Project Name:

"TerpTrakr"

Project Group: #46

- Harshil Patel - Homework/Assignment Tab
- Rushad Antia - Health Tab
- Abel Takele - Calendar Tab

Project Location

https://gitlab.cs.umd.edu/cmsc436spring2019/cmsc436-rantia/tree/master/Final%20

Project Description

The goal of this project was to create an ELMS style program where you can keep track of your assignments and health. There are 3 components to the app, HWTracker, Health Tracker and a calendar that integrates the tasks in the HWTracker.

The HWTracker allows you to add tasks that get put into a table view in which they are sorted into 4 sections. The sections include past, upcoming, todo, and completed. The table dynamically changes based on what type of data is put into the table. The table will also display how many events are in that part of the table. For example, if there are 4 events that are upcoming the tab will show that there are 4 Items that are coming up. The HW tab also will categorize items that are upcoming (within 7 days of today). Each event in the table view can be swiped left or right depending on whether you have completed the item or would like to delete it. Finally, the user is able to select a cell and edit the data at that row. Putting all these features together creates a robust Assignment management tool.

The Health tracker consists of multiple aspects. On first time launch, when the user goes to the health tab they will be redirected to their user profile. This is where they will allow healthkit to read certain elements of their data. Once this is authorized they will have to enter their username, daily step goal, and daily sleep goal. All these fields will make sure that they enter correct data and they will notify the user otherwise. If the app ever loses its healthkit authentication the user has the option of reauthorizing the app. Then on the health tab view controller, they will see their name along with their

sleep goal and step goal in a progress bar. Along with this, it will graph your latest sleep sessions so that you can see the progress between them. The app will also remind you (locally) about getting your necessary 10k steps per day regardless of your goal.

The last part is the calendar where tasks from the HWTracker get synced into the calendar. The days that have events get underlined so that you have clearly see which days you have tasks due and from there you can click on a day and see the tasks for that day. The calendar updates so that when you edit tasks from the HWTracker you the changes reflect on the calendar as well.

Features:

1. Biometric ID - When the app launches you have to use Face/Touch ID to view your data.
2. JKCalendar - Calendar Cocoapod we used in order to have an interactive calendar experience
3. HealthKit - Utilized HealthKit to gain information about the user. This information includes, steps taken, sleep gained, user name, biological sex, etc.
4. Local Notifications - While in the app it will notify of you of various things ranging from getting a daily 10k steps to any past due assignments that you may have missed.
5. Charts - Cocoapod that allows us to graph data. This was used to graph the steps taken in the week and sleep data.

Evaluations of Goals Met/Unmet

Goals Met:

We completed all of the goals that we set for ourselves in the beginning. The HW tab now saves data to CoreData so that the goals persist. A stretch goal that we completed was the fact that the table will categorize and intelligently sort the events based on their status (upcoming, todo, past, completed). Along with that there are local notifications that will remind you of any past due assignments that you might have missed. Also we have implemented a search bar to filter the data. For the health tab we met all the basic goals of being able to create sleep/step goals and plotting the data. We also added the ability to have local notifications reminding the user to hit their daily 10k step goal. The calendar tab now reads the data from CoreData and will organize the events and their status. For the stretch goals we were also able to implement biometric

authentication for user login while simultaneously blurring the background as to hide data. Finally we added a welcome screen when the app first launches.

Goals Unmet:

The largest goal we were not able to finish were push notifications. This is because there was a lot of apple setup that we were not able to complete. Along with this we could not get the calendar to sync with iCloud. However we did get local push notifications to be shown while within the app.