

student depression

https://github.com/Safaa9924/student_depression

Presented by

safaa samy mohamed

Date:

30,6, 2025

<https://www.linkedin.com/in/safaa-bnt-samy/>



What is Project current problem

- ▶ **1. Lack of Clarity on Depression Triggers:**
There's no clear understanding of which factors (academic pressure, financial stress, sleep, etc.) contribute most to depression.
- ▶ **2. No Centralized View of Student Well-being**
The dataset includes many variables but lacks a clear way to track overall student mental health and risk indicators.
- ▶ **3. No Targeted Recommendations for Intervention**
Schools or counselors can't easily use this raw data to prioritize support or predict high-risk groups.



Solutions Applied



3. Action-Oriented Visualizations

Designed dashboards with pie charts, heatmaps, and bar plots for decision-makers to spot trends quickly



1. Identifying Key Risk Factors

Using correlation heatmaps and distribution plots to reveal strong associations

2. Segment Analysis

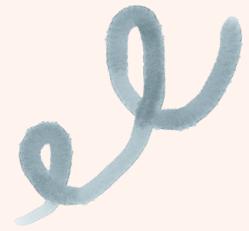
Grouped students by gender, age, lifestyle, and academic variables to detect which segments are more vulnerable.

What Makes This Project Valuable



- ▶ Tailored dashboard that directly targeted Mental Health Insights.
- ▶ Gives institutions actionable insights into which students are most at risk
- ▶ Flexible filtering by study satisfaction, academic pressure and financial stress to empower student counselors with focused intervention tools.
- ▶ Lays the foundation for future models that could predict depression likelihood based on student profiles.

Project Process



1

DATA CLEANING
&
PROCESSIN
SQL-PYTHON

2

ANLYSIS QUESTIONS
PYTHON

3

FORECASTING QUESTION
TABLEAU

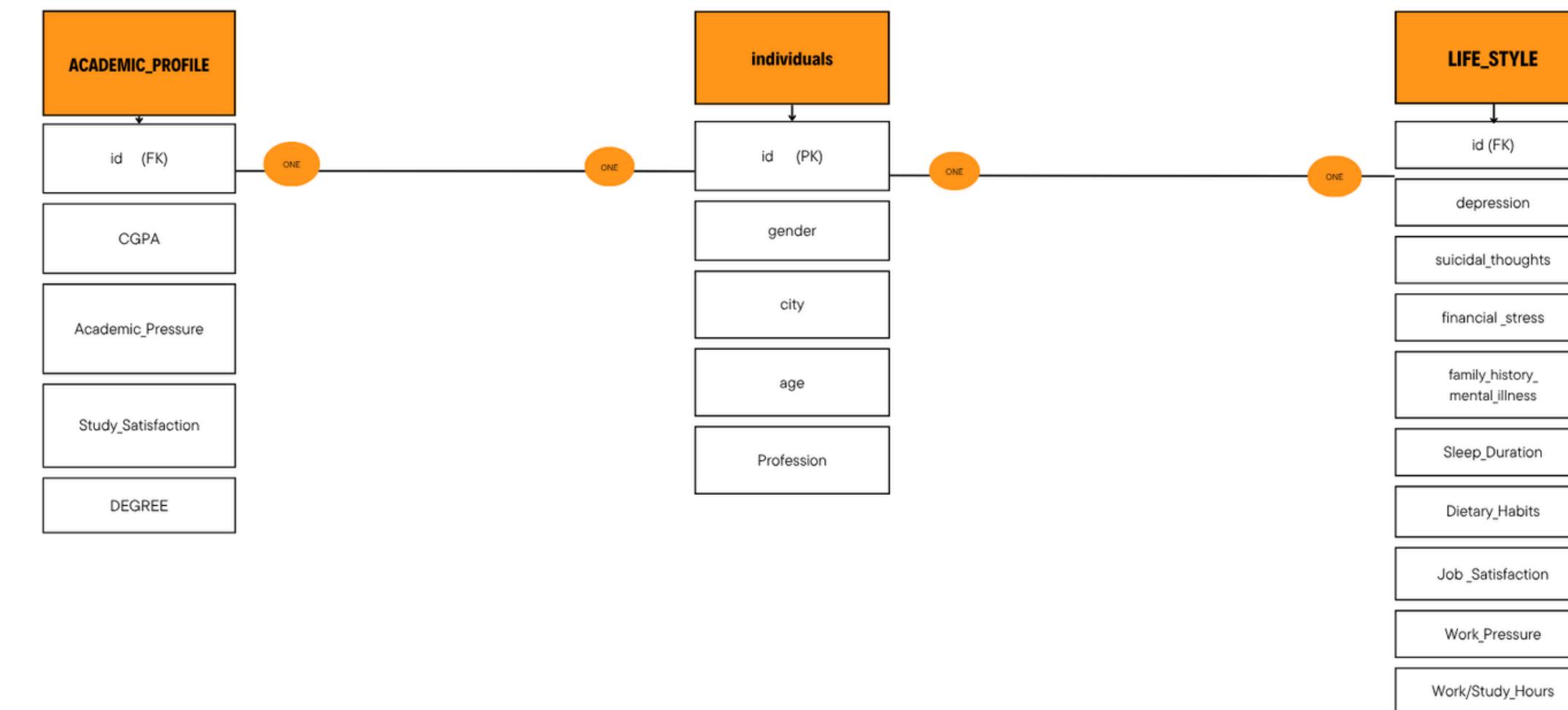
4

VISUALIZATION
DASHBOARD
&PRESENTATION
TABLEAU - CANVA1234

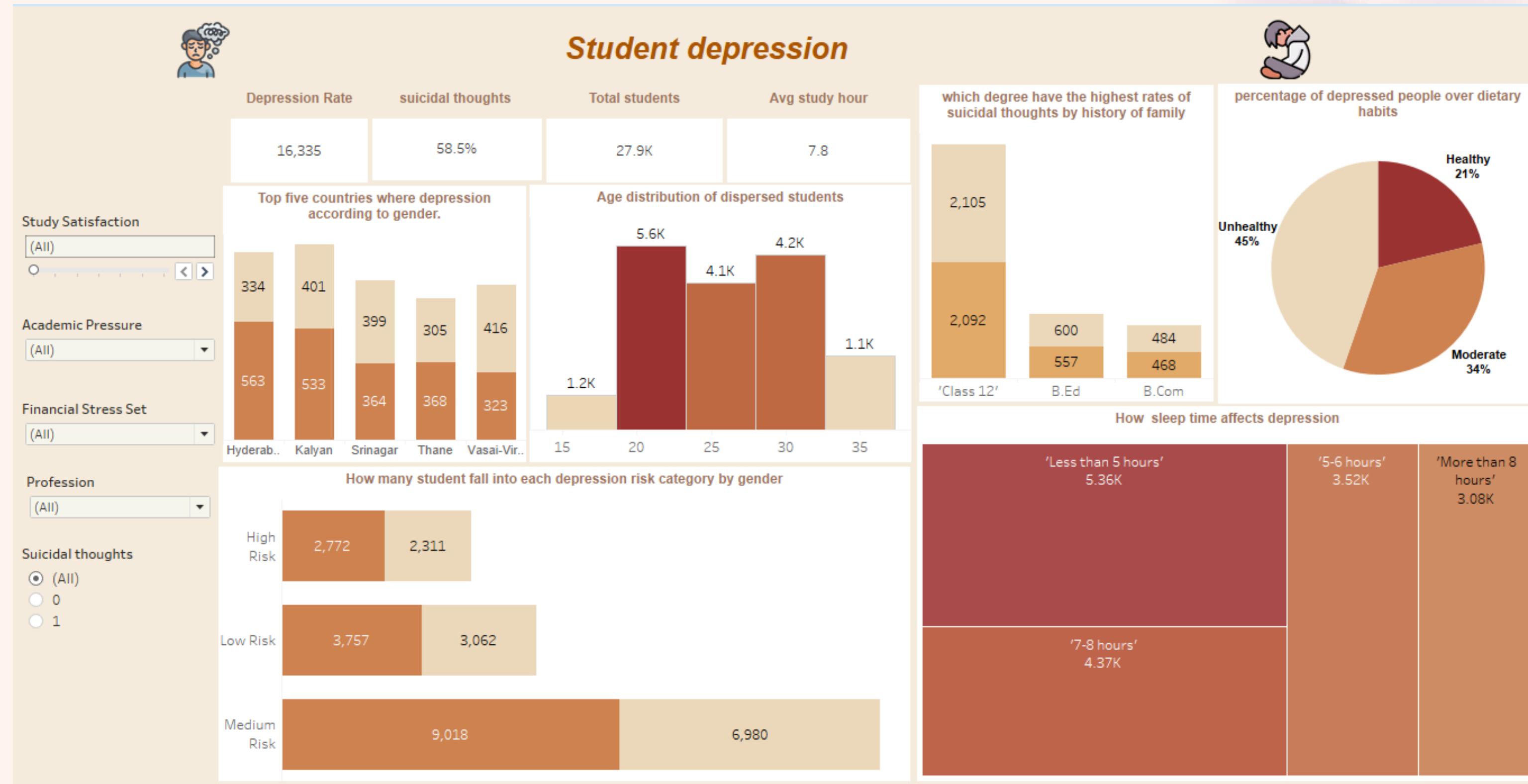
ERD Diagram using SQL



ERD for student_depression_dataset



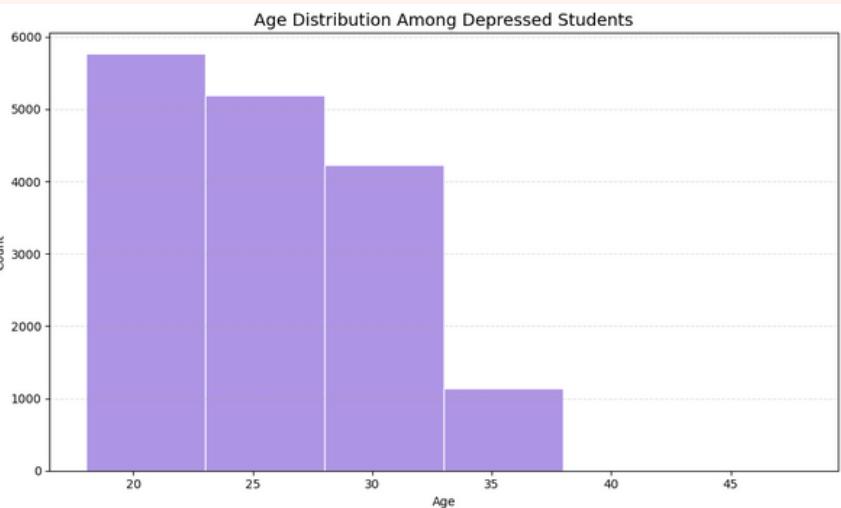
Insights Dashboard



Most Important Insights

4.Age distribution

The highest student exposure to depression is among those who are 20, 24, and 28 years old.



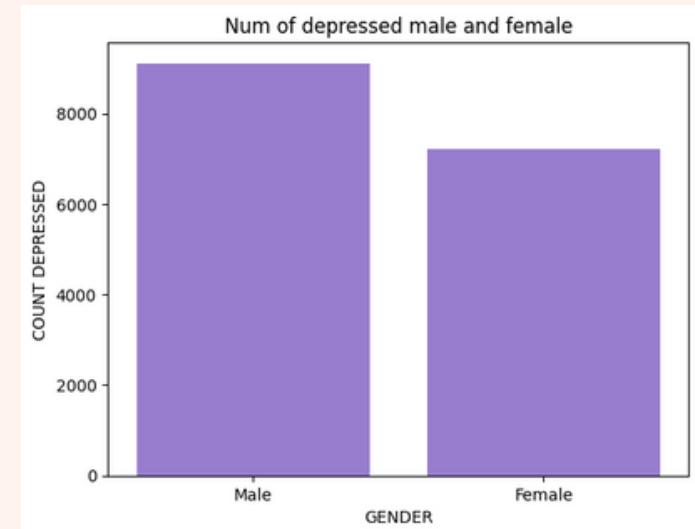
4. risk category

high risk male student are 2772 and female are 2331



1.Total students are 27.9 K

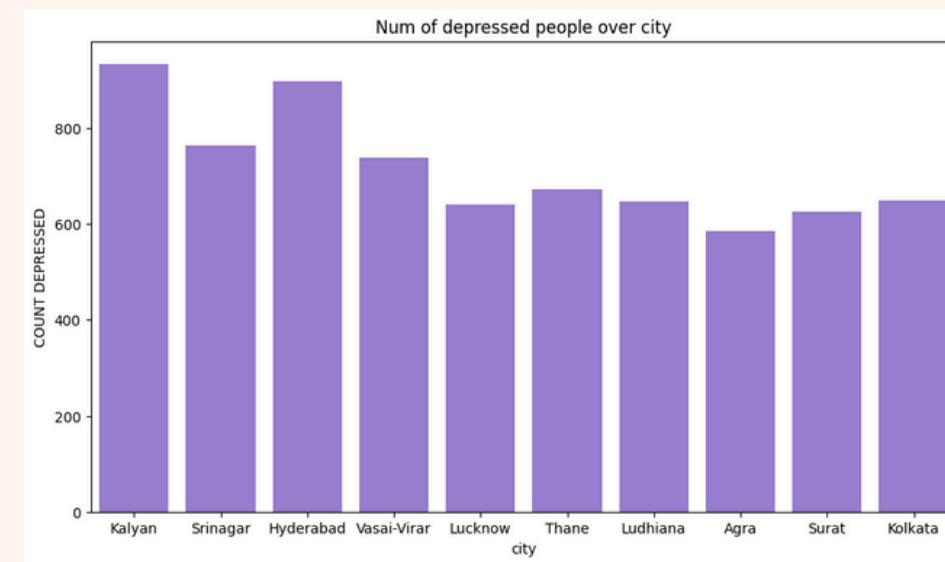
Men are more exposed to depression than women.



2.suicidal thoughts rate are 58.5%

3.No of Depressed people is 16.3K

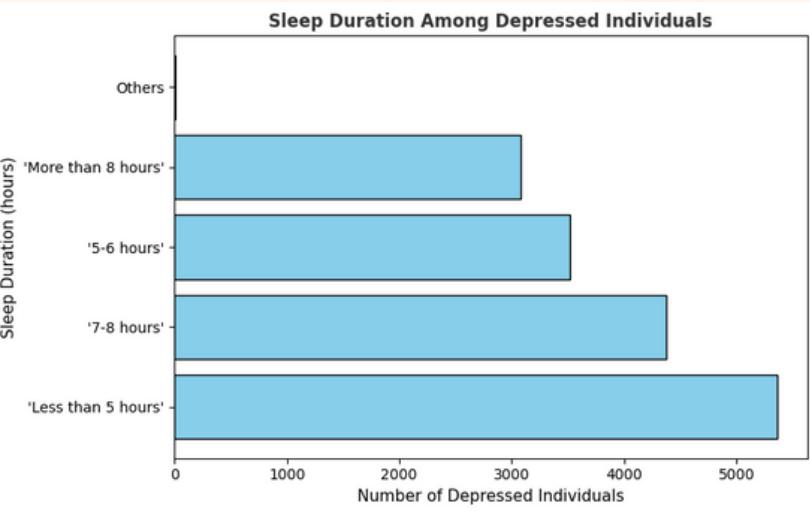
'Kalyan' and 'Hyderabad' are the highest cities where people suffer from depression.



Most Important Insights

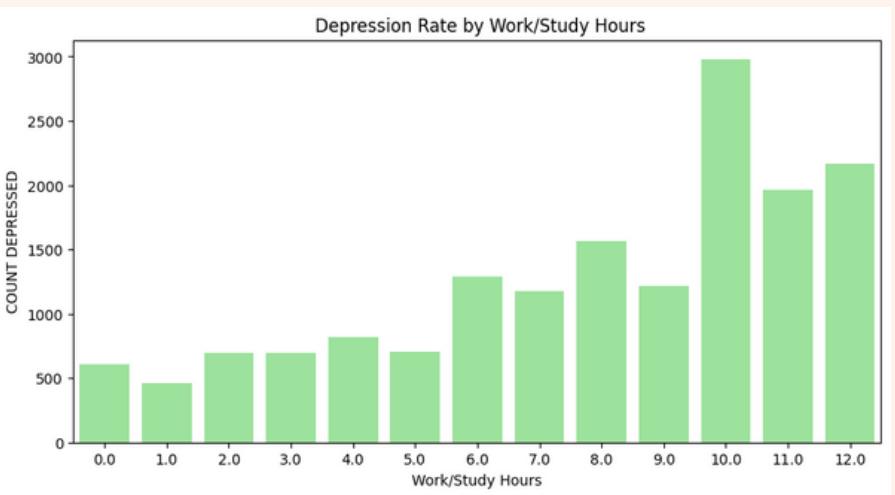
7. Sleep Duration

people who sleep less than 5 hours more expose to depression



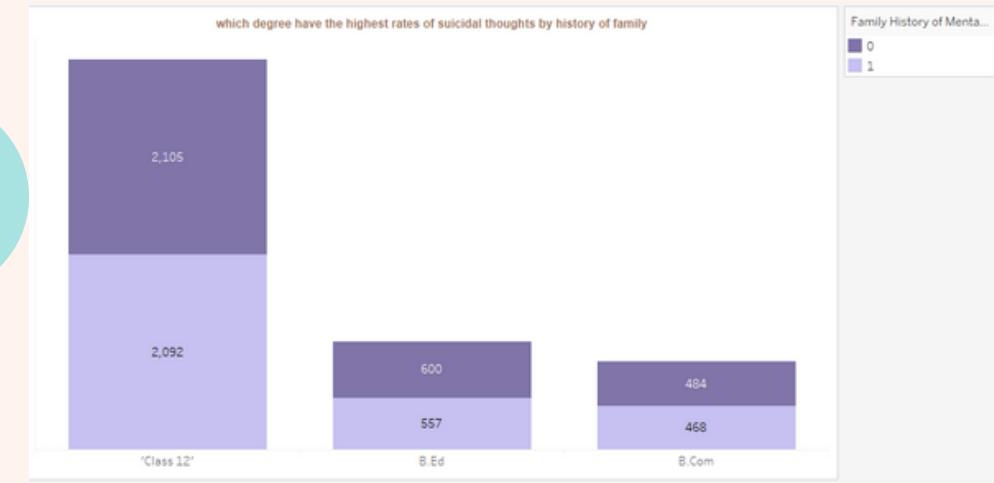
8. Study Hours

The highest number of depressed students is found among those working/studying 10 to 12 hours per day



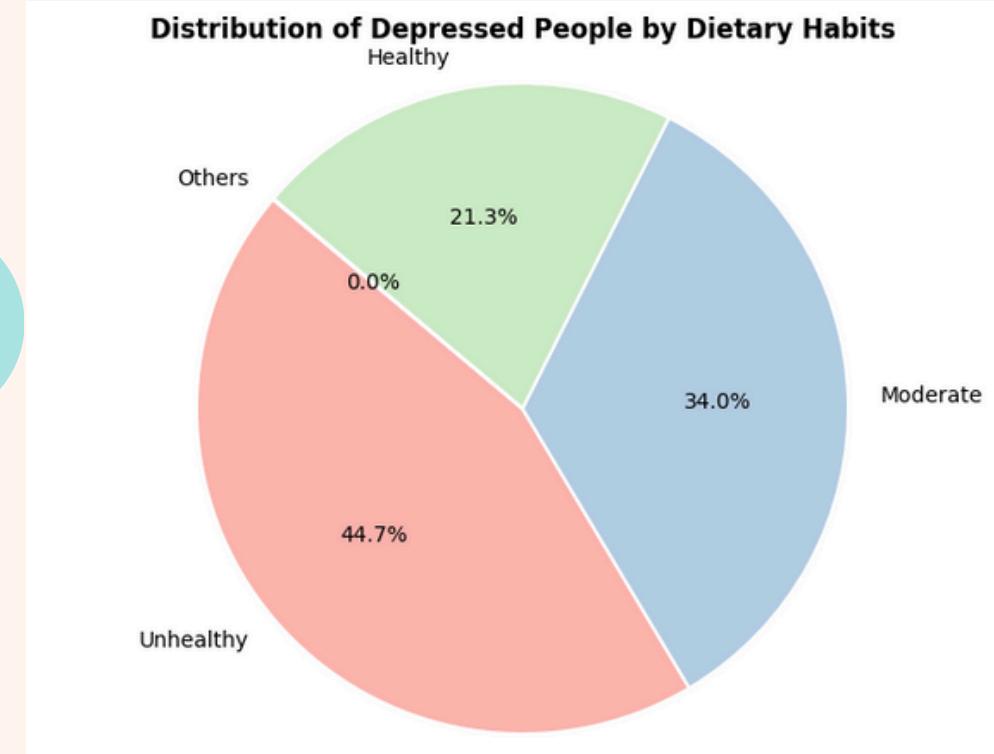
5. family mental health

has no effect on depression of students



6. Dietary Habits

Unhealthy people suffer more from depression.



Recomended action plan



Implement regular surveys to track academic, financial, and social stress levels.



Provide targeted counseling to high-risk segments (e.g., students under financial stress and poor sleep).



Develop awareness campaigns for the top 3 contributing factors to depression.



Use dashboards to monitor shifts in mental health trends each semester.

Thank You

https://github.com/Safaa9924/student_depression

<https://www.linkedin.com/in/safaa-bnt-samy/>