UI LAB

1. Introduction to UI life cycle and UI tools.

2. Requirement gathering:
   - Understanding project selection criteria (web, desktop, or mobile interface).
   - Importance of project simulation for mobile applications.

3. Analysis:
   - Problem statement formulation.
   - User analysis.
   - Task analysis (identifying three tasks related to the chosen problem).
   - Domain analysis.
   - Developing a problem object model or entity-relationship diagram.

4. Design:
   - Creation of scenario and story.
   - Explanation and sketching of scenarios and stories.
   - Creation of personas based on Practical 4.
   - Drawing a mental model based on Practical 4.

5. Low Fidelity Prototype:
   - Creating a paper prototype.
   - Developing wireframes.

6. High Fidelity Prototype:
   - Creating a high fidelity prototype using Figma tool.

7. Usability Evaluation of the Design:
   - Testing the user interface using third-party test scripts.
   - Developing test scripts.

Ensure you understand the concepts, methodologies, and practical applications related to each topic to effectively discuss them during your viva examination.

DEVOPS

1. DevOps: Principles, Practices, and DevOps Engineer Role and Responsibilities:
   - Understanding the principles and practices of DevOps, including continuous integration, continuous delivery, and automation.
   - Familiarity with the role and responsibilities of a DevOps engineer, such as facilitating collaboration between development and operations teams, implementing automation tools, and monitoring system performance.

2. Version Control with Git and GitHub:
   - Installing Git and creating a GitHub account.
   - Implementing version control for different files/directories using Git.
   - Syncing local Git repositories with GitHub and performing various related operations.
   - Utilizing Git Cheat-Sheet for effective Git usage.

3. Jenkins Server Deployment and Usage:
   - Deploying and testing Java/web/Python applications on a Jenkins server.
   - Implementing Jenkins pipelines using scripted or declarative syntax.
   - Using Jenkins to deploy and run test cases for Java/web applications using Selenium/TestNG.
   - Understanding Jenkins Master/Slave architecture and its implementation.

4. Docker Architecture and Container Life Cycle:
   - Installing Docker and executing Docker commands to manage images and interact with containers.
   - Understanding Docker architecture, including images, containers, and registries.
   - Learning about the container life cycle, including creation, starting, stopping, and removal of containers.

5. Dockerfile Instructions and Image Building:
   - Learning Dockerfile instructions for building Docker images.
   - Building an image for a sample web application using Dockerfile.

Ensure you thoroughly understand the concepts, principles, and practical implementations of each topic to effectively discuss them during your viva examination.