**Tableau or Power BI Dashboarding project proposal**

**Capstone Project Title:**

"Student’s Study Habits and Mental Well-Being on Academic Performance"

**Summary:**

This project aims to develop a dashboard that provides clear and actionable insights into how student’s daily habits and mental well-being influence their academic outcomes. Utilizing survey data collected from Kaggle, the dashboard will highlight trends and correlations, offering a visual tool that can assist educators, counsellors, and students in recognizing performance-related patterns.

**Problem Statement:**

Background: In today's fast-paced educational environments, students navigate multiple habits that may affect their academic performance. However, these variables often go unmonitored and uncorrelated.

Objective: This project aims to visualize and analyse mental health trends among students and their academic performance through how habits like sleep, study hours, screen time, diet, and mental health interact to influence their exam scores.

Scope: The study is focused on students and evaluates key lifestyle indicators against academic results.

**Data Sources:**

**Dataset:**[**https://www.kaggle.com/datasets/jayaantanaath/student-habits-vs-academic-performance**](https://www.kaggle.com/datasets/jayaantanaath/student-habits-vs-academic-performance)

**Creator:** Jayanta Nath.

Primary Data: The dataset includes self-reported habits of students such as study hours per day, sleep duration, diet quality, mental health rating, part-time job status, and final exam scores.

**Methodology:**

Data Extraction**:** Extracting data from Kaggle website.

Analysing and Understanding of Dataset.

Data Cleaning and Preprocessing:

* Handling of missing values, duplicates, and inconsistencies.
* Standardize grading systems and time formats.
* Categorize study patterns and behaviours.

Data Visualization: Design visually appealing dashboards considering the combination of different study habits vs academic performances.

Interactivity: The dashboard will be designed with interactive features that let users easily filter data by factors affecting academic performance. It also allows deeper exploration through drill-downs and dynamic visuals, helping users uncover meaningful patterns in student performance.

**Tools:**

Excel: Data preprocessing and exploration.

Power BI / Tableau: Data visualization and for creating Dashboard/Stories.

**Expected Outcomes:**

* An interactive dashboard that visually uncovers patterns between daily habits and student performance metrics.
* Meaningful insights highlighting how psychological and behavioural routines shape academic outcomes.
* Recognition of concerning lifestyle areas, like inadequate sleep or nutrition, that may hinder academic success.
* Visually engaging tools to assist counsellors and educators in supporting students more effectively.

**Risk and Challenges:**

* Mental health metrics are subjective and may vary daily.
* Ensuring privacy and ethical usage of student data.
* Potential missing values in key indicators.

**Conclusion:**

The final product will be a visually intuitive and insightful dashboard, designed to illustrate how various lifestyle elements intertwine with academic results. The project aims to encourage early intervention strategies, informed decision-making, and the promotion of healthier student habits across academic institutions.