Competency

In this project, you will demonstrate your mastery of the following competency:

- Apply mobile application development principles and best practices in the development of a mobile application

Scenario

You have recently been hired as the newest member of the mobile application development team for the Mobile2App Company. Every week, your team meets to discuss the latest client projects that have been sent in and to assign the work. There are three available projects that both you and the rest of the team feel would be a good fit for your expertise. This means you may select which application you would like to work on. Your options are an inventory app, an event tracking app, and a weight tracking app.

Option 1: Inventory App

This application will be used to track items in a warehouse. This application must include the following:

- A database with at least two tables, one to store the inventory items and one to store user logins and passwords
- A screen for logging into the app. Note that this should also be used to create a login if the user has never logged in before.
- A screen, with a grid, that displays all items in the inventory
- A mechanism by which the user can add and remove items from inventory
- A mechanism by which the user can increase or decrease the number of a specific item in the inventory
- A mechanism by which the application will notify the user when the amount of any item in the inventory has been reduced to 0 (zero)

Option 2: Event Tracking App

This application will be used to track the dates and times of upcoming events. This application must include the following:

- A database with at least two tables, one to store the event details and one to store user logins and passwords
- A screen for logging into the app. Note that this should also be used to create a login if the user has never logged in before
- A screen, with a grid, that displays all upcoming events
- A mechanism by which the user can add and remove events from the database
- A mechanism by which the user can enter the time and general information of a specific event
- A mechanism by which the application will notify the user on the day that an event has been scheduled

Option 3: Weight Tracking App

This application will be used to track the daily weight of the user. This application must include the following:

- A database with at least three tables: one to store the daily weight, one to store user logins and passwords, and one to store the goal weight. Note that goal weight will be constant but setting a one-time weight that is stored in a database will be the simplest way for you to accomplish this task.
- A screen for logging into the app; note that this should also be used to create a login if the user has never logged in before
- A screen, with a grid, that displays all of the daily weights and the days they were entered
- A mechanism by which the user can add a daily weight
- A mechanism by which the user can add a goal weight
- A mechanism by which the application will notify the user when they reach their goal weight

In a previous milestone, you selected an app to develop and completed some preliminary research. Now you will build on the base you already have and investigate how the app will need to look and function in order to best serve its users. All of the information you analyze and the decisions you make in this project will need to be gathered into an app development proposal.

Directions

All three projects will use the same scenario you began work on during your milestone. Remind yourself of the client's needs and review any instructor feedback you may have received from your milestone work. By constructing your app development proposal,

you will be preparing yourself for success in both Project Two and Project Three.

For this project, you will create an App Development Proposal by demonstrating your knowledge of the following criteria.

1. **Articulate the goals of the project**. Describe the application you have chosen, its major components, and what functionality will be necessary based on the scenario.

2. **Describe the users of the application and the assumptions being made regarding their needs and preferences**. As you think about potential users, consider the following questions to guide your response:
   - How many different types of users can you identify?
   - What different goals might individual users have?
   - What will users need in order to achieve their goals in this app?

3. **Discuss the screens and features that will be necessary to produce a user-centered UI for the app**. Be sure to include a high-level description of every necessary screen and feature that will be in your app. Also explain how a user might be expected to move from one screen to another. You may choose to support your ideas with a simple diagram or illustrations to better represent the different components. Throughout your discussion, remember to justify your decisions by referencing the Android Design and Quality Guidelines, linked in the Supporting Materials section.

4. **Discuss how the functional app requirements will be represented in the code and connected to the UI**. You should explain the calls that show the flow of data between code and screens. When explaining what data calls you may need to make, you should list the major UI components on each screen, then determine what data each component will either display or accept as input and where the data might come from.

What to Submit

To complete this project, you must submit the following:

App Development Proposal

Your submission should include your completed proposal formatted as a Word Document. Be sure to title your file with the name and number referencing the app option you selected from the scenario.

Supporting Materials

The following resource(s) may help support your work on the project:

[Android Design and Quality Guidelines](#)
Your app will need to meet specific requirements so it will look and behave in a way that is consistent with the Android platform. This website details the material design guidelines for visual and navigation patterns along with the quality guidelines for compatibility, performance, security, and more. Specifically, you should review the Layout section and Components section, both of which are categorized under Material Design Basics.

Project One Rubric

Criteria	Exemplary (100%)	Proficient (85%)	Needs Improvement (55%)	Not Evident (0%)	Value
Goals	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Articulates the goals of the project	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include increasing clarity when describing the major components of the application	Does not attempt criterion	15
Users	Exceeds proficiency	Describes the users	Shows progress	Does not attempt	20

	in an exceptionally clear, insightful, sophisticated, or creative manner	of the application and the assumptions being made regarding their needs and preferences	toward proficiency, but with errors or omissions; areas for improvement may include discussing the many different kinds of users who might use this app	criterion	
UI Design	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Discusses the screens and features that will be necessary to produce a user-centered UI for the app	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include ensuring the design follows best practices outlined by the Android Design and Quality Guidelines and that many appropriate features are discussed at the appropriate level of depth	Does not attempt criterion	25
Code Design	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Discusses how the functional app requirements will be represented in the code and connected to the UI	Shows progress toward proficiency, but with errors or omissions; areas for improvement may include including all function requirements and describing the calls that show how data should move between the UI and the code	Does not attempt criterion	25
Articulation of Response	Exceeds proficiency in an exceptionally clear, insightful, sophisticated, or creative manner	Clearly conveys meaning with correct grammar, sentence structure, and spelling, demonstrating an understanding of audience and purpose	Shows progress toward proficiency, but with errors in grammar, sentence structure, and spelling, negatively impacting readability	Submission has critical errors in grammar, sentence structure, and spelling, preventing understanding of ideas	15
				Total:	100%