MENTAL HEALTH PREDICTION APP

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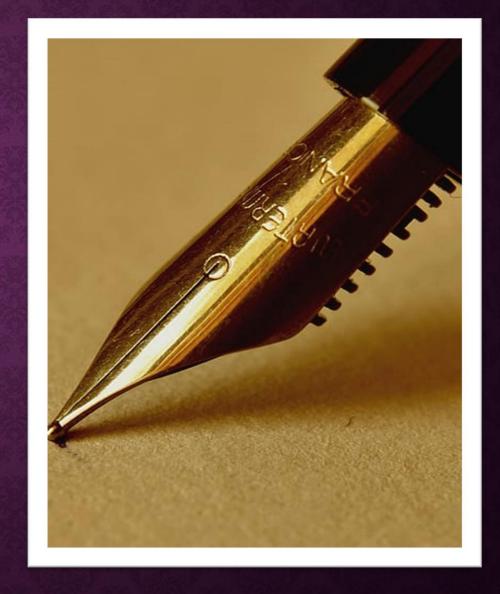
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ACKNOWLEDGEMENT

I would like to thank my mentors and the entire team of Clevered who helped me complete this project and execute my ideas successfully.

I was frequently reached out on emails so as to fix the errors in my application . These follow ups ensured the smooth running of my project.

I also referred to the site geeksforgeeks to correct the syntax/other errors that wouldn't let my app work perfectly.

MY PHOTOGRAPH

Student's Introduction

I'm Rohini , currently in grade XII . Python is a part of my school curriculum , and I had AI as my sixth subject in grade IX. However, I was keen to learn more , and it influenced me to broaden my knowledge about AI and start working on a project that would be socially impactful with hands-on experience in different domains of AI. The first thing that came to my mind was an app that would be able to accurately track a student's mental health status and recommend on that basis of input data if he/she needs any specialized treatment or counselling.

ABOUT MY INTERNSHIP JOURNEY WITH CLEVERED.

My journey with Clevered so far has been a truly enriching one . It gave me a detailed picture of coding with keen emphasis on different AI domains like NLP , Machine Learning , CV etc. This internship not only paid keen attention to coding skills but also enhanced my soft skills including presentation , communication , time management , problem solving , and work experience. At the same time, I found this internship a little challenging . I and my mentors had to do repeated follow-ups to correct the blocks of incorrect code and come up with an appropriate solution to the same. The weekly home assignments ensured that I didn't lose touch with the subject and constantly kept upgrading my skills as a young coder. I have never worked on any AI project before , and found this internship to be a highly engaging one . It taught me how to strike a perfect balance between school studies and curriculum outside school. Admittedly, it's well worth the effort.

ABOUT APP

App's Main Menu

- Prediction of depression
- Prediction of anxiety
- Prediction of panic attack
- Seeking specialized treatment
        User Interface
- Important conclusions drawn
- Data visualization /analysis
- Graphical representation

App's Introduction

This mental health prediction app will predict on the basis of an imported dataset if a college student is suffering from depression/anxiety/panic attack and needs any specialist treatment for the same.A machine learning model has been trained to take the final decision using a decision tree.

HOW TO USE THE APP?

App User Interface
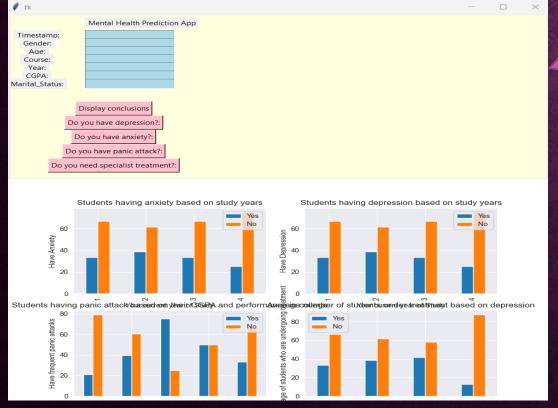
Execute the code to direct at first UI
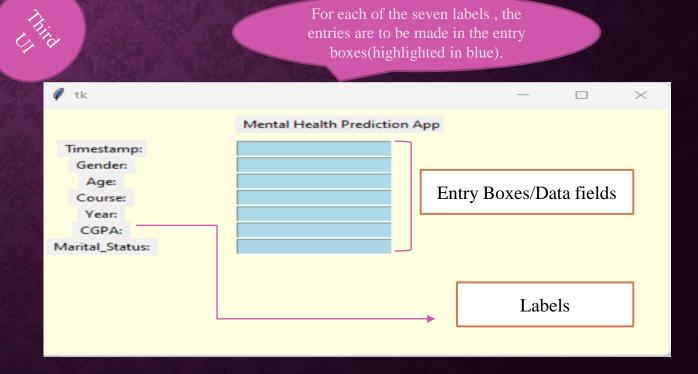
Blank UI

```
C:\WINDOWS\system32\cmd.    X    +    ∨

Microsoft Windows [Version 10.0.22621.1413]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Rohini>jupyter notebook
```

```python
In [27]:  # tkinter GUI
          import tkinter as tk
          root= tk.Tk()

          #Make a Canvas (i.e, a screen for your project
          canvas1 = tk.Canvas(root, width = 980, height = 400,bg='light yellow')
          canvas1.pack()

          #To see the GUI screen
          root.mainloop()
```

Third UI

For each of the seven labels , the entries are to be made in the entry boxes(highlighted in blue).

Mental Health Prediction App

Timestamp:
Gender:
Age:
Course:
Year:
CGPA:
Marital_Status:

Display conclusions
Do you have depression?:
Do you have anxiety?:
Do you have panic attack?:
Do you need specialist treatment?:

Students having anxiety based on study years

Students having depression based on study years

Students having panic attack based on their CGPA and performance Average college year of students under treatment Students undergoing treatment based on depression

Mental Health Prediction App

Timestamp:
Gender:
Age:
Course:
Year:
CGPA:
Marital_Status:

Entry Boxes/Data fields

Labels

Left window (tk):

Mental Health Prediction App

Timestamp: 0
Gender: 0
Age: 18.0
Course: 17
Year: 1
CGPA: 0
Marital_Status: 0

The values entered in each of the entry boxes must be of the same data type as indicated in the project code .

Click

Display conclusions
Do you have depression?: → {Do you have depression?: } {['Yes']}
Do you have anxiety?: → {Do you have anxiety?: } {['No']}
Do you have panic attack?: → {Do you have panic attack?: } {['Yes']}
Do you need specialist treatment?: {Do you need specialist treatment?: } {['No']}

Final Output

Students having anxiety based on study years
Students having depression based on study years
Students having panic attack based on their CGPA and performance
Average number of students under year treatment based on depression

Right window (tk):

COMMON CONCLUSIONS
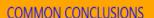
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1) We can generalize the results and conclude that female students are more likely to suffer from depression compared to males

2) The number of female students having anxiety is more but the percentage of female students suffering from anxiety is lower than that of male students suffering from anxiety.

3)The year-anxiety graph tells us that year 4 has the lowest percentage of students suffering from anxiety(25%) whereas year 2 has the highest percentage of students having anxiety(about 38.5%).

4)The students having the lowest CGPA are less likely to have panic attacks.

This screen shows the main inferences drawn from the graphical representations

Demo Video

https://drive.google.com/file/d/1r7uMfnRLYzFFqYfaDWO0a-3I3avQvOGh/view?usp=share_link

TOOLKIT WALKTHROUGH

HTTPS://DRIVE.GOOGLE.COM/DRIVE/FOLDERS/1WBOOWZFXDDHB2VAR9TYTOFWCMLTH7HHW?USP=SHARE_LINK

CONTACT PERSON

In case of any clarifications or questions please feel free to reach out at below e-mail ID:

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