertation at the appropriate places.

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I certify that the declaration made above by the candidates is true.

SIGNATURE OF THE GUIDE

MRS. TAVISHI
MENTOR
ZIDIO DENELOPMENT

ACKNOWLEDGMENT

I would like to express my sincere gratitude to Zidio Development for giving me the opportunity to work on the project titled "Online Learning Platform" using UI/UX Design. I thank my mentor and all team members for their constant support and guidance.

I thank our project supervisor **Mrs. TAVISHI**, Mentor, Zidio Development for the successful completion of the project through guidance and leading us from the scratch of the project's commencement with undivided attention and skill full expertise in developing this project in a systematic and professional manner.

I also extend my heartfelt thanks to my college, Hindustan College of Arts & Science,University of Madras, Chennai, and my faculty for their continuous encouragement.

Lastly, I would like to thank my family and friends for their support throughout this journey. We thank God Almighty for helping us procure such a challenging and an interesting project, and in completing the same in due course without much difficulty.

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CONTENTS

ABSTRACT

This project focuses on the design and development of an Online Learning Platform System enhanced by a structured Design System to ensure visual consistency, usability, and scalability. With the rising need for flexible and accessible education, the platform aims to provide a user-friendly interface for students, educators, and administrators to interact effectively in a digital learning environment.

The design process follows core UI/UX principles, incorporating user research, persona development, wireframing, prototyping, and usability testing. A custom Design System was developed to maintain design consistency across components such as buttons, cards, forms, icons, and layouts. This system not only streamlines the design and development workflow but also supports accessibility and responsive behavior across devices.

Tools like Figma and Adobe XD were used for creating the visual components and interactive prototypes, while Google Forms and interviews supported user research. The platform's features include course browsing, enrollment, video lectures, quizzes, and progress tracking, all designed with a mobile-first, responsive layout to ensure inclusivity across various user devices.

The outcomes of this project demonstrate the importance of integrating design systems into UI/UX workflows to produce intuitive, scalable, and accessible digital products. The final prototype received positive feedback during peer testing and successfully meets the needs of modern learners and educators in a digital environment.

LIST OF ABBREVIATIONS

UI	–User Interface
UX	–User Experience
CA	–Competitive Analysis
IA	–Information Architecture
LMS	–Learning Management System
Hi-Fi	–High-Fidelity
Li-Fi	– Low Fidelity
UCD	– User-Centered Design
DS	– Desgn System
UXR	– User Experience Research
UID	–User Interface Design
A11y	– Accessibility
CTA	– Call To Action
HCI	– Human-Computer Interaction
CRUD	Create,Read,Update,Delete
RWD	Responsive Web Desing

CHAPTER-1

INTRODUCTION

1.1 BACKGROUND

The education sector is undergoing a rapid and profound transformation, largely driven by the integration of digital technologies into teaching and learning processes. Traditional classroom-based education, while still vital, is increasingly being complemented or replaced by online learning platforms that offer flexible, scalable, and remote educational opportunities.

These platforms allow students from diverse geographical locations to access high-quality content, collaborate with peers, and receive personalized learning experiences. With the rise of internet accessibility, mobile devices, and innovative learning technologies, online education has emerged as a powerful alternative that supports self-paced learning, continuous skill development, and lifelong education. The COVID-19 pandemic further accelerated this shift, proving that digital learning is not just a convenience but a necessity in the modern educational landscape. Consequently, there is a growing demand for platforms that are not only functional but also engaging and easy to use.

1.2 PURPOSE OF THE PROJECT

The primary purpose of this project is to conceptualize, design, and prototype a modern Online Learning Platform System that caters to the diverse needs of students, instructors, and educational administrators. The project aims to combine user-centric UI/UX design principles with essential e-learning features to create an intuitive, accessible, and engaging digital environment.

This platform is envisioned to support learners in managing their educational journey at their own pace while fostering meaningful interactions with instructors and peers. Moreover, the platform will be optimized for various devices, including desktops, tablets, and smartphones, ensuring inclusivity and accessibility for all users.

1.3 OBJECTIVES

- To design a user-friendly interface tailored for different user roles such as students, teachers, and administrative staff. The interface will prioritize simplicity, clarity, and ease of navigation to reduce the learning curve and enhance usability.
- To create wireframes, user flows, and prototypes that visualize the structure and functionality of the platform. These visual tools will serve as blueprints for development and ensure that user requirements are accurately translated into the design.
- To conduct competitive analysis by evaluating existing e-learning platforms in terms of features, strengths, and weaknesses. This helps identify industry trends and unique opportunities for improvement and innovation.
- To gather user requirements and preferences using user personas, surveys, and interviews. These insights will guide the design in aligning with real-world user expectations and challenges.
- To improve digital accessibility and inclusiveness by ensuring the platform complies with accessibility standards (like WCAG) and supports users with diverse abilities, backgrounds, and learning styles.

1.4 SCOPE OF THE PROJECT

This project covers the design and prototyping of a feature-rich online learning platform. The proposed features are carefully selected to support a complete educational experience. The primary purpose of this project is to conceptualize, design, and prototype a modern Online Learning Platform

System.

Including:

- **Course listings and enrollment:** Users can browse available courses, view course details, and enroll in programs that suit their learning needs and interests.
- **Video lectures and downloadable study materials:** Courses are supported by high-quality instructional videos and supplementary resources that can be accessed anytime.
- **Interactive assessments and quizzes:** To reinforce learning, the platform includes formative assessments such as quizzes, assignments, and activities that offer immediate feedback.
- **Progress tracking and performance analytics:** Learners can monitor their academic progress, track completed modules, and view performance analytics to stay motivated and focused.
- **Feedback and communication system:** A built-in messaging and discussion feature allows communication between students, instructors, and peers, enabling collaborative learning and timely feedback.

1.5 IMPORTANCE OF UI/UX DESIGN

In the context of educational technology, User Interface (UI) and User Experience (UX) design play a pivotal role in shaping how effectively users interact with the system. A well-designed interface ensures that users can intuitively navigate the platform, locate essential features, and engage with content without frustration or confusion.

Good UI/UX design increases user retention, boosts engagement levels, and enhances the overall perception of the platform. This project places a strong emphasis on empathy-driven design, which means understanding the needs, goals, and pain points of various user personas — such as students who may be new to digital learning, instructors with varying levels of tech-savviness, and

administrators managing multiple courses and users.

CHAPTER-2
PROBLEM STATEMENT

In the current era of digital transformation, the demand for accessible and flexible education has led to the rise of numerous online learning platforms. However, many of these platforms fail to deliver a user-friendly and engaging learning experience due to poor interface design, lack of intuitive navigation, and limited consideration for diverse user needs.Students often face difficulties in locating content, tracking progress, or interacting effectively with instructors and peers. Instructors, on the other hand, struggle with managing courses and student interactions efficiently. Additionally, the absence of inclusive design practices excludes users with disabilities or those accessing the platform from low-end devices.

Despite the availability of content-rich platforms, there exists a significant gap in delivering an intuitive, accessible, and engaging user experience across different roles - students, educators, and administrators.

Therefore, there is a critical need to design an Online Learning Platform System that applies UI/UX design principles to:

- Simplify user interaction across roles.
- Enhance accessibility and inclusiveness.
- Improve learner engagement through visual clarity and intuitive workflows.
- Deliver a seamless experience across multiple devices.

This project aims to bridge this gap by developing a platform that is not only functional but also designed with empathy, usability, and scalability at its core.

CHAPTER-3
TOOLS USED

3.1 FIGMA (Design & Prototyping)

Figma was used to create wireframes, mockups, and interactive prototypes. It allowed for real-time collaboration, making it easy to design and iterate on the user interface while ensuring consistency and responsiveness across devices.

Wireframe and Prototyping in Figma

3.2 WHIMSICAL (User Persona & User Flow)

Whimsical was utilized to map user flows and develop detailed user personas. It helped visualize the paths different users would take within the platform, ensuring the design met real-world needs and behavioral patterns.

3.3 GOOGLE FORMS (User Research)

Google Forms was used to gather data from target users through surveys and questionnaires. This research provided valuable insights into user preferences, pain points, and expectations, which guided the overall design strategy.

3.4 CANVA (Visual Assets)

Canva was employed to create supporting visual content such as icons, banners, presentation slides, and report visuals. It ensured that all visual assets were consistent, engaging, and aligned with the overall branding of the platform.

CHAPTER-4

METHODOLOGY

4.1 USER RESEARCH

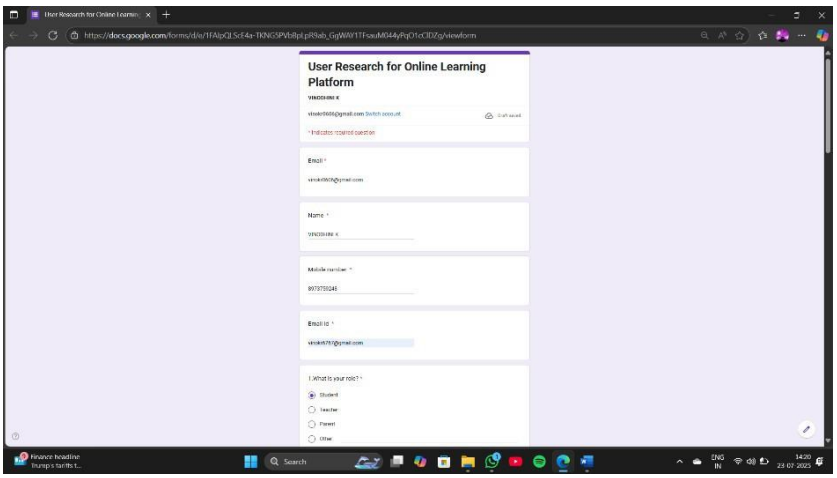
User research is the process of understanding the behaviors, needs, motivations, and pain points of users through various methods. For the Online Learning Platform, user research was conducted using Google Forms, targeting students, teachers, and parents.

Key insights gathered:

- Students want flexible schedules, easy access to study materials, and interactive features.
- Teachers need simple tools to conduct live classes, upload resources, and assess students.
- Parents are concerned about student progress and screen time.

This research helped in designing a user-centered platform that addresses real user problems, improves usability, and enhances learning experiences.

Google Form: https://forms.gle/KDmyAFLMAW2nynce7



This Google Form Questions I can use for user research on Online Learning Platform system, categorized by user types (Students,Teachers,Parents).

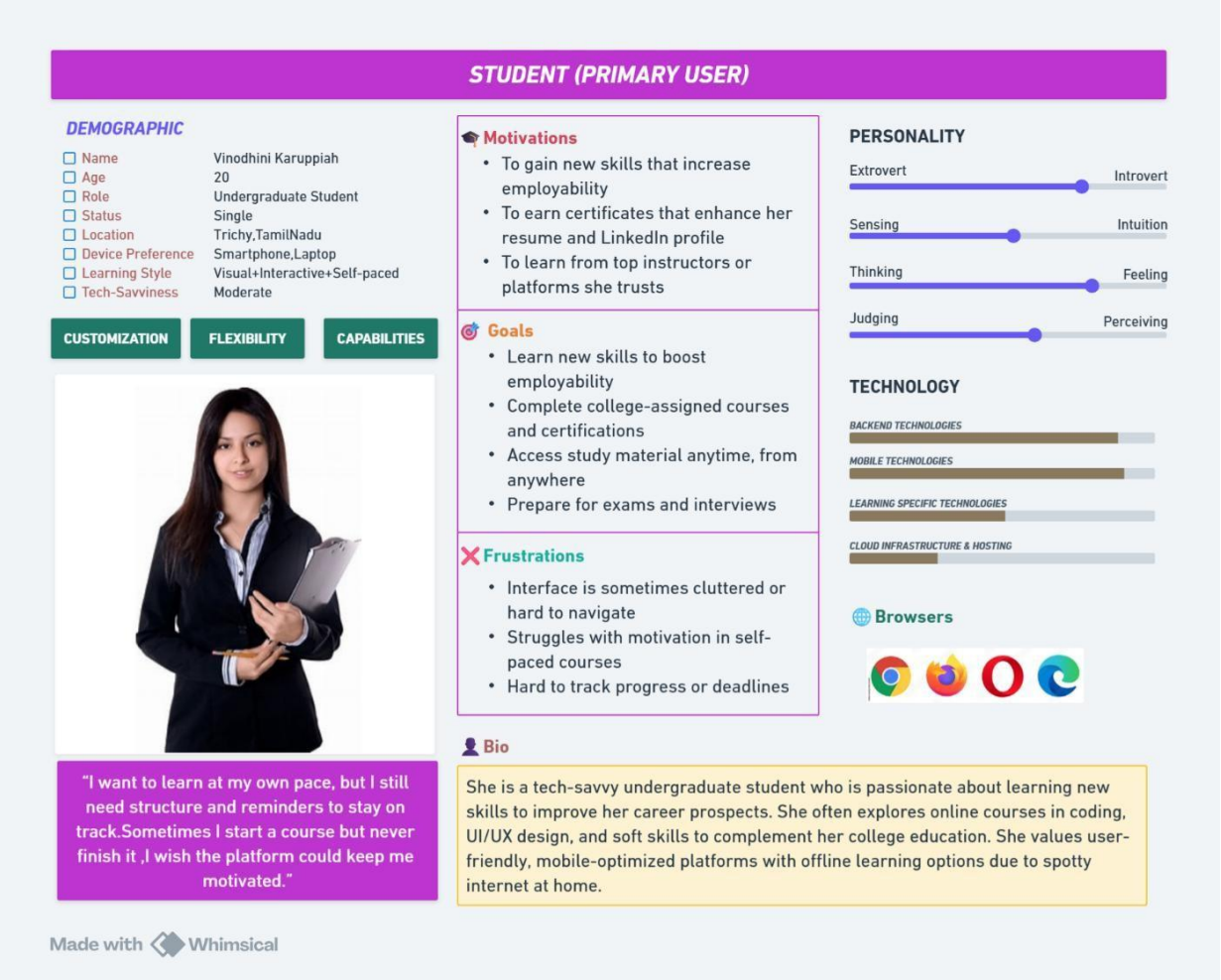
4.2 USER PERSONA

User personas are fictional profiles created to represent key user types of the platform. They help in designing user-centered solutions by understanding user goals, behaviours, motivations and pain points.

For the Online Learning Platform, one primary persona was developed using Whimsical:

Student Persona – Vinodhini Karuppiah (Age 20):

A college student who wants flexible learning, access to both live and recorded classes, and the ability to track her progress.

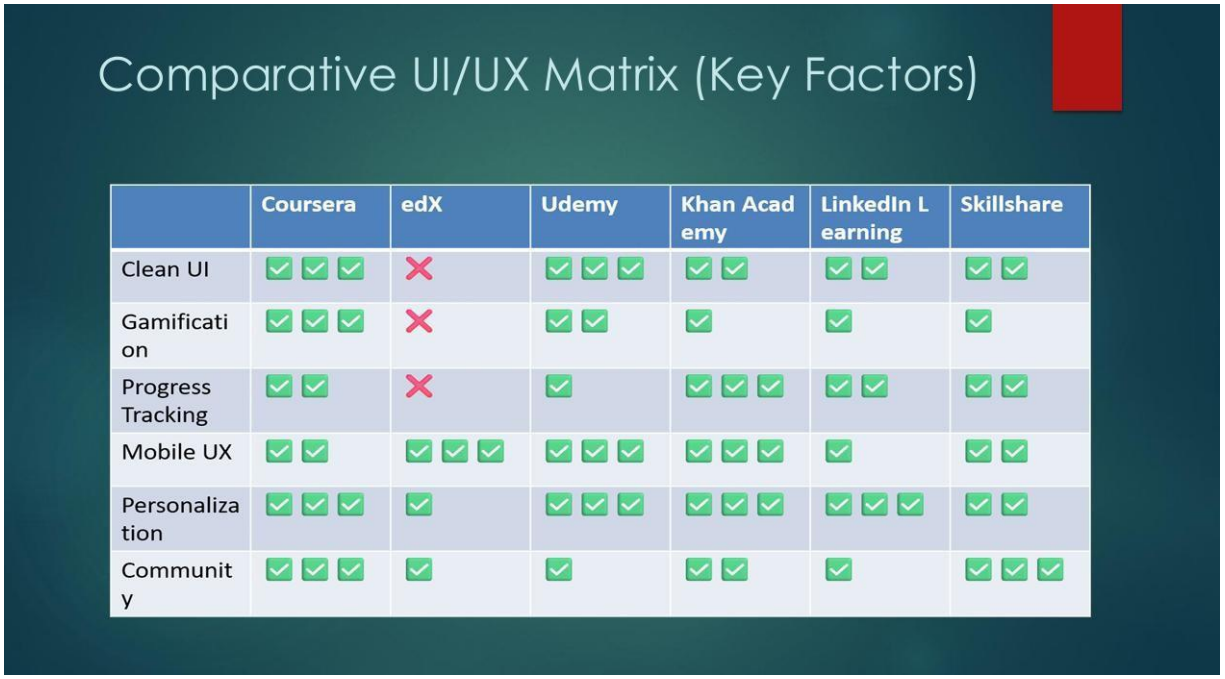


These persona guide the design decisions by keeping real user needs at the center of the platform development.

4.3 COMPETITIVE ANALYSIS

Competitive analysis involves studying similar platforms to understand their strengths, weaknesses, and identify opportunities for improvement in our own design.

For the Online Learning Platform, we analyzed leading competitors like Coursera, Udemy, edX, LinkedIn learning, Skillshare and Khan Academy based on key features.



Competitive Analysis:

https://drive.google.com/file/d/1lRU1jkIG7iS5N7pujcqDrAthL5G4YmQB/view?usp=drivesdk

Insights:

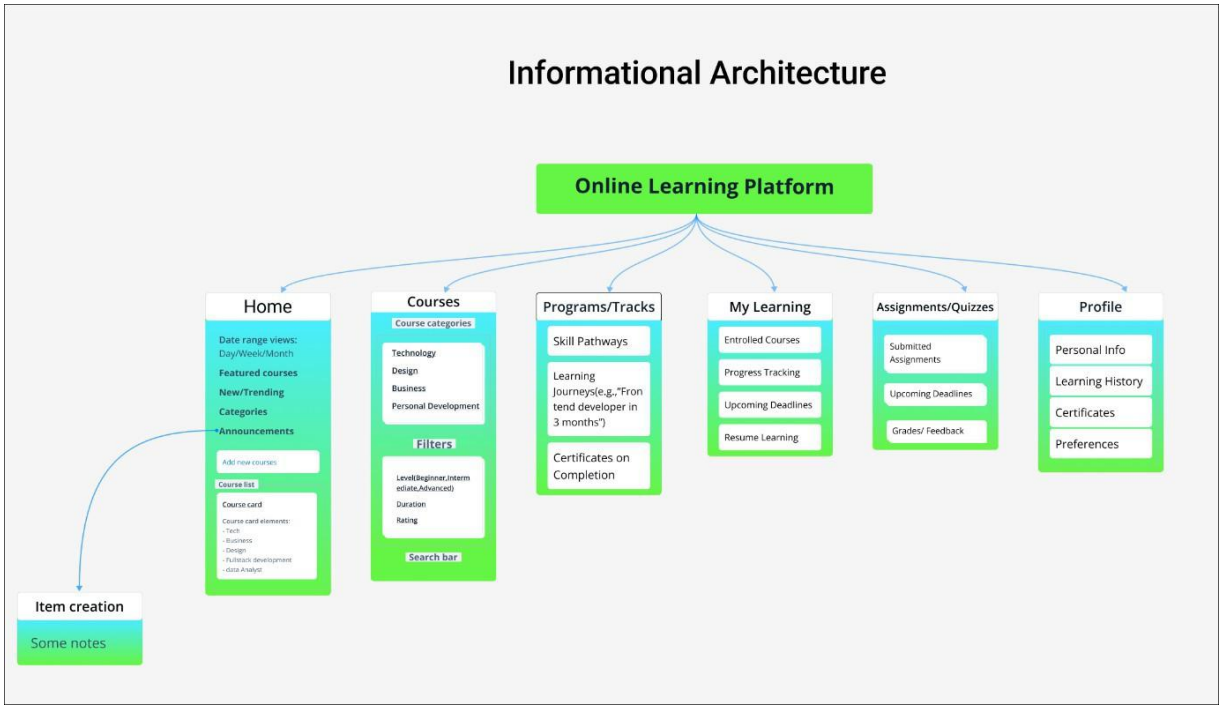
- Existing platforms lack live interaction and gamified learning, which are key expectations of today's learners.
- Our platform addresses these gaps by integrating interactive tools, real-time sessions, and affordable access.

This analysis helped shape a user-friendly and engaging solution.

4.4 INFORMATION ARCHITECTURE

Information Architecture (IA) is the process of organizing and structuring content in a clear and logical way, ensuring users can easily find and interact with the platform's features.

For the Online Learning Platform, IA was designed to streamline the user journey — from signing in to attending classes and tracking progress.

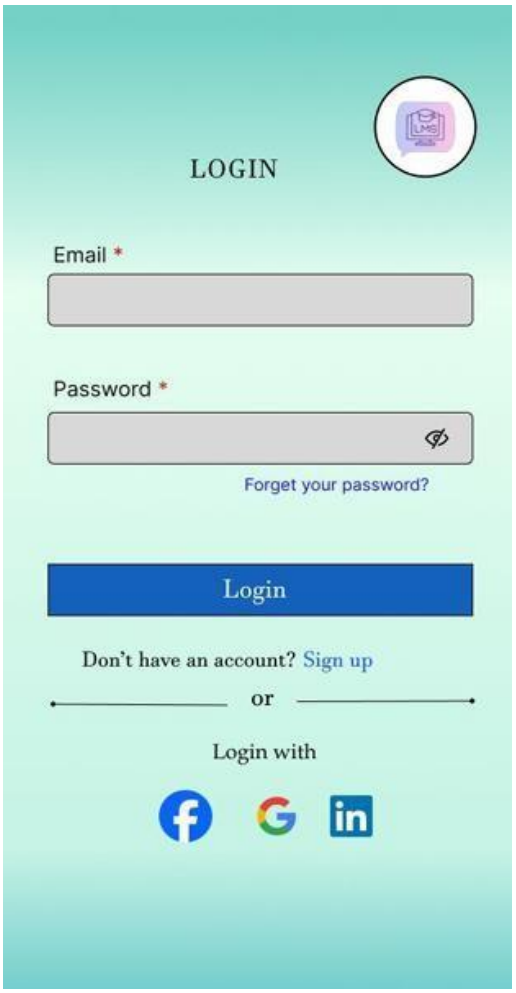


4.4.1 LOGO

A simple and modern logo was designed to symbolize education and digital access. It reflects the platform's goal of learning anywhere, anytime using Figma.

4.4.2 SIGN-IN PAGE

Allows users to log in using email or social accounts. Includes "Forgot Password" and role-based login (Student/Teacher).



4.4.3 SIGN-UP PAGE

The Sign-Up Page is the first step in onboarding new users to the platform. It is designed with a clean and simple layout to make registration quick and user-friendly.

✓ Key Features:

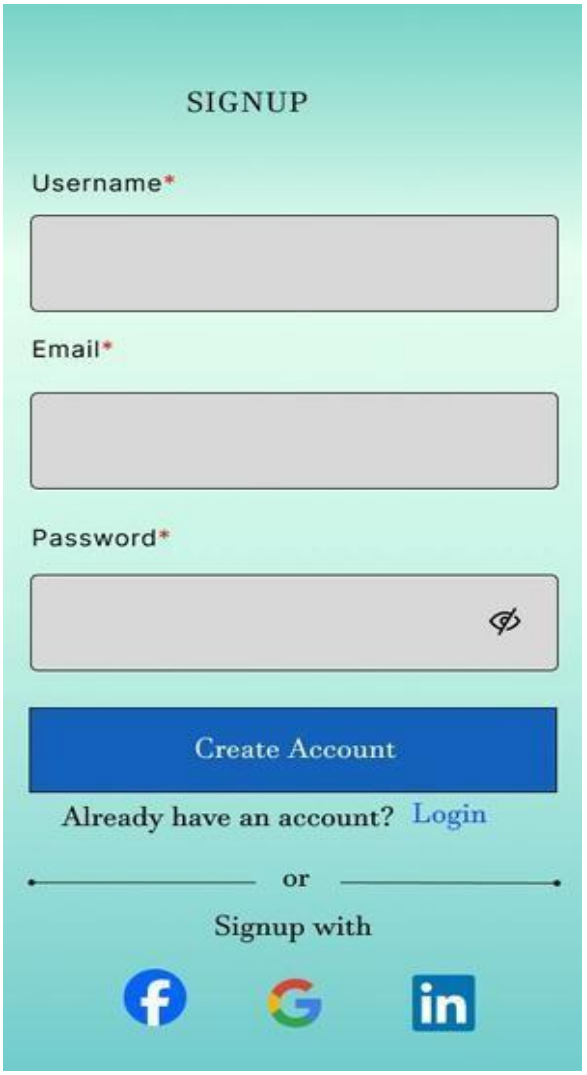
- User Role Selection: Users choose whether they are a Student or

Instructor, allowing role-specific content and dashboards.

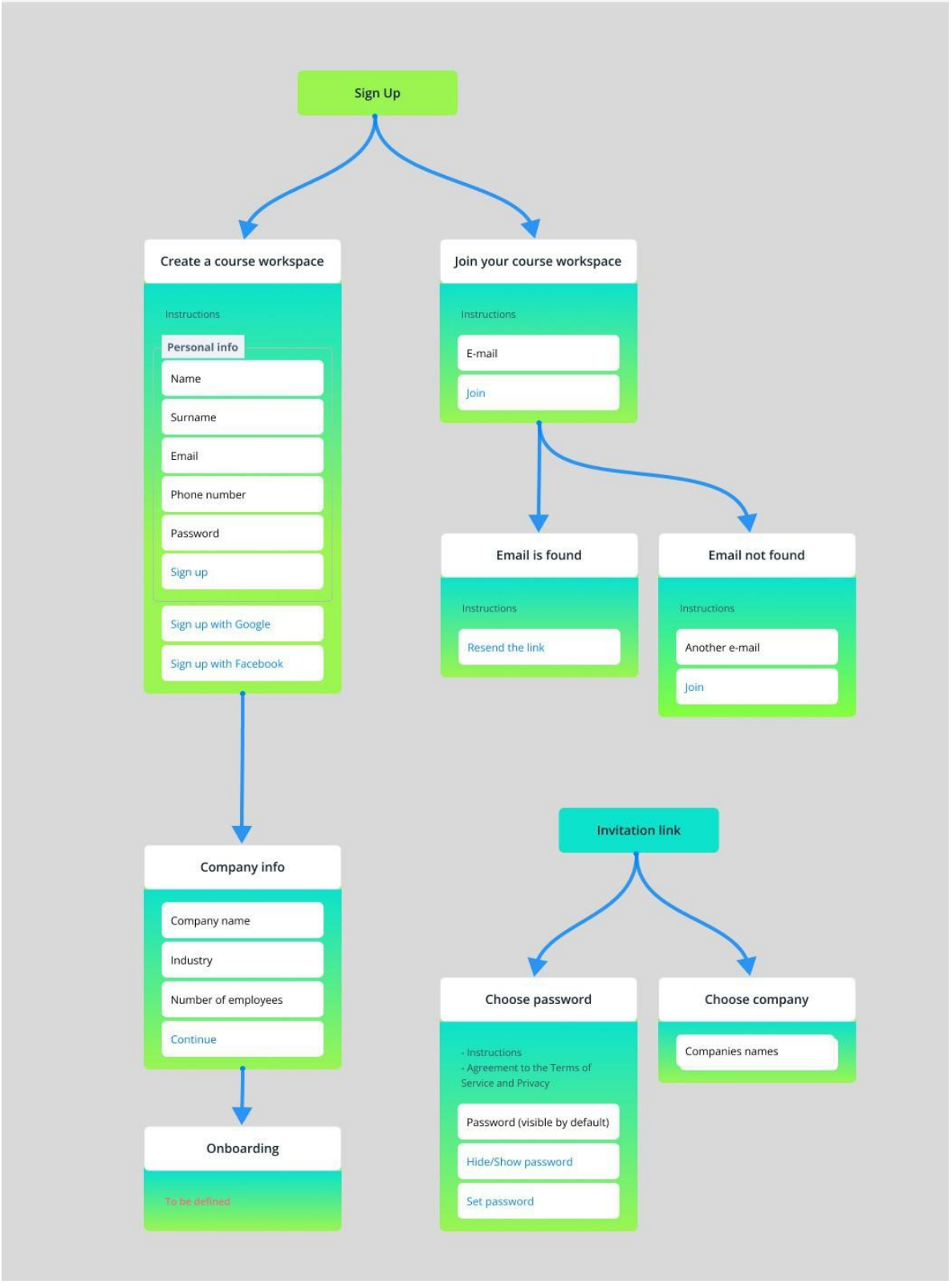
- Input Fields: Full Name, Email Address, Password, Confirm Password.
- Validation & Feedback: Real-time validation helps users correct errors immediately (e.g., weak passwords, invalid email).

Goal:

To ensure users can register smoothly with minimal friction, while capturing essential data for personalized access and platform functionality.



Online Learning Platform



4.5 EMPATHY MAPPING

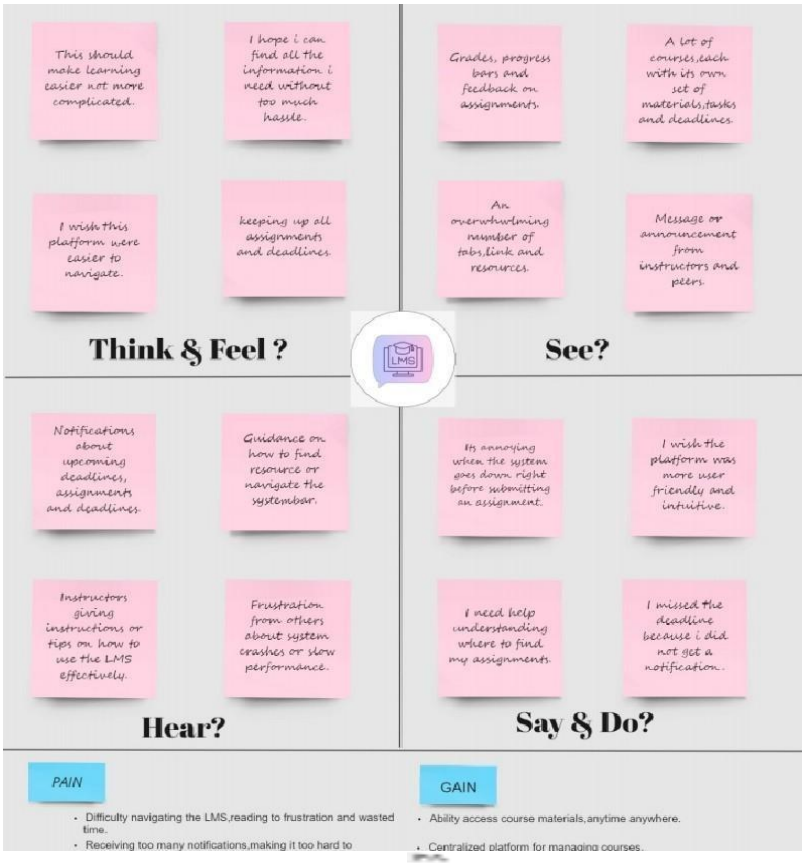
Empathy Mapping is a UX tool used to understand the user's mindset, emotions, and behaviour. It helps designers see the product experience from the user's perspective and build more meaningful solutions.

For the Online Learning Platform, empathy mapping was done based on user feedback and interviews with students,

Quadrant	Insights
Say	"I want to learn anytime."
Think	"Is this platform reliable?"
Feel	"Frustrated when videos lag."
Do	Attend classes late at night

Purpose:

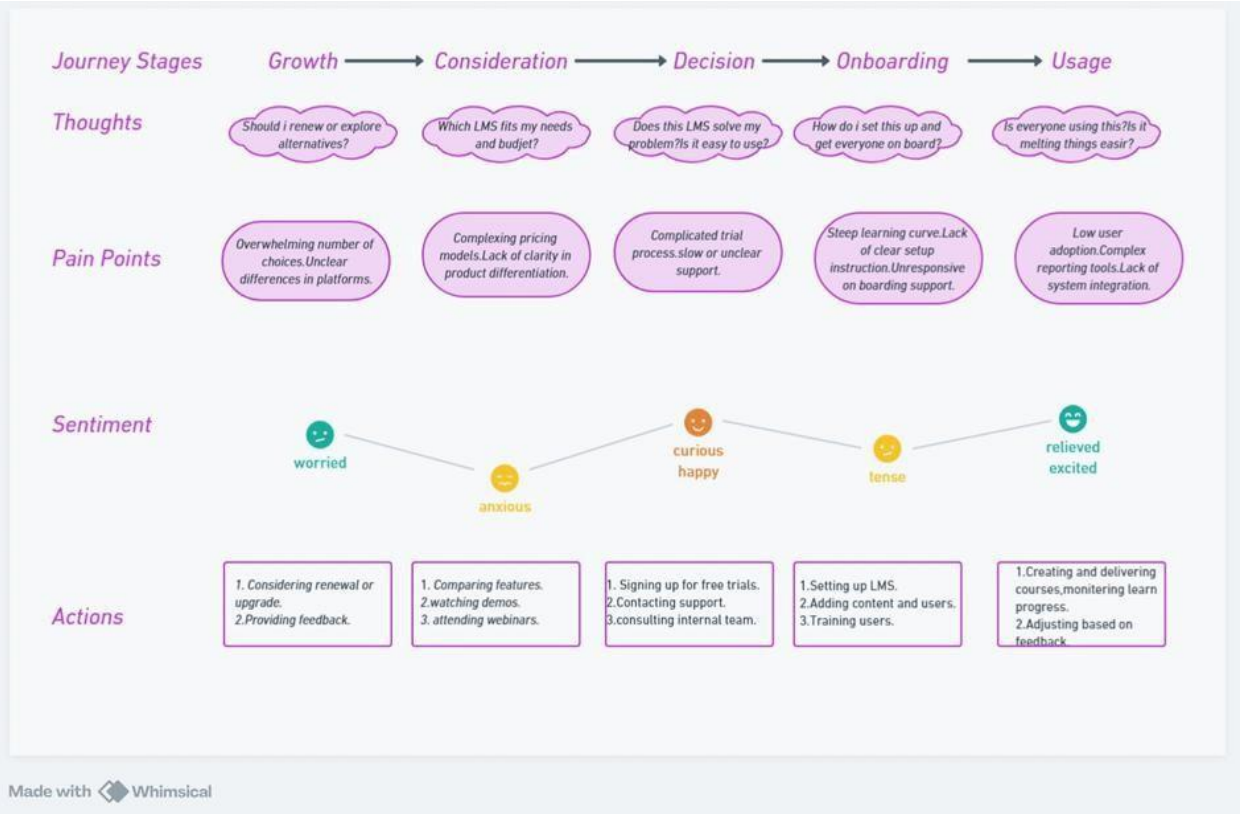
This mapping helps identify emotional pain points and user expectations, such as the need for flexibility, performance stability, and reliable access, which directly informed the design decisions like offline mode, buffer-free playback, and 24/7 accessibility.



4.6 CUSTOMER JOURNEY MAP

A Customer Journey Map is a visual tool used to understand how users interact with a product at each stage of their experience. It highlights user goals, actions, emotions, and pain points throughout their interaction with the platform.

For the Online Learning Platform, the journey of a typical student was mapped from initial discovery to using whimsical tool.



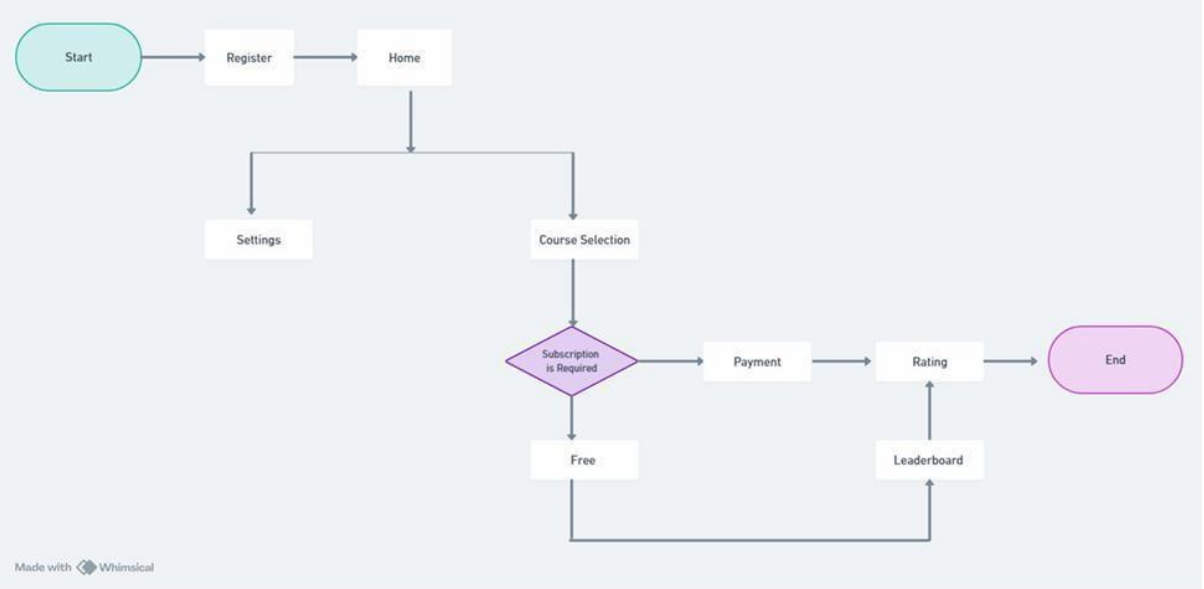
Goal:

To optimize the user experience by identifying emotional highs and lows during the journey, ensuring smoother navigation, better content delivery, and engaging assessments.

4.7 USER FLOW

User Flow is a visual representation of the steps a user takes to complete a specific task within the platform. It helps designers plan a logical and efficient path for users, minimizing confusion and improving the experience.

For the Online Learning Platform, the primary user flow focuses on a student joining a class and tracking progress to using whimsical.



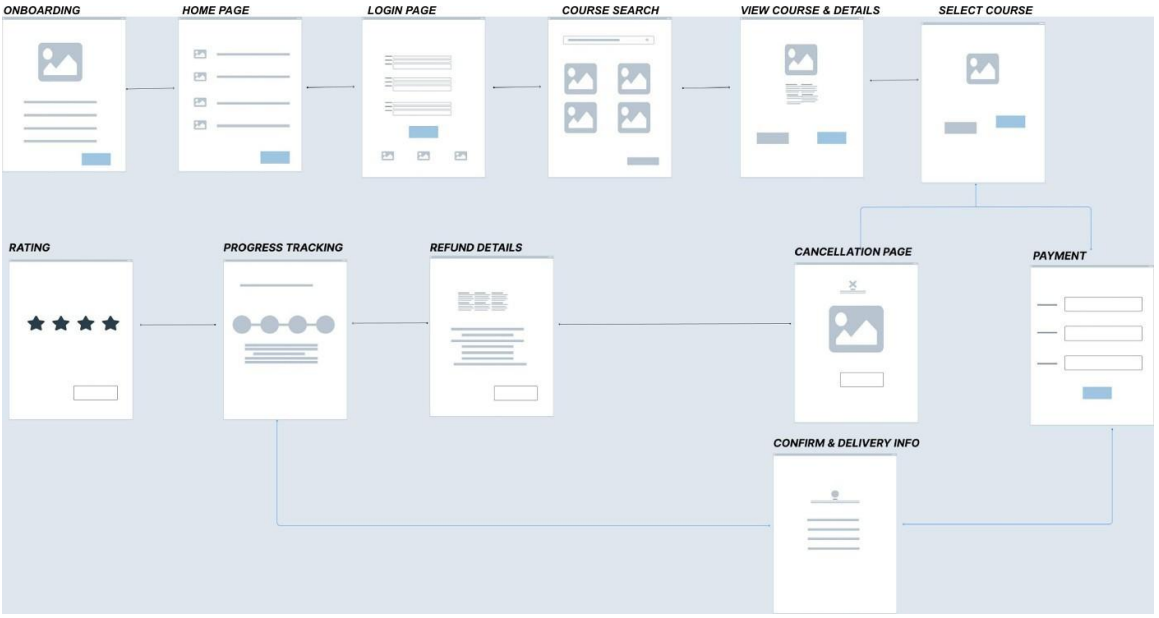
Goal:

To ensure users can quickly and smoothly navigate from login to learning without frustration, while providing a clear structure for both beginners and frequent users.

4.8 WIRE FLOW

Wire Flow is a combination of wireframes and user flow diagrams. It shows how users move between different screens of the platform, with a visual layout of each screen and its interactions.

For the Online Learning Platform, the wire flow illustrates the screen-to-screen navigation from login to course completion, helping identify any gaps or unnecessary steps in the user journey.



Purpose:

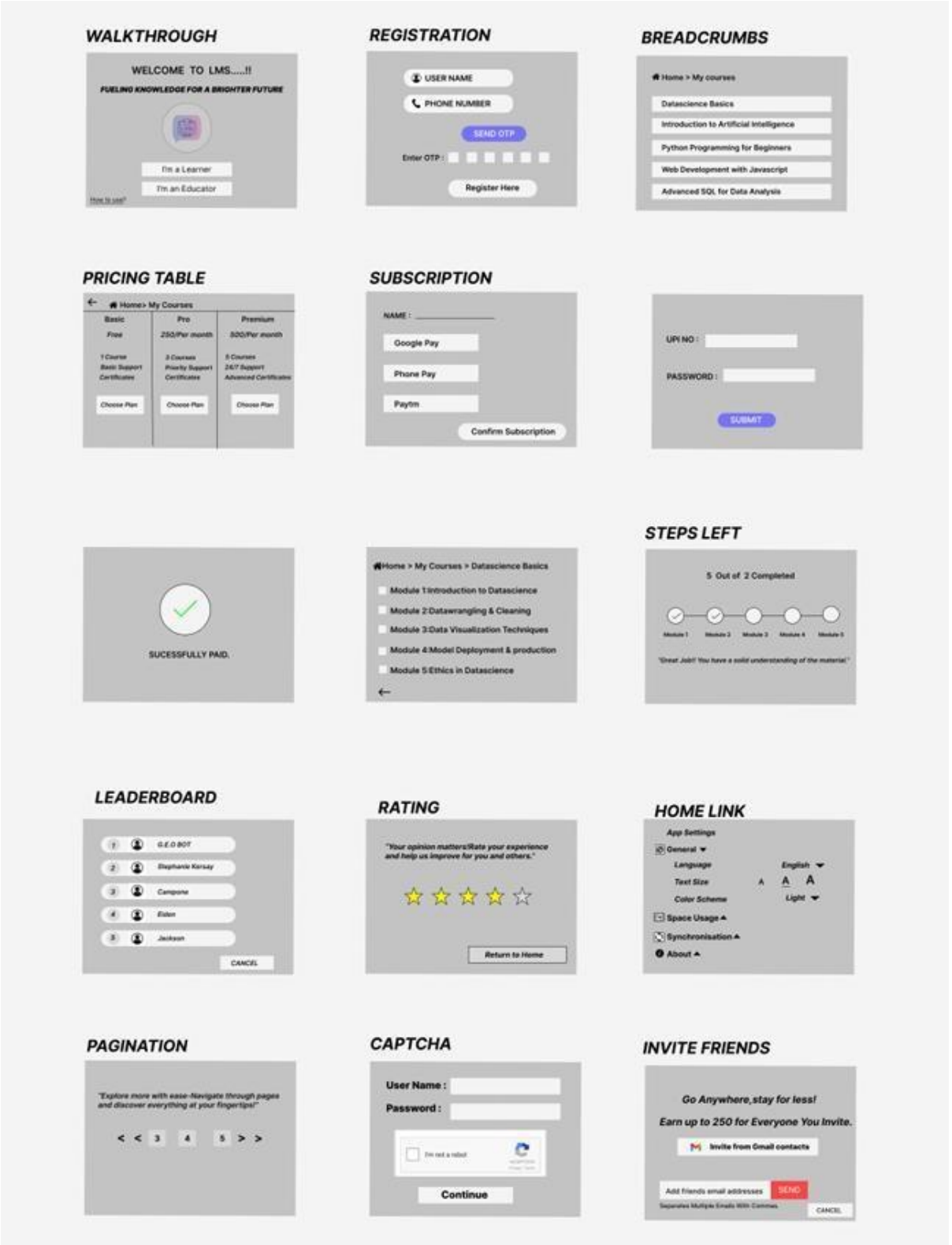
Wire flow helps the design team understand the sequence, layout, and logic of each interaction before moving to high-fidelity design. It ensures a seamless and intuitive experience for users.

4.9 WIREFRAME

A wireframe is a visual guide that represents the skeletal framework of a digital interface. It helps plan the structure and functionality of a platform before focusing on final design elements like colors or images.

Wireframes were used to design and validate the layout of key screens for the Online Learning Platform.

The below wireframe has been created using Figma.

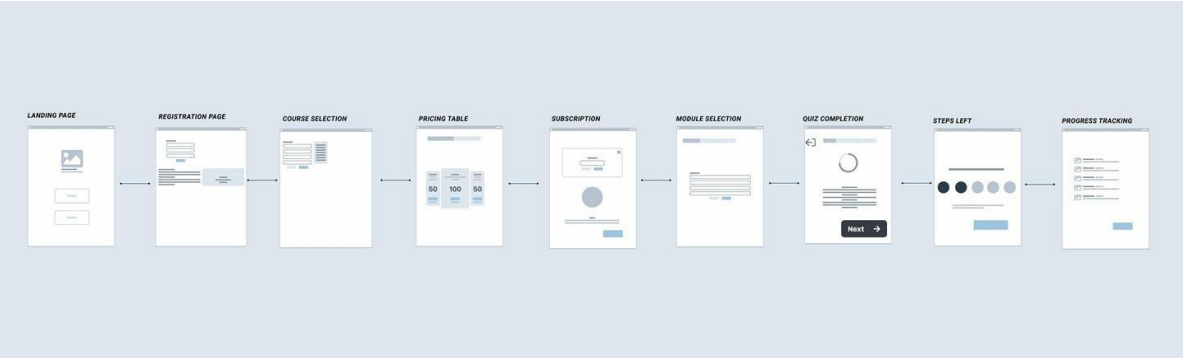


4.9.1 LOW-FIDELITY WIREFRAME

A low-fidelity wireframe is a skeleton of a digital screen, web page, or application. It'll have the bare-bones elements that will be included in the finished project. Low-fidelity wireframes give designers and programmers an idea of where images, text, buttons, and interactive elements might be placed. They might be hand-developed as quick sketches or created in a wireframe tool like Figma or Sketch.Using low-fidelity wireframes is a good idea if you're just starting a new design. Since low-fidelity wireframes are sketches drawn by hand with ink and paper, you might consider them rough drafts. It probably won't be the final wireframe you create, but it is a great place to start.

- Created using pen & paper and tools like Whimsical
- Shows basic structure and layout of screens (e.g., headers, buttons, menus)
- Focuses on content placement and user flow
- No use of colors, icons, or detailed visuals
- Ideal for quick feedback and early testing

Example: A sketched screen with a course list, simple navigation bar, and login fields.



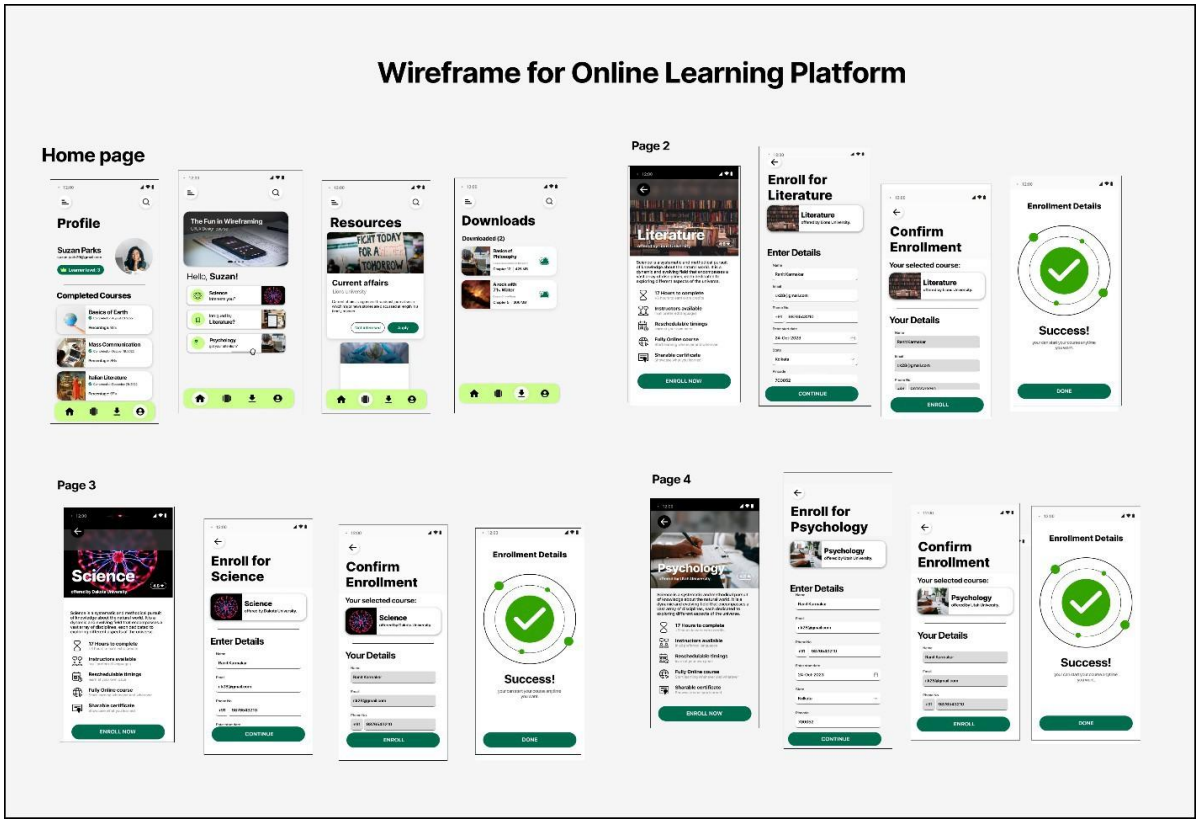
4.9.2 HIGH-FIDELITY WIREFRAME

A high-fidelity wireframe is a realistic prototype closely resembling a project's final design. It can include typography, colors, images, icons, and CTA buttons. These wireframes take longer than low- and medium-fidelity ones, so you'd need to allocate more resources to complete them. Because they require a high level of detail, digital tools are typically used to create high-fidelity wireframes.

- Created in Figma with realistic visuals
- Includes color palette, typography, icons, and images
- Represents how the final product will look and feel

Example: A full dashboard screen showing live class cards, progress bar, and user avatar with real UI components.

Wireframe – Figma



4.10 PROTOTYPING

Prototyping is the process of creating an interactive model of the digital product to simulate the user experience before development begins. It allows designers, stakeholders, and users to test how the platform works and feels.

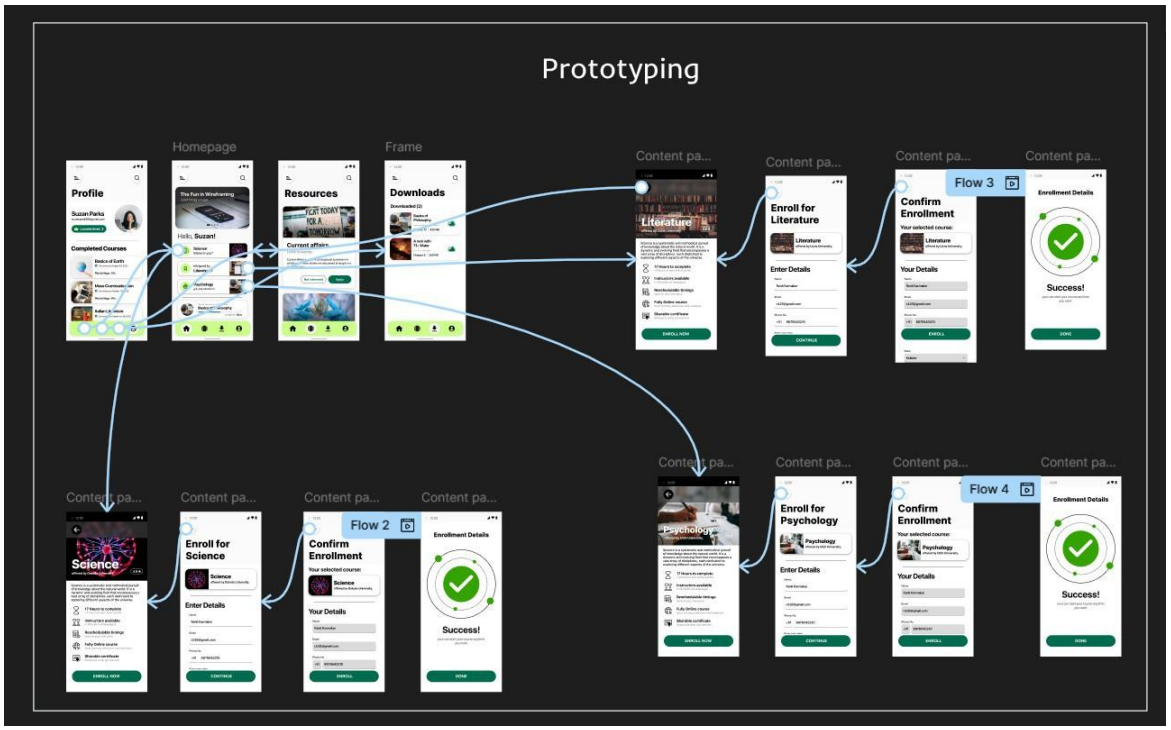
For the Online Learning Platform, prototypes were developed using Figma, enabling clickable navigation through the interface.

✨ Key Features:

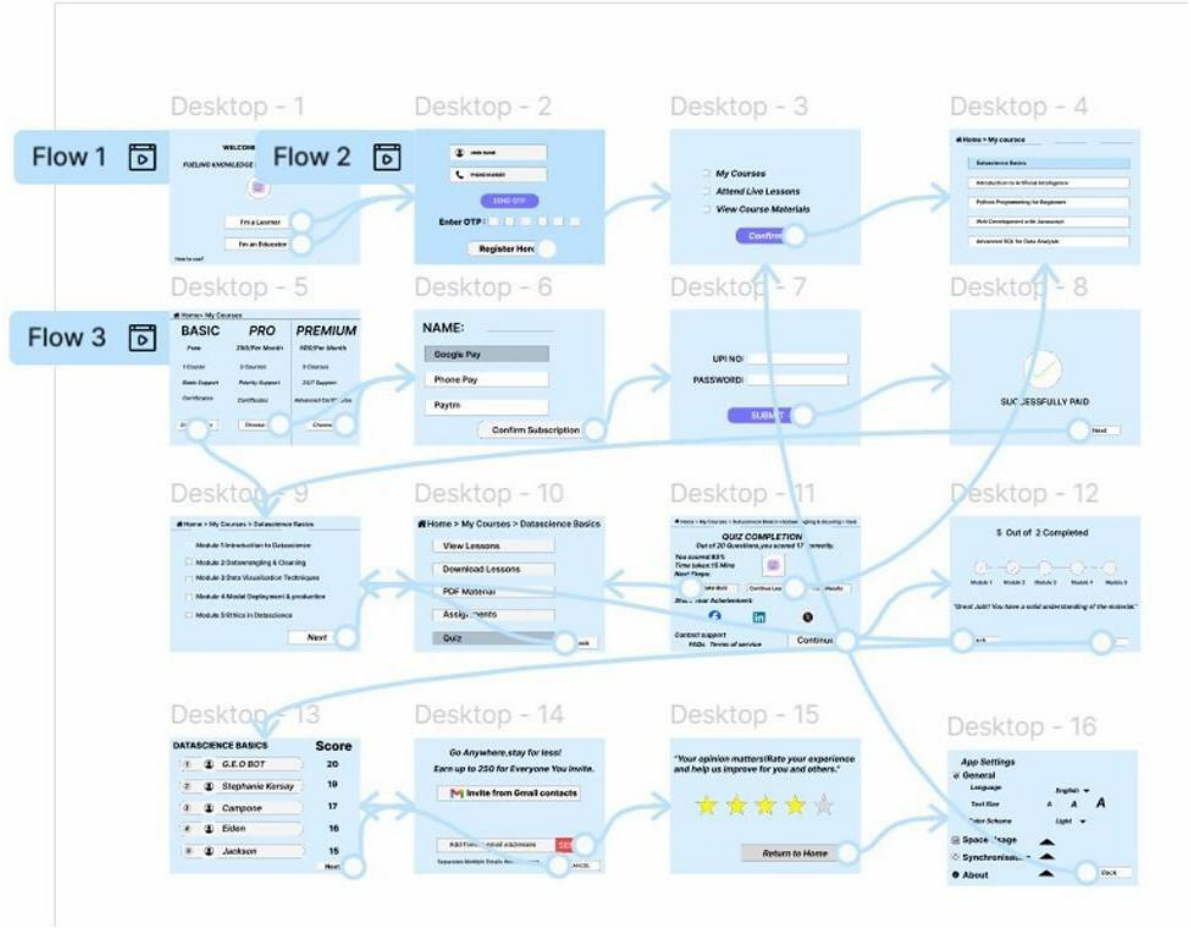
- Interactive Screens: Users can click through login, dashboard, course content, and quizzes as if using the real platform.
- Linked Flows: Buttons, menus, and links are connected to simulate real user paths.

This is High-fidelity Prototyping:

Prototyping – Figma



This is Low-Fidelity Prototyping:



Goal:

To provide a realistic user experience simulation, validate the design before coding, and make necessary improvements efficiently.

4.10 DESIGN SYSTEMS

A Design System is a collection of reusable design components, guidelines, and standards that ensure consistency and scalability across the digital platform.

For the Online Learning Platform, the design system includes elements like typography, colors, buttons, icons, spacing, and layout principles—all developed in Figma for efficiency and clarity.

Benefits:

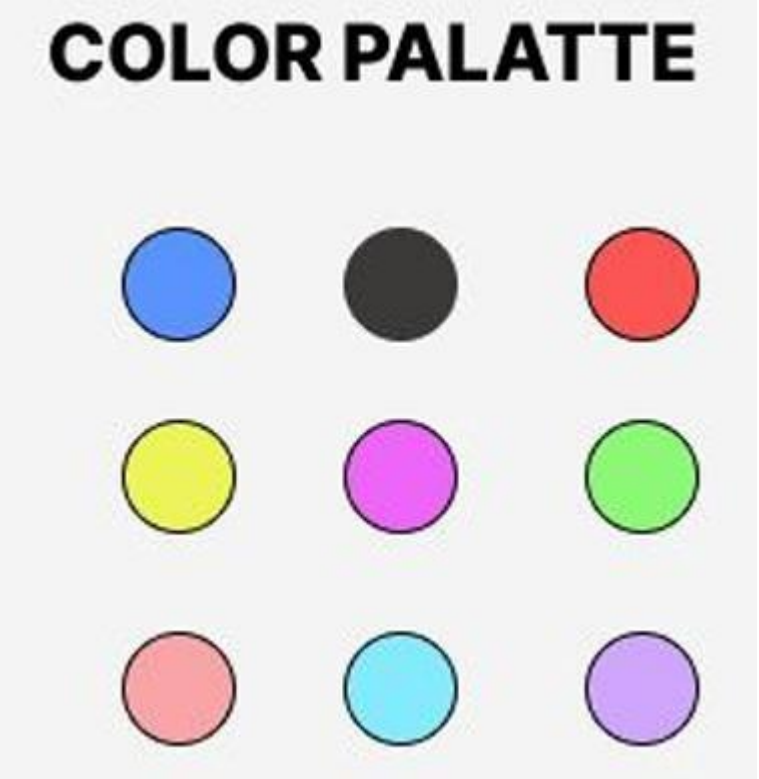
- Ensures visual consistency across all screens
- Speeds up the design and development process
- Makes collaboration easier between designers and developers
- Improves usability and accessibility for users

4.10.1 TYPOGRAPHY

Font styles, sizes, weights used throughout the platform.

4.10.2 COLOR PALETTE

Primary, secondary, and accent colors defined for visual consistency

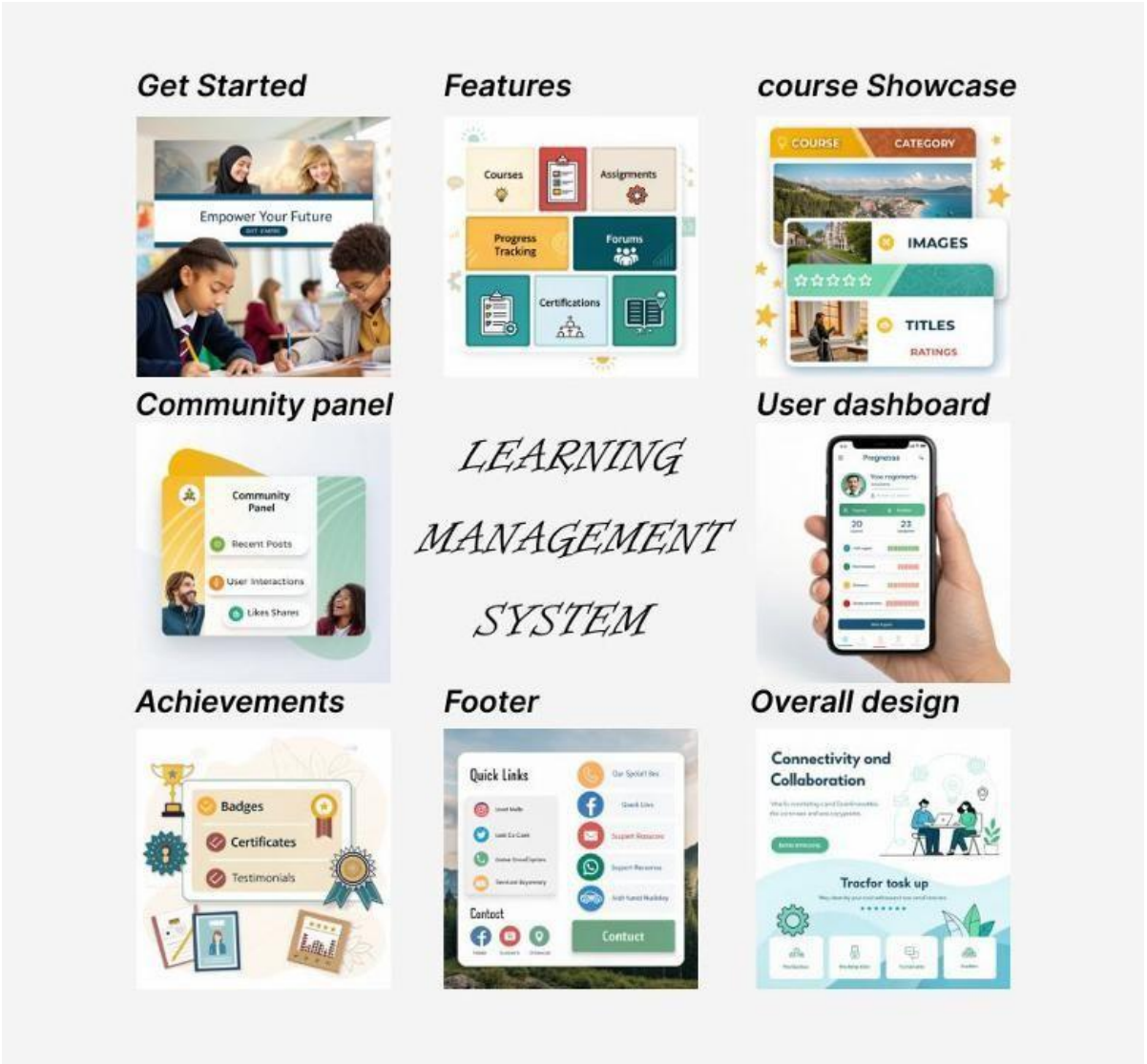


4.10.3 MOOD BOARD

Visual inspiration board reflecting tone, emotion, and aesthetic style using figjam.

4.10.4 ART BOARD

Collection of all visual elements and design components in one space.



CHAPTER-5
RESULTS & LEARNING OUTCOMES

✓ RESULTS

The Online Learning Platform UI/UX project successfully delivered a user-centered design solution, achieving the following outcomes:

- Designed and prototyped a complete learning platform interface using Figma.
- Developed user personas, empathy maps, and journey flows to guide design decisions.
- Created low- and high-fidelity wireframes for key screens such as Sign-in, Dashboard, and Course Viewer.
- Ensured a responsive, engaging, and accessible design suitable for both students and instructors.
- Integrated feedback from user research via Google Forms to improve usability.

LEARNING OUTCOMES

- Gained hands-on experience with UI/UX tools like Figma, Whimsical, and Canva.Understood the end-to-end design process, from research to prototyping.
- Learned to apply user-centered design principles and create designs based on real user needs.
- Improved skills in design systems, visual hierarchy, and interactive prototyping.
- Developed a strong understanding of how user flows and empathy mapping influence interface usability.

CHAPTER-6

CONCLUSION & FUTURE WORKS

✓ CONCLUSION

The Online Learning Platform UI/UX Design project successfully demonstrated how user-centered design can enhance the digital learning experience. Through structured research, wireframing, prototyping, and usability planning, the project delivered a platform that is both functional and visually engaging for students and instructors.

The process emphasized the importance of:

- ✓ Understanding user needs through personas, empathy maps, and journey mapping
- ✓ Creating intuitive layouts with low- and high-fidelity wireframes
- ✓ Ensuring consistency through a design system
- ✓ Using tools like Figma and Whimsical for efficient design and collaboration

This project highlights how thoughtful UX design contributes to better learning outcomes, improved engagement, and platform usability.

FUTURE WORKS

✓ To further enhance the platform, the following improvements are proposed:

✓ Integrate real-time feedback features such as student polls and doubt-

clearing chats.

✓ Develop mobile-responsive versions for improved access across devices.

✓ Include AI-based content recommendations tailored to student performance.

✓ Conduct usability testing with real users to iterate and refine the final design.

✓ Collaborate with developers to convert prototypes into a working product.

6.1 REFERENCES

1. Coursera – Online Courses

https://www.coursera.org(Used for competitive analysis and UI inspiration)

2. Udemy – Learning Platform

https://www.udemy.com(Used to compare features and user flow)

3. Khan Academy – Free Learning Resources

https://www.khanacademy.org(Analyzed for content structure and accessibility design)

4. Figma – Collaborative Design Tool

https://www.figma.com(Used for creating wireframes, high-fidelity designs, and prototypes)

5. Whimsical – Flowcharts and Wireframes

https://whimsical.com(Used for user personas, user flows, and wireflows)

6. Google Forms – Survey Tool

https://forms.google.com(Used for conducting user research and feedback collection)

7. Nielsen Norman Group

https://www.nngroup.com(Referenced for UI/UX design principles and best practices)

8. Canva – Visual Design Tool
https://www.canva.com(Used to create mood boards and presentation visuals)