Mobile Development Project 1: First Project Proposal
Due Friday March 5, 2021, 11:59 pm

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1   Project Description

For the first project I plan to make a simple fitness tracking app that shares the data between a phone app and a watch app. Where a user can log into the app and store their daily goal for how many steps they take that day and how long they have exercised for that day. A user will be able to use voice to text or the keyboard for adding their daily goals to the database. From there the watch app will keep track of how many steps they have taken and how long their hear rate has been in a certain BPM range during the day. The watch app will be able to display the users progress by showing the number of steps taken, the time spent in BPM range, and a percentage showing the user's progress towards their goal. The phone app will allow the user to update and add to their goals as well as showing their current progress.

2   Technical Challenges

For this project I will need to learn how to retrieve data from the smart watch heart rate monitor. I will also need to figure out how to implement different activity pages on the watch because the screen will most likely not be big enough to display all of the user's progress information. Another challenge will be learning how to effectively use the speech-to-text API in-order for users to add their fitness goal for the day.

3   Requirements

Phone App:

- Users will need to log in before accessing the app features.

- If user doesn't have a login they will need to create one first.

- After logging in, if a user does not already have a goal set they will be asked if they want to set a goal for number of steps, time spent exercising, or both.

- After picking what kinds of goals, user will be able to input goal information via typing or speech-to-text.

- Once goals are set phone app will display progress

Watch App:

- Once goals are set by phone app heart rate monitoring/ step counting will begin.

- User will be able to scroll though progress outputs of number of steps taken, time spent with elevated heart rate, and percentage towards daily fitness goal.

4 Time Estimation: 13hrs 30min

Phone App: 9 hrs

- User login: 2hrs

- Account Creation: 2hrs

- Goal Creation: 2hrs

    - Text input: 20min
    - Voice input: 40min
    - Goal Storage in Database: 1hr

- Show Progress: 1hr

Watch App: 2hrs 30min

- Count Steps: 30 min

- Track Heart Rate: 1hr

- Show Progress: 1hr

Misc:

- Calculate Progress and Store to Database: 2hrs

5 Group Members

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