Milestone 3

Version 1.0

Mental Health App

By:

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1. **Team Information**
   1.1 Names and Emails of Project Members
   - Daniel Bornemann - dbornemann2018@my.fit.edu
   - Joshua Breininger - jbreininger2018@my.fit.edu
   - Phi Duong - pduong2018@my.ft.edu

   1.2 Faculty Advisor
   - Dr. Bernhard - pbernhar@cs.fit.edu

   1.3. Client
   - Calvin Schwartz
   - Maya Lindseth

2. **Project Details**

   2.1 Progress of Milestone 2

Task	Josh	Phi	Daniel	To Do
Create a basic UI with buttons and pop ups corresponding to what will be worked on in the future.	20%	20%	60%	0%
Create functionality for food, exercise and mood pop ups, store inputted information into the database.	20%	40%	40%	0%

Prepare for notifications by testing queries we would use to check for notifications on the database.	60%	20%	20%	0%
Produce a pop up graph that corresponds to mood and can have the x axis changed by the user through buttons.	15%	50%	15%	20% Graph currently uses dummy data and is not a bar graph, due to time limitations we couldn't quite complete the full database interacting graph.
Create settings menu which change settings in the app, although they won't have any current functionality.	30%	35%	35%	0%

2.2 Discussion of Milestone 2

Task 1: Create a basic UI with buttons and pop ups corresponding to what will be worked on in the future.

We created the buttons for the UI of the app, with pop ups that appear corresponding to that button. Each button is labeled, although currently there is not much functionality with those pop ups, but the layout is there. Further details on pop ups with functionality will be described in the other tasks.

Task 2: Create functionality for food, exercise and mood pop ups, store inputted information into the database.

We were able to figure out how to link pop ups together using what we learned during Milestone 2. From the "Log All-In-One" button on the home screen of the app, the daily mood pop up is brought up. Pressing the "skip" or "ok" button on the mood pop up brings the user to the daily food pop up. After the food pop up comes the exercise pop up, and after that only the main screen is displayed. Each of these pop ups has a prompt that asks the user to input something and a text field to input information. Pressing "ok" saves that information into the database. After logging all of the information, it can be viewed in the "Adventure Log." The input fields in the pop up are temporary and will be changed later to be easier for the user to use. These changes will include a slider for the mood menu and selections of food groups for the food menu. The displayed information will also be moved out of the Adventure Log and into a graphical form later.

Task 3: Prepare for notifications by testing queries we would use to check for notifications on the database.

We managed to figure out how to implement raw SQL queries into the code, so that we can extract information using select commands instead of through special java sqlite functions that we had a hard time understanding. With those, we could interact with the database using SQL's logic and can use the queries for notifications and taking information for graphs. An example of the query that a notification would use would be:

SELECT (Exercise) FROM Daytable
WHERE Daynum >(currday - [value specified in settings]) AND Daynum <=curr_day
AND monthnum=[this month] AND yearnum=[this year];

To which these rows would be iterated over and checked if the attributes would trigger a notification.

Task 4: Produce a pop up graph that corresponds to mood and can have the x axis changed by the user through buttons.

We completed a Pie chart graph as a test example, filled with dummy data and accessed with the graph button as a means to test the graph library. We used MPAndroidChart as it was a free library compared to most others which cost in the hundreds of dollars. We spent a lot of time researching chart libraries to use and figuring out how to use an external library in the app and ended up having to move the bar graph that interacts with the database to the next milestone.

Task 5: Create settings menu which change settings in the app, although they won't have any current functionality.

This is part of Task 1, in that we created the button to open the settings menu and a pop up corresponding to the settings menu. As we have not set up notifications themselves beyond planning, the menu has no functionality and is a proof of concept for the app and its layout.

2.3 Discussion of Team Contribution
- Joshua Breininger worked on the progress report, found and researched chart libraries to use, and worked on using sql queries in the android code.
- Daniel Bornemann worked on the full UI implementation and helped with implementing the charts and database.
- Phi Duong worked on the chart handling as well as the database handling.

2.4 Plan for Milestone 4

Task matrix for Milestone 4

Task	Josh	Phi	Daniel
Create graphical assets for the app to use.	80%	20%	0%
Implement the graphical elements/theme to the app corresponding to one month.	40%	30%	30%
Create notifications based on previously planned database/sql queries and information.	20%	40%	40%
Complete storing information in the database through pop ups and obtaining it in graphs.	33%	33%	33%
Create a dummy scenario generator and make an example game screen generated from	15%	35%	50%

stored images as well as a dummy scenario text.			

2.4 Discussion for Milestone 4

1. Creating the graphical elements will be fairly labor intensive and will take time, so we loaded most coding onto the other project members while keeping the group members experienced in making graphical elements working on that part. We will need to figure out if we will need to compress the elements or if they will be small enough to where it won't take up much space.
2. Implementing the first month will involve changing the themes and borders of the app and may prove fairly difficult, as we will need to make many specifications to make it look good, and change many elements of the app to have it all match up in an aesthetically pleasing way, so more extensive contact with the clients will be necessary in this milestone.
3. Creating notifications will be implementing the planning tasks from Milestone 3 by having a snippet of code run when the app is booted and check the last few days based on the settings menu, which will also need to be fully implemented for this task.
4. Finishing storing and retrieving data in the database as a task is mostly checking our work and testing it to see if we missed anything out or we have vulnerabilities in our sql, as well as completing the bar graphs required for our graphing pop ups by grabbing information from the database based on what timeframe the user requests.
5. The generator will start simple just to ensure it works, as we plan on spending a lot of time in the next 2 milestones after improving the generator and giving it as many options as possible, so it will largely be a work in progress for the rest of the project as it and the plan for having achievements will rely on how time turns out as we want as much as time and space allows for each to incentivize usage.

2.5 Dates of Meetings with Clients

1. November 10th, 2021
2. November 21st, 2021

2.6 Client Feedback

- The app's colours and aesthetics look pretty good right now, and they would like to see how the app would look when the graphical elements are done however.
- Since days with missing data could be common, when graphing the mood for example of days, having a line graph and not a bar graph may look awkward and may appear fairly negative.

2.7 Dates of Meetings with Faculty Advisor

- November 29th, 2021 - Email sending documents and progress report for feedback.

2.8 Faculty Advisor Feedback

Faculty Advisor Signature: _____ Date: _____

Evaluation by Faculty Advisor

Faculty Advisor: detach and return this page to Dr. Chan (HC 214) or email the scores to pkc@cs.fit.edu

Score (0-10) for each member: circle a score (or circle two adjacent scores for .25 or write down a real number between 0 and 10)

Joshua Breininger	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Daniel Bornemann	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10
Phi Duong	0	1	2	3	4	5	5.5	6	6.5	7	7.5	8	8.5	9	9.5	10

Faculty Advisor Signature: _____ Date: _____