

**Project Design Phase-I**  
**Proposed Solution**

Date	19 October 2022
Team ID	PNT2022TMID35033
Project Name	University Admit Eligibility Predictor
Maximum Marks	2 Marks

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Educational institutions have always played an important role in society for development and growth of any individual. There are many college prediction apps and websites are being maintained, but using them is endless to some extent, due to the lack of accurate information from colleges. The problem statement is to design a college prediction system and to provide a probabilistic insight into college administration for overall rating, cut-offs of the colleges, admission intake and preferences of students. It helps students avoid spending time and money on counselor and stressful research related to finding a suitable college. We aim to provide a place which would give a perfect output as to how likely it is to enter into a university given upon their own details.
2.	Idea / Solution description	University and College research being one part of the university application process is itself an arduous and lengthy task. These issues being a big problem for students have not been solved till now. There are recognized sites which filter the best universities and colleges based on the location, tuition fees, major and degree but none of them have use machine learning algorithm to solve the issue. Hence, we have done this research project to solve that issue to some extent with the use of data mining techniques.
3.	Novelty / Uniqueness	University Application process itself being a tedious task Students needs lots of endeavor and determination for completing overall application process. It would definitely be easier for students if they get relief from step of selecting best suited universities and colleges for application.

4.	Social Impact / Customer Satisfaction	Results of this project are not applicable to college graduates of each and every major. As there was limitation of information on dataset this system could not predict and recommend universities to students of every major.
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5.	Business Model (Revenue Model)	From this project, financially can earn from the students admission fees but while they want to first select in their selected college in prediction. Although which is done by this project for prediction. In this project, this problem has been addressed by modeling a recommender system based on various classification algorithms. The required data was obtained from thegradcafe.com. Based on this data set, various models were trained and one best and some other similar properties carrying universities are suggested for the students such that it maximizes the chances of a student getting an admit from that university list.
6.	Scalability of the Solution	In this project, this problem has been addressed by modeling a recommender system based on various classification algorithms. To predict the best University for the particular student his/her GPA score, GRE (Verbal and Quant) Score, TOEFL score has been used as attributes for classification. K nearest neighbor has been used to predict best University and K means clustering has been used to find more similar universities. Support Vector Machine and random forest has been used to predict the admission chance of particular student on specific University.