

A Minor Project Synopsis on

Companion App: A Mental Health Tracker

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INTRODUCTION

In this competitive, fast-paced, age of computers, it's very easy for people to fall prey to stress, anxiety, anger, depression, low self-esteem to name a few. Mental health is an issue that has a certain stigma about it and is easily discarded as well as ignored.

The Companion app would give people the chance to accurately assess and track their own mental health. It will try to get an idea of the mental state of the user in the least intrusive ways, find out if they are suffering, and then suggest measures they can take to get out of their present condition. The user would fill in a survey. Sentiment and emotional analysis would be performed on those user responses which would help in suggesting tasks and recommending activities such as meditation, games among others. This also includes regular reminders to do things such as eating regularly and drinking water often, offering resources for a mental health crisis, creating an easy way to identify and track mental triggers, therefore, maintaining a record of their mental state.

MOTIVATION

According to the World Health Organization (WHO), last year 14% of India's population suffered from mental health ailments, including 45.7 million suffering from depressive disorders and 49 million from anxiety disorders. Especially in this Covid pandemic, when most of the countries went into lockdown, it is very easy for people to feel alienated, unmotivated, and stressed which when coupled with anxiety, overthinking and irritation have led few to self-harm with some even losing their lives to mental health.

Mental health is an aspect of everyone's life, although, for some, it's more of a struggle than for others, especially at college where students are facing new and stressful stimuli every day. With a large population now working from home and staying away from loved ones, the mental health situation has deteriorated. As such, it becomes important to track and remedy any problems before they get too serious. We try to achieve this using the Companion App.

PROJECT OBJECTIVE

Keeping in mind that users might be suffering from mental illness and wouldn't want to engage much with an app, the app design has to be kept very friendly and welcoming.

Once the user completes answering the questionnaire, the sentiment analysis would help provide tailored recommendations of what to do based on their mood. It would offer actionable insights into what affects their mood and provide strategies for feeling better. Send notifications or reminders if a user seems at risk. It would also allow the user to journal their feelings and connect them with mental health resources.

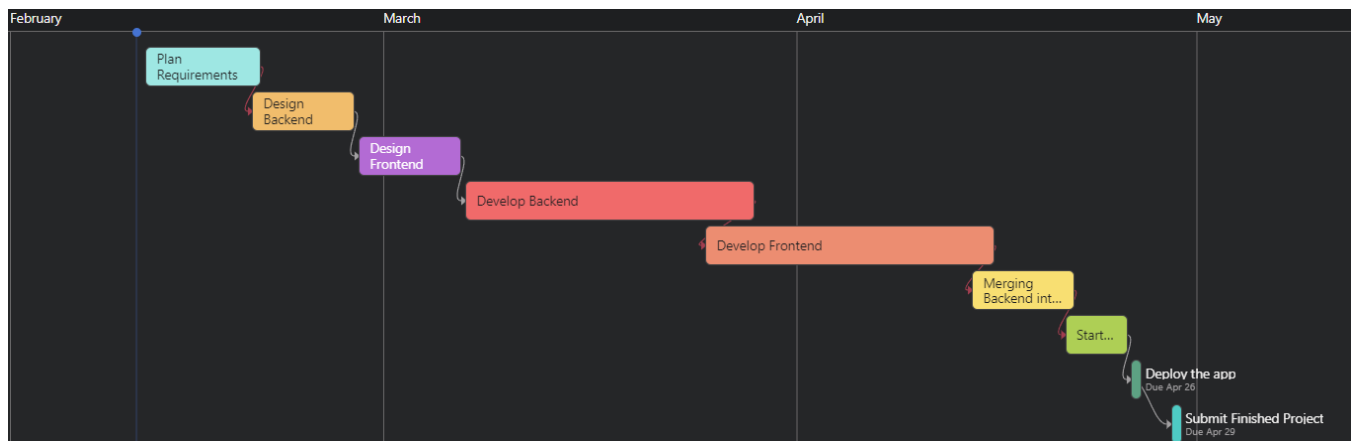
It would help the user to understand the relationship between their mood and lifestyle factors like sleep, exercise, and nutrition. It would encourage them to learn and practice mindfulness meditation and perform structured breathing exercises. A dashboard to show a detailed record of all mood-related activities plus articles, blogs as well as tips to help keep them on track. Last but not the least, show them a list of top therapists near their location with a chat option for consultation and appointment requests if the case gets extreme.

TL;DR - It can be effective in providing guidance in lifestyle and motivation to get relief from mental health issues and also making therapy more accessible, efficient, and portable.

METHODOLOGY-PLANNING OF WORK

To go ahead with this project, the basic steps needed to be followed are given below:

1. Planning requirements for the mental health tracker app, making the user flow, and writing the user stories.
2. Creating low-fidelity wireframes for visualizing the app structure.
3. Designing proper high-fidelity user interface of the application on [Figma](#) by taking inspiration from [dribbble](#) and [Behance](#).
4. Initializing firebase for the project and forming the backend architecture with the help of [Firebase](#) database and authentication API.
5. Performing sentiment and emotional analysis either with the help of [TensorFlow](#) or [Expert.ai](#) APIs on the responses received by the user.
6. Start developing the frontend of the app in flutter with the help of various libraries and [packages](#) as per the UI mockup.
7. After completing the frontend, test the app for bugs. Also, run it on virtual or physical devices of different screen sizes hence verifying the app's responsiveness.
8. We would be using [Github](#) to save our work in a single repository which would enable us to collaborate remotely and update it on a regular basis.
9. After the final testing, release the app in production mode and ship the final build ready to be run on android devices.



FACILITIES REQUIRED FOR PROPOSED WORK

Software:

- Integrated Development Environment (IDE) such as Android Studio or VS Code with an Android Virtual Device (AVD)
- Git, Flutter, Firebase, TensorFlow, ExpertAI, and various Flutter libraries/plugins/packages as and when required

Hardware:

- Laptop or desktop with Windows-10/Linux/macOS, RAM: 8GB or higher, Storage: 10GB free disk space, CPU: Any two or higher core processor including Intel® Core™ i5 @2.60GHz, new-gen Xeon® processor @2.30 GHz or AMD Ryzen 5 CPUs running at higher frequency
- Any physical android device with USB debugging enabled plus a USB cable

Other Requirements include a decent internet connection for fast connectivity.

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