Student Stress Level Predictor

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GitHub: https://github.com/PRIYA-7814/Student\_Stress\_Level\_Predictor

Live App: https://studentstresslevelpredictor-tcfrm84xjj3ipsb8r2iec4.streamlit.app/

# 1. Introduction

The Student Stress Level Predictor is a machine learning web application built using Streamlit. It predicts the stress level of a student—High, Moderate, or Low—based on their lifestyle and academic factors.

# 2. Problem Statement

Mental health and stress management are critical issues for students. This project addresses the need to monitor stress levels by predicting them using real-life inputs like study hours, sleep, GPA, etc.

# 3. Dataset Used

Multiple datasets related to student stress and mental health were collected from Kaggle. They were merged and cleaned to train a Random Forest Classifier model.

# 4. Features Used for Prediction

- Study Hours per Day

- Sleep Hours per Day

- Social Time

- Physical Activity

- Screen Time

- GPA (0.0 - 4.0)

# 5. Machine Learning Model

Model: RandomForestClassifier

Accuracy Achieved: 100% (on test dataset)

Model File: stress\_predictor\_model.pkl

# 6. Streamlit Application

A frontend was created using Streamlit for users to input lifestyle data and receive a predicted stress level. The app is deployed online using Streamlit Cloud.

# 7. Deployment

The complete app is deployed publicly at the following URL:

https://studentstresslevelpredictor-tcfrm84xjj3ipsb8r2iec4.streamlit.app/

# 8. Conclusion

This project demonstrates how machine learning can be applied to real-world mental health problems. It provides a non-intrusive way to help students become aware of their mental well-being.