**Predictive Analysis of Academic Performance via Social Media Influence Metrics**

1. **Project Idea:**

In the era of smartphones and advanced mobile technologies, the profound impact of social media on society has prompted extensive discourse. This project aims to predict and understand the academic performance of university students by delving into the nuanced facets of social media influence factors.

These factors include the time spent on social media, the number of friends, the usage of different platforms, involvement in various groups, and other relevant metrics. The primary objective is to discern how these aspects of social media engagement may correlate with and predict students' academic achievements.

1. **Relevance to Sustainable Development Goals (SDGs):**

This project directly aligns with SDG (Quality Education) by addressing factors that impact academic performance of students. By unraveling the relationship between social media influence and academic outcomes, the project contributes to the development of strategies for fostering a high-quality education environment.

1. **Literature Examples:**

Reference 1: "**Measuring the effect of social media on student academic performance using a social media influence factor model**" - The paper aims to evaluate the influence of social media on student academic performance by introducing a Social Media Influence Factor (SMIF) model and revealing a statistically significant negative relationship between SMIF variables and student grade point average (GPA).

Reference 2: "**Social Media Influence on Student Success: A Comprehensive Analysis**" - This literature review provides insights into various social media influence factors and their potential effects on academic success, serving as a reference for our project.

1. **Data:**

Data will be collected from the University Professional Studies of Accra.

The dataset will be structured, potentially in CSV format, encompassing information on students' academic performance, as well as social media metrics such as time spent, number of friends, platform usage, group involvement, and other pertinent variables.

A representative sample size will be gathered to ensure statistical validity.

Data preprocessing will involve handling missing values, normalizing features, and encoding categorical variables, optimizing the dataset for predictive modeling.

1. **Approach:**

This project will leverage a machine learning approach. According to the multifaceted nature of social media influence factors and the desire for interpretable insights, a machine learning approach is chosen. Machine learning models allow for the development of predictive models based on diverse social media metrics, providing actionable insights for enhancing academic performance. The interpretability of machine learning models aligns well with the goal of understanding and mitigating the impact of social media on students' academic success.