

EmoTrack – Strengthening Mental Health

Guide:

Prof.Shubhangi Ingale

Name of Project Members

Ashwin Bahekar(BCOB75)

Rishikesh Durnale(BCOA55)

Santosh Vishwakarma(BCOB73)

Swaraj Singh(BCOB102)

Contents

- Introduction
- Justifications for Selecting the Title
- Problem Statement
- Benefits to the surrounding/society:
- Disadvantages
- Challenges
- Literature Survey
- Block Diagram
- Output
- Work plan
- References

Introduction

- Mental health challenges are rising among children, but identification and intervention can be difficult.
- Develop a system to track and assess children's mental well-being.
- Benefits:
 - I. Early identification of potential issues
 - II. Improved access to appropriate support
 - III. Better tracking of treatment progress.

Justification For Selecting The Title

- EmoTrack is a student assessment program that uses multiple methods to measure student health.
- It raises awareness about mental well-being by encouraging users to actively monitor their emotions, moods, and behaviors.
- By regularly tracking their mental health, users can detect early signs of distress or decline.
- EmoTrack offer a convenient and accessible platform for monitoring mental well-being anytime, anywhere.

Problem Statement

- **EmoTrack:** Developing a comprehensive and effective mental health and well-being surveillance, assessment, and tracking solution among children to address the growing concern of mental health issues in this demographic.

Benefits to the surrounding/society:

- **Reduced Healthcare Burden:** By promoting proactive mental health management and early intervention, EmoTrack helps alleviate the burden on healthcare systems.
- **Enhanced Productivity and Well-being in the Workplace:** A mentally healthy workforce is more productive, engaged, and resilient.
- **Educational institutions:** Emotrack can help educational institutions to Better understand the mental health needs of their students. Develop more effective student support programs and policies.

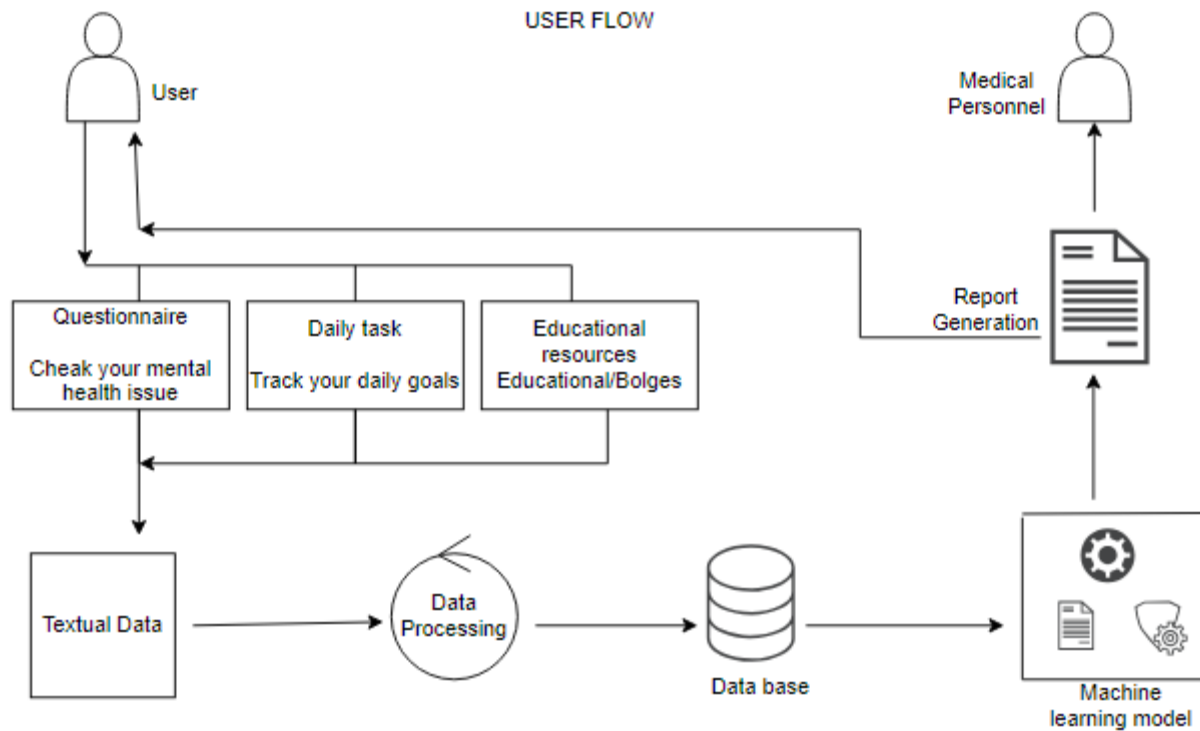
Disadvantages

- **Over-reliance on technology:** Users may depend too much on the app, potentially neglecting other important aspects of mental health management.
- **Privacy concerns:** There's worry about sensitive data being compromised or misused, leading to hesitancy in using these apps.
- **Lack of human interaction:** These apps may lack the empathy and connection provided by traditional therapy or support groups, leaving users feeling isolated during times of distress.

Literature Survey

Sr. No.	Title	Author	Year	Findings
1	“Mental health monitoring apps for depression and anxiety in children and young people: A scoping review and critical ecological analysis”	Jessy E. Williams , Jessica Pykett	2022	These findings underscore the necessity for further research and diverse perspectives in developing mental health apps for children and young people.
2	"The role of technology in mental healthcare”	Dr Becky Inkster, Dr Christopher Burr	2022	Benefits and challenges associated with integrating technology into mental healthcare, emphasizing the importance of evidence-based practices and ethical considerations in this rapidly evolving field.
3	“Mental health monitoring with multimodal sensing and machine learning: A survey”	Michael Riegler, Tine Nordgreen	2019	The potential of leveraging sensor data and machine learning techniques for automatic mental health monitoring, showcasing the diverse applications and challenges in this emerging field.

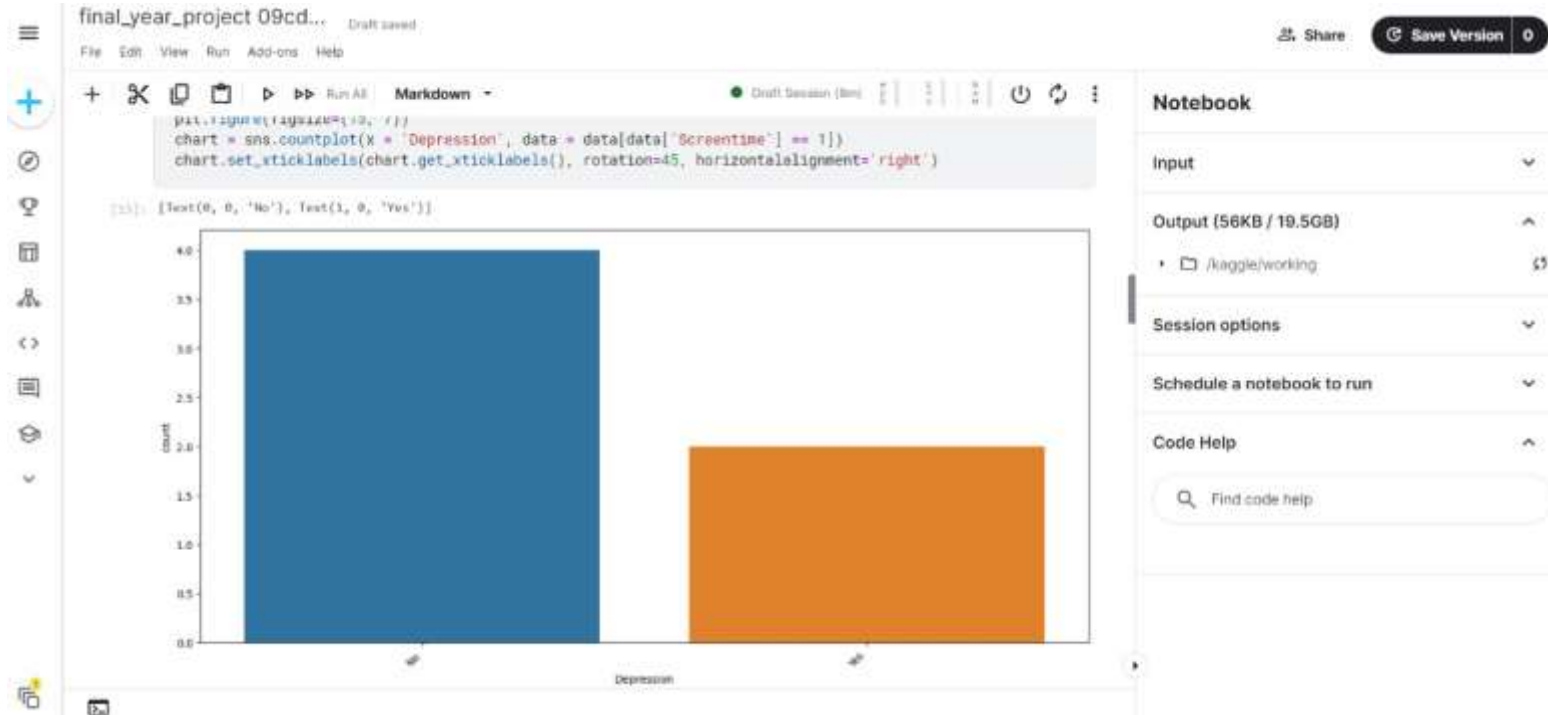
Block Diagram



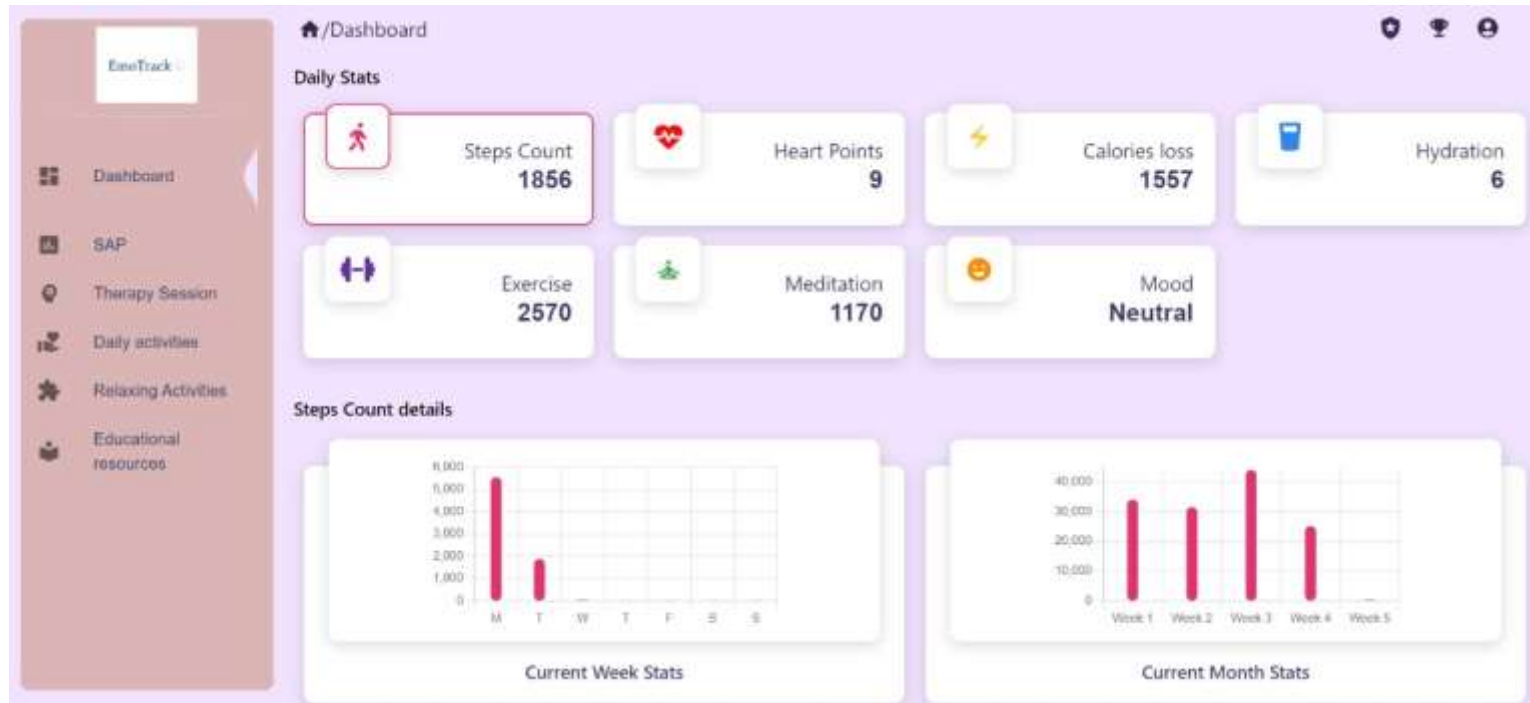
Output

- **Insightful Reports:** The ML-powered reports provide valuable insights into the mental health status of children. These reports highlight areas of concern, identify triggers for stress, and suggest potential interventions.
- **Data-informed decisions:** Users make more informed decisions regarding their mental health, leveraging insights from tracked data to optimize their self-care routines and treatment plans.
- **Link For Datasets:** `/kaggle/input/mental-health-data/mental health dummy data.csv`

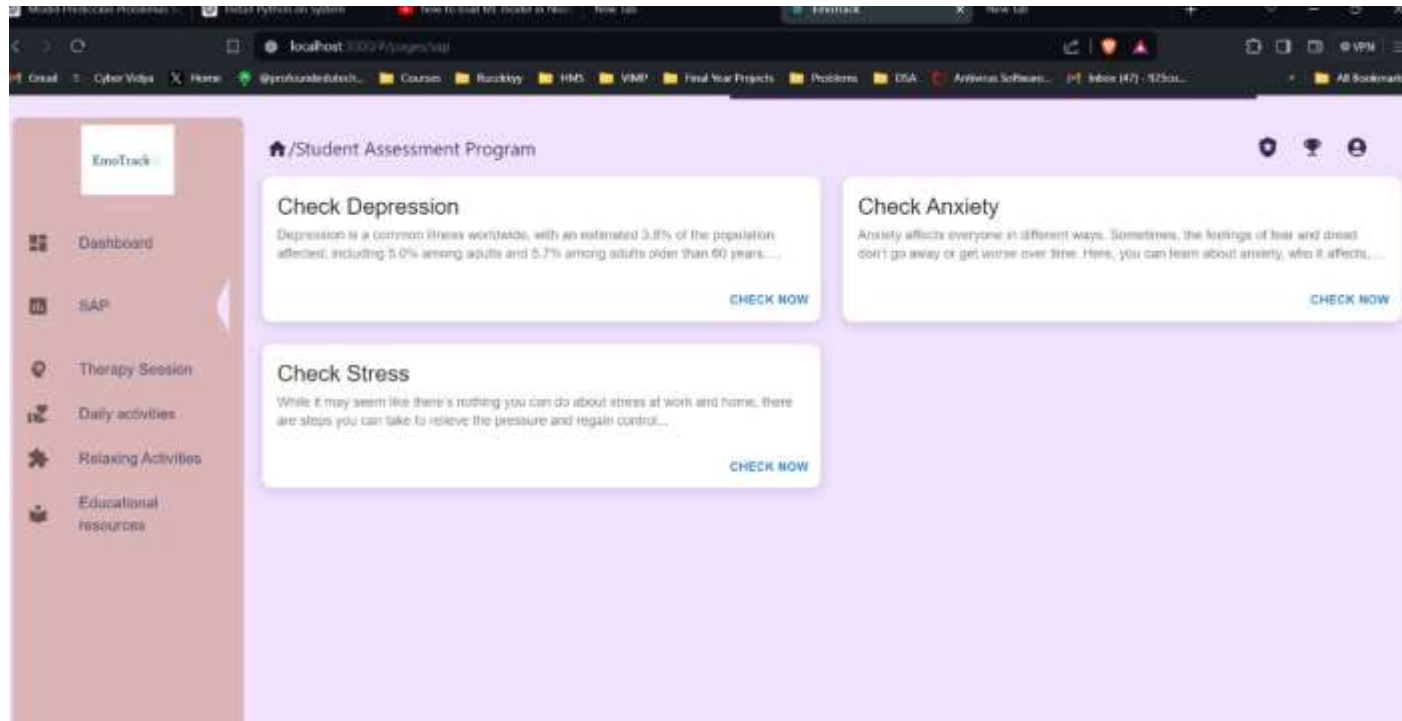
Output



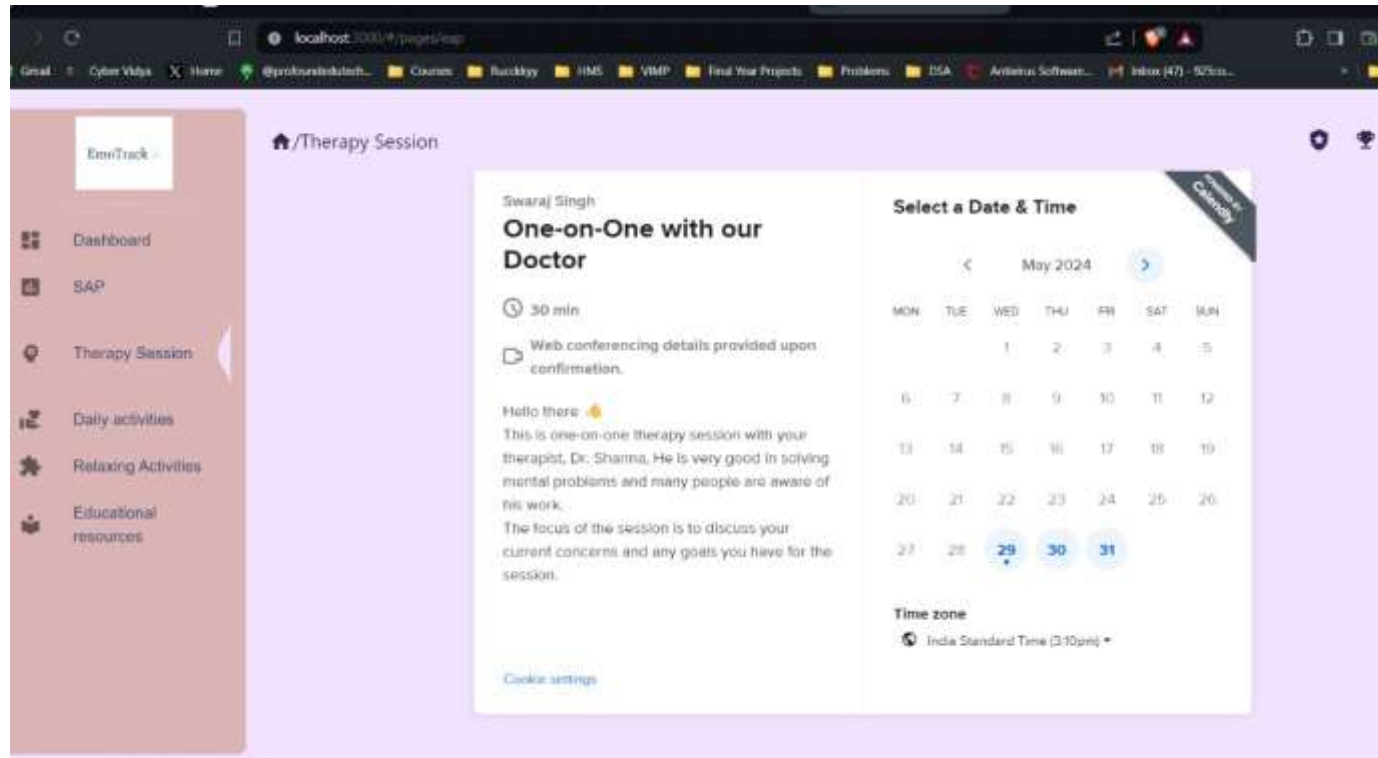
Output



Output



Output



Output

The screenshot shows a web application interface for a depression assessment. On the left is a vertical sidebar with a light brown background. At the top of the sidebar is a white button labeled "Exit/Track". Below it are six menu items, each with an icon and text: "Dashboard" (grid icon), "DAP" (document icon), "Therapy Session" (location pin icon), "Daily activities" (calendar icon), "Relaxing Activities" (candle icon), and "Educational resources" (book icon). The main content area has a light purple background. At the top left of this area is a breadcrumb "Home / Depression" with a house icon. At the top right are three small circular icons: a shield, a person, and a gear. The main content area contains four numbered questions, each with four radio button options. The options are "NOT AT ALL", "SEVERAL DAYS", "MORE THAN HALF THE DAYS", and "NEARLY EVERY DAY". In each question, the "SEVERAL DAYS" option is selected, indicated by a blue dot in the center of the radio button.

Home / Depression

1. Little interest or pleasure in doing things

☐ NOT AT ALL

☒ SEVERAL DAYS

☐ MORE THAN HALF THE DAYS

☐ NEARLY EVERY DAY

2. Feeling down, depressed, or hopeless

☐ NOT AT ALL

☐ SEVERAL DAYS

☒ MORE THAN HALF THE DAYS

☐ NEARLY EVERY DAY

3. Trouble falling or staying asleep, or sleeping too much

☐ NOT AT ALL

☒ SEVERAL DAYS

☐ MORE THAN HALF THE DAYS

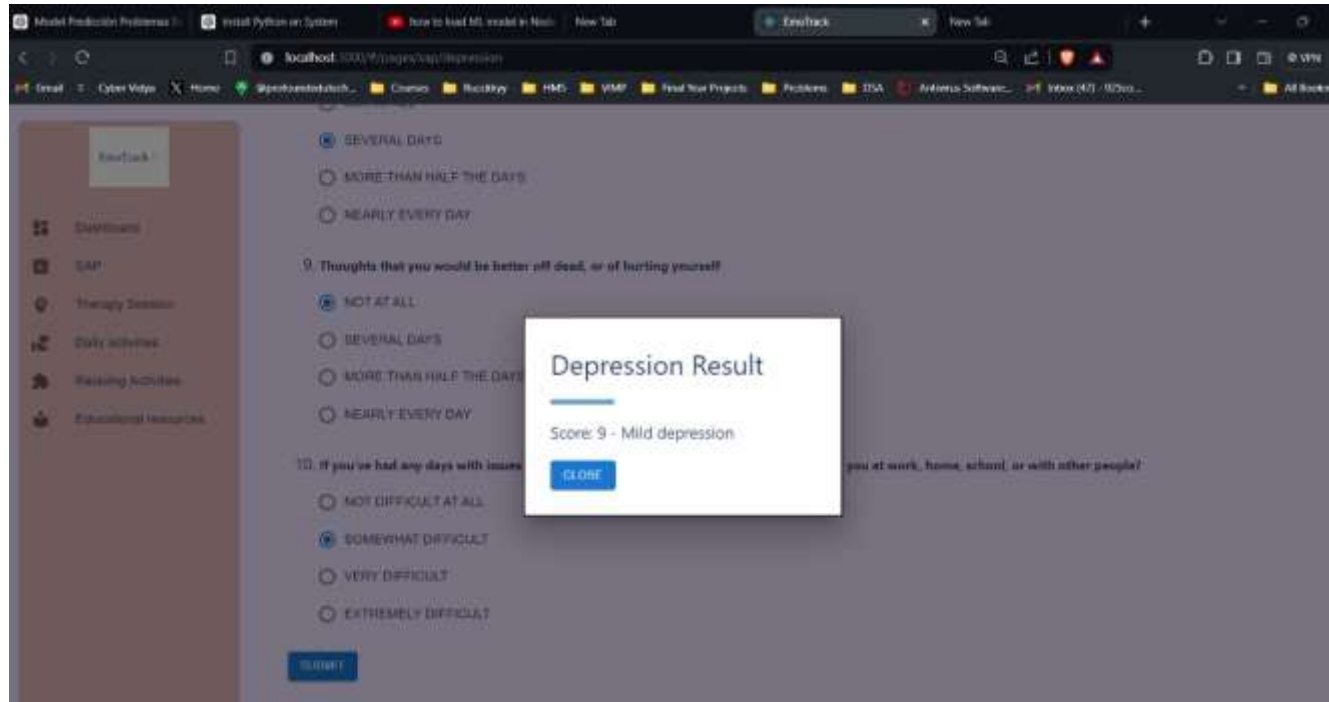
☐ NEARLY EVERY DAY

4. Feeling tired or having little energy

☐ NOT AT ALL

☒ SEVERAL DAYS

Output



Output

The screenshot shows a web browser window with a URL bar indicating a local host. The page displays a sidebar with navigation links: Dashboard, SAP, Therapy Session, Daily Activities, Homework Activities, and Educational resources. The main content area shows a form with several questions and radio button options. A modal window titled "Depression Result" is overlaid on the page, displaying the following information:

Depression Result

Score: 9 - Mild depression

Advice

Depression can be solved by a treatment schedule. Research suggests exercise can be effective at relieving depression, but it may also be able to reduce symptoms. Exercise can begin to feel good, even when you're depressed... Depression can be solved by taking care of your problems. Research has shown that reducing symptoms of depression can be a powerful way toward reduction by reducing symptoms of depression...

Close

Work – Plan

Months Activities	Jan'24	Feb'24	Mar'24	April'24	May'24	June'24	July'24
Literature Reviews	√	√	√	√	√		
Component Identification & Selection		√	√	√	√		
Designing			√	√	√		
Experimental Analysis			√	√	√		
Fabrication				√	√		
Testing and Debugging				√	√		
Preparation of Project Report					√		

References

- <https://www.aimprosoft.com/blog/how-to-make-a-mental-health-app/>
- <https://www.hindawi.com/journals/acisc/2022/9970363/>
- <https://mental.jmir.org/2020/10/e17453/>
- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8787665/>
- </kaggle/input/mental-health-data/mental health dummy data.csv>

Thank you !