

Mental Health App Milestone 1

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Faculty Advisor: Dr. Bernhard

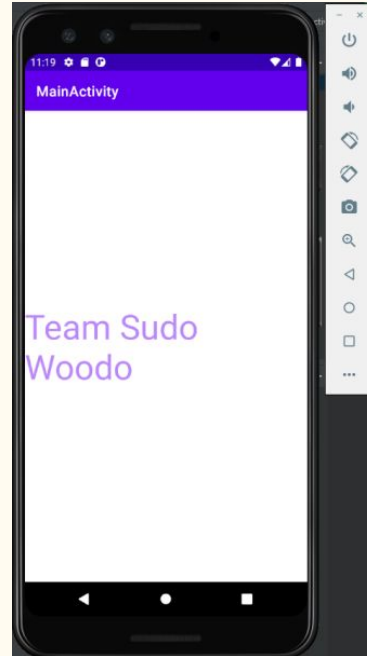
Overview of Milestone 1

Task	Progress	Daniel	Josh	Phi	To Do
1. ("hello world") demo(s)	100%	16%	16%	66%	None
2. Resolving technical challenges	100%	16%	16%	66%	None
3. Compare and select collaboration tools	100%	16%	66%	16%	None
4. Create a Requirements Document	100%	50%	25%	25%	None
5. Create a Design Document	100%	25%	50%	25%	None
6. Create a Test Plan	100%	50%	25%	25%	None

Task 1: “hello world” demo

Successfully installed and used Android Studio to emulate an Android Device

Successfully wrote a “hello world” program for Java

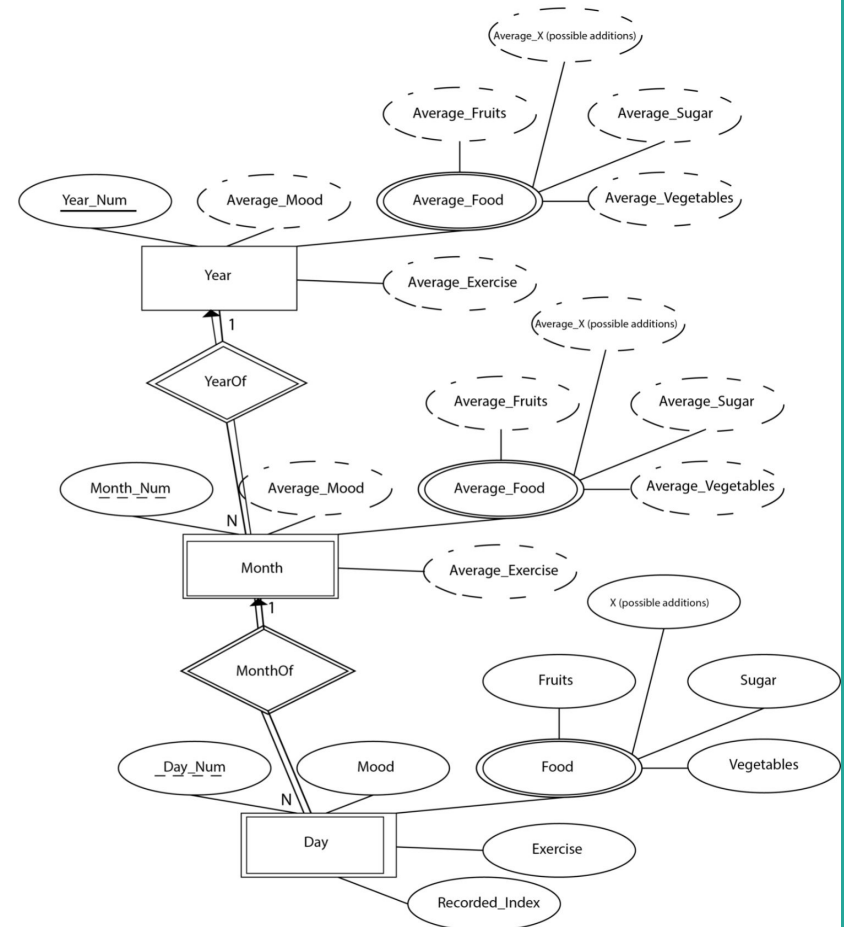
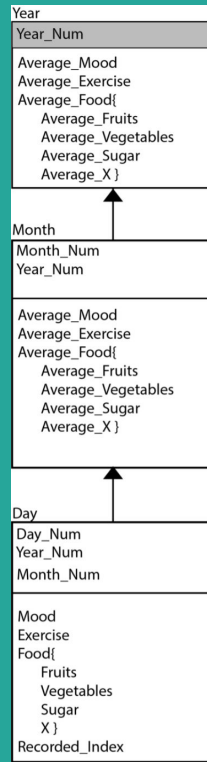


Task 2: Resolving Technical Challenges

Spent some time familiarizing ourselves with Java, although to an extent we will have to learn as we go

Came up with a database to use, being an SQLite relational database as Android has SQLite naturally installed and highly recommends it

ER Diagram



Recorded_Index is the "counter" of how many days have had information recorded for reference by reminders and the game.

Task 3: Compare and Select Collaboration Tools

Visual Studio Code is professionally used and has a massive number of features, and one of our teammates has experience in using it

Codeshare.io had chat abilities although our communication has already been through Discord, a messaging and calling app we are used to

Codecollab.io like Codeshare.io did not have the same level of feature depth as VSC and required internet access to work on code

Ended up using Android Studio for our code writing uses as it has an inbuilt emulator for Android

Decided to simply use GitHub as our collaboration tools to upload and view code

Task 4: Create Requirements Documents

Contains descriptions of all features we need to have, as well as what kind of behavior is correct for them

The app will save user logged information for future use, and can access it at a later time in written and graphical format

The app examines the database of stored logs to create notifications for the user

The app's game creates a randomly generated scenario and accesses a list of graphical elements with certain attributes to make visuals that fit

The app changes its theme and visuals depending on what month it is, which changes the game scenarios

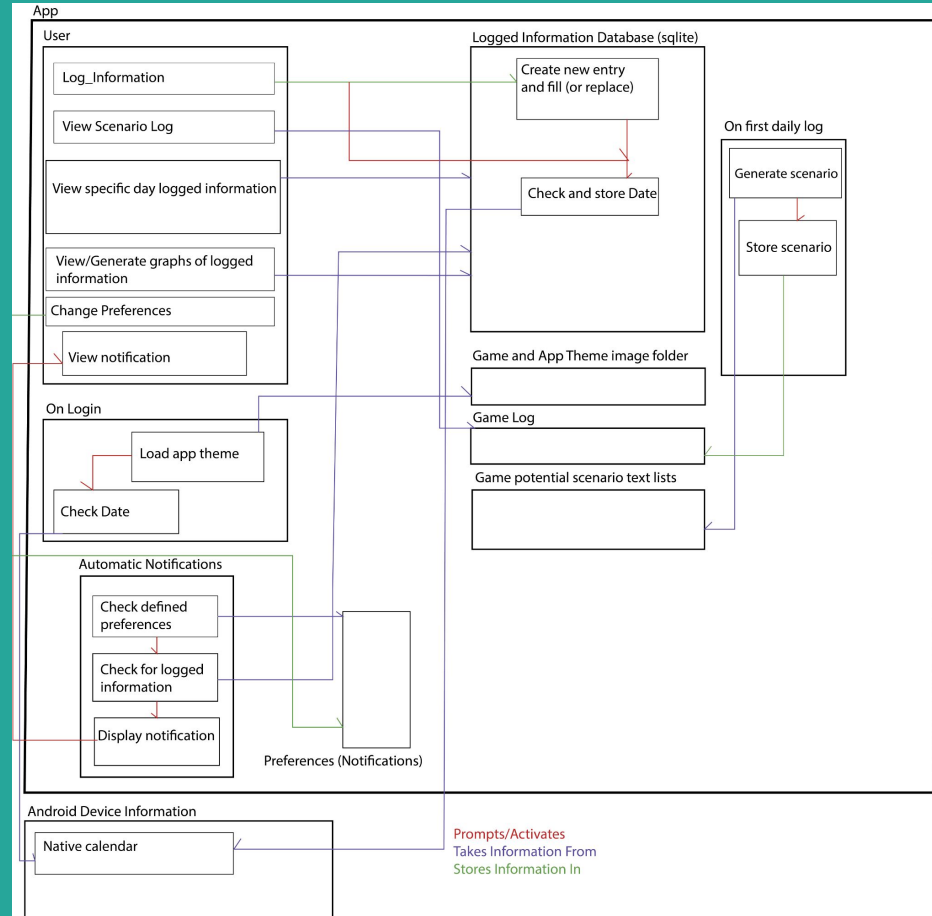
Task 5: Create a Design Document

Shows how our system designs worked and how the program interacts with the user and itself

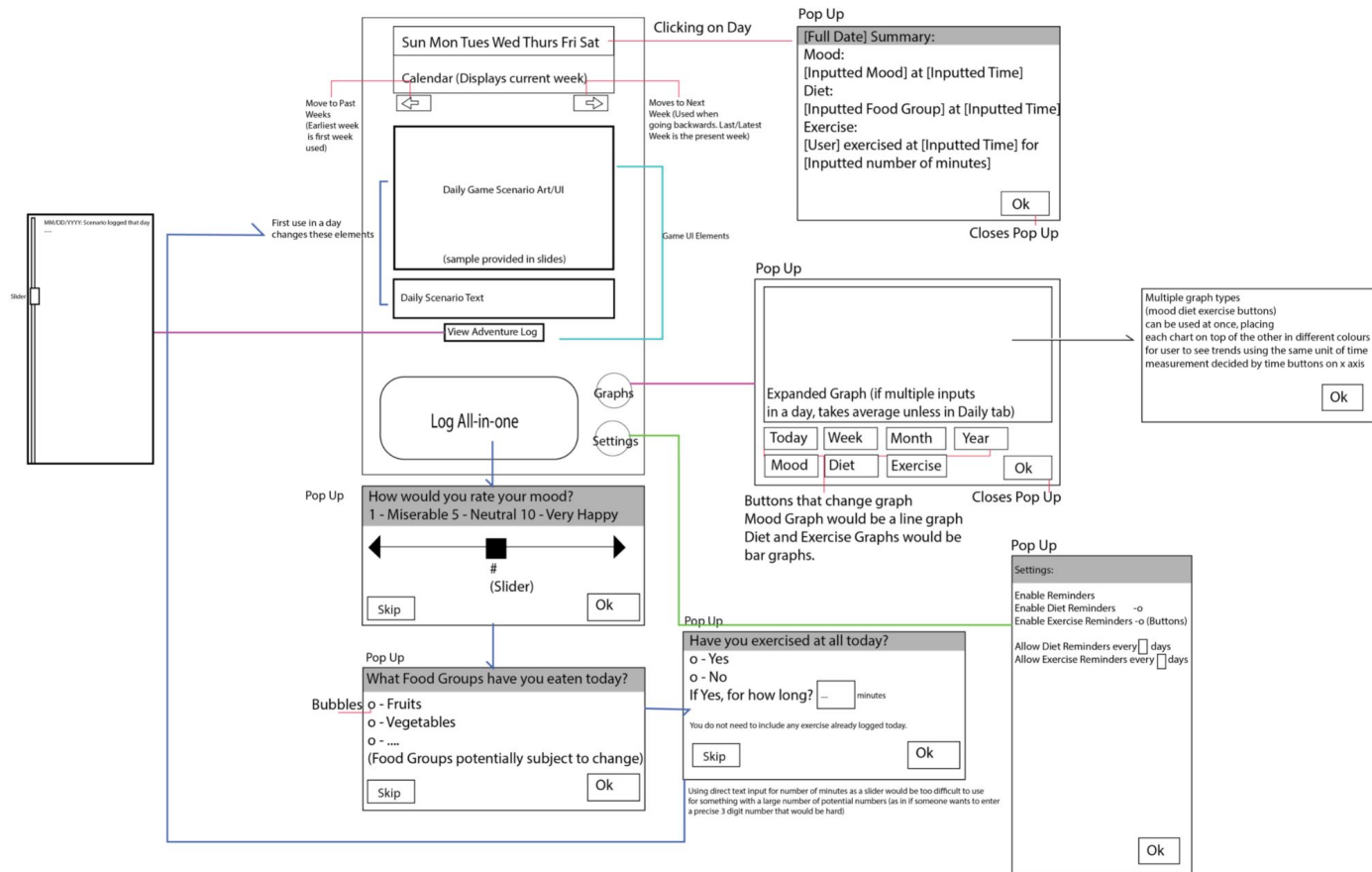
Database needs to be small and not take up much space, the effort was put in to keep entities and attributes to a minimum

UI was designed to be easy to understand and make a quick and smooth “loop” through the features of the app

System Architecture Diagram



UI



Notifications UI

Notifications

Free to Use Stock Image

You have not logged eating any fruit for [] days in a row



Ok

Free to Use Stock Image

You have not logged eating any vegetables for [] days in a row



Ok

You have logged eating high sugar foods for [] days in a row

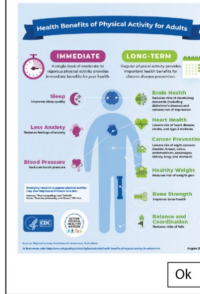


Ok

graphic provided by
dietaryguidelines.gov

<https://www.dietaryguidelines.gov/resources/downloadable-graphics>

You have not logged any exercise for [] days in a row



Ok

graphic provided by cdc.gov

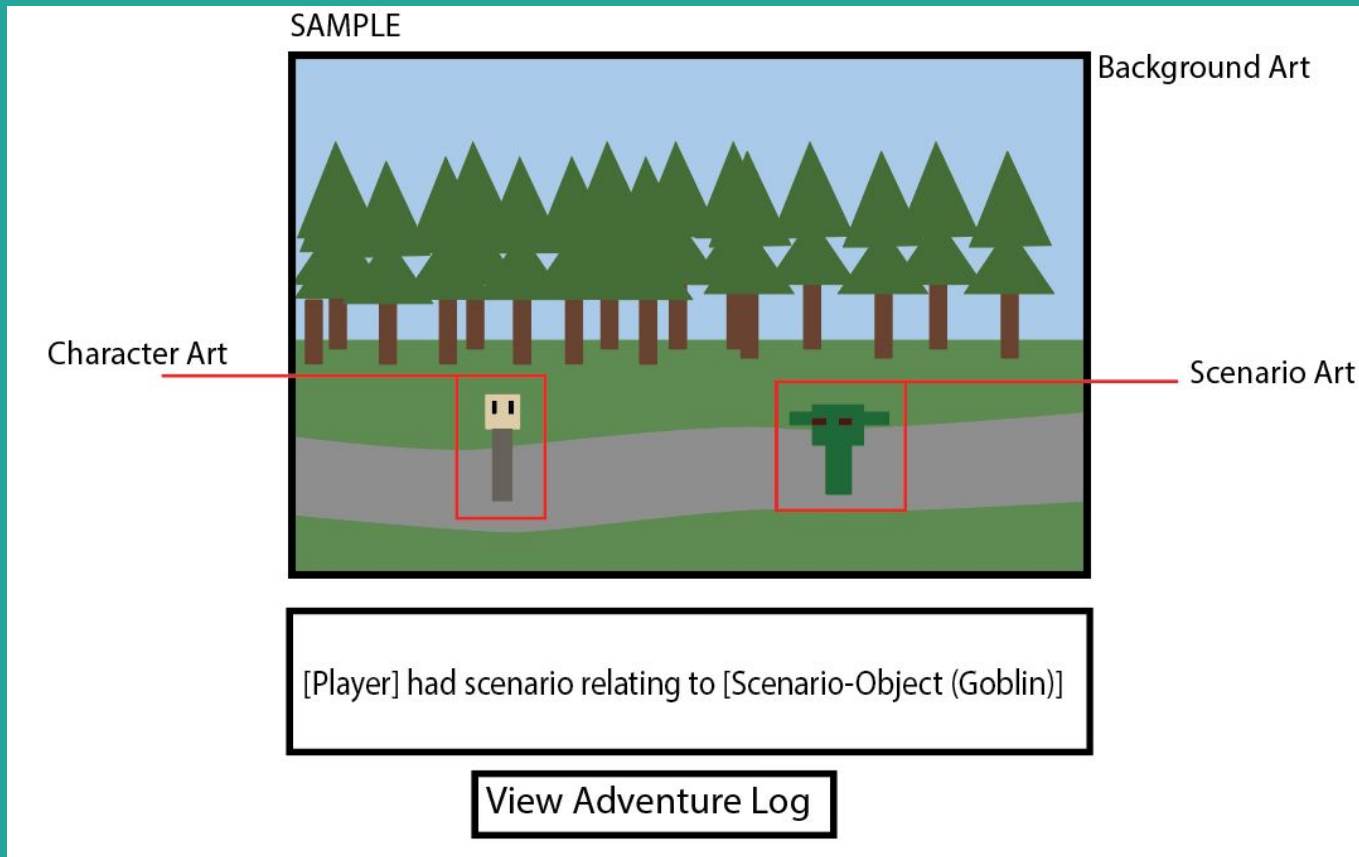
<https://www.cdc.gov/physicalactivity/basics/adults/health-benefits-of-physical-activity-for-adults.html>

Note: If copyright is an issue then can be replaced, although as they are obtained from .gov it should be fine as it appears that government documents/websites/etc are public domain.

We likely would add more notifications depending on the end food groups chosen, currently focusing on vegetables/fruit and sugary foods due to our Reference article.

Note: Our notifications don't focus on portions or specifics as that would require logging much more specific and lengthy information, and there are many apps that can do this as if someone was motivated to log their diet that extensively they likely would just use those. Increasing the specificity of the diet or exercising logging would increase the barrier of usage, and we want the reminders to still be useful/clear to someone not motivated enough to track and log the specifics of their diet.

Sample Game UI



Task 6: Create a Test Plan

The user's amount of input is minimized to prevent mistakes and input easier which reduces the number of tests we need to do

Primary function of the app relates to a database, and so a relatively large number of test cases need to be made

Discussion of Team Contribution

- Joshua Breininger focused mostly on working on descriptive and planning elements of the milestone, as well as being the primary communicator with the clients and participated heavily in writing the documents
- Daniel Bornemann was in charge of the Software Test Plan and the Software Requirements Document, as well as communicating with the Faculty Advisor
- Phi Duong took part in the document writing and checked and edited them for format and errors, as well as focusing more on getting the Android emulation up and running

Plan For Milestone 2

Task	Josh	Phi	Daniel
1. Implement, test, and demo a basic Android UI.	50%	25%	25%
2. Implement, test, and demo an interactive pop-up with an input field.	25%	25%	50%
3. Implement, test, and demo saving inputted information into an in-app database.	33%	33%	33%
4. Implement, test, and demo an in-app database structured around a calendar.	25%	50%	25%
5. Implement, test, and demo retrieving information from the database.	33%	33%	33%

Client Feedback

- Add option for the user to decide a name for their avatar (added to documents)
- The UI looks understandable but plain (Addresses with themes)
- Themes should be made specifically to be appealing to look at and not use exhaustive or unpleasant imagery
- Aside from that, it appears to fulfill the requested functionality

Questions?