

Mobile App Project

Introduction

In this project, you will experience a realistic app development cycle on a smaller scale, encompassing the entire process from idea conception to final product presentation. The project is divided into 7 stages, each focusing on a specific aspect of the development journey. Throughout these stages, you will learn how to collaborate effectively, make informed decisions, and apply the skills you have acquired during the course to create a functional and engaging mobile app. By undertaking this project, you will gain valuable hands-on experience and a deeper understanding of the app development process, preparing you for real-world projects in your future career.

Prerequisites for the Project

In this project, there are **7 stages**, with each stage focusing on a specific aspect of the app development process. Each stage will have its own set of requirements, objectives, and deliverables that you will need to fulfill in order to progress to the next stage. You'll also be given a project template that serves as a foundation for your app, guiding you through the structure, screens, and layout while still allowing for customization and adaptation based on your chosen theme or content. The project template ensures consistency across all projects while maintaining the flexibility needed for creativity and innovation. Let's begin by discussing the template that your project must adhere to.

Project Template

The template requirements outlined below provide a consistent structure and set of features that your project must incorporate, ensuring a level playing field for evaluation. Here are the template requirements for your project:

1. The app should consist of at **least 6 screens**, each serving a specific purpose within the overall user experience.
2. The app must be developed using **React Native** or **Jetpack Compose**.
3. Backend services, such as user authentication and data storage, should be implemented using **Firebase** or **SQLite**.
4. The app should utilize device location services and **Google Maps API** for location-based event discovery and map integration.
5. The user interface and user experience should be well-designed, intuitive, and visually appealing, incorporating the principles of **UX/UI design** learned throughout the course.
6. The project must be organized and managed using version control, specifically **Git**, with a clear commit history demonstrating collaboration and progress throughout the development process.
7. **Clear documentation** is required at every step of the way, [Markdown format](#).

Screens and Layouts

Your project must include a minimum of 6 screens, although you are welcome to add more if desired. The following list outlines the basic requirements for each screen in your app, providing a clear understanding of the essential components and functionalities that should be incorporated:

1. **Welcome/Login screen:**

- App logo or title
- Brief description of the app's purpose
- Sign up and Login buttons (*could include social media login options*)
- Optional: a short onboarding tutorial or carousel showcasing app features

2. **Main feed screen:**

- Search bar for users to search for items or content based on keywords or other criteria
- Filter and sort options (*e.g., by date, popularity, or other relevant factors*)
- A list or grid view of cards displaying essential information, such as:
 - Title or name
 - Image or icon
 - Key details (*e.g., date and time, location, ratings*)
- Optional: a map view or other visual representation of the content

3. **Detail screen:**

- Main image or banner
- Title or name
- Key details (*e.g., date and time, location, ratings, description*)
- Buttons for primary actions (*e.g., save, share, purchase, join*)
- Additional information or sections related to the content (*e.g., reviews, related items*)
- Google ad banner at the bottom of the screen (*you'll need to implement*)

4. **Create/edit screen:**

- Form fields for entering item or content details, such as:
 - Title or name
 - Image or banner upload
 - Date and time picker (*if applicable*)
 - Location input (*with map integration, if applicable*)
 - Description field
- Buttons to save, preview, or cancel creation/editing

5. **Personal dashboard or management screen:**

- A segmented or tabbed view of the user's content, such as:
 - Created items
 - Saved or favorite items
 - History or activity
- Cards with essential information (*similar to the main feed*)
- Buttons or actions to edit, delete, or share content

6. **Settings/Profile screen:**

- User's profile picture and name
- Optional: user's bio or description
- A list of user-specific settings or actions, such as:

- Edit profile
- Notification settings
- Change password
- Privacy settings
- Log out button

Core requirements

Stage 1: Idea and Initial Setup (10%)

Due: Sunday May 7, 2023, 11:59 PM

- A template is already provided in the section above. you will choose your own app idea following this template.
- Initialize the repository and set up version control using Git.
- Write a short description document, include the following document in your git repo:
 - **Specification.md**
- Identify the target audience, and create 2 user personas. Upload the following documents (in [Markdown format](#)) on your git repo:
 - **Audience.md**
 - **Persona1.md**
 - **Persona2.md**

Submission:

Email link to the github repository.

References:

1. [Coursera: Version Control, Week 3](#)
2. [Coursera: Principles of UX/UI Design, Week 1](#)

Stage 2: Wireframing (10%)

Due: Friday May 12, 2023, 11:59 PM

- Create low-fidelity wireframes for the entire app in **Figma**. Add me as a collaborator.
- Include all necessary screens and components.
- Review and iterate on wireframes based on feedback from peers and the instructor.

Submission:

Email wireframe zip file or share google drive link.

References:

1. [Coursera: Principles of UX/UI Design, Week 3](#)

Stage 3: High-Fidelity Prototype (15%)

Due: Sunday May 18, 2023, 11:59 PM

- Create a high-fidelity prototype (*including interactions*) of the app in **Figma**.
- Refine the UI/UX based on feedback and best practices. Consistency amongst UI elements is extremely important.
- Validate the prototype with potential users or peers, and iterate as needed.

Submission:

Email prototype zip file or share google drive link.

References:

1. [Coursera: Principles of UX/UI Design, Week 4](#)

Stage 4: Backend and Database Design (10%)

Due: Wednesday May 21, 2023, 11:59 PM

- Define the database schema, tables, and relationships.
- Populate the database with sample data.
- Design and implement the backend (*using Firebase or SQLite, for example*) to handle data storage, retrieval, and user authentication.

Submission:

To be announced

References:

1. *To be announced*

Stage 5: App Development with React Native (30%)

Due: Monday June 5, 2023, 11:59 PM

- Create a working app using React Native, following the high-fidelity prototype.
- Implement navigation, UI components, and integrate the backend.
- Ensure proper error handling and implement any necessary optimizations.

IMP: Track all your changes and commits on git very frequently. Your progress and hence marks will be determined by your individual contribution to the git repository.

Submission:

To be announced

References:

1. *To be announced*

Stage 6: Testing and Quality Assurance (10%)

Due: Monday June 5, 2023, 11:59 PM

- Create a test case document (*Markdown format*) outlining different scenarios to test in the app.
 - `testcase.md`
- Write and execute unit test cases for the React Native app using testing frameworks (e.g., *Jest*).
- Perform manual testing and fix any identified bugs or issues. Create a document and write personal experience and challenges faced by both members:
 - `challenges.md`

Submission:

To be announced

References:

1. *To be announced*

Stage 7: Product Pitch and Presentation (15%)

Due: Tuesday June 6, Thursday June 8, 2023, 11:59 PM

- Prepare a presentation showcasing the app's features, target audience, and potential monetization strategies.
- Highlight any unique selling points, challenges faced, and lessons learned during the development process.
- Present the final app to the class and gather feedback for potential improvements.

Submission:

To be announced

References:

1. *To be announced*

Extra Evaluation Details

In every stage there will be **25% marks** for a partial progress report that will be asked from your group at exactly midway between *deadline 1* and *deadline 2*.