

# student depression

[https://github.com/Safaa9924/student\\_depression](https://github.com/Safaa9924/student_depression)

Presented by

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# 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

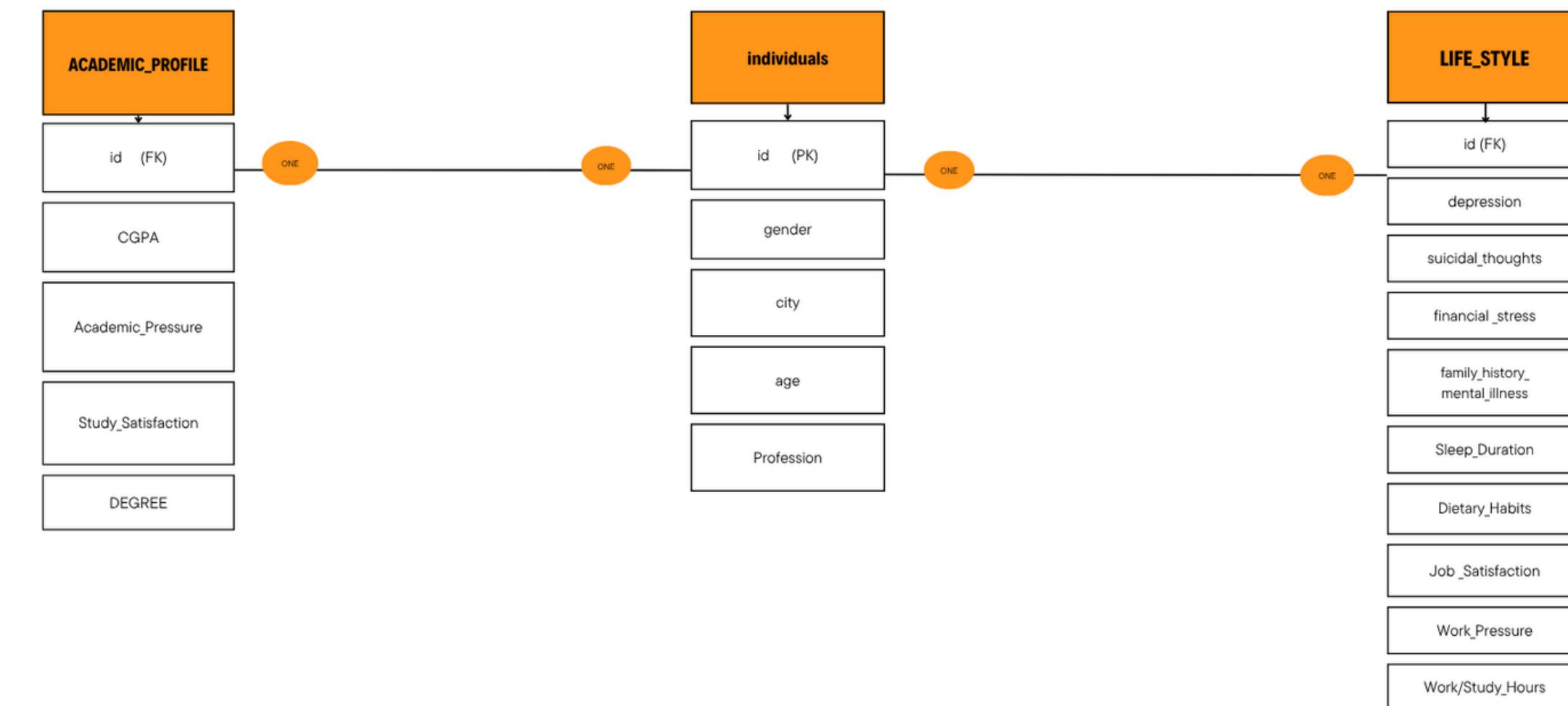
4

VISUALIZATION  
DASHBOARD  
&PRESENTATION  
TABLEAU - CANVA1234

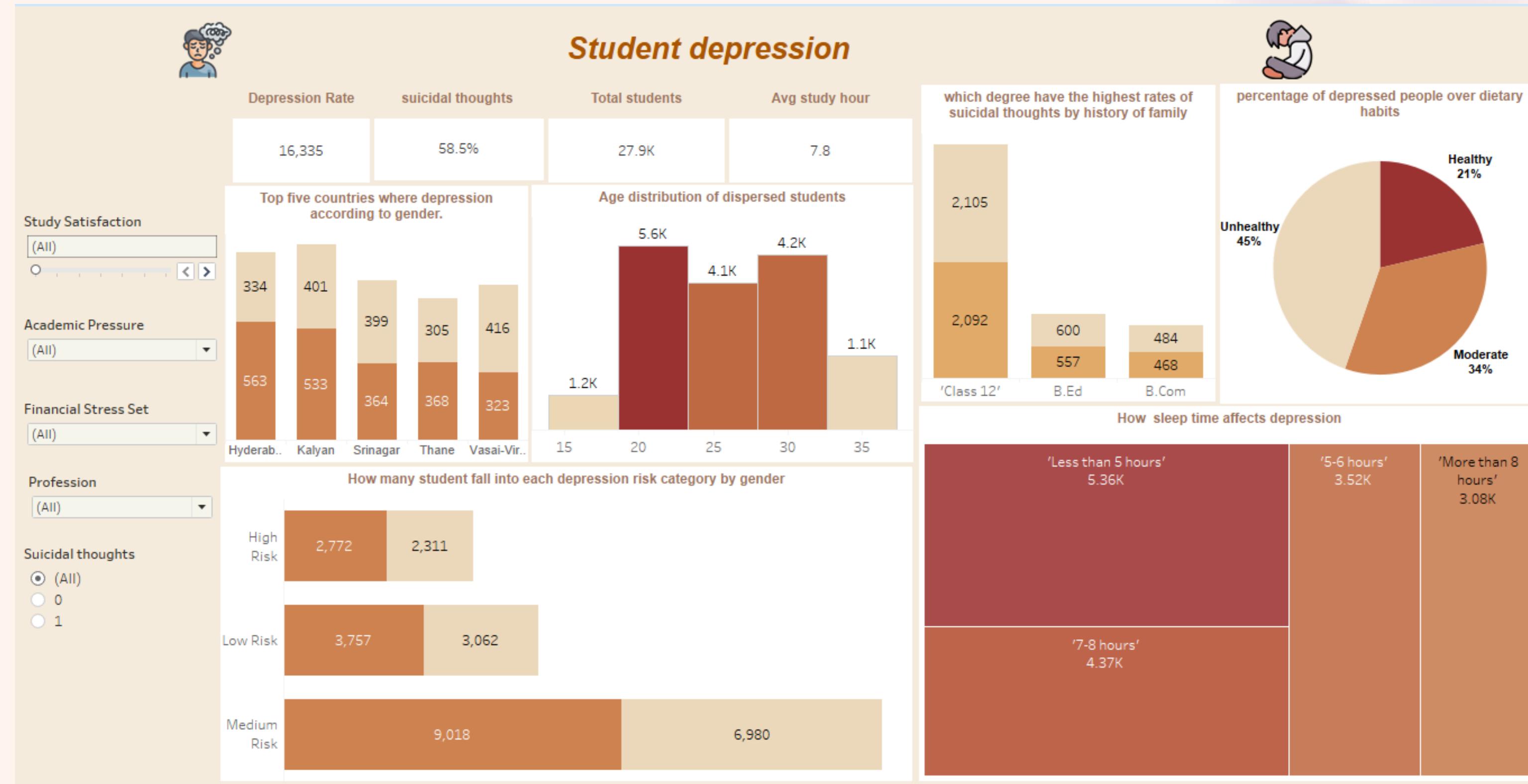
# ERD Diagram using SQL



## ERD for student\_depression\_dataset



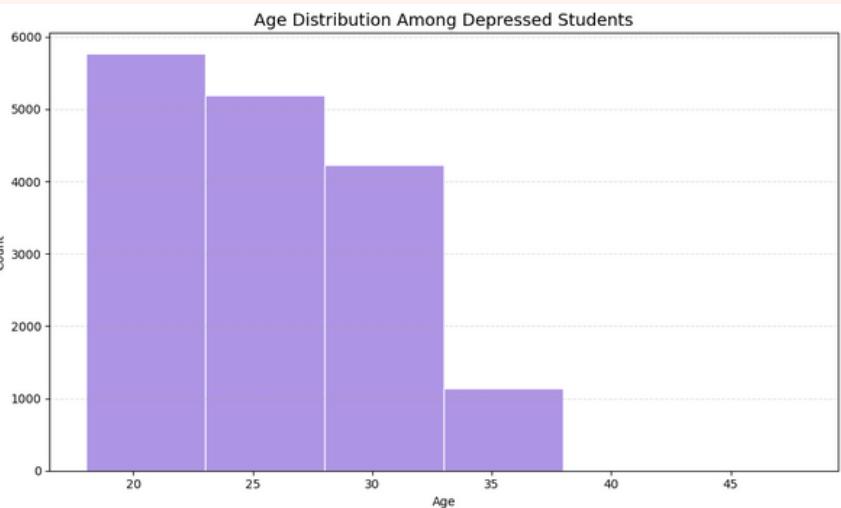
# Insights Dashboard



# Most Important Insights

## 4.Age distribution

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



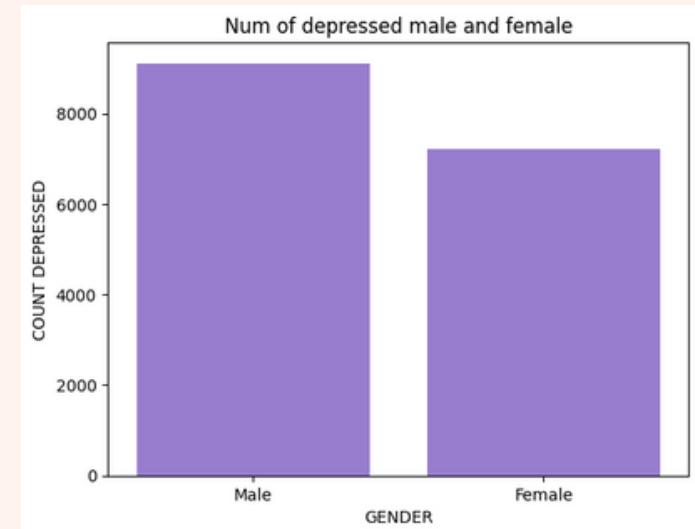
## 4. risk category

high risk male student are 2772 and female are 2331



1.Total students are 27.9 K

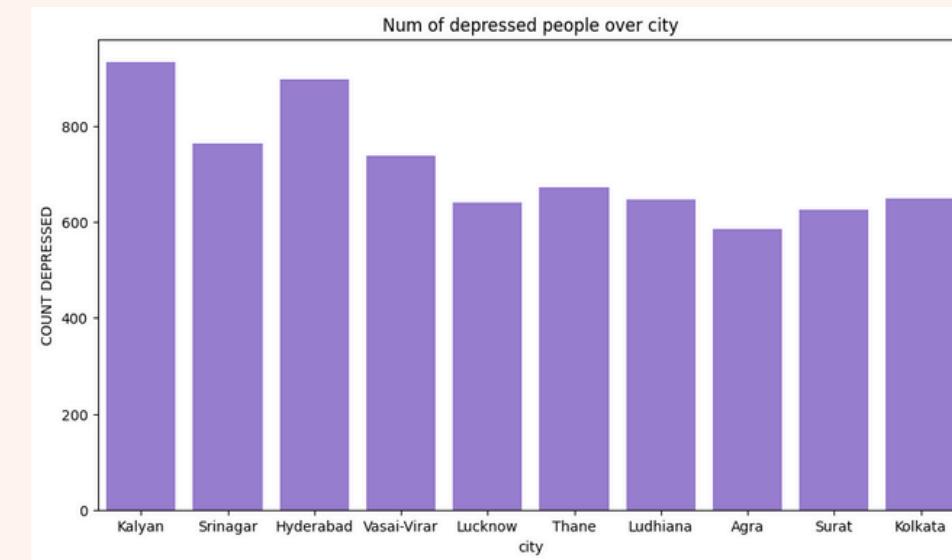
Men are more exposed to depression than women.



2.suicidal thoughts rate are 58.5%

3.No of Depressed people is 16.3K

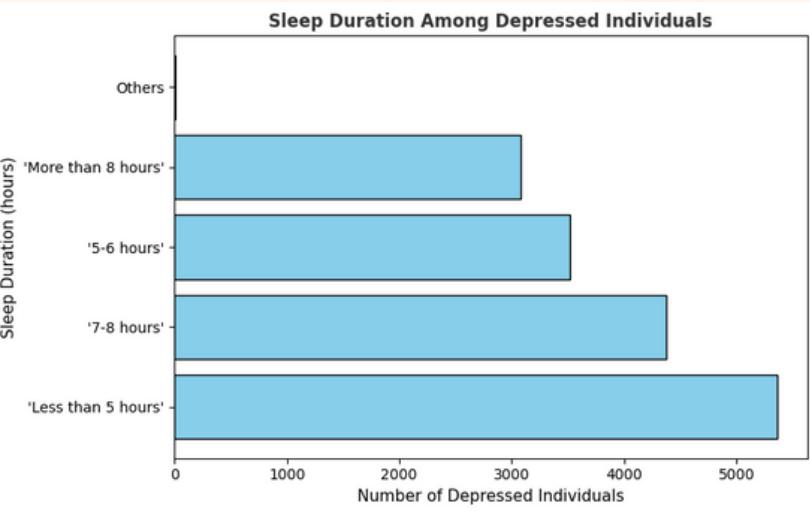
'Kalyan' and 'Hyderabad' are the highest cities where people suffer from depression.



# Most Important Insights

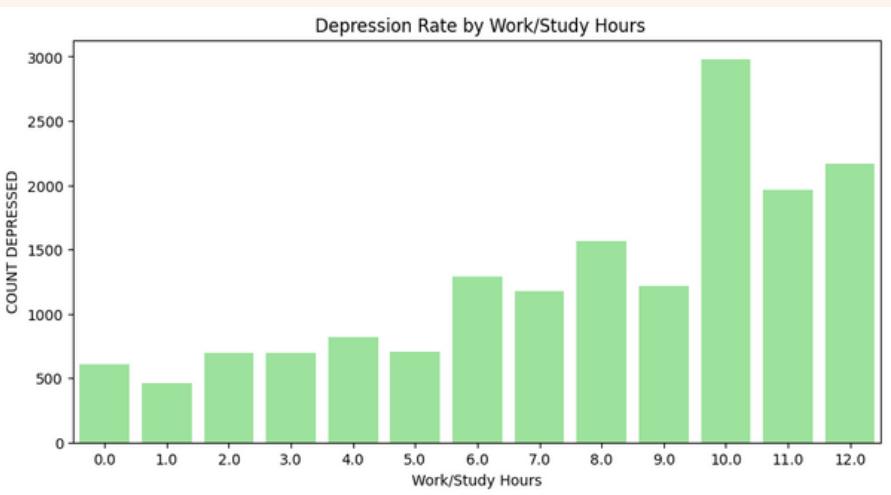
## 7. Sleep Duration

\*\*people who sleep less than 5 hours more expose to depression\*\*



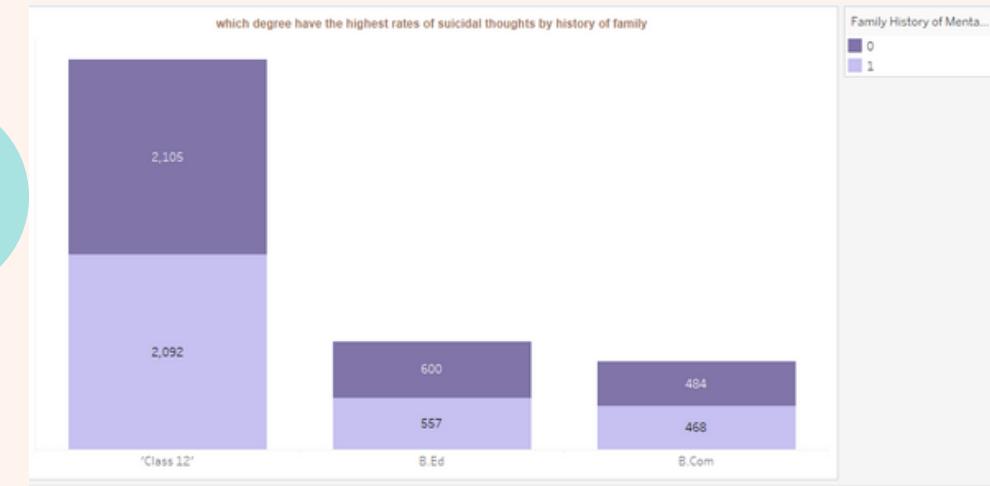
## 8. Study Hours

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



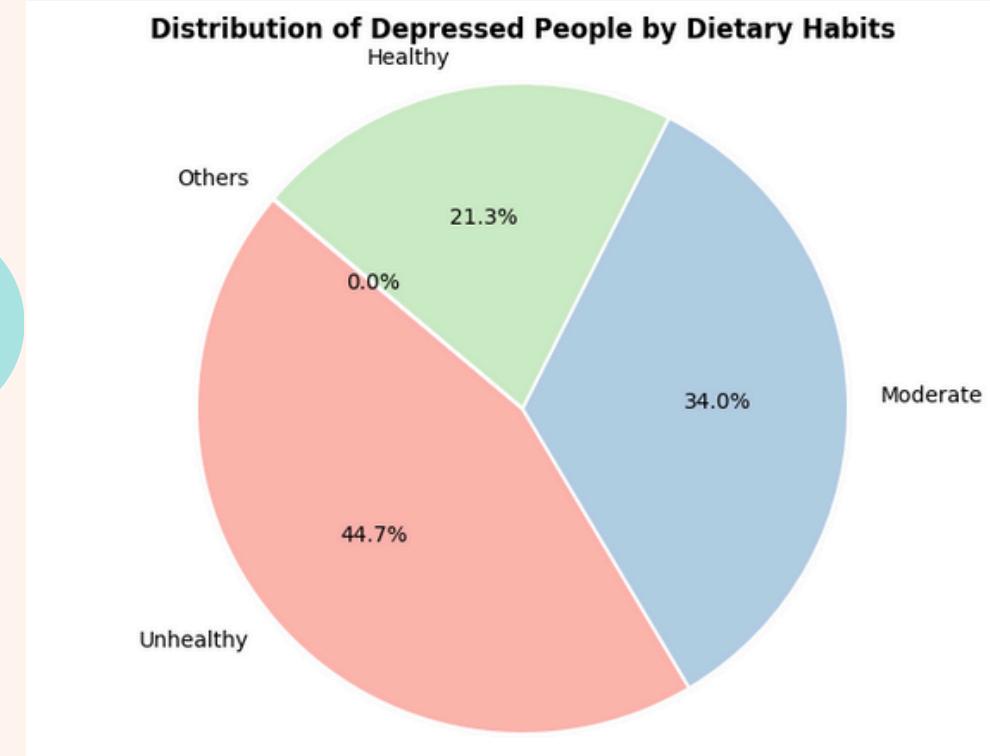
## 5. family mental health

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

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