Fulcrum Delivery Document

Team All Star, E7205

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Intro

Please find enclosed the Delivery Documentation for Fulcrum, the native Android mobile application developed by E7205, Team All Star, during Summer 2017 and Fall 2017. Fulcrum is an application intended to help students monitor their overall wellness by specifically analyzing their academic, emotional, physical, and social dimensions of wellness. Students take a Daily Assessment, initially developed by Conor Fitzpatrick, Shanzeh Farooqui, and the Georgia Tech Counseling Center. A user can also link a physical tracker (Google Fit) to the application to have a more accurate physical wellness score. Fulcrum was developed using Android Studio and Java. It actively uses a Firebase database to write and read user data.

Release Notes

Version: 1.1

Existing Features from Version 1.0:

- Created Daily Assessment functionality
    - Improved UI of Daily Assessment to include slider
    - Linked Daily Assessment answers to Firebase database
- Finalized user registration and authentication
- Designed icons and genera UI
- Created hamburger menu
    - Created dropdown menu for individual wellness pages
- Created visualizations on individual wellness pages
- Created visualizations on overall wellness page
    - Added date scrolling for overall wellness page
- Created visualizations on Home page
- Linked physical tracker to application
    - Pulling data from Google Fit
- Added Terms and Conditions

New Features from Version 1.1:

- UI and Layout improvements
- Finished implementing Firebase functionality with visualizations

Bug Fixes:

- Clicking the back button no longer causes the app to crash
- User registration now works 100% of the time
- Retrieving steps without user fitness activity no longer causes the app to crash
- The first graph displayed when the Overall Wellness page is accessed is no longer that of a previous date
- The Individual Trend Icons on the Overall Wellness page are now positioned correctly when the graphs are loaded the first time

Known Bugs:

- The Home page does not display correctly the first time it is loaded each time the app is accessed
- The X axis lines are not correct for the Overall Wellness graphs

- The Individual Wellness page and the Overall Wellness graphs for the previous week do not correctly update
- Pressing the back button on the Account page often shifts the top part of the Settings page containing the Hamburger Menu up and obscures part of the text. Doing this also clears the visualizations on the Home page
- The xml for the Navigation View on each page that controls the formatting for the Hamburger menu will sometimes randomly change itself and ruin the styling

Install Guide

Prerequisites

- You must have JDK and JRE 1.8 installed and configured before proceeding (http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html)
- You must download and install Android Studio, Version 3.0.0 or higher to run the application (https://developer.android.com/studio/index.html?gclid=Cj0KCQiAgZTRBRDmARIsAJvVWAtkLAFieXX1qFZ3s-SAz28XqcZ3F-sVbtDDhRKLONdKgcZvIJSDk58aAjDMEALw_wcB)
- You must install the Android Studio Nexus_5X_API_26:5554 device emulator in order to run the application
- You must have a valid Google account in order to use the physical tracker functionality of the application. Additionally, you must register with this email
- You must download and install the Google Fit application, Version 10.0.1 or higher to run the application (more info at https://developers.google.com/fit/android/releases)
    - If using the emulator, you will need to download the Google Fit APK online from a website such as UpToDown and drag the downloaded APK file onto the emulator while it is running.
    - We used Google Fit version 1.74.05-130 and downloaded it from https://google-fit.en.uptodown.com/android
- In order to get your emulator to communicate with your Google Fit app, you must follow the first three steps of this tutorial: https://developers.google.com/fit/android/get-started
    - To summarize Step 2:
        - In Android Studio, open the Android SDK Manager.
        - Under **SDK Tools**, find **Google Play services** and **Google Repository**.
        - If the status for these packages is different than *Installed*, select them both and click **Install Packages**.
    - For detailed instructions on Step 3: https://developers.google.com/fit/android/get-api-key

- We use the debug key, and we need to add your Google Accounts to the project as Owners before you can complete Step 3.

Dependencies

- Firebase (included in build file, more info at https://firebase.google.com/docs/android/setup?gclid=Cj0KCQiAgZTRBRDmARIsAJvVWAvAoZiierrfZtXrwN2XjErcxcsC2c-wefql2aP01mDw2eWXIdzRExIaApZNEALw_wcB)
- Android GraphView (included in build file, more info at http://www.android-graphview.org/)
- Google Play Services, Version 10.0.1 or higher (included in build file, more info at https://developers.google.com/android/guides/releases)

Download

- Clone the following Android Studio Project (can be done from within Android Studio): https://github.com/yaminmousselli/Fulcrum

Build

- Run the build.gradle files in the project and under the "app" folder in order to build all required dependencies (Firebase, Android GraphView, and Google Play Services)

Installation

- No additional work necessary. Once files are built, Fulcrum should be installed on the Nexus_5X_API_26:5554 device emulator within Android Studio

Running Application

- Run the project within Android Studio after the build process to open the device emulator and launch Fulcrum

Troubleshooting

- As long as the dependencies are properly built and the prerequisite installations are complete, Fulcrum should run correctly. Android Studio Installation troubleshooting advice can be found at the following link: https://developer.android.com/studio/troubleshoot.html
- For additional troubleshooting, feel free to reach out to any of the members of Team All Star. Contact information is provided in the next section