

RAJALAKSHMI ENGINEERING COLLEGE

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**RAJALAKSHMI
ENGINEERING COLLEGE**

CS23A34

USER INTERFACE AND DESIGN LAB

Laboratory Observation NoteBook

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Simulate the life cycle stages for UI design using the RAD model and develop a small interactive interface using OpenProj.

Aim:

The aim is to recreate the lifecycle stages of UI design using the RAD model and design a small interactive interface with OpenProj.

Procedure:

Step 1: Requirements Planning

1. Gather Requirements:

- Identify key features and functionalities needed for your interface.
- Example: A simple "Login" and "Register" interface with debug logs.

2. Define Use Cases:

- Specify use cases for user login and registration.
- Example: User logs in with valid credentials, user registers with a new account.

Step 2: User Design

1. Sketch Initial Designs:

- Draw rough sketches of the "Login" and "Register" screens on paper.

2. Create Digital Wireframes:

- Use a tool like Figma or Sketch to create digital wireframes.

Example Wireframes:

1. **Login Screen:** Username field, Password field, Login button, Register link.
2. **Register Screen:** Username field, Email field, Password field, Confirm Password field, Register button.

Step 3: Rapid Prototyping

1. **Develop Prototypes:**
 - Use a tool like Axure RP to convert wireframes into interactive prototypes.
2. **Test Prototypes:**
 - Share prototypes with stakeholders for feedback.
 - Collect feedback and iterate on the design.

Step 4: User Acceptance/Testing

1. **Review Prototype:**
 - Conduct user and stakeholder reviews.
2. **Conduct Usability Testing:**
 - Perform usability testing and document feedback.

Step 5: Implementation

1. **Develop Functional Interface:**
 - Implement final designs and functionalities based on feedback.
2. **Integrate Backend (if required):**
 - Connect the UI with backend services for tasks like user authentication.

Output:

In OpenProj:

Sketch Initial Design

Paragraph

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Sketching is the process of quickly drawing rough layouts of your interface on paper or a whiteboard.

Purpose:

- Helps visualize the basic structure and flow of screens (e.g., Login and Register).
- A fast, low-cost way to brainstorm different layouts.
- Encourages feedback and idea generation early in the process.

Key Characteristics:

- Hand-drawn and informal
- Focuses on structure, not color or styling
- Used for early validation of concepts

← TASK Digital Wireframes

New

A **digital wireframe** is a computer-generated layout that represents the basic structure and functionality of a user interface without including detailed design elements like color, images, or typography.

Purpose:

- Visually outline the placement of UI elements such as text fields, buttons, labels, and links.
- Focus on usability, layout, and navigation rather than appearance.
- Help teams align on the structure before moving to detailed design or development.

In my Design :

Login Wireframe Might Include:

- Text field for "Username"
- Text field for "Password"
- "Login" button
- "Register" hyperlink

Register Wireframe Might Include:

- "Username", "Email", "Password", "Confirm Password" fields
- "Register" button
- Basic layout showing spacing and alignment

← TASK Develop Prototype

New

The **"Develop Prototype"** task involves converting digital wireframes into interactive, clickable models that simulate the real behavior of the user interface. It helps visualize how users will interact with the system before actual coding begins.

I have developed the prototype using Figma (Prototype Mode).

Key Activities

- Import Wireframes: Start with your finalized wireframe screens.
- Add Interactions:
 - Link "Login" button to a fake dashboard screen.
 - Link "Register" button to a success confirmation screen.
- Simulate User Flows: Clicking through buttons, switching between login and register.
- Include Basic Validation: (Optional) Fake error messages or success prompts to simulate logic.

Deliverables

- A fully navigable prototype demonstrating the flow from login to registration.
- Ready to be shared with stakeholders or test users for feedback.

← TASK Testing Prototype

New

The **"Test Prototype"** task involves evaluating the interactive prototype with real users or stakeholders to gather feedback on usability, design flow, and overall user experience. It's a crucial step to ensure the interface meets user expectations before full-scale development begins.

Key Activities

- Share the Prototype:
 - Provide access to stakeholders or selected test users using tools like Figma, Axure, or Adobe XD.
- Create Test Scenarios:
 - Example: "Try logging in with invalid credentials."
 - Example: "Register a new account and check for success."
- Observe Interactions:
 - Record how users navigate the prototype.
 - Note any confusion, delays, or usability issues.
- Collect Feedback:
 - Use forms, interviews, or screen recordings to gather insights.
- Document Findings:
 - Identify issues and suggestions for improvement.
 - Prioritize changes based on severity and frequency.

Deliverables

- A **Usability Feedback Report** summarizing:
 - Positive observations
 - User pain points
 - Suggested changes
- An updated prototype (if iteration is required)

40	Testing Prototype	TASK	● New	-
39	Develop Prototype	TASK	● New	-
38	Digital Wireframes	TASK	● New	-
37	Sketch Initial Design	TASK	● New	-

Result:

Hence the recreation of the lifecycle stages of UI design using the RAD model and successfully designed a small interactive interface with OpenProj.