First Semester Project Plan

Project Title: Time Estimation App

Team Members and Email Addresses:

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Faculty Advisor:

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Client:
Dr. David Luginbuhl, Associate Professor, Department of Electrical Engineering and Computer Science, Florida Institute of Technology

Date(s) of Meeting(s) with the Client for Developing this Plan:

- August 26, 2024
- September 9, 2024

Goal and Motivation:
The goal of the Time Estimation App is to help users, particularly students, accurately estimate the time required to complete academic tasks. Accurate time estimates for completing tasks reduce the stress and inefficiency associated with poor time management, a common issue among students who tend to miscalculate how long a task will take, such as completing homework, or studying for an exam. Existing time management tools are neither convenient to use nor sufficiently personalized to the users specific pacing. This application will address these issues by providing a simple tool for students to plan their coursework schedule, while taking their personal working pace into account. This will allow students to plan more effectively, which may help students avoid high stress situations and achieve higher grades.

Approach (Key Features of the System):

1. **Time Estimation:**
   When a user enters a task on the app, the app generates an estimate of the amount of time it will take the user to complete the task. This will help the user more accurately plan their academic schedule. The user will improve their time estimation skills the more they use this feature in tandem with the Time Tracking feature.
2. **Time Tracking:**
   The app allows users to track their academic activities, such as studying, or working on assignments. Once a tracked activity is complete, the actual time taken is compared with the original estimate of the student. This allows the student to take the difference between these times into account for future estimates. This means that the more activities a user tracks, the more accurate their estimates will be.
3. **Customizable Categories:**
   Users can choose to have their tasks organized by type (“Studying for Exam”, “Reading Textbook”, “Working on Assignment”, etc.) or by course. This makes it so the app can adapt to the user's organizational style. Because of this, this app will provide a centralized location for all of a user’s academic tasks that is organized in a way that feels natural to them.
4. **Analytics:**
   Users can easily view data visuals displaying their trends. This includes time estimation accuracy over time, and “Progress Reports”. Progress Reports are an elegant visual summary of the tasks completed by the user over a given time frame.

Novel Features/Functionalities:

The novelty of this application is its personalized nature. The current study tracking tool provided by Florida Tech via The Hub, is simply a timer. Our app will improve upon the concept of this tool by supporting more than time tracking, while retaining simplicity. Our app encourages organization and consistency in students by providing a platform for easily tracking all academic activities that helps improve their time management.

Algorithms and Tools:

The tools we plan to use for this project are React Native, Chart.js, and Firebase. React native is a user interface framework that we will use to build the application. We will use the Chart.js library for generating reports for the user. We will integrate Firebase into our application for data storage.

Technical Challenges:

1. **Learning New Frameworks:**
   We plan to use React Native for cross-platform development, but our team has limited experience with this framework. We will need to dedicate time to learn and implement this technology effectively.
2. **Integration of Analytics:**
   Implementing real-time analytics and progress tracking presents a challenge, as it requires efficient data handling and visualization techniques that are new to our team.
3. **User Interface Design:**
   Creating a non-intrusive, user-friendly interface is critical, but it also poses a challenge as we need to ensure the app is intuitive and visually appealing, despite our limited design experience.

Milestone 1 (Sep 30): Itemized Tasks:

- Comparing and selecting technical tools for mobile development, data handling, and UI/UX design.
- Providing small ("hello world") demos to evaluate React Native, Firebase, and Chart.js.
- Resolving technical challenges: React Native basics, integrating Firebase for data storage, and implementing Chart.js for analytics.
- Comparing and selecting collaboration tools for software development, documents/presentations, communication, and task calendar (e.g., GitHub, Google Docs, Slack, Trello).
- Creating a requirement document.
- Creating a design document.
- Creating a test plan.

Milestone 2 (Oct 28): Itemized Tasks:

- Implement, test, and demo the time tracking feature.
- Implement, test, and demo customizable categories.
- Implement, test, and demo the feedback mechanism.

Milestone 3 (Nov 25): Itemized Tasks:

- Implement, test, and demo progress tracking and analytics.
- Finalize UI/UX design and conduct usability testing. Prep for final presentation/submission.

Task	**Artur**	**Audrey**
Compare and select Technical Tools	web, mobile	
"Hello World" demos	web	web, mobile
Resolve Technical Challenges	Language X	Language X
Compare and select Collaboration Tools	programs	programs
Requirement Document	Write 0%	Write 100%
Design Document	Write 90%	Write 10%
Test Plan	Write 100%	Write 0%

Approval from Faculty Advisor:

"I have discussed with the team and approved this project plan. I will evaluate the progress and assign a grade for each of the three milestones."

Signature: _____

Date: _____