Software Engineering
Capstone Topic Approval Form

STUDENT NAME and ID:
Student name: David Ogden

Student ID: 011405929

INFORM INSTRUCTOR:
Potential use of proprietary company information: (Y/N): N

ANALYSIS:

1. Project topic AND description: A mobile application for students to track their semesters, classes, and exams. This project will use C#, .NET MAUI, and SQLite.

2. Project purpose AND goals: This application aims to allow users to create and modify terms, classes, and exams. Users can also set reminders for courses and exams and view total degree progress and term progress. This will allow users to manage their day-to-day schedules and view their progress for their degree.

DESIGN and DEVELOPMENT:

1. Explain why the problem and software product you have proposed are worthy of study: The problem and software product I have proposed are worthy of study because about 50% of high school graduates attend college. This means that this application has the potential to reach and assist a large number of people in managing their college course load. From a technical aspect, this project is worth creating because it provides experience in all areas of software development, such as development, deployment, documentation, version control, design, and more.

2. Projected outcomes and deliverables: The projected outcome for this project is to have a minimum viable product (MVP) meeting the goals laid out in part two of the analysis section. The order of deliverables is as follows:
   - Deliver an application that allows users to add, edit, and delete terms (or semesters) and classes
   - Update the application so users can add, edit, and delete exams. All exams would be bound to a course
   - Allow users to set notifications for upcoming term, class, and exam start dates
   - Allow users to see a graphic depicting their degree progress and term progress

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3. Estimated number of hours for the following:
   - i. Planning and design: 20 Hours
   - ii. Development: 75 Hours
   - iii. Documentation: 8 Hours
   - iv. Total: 103

4. Projected completion date: 08/15/2024

IMPLEMENTATION and EVALUATION:

1. Describe how you will approach the execution of your project:
   - Create an Entity Relationship Diagram(ERD) for the database, a Unified Modeling Language(UML) class diagram for the classes, and a wireframe for the user interface(UI).
   - Generate the .NET MAUI application
   - Set up basic shell navigation with empty views (pages).
   - Create the SQLite database service and mock data
   - Develop a ViewModel, then a corresponding view. Repeat until all views are complete.
   - Develop unit tests for the ViewModels
   - Create documentation

INFORM INSTRUCTOR OF:
Potential use of human subjects (Y/N): N
Potential use of proprietary company information (Y/N): N

STUDENT NAME:

David L Ogden III_____

By submitting this form, you acknowledge that **all information provided is accurate and that any changes to the topic, proposal, or goals must be discussed with your assigned instructor prior to continuing.**

INSTRUCTOR NAME: Candice Allen

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INSTRUCTOR SIGNATURE:

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INSTRUCTOR APPROVAL DATE: 07/17/2024

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