DMIT2504 Final Project Specs

Design, Build, and Present

## Objective:

Build your own custom mobile application; you are responsible for everything from design to ﬁnal presentation.

Throughout this project, you will not only develop a real-world mobile application but also gain invaluable hands-on experience, refine your Flutter skills, and demonstrate your abilities as a mobile app developer. So, get ready to embark on this exciting journey, and let your creativity and technical expertise shine as you build your very own mobile application using Flutter!

# Part One: Project Proposal (10%)

## Description:

In this first part, you will submit a project proposal that outlines your intended mobile application. This proposal will serve as a blueprint for your project, demonstrating your understanding of the required criteria and features. It should articulate the purpose, functionality, and feasibility of your application, showcasing your ability to plan and execute a development project effectively. Your program must be complex enough to meet the requirements, but not overly complex as to require more time than is available for development.

Read through Part Two of this specification document to familiarize yourself with the requirements of the project. Be sure to propose a project that will enable you to meet the minimum competencies, and then decide on how many of the additional competencies you will attempt to demonstrate.

## Deliverable:

A MS Word document that contains the requirements stipulated in the rubric below. Be sure your document is well-formatted and includes a title page with a title, your name, and the date completed.

## Rubric:

Content (5%): The proposal clearly describes the purpose and functionality of the mobile application and addresses all required features and criteria. Be sure to list and describe each of the additional competencies you plan to include in your project.

Feasibility (5%): The proposal demonstrates a realistic and achievable plan for developing the mobile application within the given time frame and available resources. Provide a timeline for completion. The objective here is not to make a 100% accurate prediction of what you will be able to accomplish in the time you have, but rather to provide a roadmap and goal to aim for as you begin your development.

# Part Two: Project Build (15%)

Core Competencies (5%)

## Description:

The core of the project lies in the development phase. Here, you will implement the core competencies, which include best practices in the Dart language, widget composition using stateless and stateful widgets, routing and navigation, and gesture handling.

Students must demonstrate the following core competencies in their mobile application:

* Dart language best practices
* Stateless and Stateful widgets
* Routing and navigation
* Gesture handling

## Rubric:

The mobile application effectively demonstrates the core competencies mentioned above, showcasing understanding and implementation of best practices in the Dart language, proper use of stateless and stateful widgets, seamless routing and navigation, and appropriate gesture handling.

Other Competencies (Weighted 10%)

## Description:

To further enhance your application, you will also select a minimum of **two** other competencies from the provided list below. These competencies encompass various advanced features, such as remote storage integration, local storage implementation, authentication services, web service consumption, and custom animated widgets. By incorporating these other competencies, you will demonstrate your ability to leverage additional functionalities and technologies, expanding the capabilities of your application.

Students must choose and implement a minimum of **two** other competencies from the provided list:

* Remote storage (e.g., Firebase Firestore)
* Local storage (e.g., shared preferences, local file, SQLite)
* Auth services (e.g., Firebase Auth)
* Consuming a web service (e.g., RESTful API consumption)
* Custom animated widget
* Global Positioning System (GPS) integration with Google Maps
* Camera

## Rubric:

For each implemented other competency:

The mobile application effectively demonstrates the implementation and usage of the chosen other competency, showcasing a thorough understanding and effective utilization of the technology or feature.

# Part Three: Presentation (15%)

## Description:

Finally, you will conclude the project with a final presentation. This presentation will give you the opportunity to showcase your completed mobile application, highlighting its features, functionalities, and any unique aspects you have implemented. It is your chance to impress others with your app's user experience, technical prowess, and the creative solutions you've incorporated into the project. You are to create a 5 to 8 minute youtube video demonstrating your app running on a virtual phone.

## Rubric:

Content (5%): The presentation effectively communicates the purpose, features, and functionality of the mobile application.

Demonstration (5%): The presenter demonstrates the application's core features and optional competencies, showcasing their usability and effectiveness.

Engagement (5%): The presentation is engaging, well-prepared, and effectively captures the attention of the audience.

# Submission Guidelines:

* Submit your Flutter app via a zipped folder to Moodle.
* Include in the “project” folder only, the “lib” folder, along with any necessary “assets” folder (e.g., images, fonts) used in the app, and the “pubspec.yaml” file to show any external dependencies or packages.
* Also include a readme.md file with instructions on how to build and run the app.
* Submit a link to your YouTube video to Moodle.