

## Project Design Phase-I Proposed Solution Template

Date	12 October 2022
Team ID	PNT2022TMID28710
Project Name	University Admit Eligibility Predictor
Maximum Marks	2 Marks

### Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<p>Students are often worried about their chances of admission to university. The aim of this project is to help students in shortlisting universities with their profiles. The predicted output gives them a fair idea about their admission chances in a particular university. This analysis should also help students who are currently preparing or will be preparing to get a better idea. It also aims to make a direct connection between the students and the universities and avoid any intermediaries.</p>
2.	Idea / Solution description	<p>This project intends to calculate the probability of acceptance in a particular grad-school after assessing the candidate's profile.</p> <p>The key attributes that will be considered for making the decisions are:</p> <ul style="list-style-type: none"> <li>i) GRE &amp; TOEFL Scores</li> <li>ii) Undergrad CGPA</li> <li>iii) SOP &amp; LOR</li> <li>iv) Corporate Work Experience / Research Experience</li> <li>v) Extracurriculars</li> </ul> <p>For determining the % of acceptance, we will be using various ML models such as Logistic Regression, Multiple Linear Regression, Decision Tree &amp; Random Forest and assess which model gives the highest accuracy with the help of performance metrics like accuracy-score, precision and recall.</p>
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> <li>● We intend to develop a novel deep learning-based hybrid model that has a better accuracy than the existing traditional ML models.</li> </ul>

		<ul style="list-style-type: none"> <li>● The web-app will also provide feedback on the parameters where the candidate is lacking so that he can improve on those areas.</li> </ul>
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> <li>● Students often feel difficult in shortlisting the universities to apply which they tend to wonder if their profile matches the requirement of a certain university.</li> <li>● Moreover, the cost of applying to a university is extremely high making it critical that students shortlist universities based on their profile.</li> <li>● A university admission prediction system is quite useful for students to determine their chances of acceptance to a specific university.</li> <li>● This system reduces dependence on educational consultancies, who charge loads of money to analyse a candidate's profile and determine the universities he/she should apply to.</li> </ul>
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> <li>● Advertisements of different universities could be placed in the web-app to generate revenue through ads.</li> <li>● In the future, a separate premium plan could be created where the students can directly interact with the professors and alumni of the university through video calls.</li> </ul>
6.	Scalability of the Solution	<ul style="list-style-type: none"> <li>● A future update could have chat space where candidates, faculties, current students of the university and alumni can interact and candidates can get their doubts resolved instantly.</li> <li>● To deal with huge volumes of data in the future (Both - applicants and university details), cloud-based storages (IBM cloud, AWS, GCP, AZURE) and NoSQL databases (MongoDB, Redis, etc.) could be used instead of the traditional RDBMS storage.</li> <li>● Alternatively, distributed big-data processing techniques could be explored if the no. of users using the website increase exponentially during the course of time.</li> </ul>