UI & UX Design

Learning Objectives	Learning Outcomes
● Understand the principles and processes of UI/UX design.	● Demonstrate a solid understanding of the foundations of UI/UX design.
● Differentiate between UI and UX design and their respective roles in the design process.	● Apply design principles to create visually appealing and user-friendly interfaces.
● Develop skills in divergent and convergent thinking, brainstorming, and observational empathy.	● Utilize wireframing, prototyping, and testing techniques in the design process.
● Gain proficiency in creating wireframes, and prototypes, and conducting usability tests.	● Analyze and address user needs, business goals, and the relationship between UI and UX.
● Apply design thinking methodologies to solve user-centric	● Create and present a UI/UX design project.

Course Duration: 45 Hours

Course Content:

UNIT I FOUNDATIONS OF DESIGN

UI vs. UX Design - Core Stages of Design Thinking - Divergent and Convergent Thinking - Brainstorming and Game storming - Observational Empathy.

UNIT II FOUNDATIONS OF UI DESIGN

Visual and UI Principles - UI Elements and Patterns - Interaction Behaviors and Principles – Branding - Style Guides.

UNIT III FOUNDATIONS OF UX DESIGN

Introduction to User Experience - Why You Should Care about User Experience – Understanding User Experience - Defining the UX Design Process and its Methodology - Research in User Experience Design - Tools and Method Used for Research - User Needs and its Goals – Know about Business Goals

UNIT IV WIREFRAMING, PROTOTYPING AND TESTING

Sketching Principles - Sketching Red Routes - Responsive Design – Wireframing – Creating Wireflows - Building a Prototype - Building High-Fidelity Mockups - Designing Efficiently with Tools - Interaction Patterns - Conducting Usability Tests - Other Evaluative User Research Methods - Synthesizing Test Findings - Prototype

Iteration

UNIT V RESEARCH, DESIGNING, IDEATING, & INFORMATION ARCHITECTURE

Identifying and Writing Problem Statements - Identifying Appropriate Research Methods - Creating Personas - Solution Ideation - Creating User Stories - Creating Scenarios – FloDiagrams - Flow Mapping - Information Architecture-Diagrams - Flow Mapping - Information Architecture

Test Projects:

Use Cases

1. **E-Commerce Redesign** - Enhancing the user experience of an existing e-commerce platform.

2. **Health and Wellness App** - Designing a user-friendly app for tracking and improving health and wellness.

3. **Travel Exploration App** - Creating an intuitive interface for a travel app that encourages exploration.

4. **Learning Management System (LMS)** - Redesigning the user interface of an online learning platform.

5. **Smart Home Control Center** - Designing a cohesive interface for controlling various smart home devices.

6. **Food Delivery Service** - Improving the user experience of a food delivery app, focusing on ease of use.

7. **Social Networking Platform** - Creating a more engaging and user-friendly interface for a social media platform.

8. **Finance Dashboard** - Designing an intuitive dashboard for personal finance management.

9. **Event Planning App** - Enhancing the user experience of an app for planning and managing events.

10. **Task Management Tool** - Redesigning the user interface of a task management application.

11. **Music Streaming App** - Improving the overall user experience of a music streaming platform.

12. **Job Search Platform** - Designing a user-friendly interface for a job search and application platform.

13. **Pet Care App** - Creating a delightful user experience for an app focused on pet care and management.

14. **Elderly Assistance App** - Designing an intuitive interface for an app catering to

the elderly population.

15. **Fitness Tracking Wearable App** - Improving the user interface of an app connected to a fitness tracking wearable.

16. **Online Marketplace** - Redesigning the interface of an existing online marketplace for a better shopping experience.

17. **Weather Forecast App** - Creating a visually appealing and easy-to-use interface for a weather app.

18. **Charity Donation Platform** - Designing an intuitive interface for a platform that facilitates charitable donations.

19. **Language Learning App** - Improving the user experience of a language learning application.

20. **Virtual Reality Experience** - Designing a user-friendly interface for a virtual reality experience or application.

UI and UX Design Process for the above Use cases Project

Definition

● Understand the project goals and objectives.
● Define the target audience and user personas.
● Identify key features and functionalities.

Ideation and Sketching

● Brainstorm and generate multiple design concepts.
● Sketch rough wireframes and layouts to visualize ideas.

Wireframing

● Create low-fidelity wireframes to outline the basic structure and flow of the interface.
● Focus on information architecture and user flow.

Prototyping

● Develop interactive prototypes to simulate user interactions.
● Test and iterate on the prototype based on user feedback.

Visual Design

● Develop high-fidelity mockups with detailed visual elements.
● Choose color schemes, typography, and visual elements that align with the

brand and user preferences.

Usability Testing

- Conduct usability testing with real users to identify any issues.
- Collect feedback on design, functionality, and overall user experience.

Refinement

- Incorporate feedback and make necessary adjustments to the design.
- Ensure consistency and coherence throughout the interface.

Design Handoff

- Prepare design assets for developers, including style guides, assets, and specifications.
- Collaborate with the development team to ensure a smooth handoff.

Development Support

- Provide ongoing support to developers during the implementation phase.
- Address any design-related issues that arise during development.

User Acceptance Testing (UAT)

- Conduct UAT to ensure that the final product meets user expectations and project

requirements.

Launch and Deployment

- Coordinate with stakeholders for the official launch of the application.
- Monitor user feedback and address any post-launch issues.

Post-Launch Evaluation

- Collect and analyze user feedback after the application is live.
- Identify areas for future improvements and updates.

Documentation

- Document the design process, decisions, and any specific design guidelines.
- Create a comprehensive design documentation for future reference.