**SEE Project Proposal**

**Project Title:** **Predictive Financial Modeling for Software Project Success**

**Group Members:**

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**Objective:**  
The project aims to develop a machine learning (ML)-based predictive model that estimates the financial success or failure of a software project. By leveraging historical project data, the model will assess key factors such as cost, duration, revenue, and failure rates to predict profitability, cost overruns, and potential delays. The solution will be compared with traditional estimation techniques like COCOMO and Function Points to evaluate its accuracy and effectiveness.

**Proposed Features:**

**Historical Data Analysis:** Utilize past software project data to extract meaningful financial and operational patterns.

**Machine Learning Model:** Train an ML model to predict project profitability, cost overruns, and delays.

**Comparison with Traditional Methods:** Evaluate AI-based predictions against conventional cost estimation techniques like COCOMO and Function Points.

**Feature Importance Analysis:** Identify key factors influencing software project success using techniques like SHAP or LIME.

**Dashboard for Visualization:** Develop an interactive dashboard to visualize predictions and financial analysis.

**Automated Report Generation:** Generate insights and recommendations based on model outputs.

**Deliverables:**

* Research Paper
* Dataset
* Predictive Model
* Financial Analysis Report

This project will provide valuable insights into software project planning and risk management, helping organizations make data-driven decisions to optimize financial outcomes.