

Software Engineering Capstone Topic Approval Form

Task 1

The purpose of this document is to help you clearly explain your capstone topic, project scope, proposed software product, and timeline. Identify each of these areas so that you will have a complete and realistic overview of your project. Your assigned instructor cannot approve your project topic without this information.

STUDENT NAME and ID:

Student name: Vittone

Student ID: [REDACTED]

INFORM INSTRUCTOR:

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

PROGRAMMING LANGUAGE(S): Java

Application Type (select one): Mobile App (Android)

ANALYSIS:

1. Project topic AND description:

- This project is a Student Planner mobile app. It is an Android application that is specifically designed to run on an Android device. This mobile app will be compatible with Android 8.0 and higher. This student planner application allows students to organize their academic workload by keeping track of their classes, assignments, and due dates.

*It is important to note that this app does not connect to any school to get students' class and assignment data. Students will have to manually enter class and assignment information. This mobile application serves as a digital version of a paper student planner.

2. Project purpose AND goals:

- Project Purpose:
 - The purpose of this project is to provide students with a platform that helps organize their academic schedule. This mobile student planner keeps track of the student's classes, assignments, and due dates. By having all of this scholastic information in one place, it will be easier for students to see all of their class assignments and manage their time accordingly. This app also has the ability to send notifications to remind students of specific due dates.
- Project Goals:
 - Provide users with a user-friendly interface that allows them to easily use the app
 - Improve how students manage and organize their academic schedule
 - Improve students' time management by reminding the student on upcoming assignment due dates
 - Provide users with a mobile student planner

DESIGN and DEVELOPMENT:

1. Explain why the problem and software product you have proposed are worthy of study:

- The problem and software project proposed are worth studying because strong planning and organizational skills are important for academic success. Many students struggle with managing their academic workload. Most students take 4-5 classes each semester, which can mean hundreds of assignments between all of these classes. With this many assignments, it can be hard for students to stay on top of their academics. One way to stay organized is through the use of planners. By having their student planner be a mobile app, students can have constant access to their educational plans because they have their mobile device with them. Mobile student planners allow students to easily track classes, assignments, and assignment deadlines. Since all of their scholastic plans are in one place, this can help reduce student stress by making them feel less overwhelmed by their workload. Using a student planner can also improve students' time management skills. Overall, by staying academically organized, students are able to be more successful throughout their educational journey.

2. Projected outcomes and deliverables:

- The project is a fully functional Android mobile application
- The app has a user-friendly interface that allows users to navigate and use the application easily
- Users are able to add, modify, and delete as many classes and assignments as they desire

- The app includes sharing features which allows students to share class and assignments details via a sharing feature (email, SMS, ect.)
 - The app sends notifications to remind students of upcoming assignment due dates
 - Various forms of documentation including a design document, repository link, and user guides
3. Estimated number of hours for the following:
- i. Planning and design: 20 hours
 - ii. Development: 130 hours
 - iii. Documentation: 15 hours
 - iv. Total: 165 hours
4. Projected completion date: 02/15/25

IMPLEMENTATION and EVALUATION:

1. Describe how you will approach the execution of your project:
 1. The first step to the execution of my project is to plan and design the app. This includes:
 - a. Designing the user interface
 - b. Wireframes
 - c. Determining app navigation
 - d. Planning how the app with track / record classes and assignments
 - e. Planning a complete list of deliverables and outcomes
 - f. Planning how elements of the app will work together
 2. The second step to completing my project is the development aspect. This includes:
 - a. Backend and frontend development
 - b. Meeting code requirements listed in D242: Task 2 Section B
 - i. Implementing the use of a database that allows users to add, modify, and delete data
 - ii. Implementing validation for certain aspects of the code (ex. date validation, ect.)
 - iii. Implementing a search functionality
 - iv. Creating the ability for the students to generate reports on their data
 - v. Using code that includes inheritance, polymorphism, and encapsulation
 - vi. The use of industry-appropriate security features
 - vii. Making the application scalable
 - viii. A functional GUI
 - c. Creating code that follows the design and plans determined in step 1
 3. The third step necessary to complete my project is testing. This includes:
 - a. Conducting tests to ensure that all aspects of the application work as they are intended

4. The fourth step necessary to complete my project is documentation. This includes:
 - a. Design document that includes a class diagram and a design diagram
 - b. The repository link
 - c. Create a user guide for setting up and maintaining the application
 - d. Create a user guide that includes instructions on how to run and use the application
5. The fifth step necessary to complete my project is the deployment of my Android application.

INFORM INSTRUCTOR OF:

Potential use of human subjects (Y/N): N

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

STUDENT NAME:

Vittone

By submitting this form, you acknowledge 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 SIGNATURE:



INSTRUCTOR APPROVAL DATE:

1/21/2025
