How to Use this Template

1. Create a new document, and copy and paste the text from this template into your new document [Select All → Copy → Paste into new document]
2. Name your document file: "**Capstone_Stage1**"
3. Replace the text in green

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Mood Tracker

Description

This app logs a user's mood, from depressed to manic, for each day, using a UI that is as unobtrusive as possible. The app will graph moods on a biweekly, monthly, 3 month, 6 month, and year frame to allow patterns to be found. There is a corresponding widget that will make it easy to add/update the mood for the current day. A daily reminder around bedtime will be sent if there hasn't been a mood update that day.

Intended User

People with mood disorders, such as Bipolar Disorder, Anxiety, and Depression. Eventually treatment providers can use the reported information for insights on how to treat the user's mood disorder.

Features

List the main features of your app. For example:
Saves mood of user: from depressed, neutral, manic, using a UI that will be natural and easy-to-use/
View/edit mood of a given day up to 30 days previous.
Displays a graph of mood over time from two weeks to 1 year.
Stores the information using Firebase Realtime database, to sync multiple Android devices to the same data.
Offers a reminder at the morning and evening to enter your mood if not already entered.

User Interface Mocks

Figure 1: Enter your mood. After signing in, the user
Will end up at a screen that will allow entering/modifying the mood score for the given day.
A horizontal sliding calendar will allow for selecting a day up to 30 days previous.
When the user has logged in a mood score, they can click on the lock icon so that it won't be inadvertently changed by an unintentional swipe. In addition, if a mood has been swiped, moving away from the screen will save and automatically lock the score. The user may unlock the score to change it at any time.

Figure 2: Home Screen, Graph. By clicking on the chart tab,
The user will be presented with a line graph that will show the moods over the specified time frame.

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Figure 3: Widget View. If a mood has not been logged in the current day, the widget will display the view on the left, with prompts to add a mood. Once the mood is logged, the widget will display descriptive information as to what the level of mood logged is, and prompt with the option to edit the mood.

Key Considerations

How will your app handle data persistence?

The app will use a Firebase Cloud Firestore to hold/sync up data. Will use google sign-in to access mood data across devices per user.

Describe any edge or corner cases in the UX.

How to describe if the user has not added a mood score for a particular day. Prompt with yesterday's? But don't save it.
How about changing it after committing it?
The graph may have difficulty showing correctly on a narrow screen.
On a tablet, would a master-detail layout with the other panel showing the graph work?

Describe any libraries you'll be using and share your reasoning for including them.

Butterknife will be used to make setting up views more easy.
GraphView (www.android-graphview.org) will be used to show the graph display of mood data.
Horizontal Calendar (https://github.com/Mulham-Raee/Horizontal-Calendar) will be used to scroll through last 60 days of mood results for view/edit.

Describe how you will implement Google Play Services or other external services.

Describe which Services you will use and how.
Google identity: log in between users -- can we use this to handle firebase realtime db for multiple users?
https://developers.google.com/identity/sign-in/android/start-integrating
https://firebase.google.com/docs/auth/android/google-signin

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and break them down into tangible technical tasks that you can complete one at a time until you have a finished app.

Task 1: Project Setup

Write out the steps you will take to setup and/or configure this project. See previous implementation guides for an example.

You may want to list the subtasks. For example:

- Configure 3rd party libraries
- Butterknife, graphview, horizontal calendar

If it helps, imagine you are describing these tasks to a friend who wants to follow along and build this app with you.

Task 2: Implement UI for Each Activity and Fragment

List the subtasks. For example:

- Build UI for MainActivity
- Build Fragment for entering in the mood
- Build Fragment for handling the graph
- Build Widget

Task 3: Implement Google Play Services

Link up Firebase and Signin from dev account, and get working on the main app.
Create a gradle install for debug, and release builds.

Submission Instructions

- After you've completed all the sections, download this document as a PDF [File → Download as PDF]
    - Make sure the PDF is named "**Capstone_Stage1.pdf**"
- Submit the PDF as a zip or in a GitHub project repo using the project submission portal

If using GitHub:

- Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
- Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"