Project Initialization and Planning Phase

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| Date | 16 April 2024 |
| Team ID | Team-738178 |
| Project Title | Envisioning Success : Predicting University Scores With Machine Learning |
| Maximum Marks | 3 Marks |

# Project Proposal (Proposed Solution) report

The proposal report aims to enhance university score prediction using machine learning techniques. By analyzing factors such as quality of education, alumni employment, faculty quality, publications, influence, citations, and patents, the system helps students and their families make well-informed decisions about their educational future.

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| **Project Overview** | |
| Objective | The primary objective of the project is to improve the university scoring process by implementing advanced machine learning techniques to provide more precise and reliable assessments. |
| Scope | The project utilizes machine learning to analyze key university  characteristics such as quality of education, alumni employment  faculty quality, publications, influence, citations, and patents. The  aim is to deliver precise and efficient university scoring for  informed decision-making in the academic sector. |
| **Problem Statement** | |
| Description | The current university scoring system may suffer from inconsistencies and inaccuracies in evaluating key factors, which can lead to challenges in informed decision-making for prospective students and their families. |
| Impact | Addressing these issues will lead to more precise and reliable university assessments, allowing students and families to make better educational choices. This, in turn, can enhance the reputation of universities, support student success, and drive overall improvement in the quality of higher education. |
| **Proposed Solution** | |
| Approach | Leveraging machine learning techniques to analyze and predict university scores based on key parameters such as quality of education, alumni employment, faculty quality, publications, influence, citations, and patents. |
| Key Features | - Implementation of a machine learning-based university scoring model. |

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|  | * Real-time assessment and prediction of university scores for immediate decision-making. * Continuous learning to adapt to evolving academic data and trends. |

# Resource Requirements

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| **Resource Type** | **Description** | **Specification/Allocation** |
| **Hardware** | | |
| Computing Resources | CPU/GPU specifications, number of cores | T4 GPU |
| Memory | RAM specifications | 8 GB |
| Storage | Disk space for data, models, and logs | 1 TB SSD |
| **Software** | | |
| Frameworks | Python frameworks | Flask |
| Libraries | Additional libraries | scikit-learn, pandas, numpy, matplotlib, seaborn |
| Development Environment | IDE | Google Colab |
| **Data** | | |
| Data | Source, size, format | timesData.csv, 614, snc.csv , 818, cwurData.csv, 2603 |