NAALAIYA THIRAN PROJECT - 2022
19ECI01-PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY AND ENTREPRENEURSHIP

UNIVERSITY ADMIT ELIGIBLITY PREDICTOR

A PROJECT REPORT

Submitted by

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CHAPTER 1
INTRODUCTION

1.1 PROJECT OVERVIEW

This chapter overviews "University Admit Eligibility Predictor" and presents the project's needs and objectives.The main objective of the project is to create and train a model to predict a student's chance of getting into a particular university based on the parameters such as decentscore, a SOP (statement of purpose), or a letter of reference, and other things. Concerns about admittance to university are common among students. This project's goal is to assist students in narrowing down institutions based on their profiles. The anticipated results offer them a good indication of their prospects of admission to a particular university. This analysis ought to provide better insight for students who are or will be preparing for exams. One of the common hurdles among students is that they often get stranded about what's next. They are often worried about their chances of admission into University. The existing solutions rather focus on the universities, what they offer and students can go through all they want about the universities. But predicting university entrance, on the other hand, might be extremely challenging because students are unaware of the admission standards.

This model helps to provide better insights and predicts university admission with accuracy and efficiency to aid students in making college decisions.

1.2 PURPOSE

The existing solutions rather focus on the universities, what they offer and students can go through all they want about the universities. But predicting university entrance, on the other hand, might be extremely challenging because students are unaware of the admission standards.So, this model helps to provide better insights and predicts university admission with accuracy and efficiency to aid students in making college decisions.

CHAPTER 2
LITERATURE SURVEY

2.1 EXISTING SOLUTIONS

- **CollegeAI**

The university name for which eligibility needs to be anticipated is requested and it inquires about a student's high school GPA, SAT, and ACT scores before displaying the results in a boring graphical format. The student departs without having a thorough understanding of his or her eligibility for the university of

choice.

- **CollegeVine**

CollegeVine is the only free college guidance company that offers data-driven chancing, then works with students to help optimize their profiles, it uses thousands of real acceptance results to fine-tune our algorithm and also explain your chancing results and teach you how to strengthen your profile.

- **Niche**

This tool allows you to see where you fall among the entire pool of applicants. This helps you understand if it's your test scores or your GPA that's holding you back from being a top applicant. While no college chances calculator can truly predict whether or not you will be admitted into your dream school, our chances calculator can help you build a balanced list of safety, target, and reach schools to ace your college search.

2.2 REFERENCES

This study's primary goal is to pinpoint the issues and shortcomings with the current system. Apart from that this study is carried out to analyze the problems that occurred from the current system to come out with the solutions to overcome the regarding drawbacks. Then, it is important to study and analyze the management process and activities in order to identify the requirements of the future system. Next is to conclude the future system and to classify the main modules for the system.

In any country, an undergraduate admission test is one of the most important tests for the students. Students remain conscious about taking admission to their desired universities. In Bangladesh, students who passed the Higher Secondary Certificate (HSC) examination contest the undergraduate admission test. According to the year 2017, 8.01 lakh examinees passed the HSC exam and competed to get admission in different public universities. Universities have their admission requirements for this purpose which are generally based on the students' grade point average (GPA) of the Secondary School Certificate (SSC) and HSC examination, GPA of various courses, etc. However, the total seats in public universities are not sufficient. According to the Ministry of Education of Bangladesh , the number of seats in the country's 37 public universities is around 60,000. As a result, about 7 lakhs 40 thousand students did not get the opportunity to study in public universities last year. Even those students who can apply and sit for the admission test do not have the guarantee of admission opportunities in the university because of the limited number of seats. Students have to overcome the barrier of admission test and qualify in the examination to secure their seats. Such students have to go through a long time of mental stress or illness before or after the admission test. The authors realize that this issue cannot be completely removed. But with the aid of modern technologies and strategies e.g. educational data mining, this study can reduce the

problem and make students aware of it early in the admission test. If any student can know the pre-examination and post examination status of a particular university for undergraduate admission, it will be a great benefit for him/her to take the necessary steps to improve the admission test's performance so that he/she can get a chance at the desired university. The authors want to help the students to judge and improve themselves before or after the admission test using this system. In this study, the authors use the concepts and techniques of data mining which is discovered useful and meaningful information from large scale data collections. Because of the growing data volume of educational knowledge, educational data mining has a rich area of application. This research is conducted to measure the admission opportunity of a student in Bangabandhu Sheikh Mujibur Rahman Science and Technology University (BSMRSTU), Bangladesh. It is more authentically based on a real dataset collected from the engineering and science faculty students of BSMRSTU. Discovering knowledge from real data gives us a solution that helps students to improve their performance to get admission to BSMRSTU. The authors apply different data mining techniques for a fruitful solution. Here, a total of 500 students' data is collected for this investigation. Though this research focuses on admission chance as the case study, the proposed approach is not restricted to it only. Moreover, this study extensively investigates all possible features or factors of an undergrad candidate and evaluates their impact for predicting admission.

The main contributions of this thesis are:
• Developing an admission prediction system for the undergrad students in the engineering faculty at BSMRSTU, Bangladesh.
• Predicting the admission opportunity both before and after the admission test.
• Analyzing and evaluating the possible factors of an admission candidate that affect the admission chance.

(Bibodi et al. (n.d.)) used multiple machine learning models to create a system that would help the students to shortlist the universities suitable for them also a second model was created to help the colleges to decide on enrolment of the student. Nave Bayes algorithm was used to predict the likelihood of success of an application, and multiple classification algorithms like Decision Tree, Random Forest, Nave Bayes and SVM were compared and evaluated based on their accuracy to select the best candidates for the college. Limitation of this research as that it did only rely on the GRE, TOEFL and Undergraduate Score of the student and missed on taking into consideration other important factors like SOP and LOR documents quality, past work experience, technical papers of the students etc. Bayesian Networks were used by (Thi et al. (2007)) to create a decision support system for evaluating the application submitted by international students in the university. This model was designed to predict the performance of the aspiring students by comparing them with the performance of students currently studying in the university and had similar profile during their application. In this way based on the current students profile the model predicted whether the aspiring student should be granted admission to the university. Since the comparisons were made only with the students who were already admitted in the university and the data of the students who were denied admission were not included in the research this model proved to be less efficient due to the problem of class imbalanceIn research conducted by (Jamison (2017)) the yield of college admission was predicted using machine learning techniques. Yield rate can be defined as the rate at which the students who have been granted admission by the university actually enroll for the course. Multiple machine learning algorithms like Random Forest, Logistic Regression and SVM were used to create the model; the models were compared based on their performance and accuracy, Random Forest outperformed the other models with 86% accuracy and was thus used to create the system. The factors that proved to

be significant in predicting successful application were also highlighted. GRADE system was developed by (Waters and Miikkulainen (2013)) to support the admission process for the graduate students in the University of Texas Austin Department of Computer Science. The main objective of the project was to develop a system that can help the admission committee of the university to take better and faster decisions. Logistic regression and SVM were used to create the model, both models performed equally well and the final system was developed using Logistic regression due to its simplicity. The time required by the admission committee to review the applications was reduced by 74% but human intervention was required to make the final decision on status if the application. (Nandeshwar et al. (2014)) created a similar model to predict the enrolment of the student in the university based on the factors like SAT score, GPA score, residency race etc. The Model was created using the Multiple Logistic regression algorithm, it was able to achieve accuracy rate of 67% only.

Previous research done in this area used Naive Bayes algorithm which will evaluate the success probability of student application into a respective university but the main drawback is they didn't consider all the factors which will contribute in the student admission process like TOEFL/IELTS, SOP, LOR and under graduate score. Bayesian Networks Algorithm have been used to create a decision support network for evaluating the application submitted by foreign students of the university. This model was developed to forecast the progress of prospective students by comparing the score of students currently studying at university. The model thus predicted whether the aspiring student should be admitted to university on the basis of various scores of students. Since the comparisons are made only with students who got admission into the universities but not with students who got their admission rejected so this method will not be that much accurate.

2.3 PROBLEM SATEMENT DEFINITION

One of the common hurdles among students is that they often get stranded about what's next. They are often worried about their chances of admission into University. The existing solutions rather focus on the universities, what they offer and students can go through all they want about the universities. But predicting university entrance, on the other hand, might be extremely challenging because students are unaware of the admission standards The model will not only show you how you compare to students who were accepted into a college, but also how you compare to students who were rejected from that college or who are considering it in their search.

IDEATION & PROPOSED SOLUTION
3.1 EMPATHY MAP CANVAS

An empathy map canvas is a more in-depth version of the original empathy map, which helps identify and describe the user's needs and pain points. And this is valuable information for improving the user experience. Teams rely on user insights to map out what is important to their target audience, what influences them, and how they present themselves. This information is then used to create personas that help teams visualize users and empathize with them as individuals, rather than just as a vague marketing demographic or account number.

Fig 3.1 shows the empathy map canvas which briefly introduces us to the user.

Fig 3.1 Empathy Map Canvas

Fig 3.1 shows the empathy map canvas which allows us to analyse the overall needs for the admission and valuable information and insights about it.

3.2 IDEATION & BRAINSTORMING

Brainstorming is a method design teams use to generate ideas to solve clearly defined design problems. Brainstorming is an activity that will help you generate more innovative ideas. It's one of many methods of ideation—the process of coming up with new ideas—and it's core to the design thinking process.
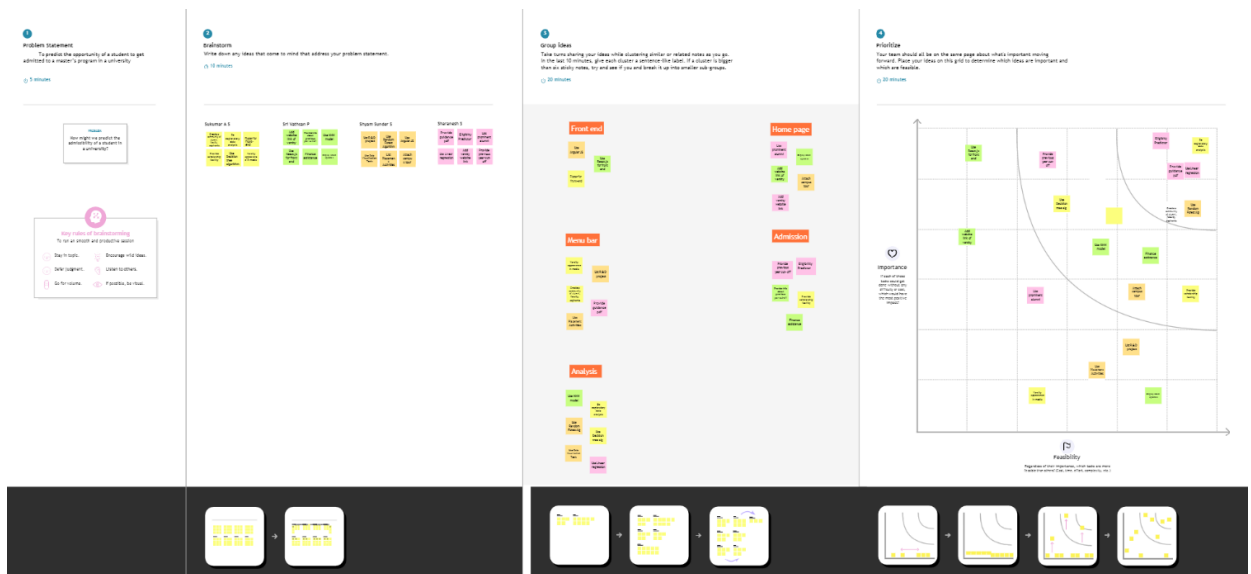
Fig 3.2 Brainstorming

Fig 3.2 shows the brainstorming exercise produces a vast array of ideas and draw links between them to find potential solutions.

3.3 PROPOSED SOLUTION

3.3.1 Idea / Solution description

College admission is handled through the use of a machine learning algorithm. Rows of feature vector, including grades, cut off, categories, and other data, are used as the algorithm's input. The student's eligibility for admission to that college or university is then predicted using a decision tree and random forest.

3.3.2 Novelty / Uniqueness

The model will not only show you how you compare to students who were accepted into a college, but also how you compare to students who were rejected from that college or who are considering it in their search.

3.3.3 Social Impact / Customer Satisfaction

- Students will find it simple
- Affordable
- Efficient, and safe

3.3.4 Business Model (Revenue Model)

The app's services will be available to students free of charge under the model being used. It is intended to increase the requirement for subscription for particular services if the programme is 10ealized by more students.

3.3.5 Scalability of the Solution

Given the size of the dataset and the related noise, there will be a significant amount of pre-processing required in this situation. The model's output is dependent on the input. The outcome of the data is entirely based on the information gathered from earlier records.

3.4 PROBLEM SOLUTION FIT

The Problem solution fit simply means that one have found a problem with the customer and that the solution one have realized for it actually solves the customers problem. The structure of problem solution fit is given below.

Customer state fit: To make sure one understand, their limitations and their currently available solutions, against which one is going to compete.

Problem-Behavior fit: To help one to identify the most urgent and frequent problems, understand the real reasons behind them and see which behavior supports it.

Communication-Channel fit: To help one to sharpen the communication with strong triggers, emotional messaging and reaching customers via the right channels.

| Project Title: University Admit Eligibility Predictor | Project Design Phase-I - Solution Fit Template | Team ID: PNT2022TMID52795 |

1. CUSTOMER SEGMENT(S) — CS
Who is your customer?
i.e. working parents of 0-5 y.o. kids

Anyone who have completed 12th grade, looking for college.

6. CUSTOMER CONSTRAINTS — CC
What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

Spending more money, Time and Energy in lack of Poor Knowledge in getting admission

5. AVAILABLE SOLUTIONS — AS
Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper

Seat allotment, Eligibility Criteria due to Entrance Exam like NEET, JEE, etc,

2. JOBS-TO-BE-DONE / PROBLEMS — J&P
Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

Desiring to get admitted into a preferred university.

9. PROBLEM ROOT CAUSE — RC
What is the real reason that this problem exists? What is the back story behind the need to do this job? i.e. customers have to do it because of the change in regulations.

Due to intense competition and failure to meet the necessary requirements.

7. BEHAVIOUR — BE
What does your customer do to address the problem and get the job done? i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work i.e. Greenpeace

Spend extra money and time at the last minute to get into the desired university.

3. TRIGGERS
What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

watching other students when they apply to one's preferred

10. YOUR SOLUTION
If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and makes customer behaviour.

By comparing the student's grades and the college's cut off and projecting the likelihood of admittance, we would develop an application that aids students in getting the list of colleges. It is quick, effective, and dependable. It teaches you how to enhance your profile in order to gain admission to the university of your choice.

8. CHANNELS of BEHAVIOUR
8.1 ONLINE
What kind of actions do customers take online? Extract online channels from #7

They will look up the desired option online.
criterion to join the university and University

8.2 OFFLINE
What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

When on a college campus, Inquire about the university from students, academic representatives, and locals.

4. EMOTIONS: BEFORE / AFTER
How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure > confident, in control – use it in your communication strategy & design.

Confused and worried about receiving university admission.

Fig 3.3 Proposed Solution Fit

Fig 3.3 shows that finding a consumer problem and realising a solution that genuinely addresses the customer's issue.\

CHAPTER 4

REQUIREMENT ANALYSIS

Requirements analysis is very critical process that enables the success of a system or software project to be assessed. Requirements are generally split into two types: Functional and Non-functional requirements.

4.1. FUNCTIONAL REQUIREMENT

These are the requirements that the end user specifically demands as basic facilities that the system should offer. All these functionalities need to be necessarily incorporated into the system as a part of the contract. These are represented or stated in the form of input to be given to the system, the operation performed and the output expected. They are basically the requirements stated by the user which one can see directly in the final product, unlike the non-functional requirements.

Table 4.1.1 shows the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Information about User	To update the GRE scores, IELTS/TOFEL scores, academic scores, achievements and publications
FR-4	User constraints	List of eligible universities that the candidate could attain admit is displayed as per the data given by user.

FR-5	Result	Output to be displayed that consists of admit eligibility of the desired college

Table 4.1.1 Functional Requirements for the University Admit Eligibility Predictor

S.No	Component	Description	Technology
1.	User Interface	The user interacts with the application through a Web UI	HTML, CSS, Python, Flask
2.	Application Logic-1	Logic for collecting the input from the user	Python
3.	Application Logic-2	Integrating Machine Learning model with our application	Python
4.	Database	Numeric data	MySQL
5.	Data Storage	To process and store processed files.	Local Filesystem
10.	Machine Learning Model	A machine learning model is a program that can find patterns or make decisions. A machine learning algorithm is a mathematical method to find patterns in a set of data.	Predictive Modelling
11.	Infrastructure (Server)	Application Deployment on Local System Local Server Configuration: Built-in Flask web server	Flask, Web server

Table 4.1.2 Detail Description and technology used for the University Admit Eligibility Predictor

4.2. NON-FUNCTIONAL REQUIREMENTS

These are basically the quality constraints that the system must satisfy according to the project contract. They basically deal with issues like Portability, Security, Maintainability, Reliability, Scalability, Performance, Reusability, Flexibility.

Table 4.2 shows following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The user-friendly UI allows the users to access the information without any hassle
NFR-2	**Security**	Only the user with correct credentials is authorised to access this service
NFR-3	**Reliability**	The system will be reliable as the data is verified and maintained in an efficient way
NFR-4	**Performance**	Website would generally able to handle traffic with ease and the model can easily predict the result with given details
NFR-5	**Availability**	Its easily available to anyone with appropriate information and no redundancy is seen, due to which it is efficient.
NFR-6	**Scalability**	The universities admit plays an important role in student life, therefore it would be able to handle many students as a traffic at the website.

Table 4.2 Non-Functional Requirements of University Admit Eligibility Predictor

CHAPTER 5

PROJECT DESIGN

5.1. Data Flow Diagrams

A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Data flowcharts can range from simple, even hand-drawn process overviews, to in-depth, multi-level DFDs that dig progressively deeper into how the data is handled. They can be used to analyze an existing system or model a new one.
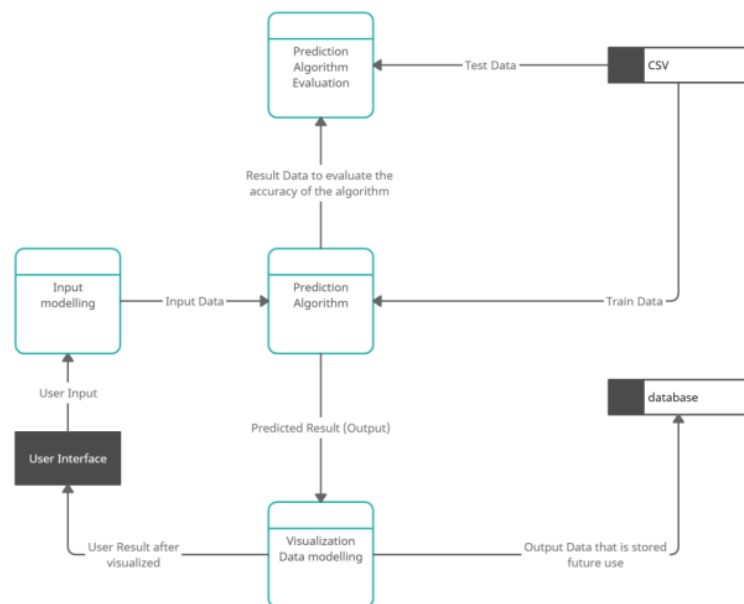
Fig 5.1 Data Flow Diagram

Fig 5.1 maps out the flow of information or process of the University Admit Eligibility Predictor.

5.2. Solution & Technical Architecture

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

1. This solution helps students to get the list of colleges to which they can apply as the system shortlists the colleges by comparing the student's marks and college's cut off.
2. The chance of occurrence of error is less when compared with the existing system.
3. First, Enter the scores in the fields.
4. Next, request the prediction from web application.
5. Returns the list of colleges based on scores.
6. Predicts the eligibility score.
7. Recommending best suitable universities to students based on their GRE, GPA and TOEFL scores and also predicting admission probability.
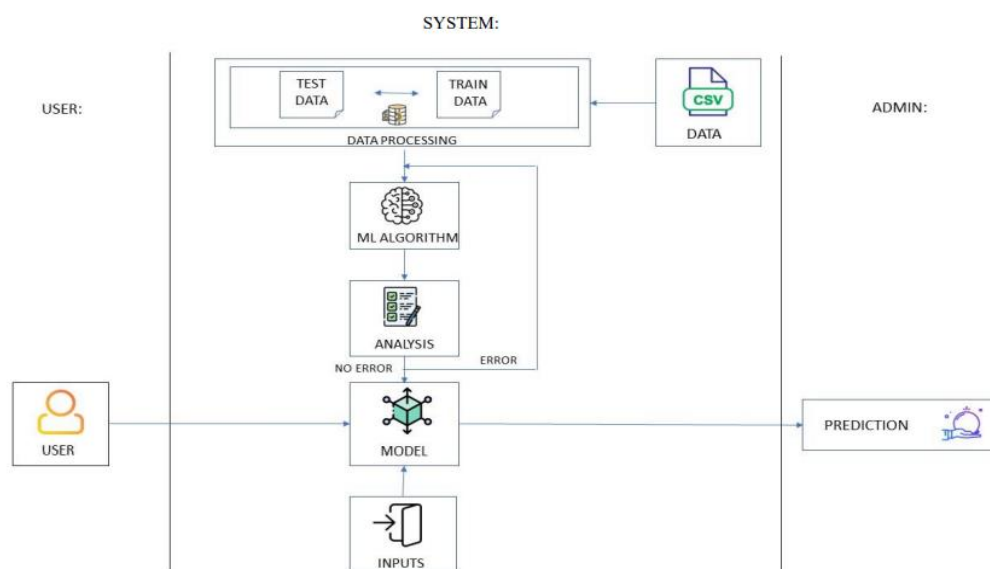
Fig 5.2 Solution Architecture of University Admit Eligibility Predictor

CHAPTER 6

PROJECT PLANNING & SCHEDULING

6.1 SPRINT PLANNING AND ESTIMATION

Sprint planning is an event in scrum that kicks off the sprint. The purpose of sprint planning is to define what can be delivered in the sprint and how that work will be achieved. Sprint planning is done in collaboration with the whole scrum team.

The sprint is a set period of time where all the work is done. However, before leap into action it is necessary to set up the sprint. It need to decide on how long the time box is going to be, the sprint goal, and where it is going to start. The sprint planning session kicks off the sprint by setting the agenda and focus. If done correctly, it also creates an environment where the team is motivated, challenged, and can be successful.

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	Dataset Analysis	USN-1	Download the admission predict dataset and analyse it.	2	High	Sharanesh
	Dataset pre-processing	USN-2	Examine the dataset and perform pre-processing steps	1	Medium	ShyamSunder R
Sprint-2	Model Creation	USN-3	Create a model	2	High	Srivathsan P

			from the training data			
	Testing the model	USN-4	Choosing the best model from the obtained accuracy	2	Medium	Sukumar A S
	Login	USN-5	As a user, I can log into the application by entering email & password	1	High	Sharanesh S
Sprint-3	Dashboard	USN-6	As a user, once I log in, I can view the Admission Prediction page	1	High	ShyamSunder R
	Predictor	USN-7	As a user, I can specify all the values for prediction and get accurate results	1	High	Srivathsan P
	Base Flask App	USN-8	Integrate Flask and the built model	2	High	Sukumar A S
Sprint - 4	Integration	USN-9	Integrate the app on IBM cloud	2	High	ShyamSunder R
	About page	USN-10	As a user, I can know about the predictor system	1	Medium	Sukumar A S

Table 6.1 Sprint planning done for University Admit Eligibility Predictor

6.2 SPRINT DELIVERY SCHEDULE

The sprint delivery plan is scheduled accordingly as shown in the below table 6.2 which consists of the sprints with respective to their duration , sprint start and end date and the releasing data.

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	20	6 Days	24 Oct 2022	29 Oct 2022	20	29 Oct 2022
Sprint-2	20	6 Days	31 Oct 2022	05 Nov 2022	20	05 Nov 2022
Sprint-3	20	6 Days	07 Nov 2022	12 Nov 2022	20	12 Nov 2022
Sprint-4	20	6 Days	14 Nov 2022	19 Nov 2022	20	19 Nov 2022

Table 6.2   Sprint Delivery Schedule

CHAPTER 7
CODING & SOLUTION

7.1 INTRODUCTION

We have modified the website picture, which can alter the website's overall appeal and is a very effective approach to update the material that appears above the fold. It aids in drawing attention to itself and directs the user's line of sight. A user interface must at a minimum be capable of providing clear and consistent navigation. Most consumers won't want to waste their time trying to figure it out if it turns out to be tough. Simple to comprehend Visitors to a well-designed and useful website are frequently pressed for time. Avoid making people work to obtain information. User experience is crucial for assisting visitors to use, comprehend, and remain on your website. optimised for both the social web and search. Images enables the identification of features that may not be as easily detected in the spatial domain.

7.2 HOMEPAGE

Hands down, homepage is one of the most important page of a website and thus require much more efforts than the other pages. The other goal of the homepage is to compel the visitors to dig deeper into the other parts of the website. For this reason, it is thus important to add at least two calls to action that will direct visitors to the different areas of the website. The calls to actions need to be striking to the visitors as soon as they land on the homepage. In order for it to easily accessible, the predictor option has been added directly into the homepage.

Fig 7.1 and Fig.7.2 show the html and css codes for the landing page of the website.

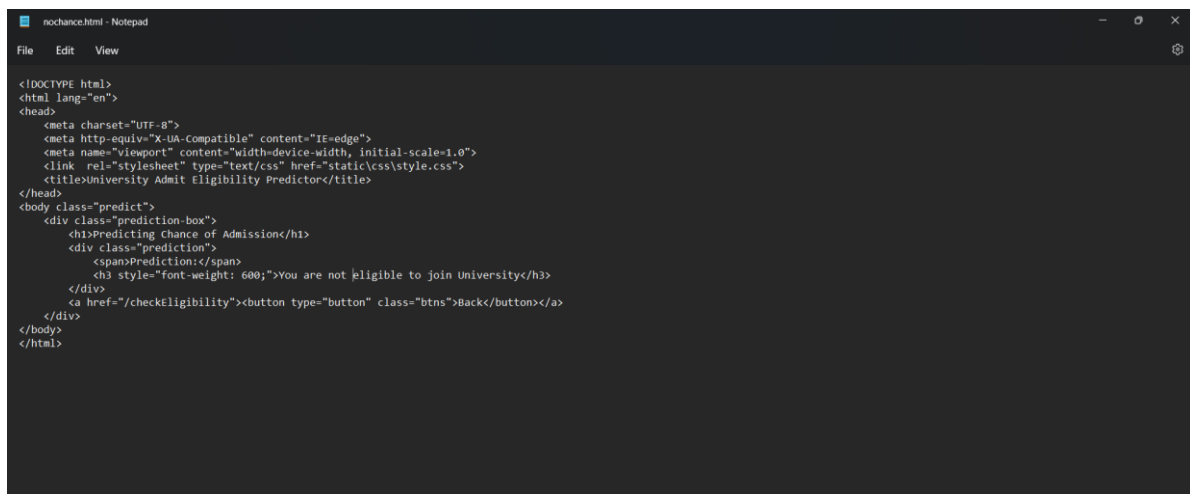Fig 7.1 Shows the html file of the landing page

Fig 7.2 Shows the css file of the landing page

7.3 PREDICTION

NO CHANCE

This image shows the html code for deploying no chance page when the prediction of user datails gives no chance as result, as per the values entered by the user.

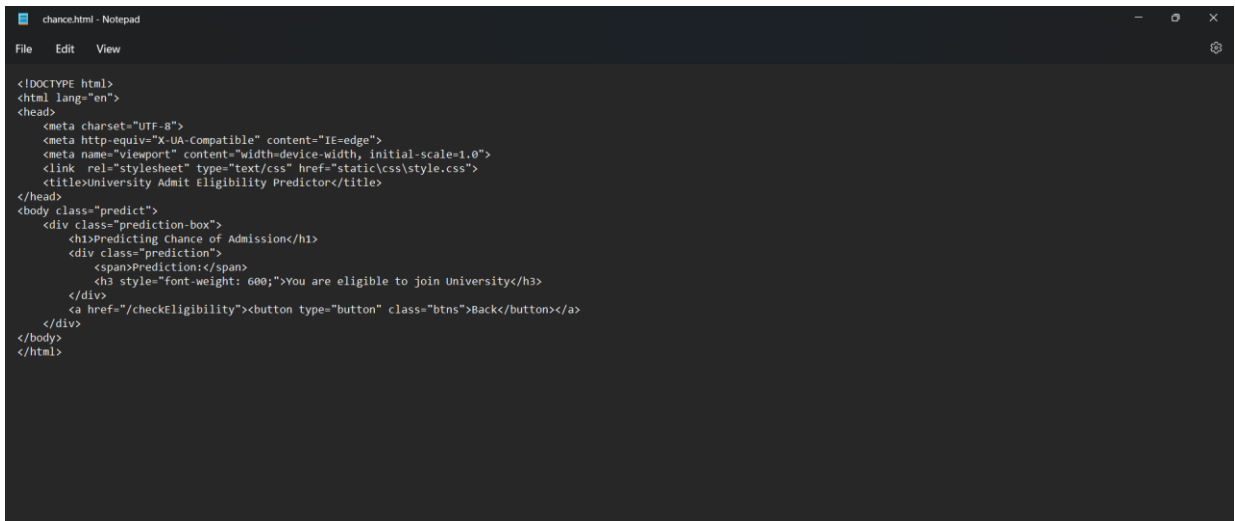Fig 7.3 shows the html code for getting the negative prediction

CHANCE

This image shows the html code for deploying positive result as getting chance page when the prediction of user datails gives positive result, as per the values entered by the user.

Fig 7.3 shows the html code for getting the positive prediction

<div align="center">

CHAPTER 8

TESTING & RESULTS

</div>

8.1 TEST CASE

The user interactive features of the web application allows the user to use the application without errors. Getting positive or negative result based on GRE score, TOEFL score, SOP, LOR and based on research detail entered by the user.

HOMEPAGE

This image depicts the landing page of the web application which has the option of entering the user details of the scores and research details.
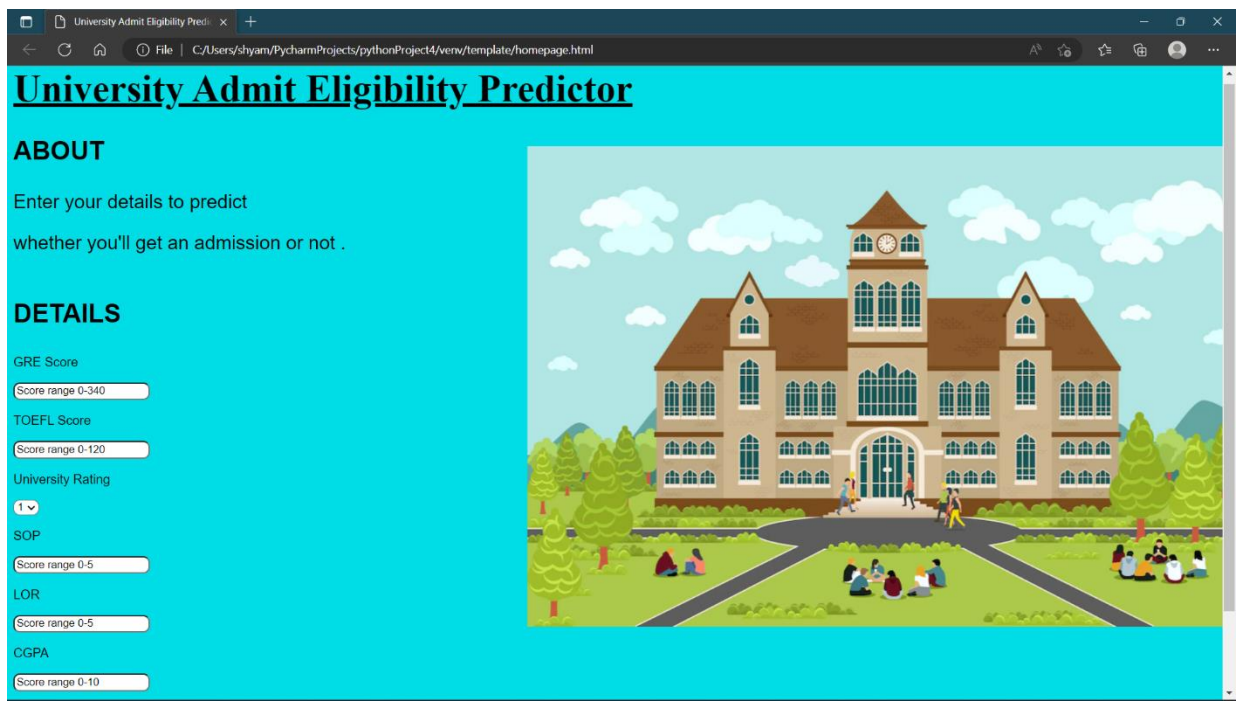

<div align="center">

Fig 8.2 Shows the landing page.

</div>

CHANCE

The image shows the positive result of getting chance of admit, as the per the values entered by the user at the homepage of the web application.
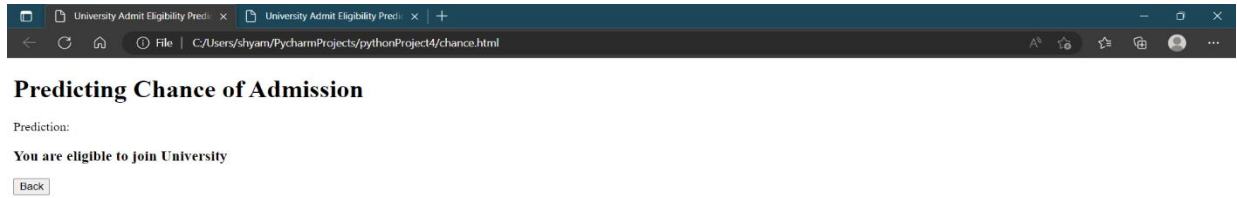

Fig 8.3 shows the page for getting the positive prediction

NO CHANCE

The image shows the negative result of no chance as the per the values entered by the user at the homepage of the web application.
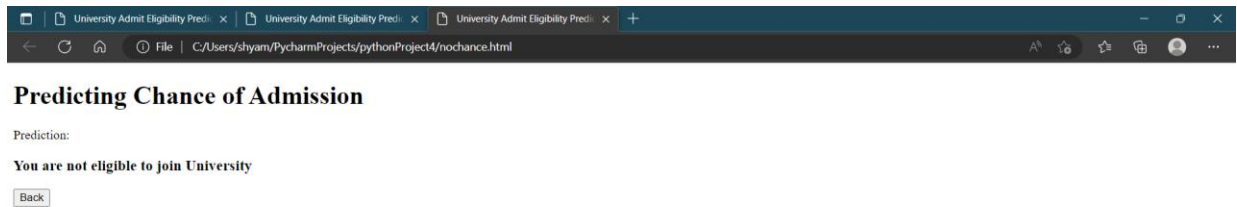

Fig 8.4 shows the page for getting the negative prediction

CHAPTER 9
PERFORMANCE METRICES

9.1 PERFORMANCE METRICES

The performance metrics of the of regression model is depicted in this figure. From the model we can see that the mean square error is 0.058 while the mean absolute error is 0.053 and the root mean square error is 0.076.
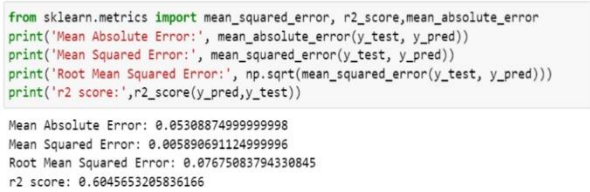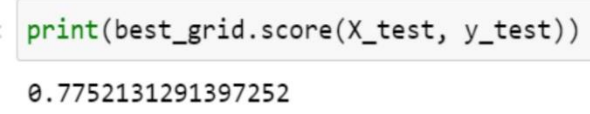
S.No.	Parameter	Values	Screenshot
1.	Metrics	**Regression Model:** MAE - 0.0530887499999999, MSE - 0.005890691124999996, RMSE - 0.07675083794330845, R2 score - 0.6045653205836166	```from sklearn.metrics import mean_squared_error, r2_score,mean_absolute_error print('Mean Absolute Error:', mean_absolute_error(y_test, y_pred)) print('Mean Squared Error:', mean_squared_error(y_test, y_pred)) print('Root Mean Squared Error:', np.sqrt(mean_squared_error(y_test, y_pred))) print('r2 score:',r2_score(y_pred,y_test)) Mean Absolute Error: 0.05308874999999998 Mean Squared Error: 0.005890691124999996 Root Mean Squared Error: 0.07675083794330845 r2 score: 0.6045653205836166```
2.	Tune the Model	Hyperparameter Tuning – Cross Validation Validation Method – GridSearchCV method	```print(best_grid.score(X_test, y_test)) 0.7752131291397252```

Fig 9.1 Shows the used regression model metrics

CHAPTER 10

ADVANTAGES AND DISADVANTAGES

ADVANTAGES:

- It helps student for making decision for choosing a right college.

- Here the chance of occurrence of error is less when compared with existing system. It is fast, efficient and reliable.

- Avoids data redundancy and inconsistency.

- It would be the easiest mode to predict the university/colleges person is applicable for as well as it would unbiased and totally transparent.

- Individually would no more need to depend upon the consultancies who may be slightly deviated towards the list of colleges/university that may be having contract with them.

- Moreover applying to only that colleges/university where the student has genuine chance would even reduce application process.

- Additionally living expense of the area where colleges/university is located would also be provided on website.

DISADVANTAGES

- Required active internet connection.

- System will provide inaccurate results if data entered incorrectly.

- Other factors such as changes in policies by the university or by the country can also affect chances of admissions in a way that is beyond the scope of this project.

- Admissions also depend on the individual university's policy regarding the intake of foreign students and is not modeled by our system.

CHAPTER 11
CONCLUSION

A major issue in educational institutions is the admittance of students. This research uses machine learning algorithms to forecast a student's likelihood of admission. Students will benefit from knowing in advance whether they stand a chance of being admitted. In this study, machine learning models were used to forecast a student's chance of admission to a master's degree. The machine learning models included are multiple linear regression, k nearest neighbor, random forest, and Multi layer Perceptron. Experiments show that the Multi layer Perceptron model surpasses other models. Regarding future work, more models can be conducted on more datasets to discover the model that performs at the highest level.

CHAPTER 12

FUTURE SCOPE

The future scope of this project is very broad. Few of them are:

- This can be implemented in less time for proper admission process.
- This can be accessed anytime anywhere, since it is a web application provided only an internet connection.
- The user had not need to travel a long distance for the admission and his/her time is also saved as a result of this automated system.
- The scope of this project is a web application that allows users to enter their academic data and get predictions of their chances of admissions in the university tier of their choosing.
- It also provides an analysis based on the data set used that shows how the different affect chances of admissions.
- A Database will also be implemented for the system so that students can save their data and review and edit it as they progress with the most recent predictions being saved with their profile.
- Future work in the project could include weighing in the features that have been ignored as of yet like percentage seats for Foreign Students.
- Other criterion's like Co-curricular achievements, Leadership positions held, job experience etc can also be included as metrics for the model.

CHAPTER 13
Appendix

Github link:

https://github.com/IBM-EPBL/IBM-Project-4093-1658686225

Demo link:

https://drive.google.com/drive/folders/1NIEf3wGEkswk-cWISSgg4drABBpYcZ89?usp=sharing

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