

# **PROJECT REPORT**

## **UNIVERSITY ADMIT ELIGIBILITY PREDICTOR**

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# **1.INTRODUCTION**

## **1.1 PROJECT OVERVIEW**

Students are often worried about their chances of admission to University. University Admit Eligibility Predictor is an ML based application that asks for the users to input their academic transcripts data and calculates their chances of admission into the University Tier that they selected. It also provides an analysis of the data and shows how chances of admissions can depend on various factors. This document describes the scope, objectives and goals of the system. In addition to describing the non-functional requirements, this model the functional requirements with test cases, performance testing and user acceptance testing.

The aim of this project is to help students in short listing 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.

## **1.2 PURPOSE**

- College admission predictor is a boon to many students. This helps the student not only to help in filling out the application forms but also give the students an idea about their future college by calculating their prediction.
- When students come from rural places , they find it hard to go along with the formal procedures. So, this application helps them a lot and eases out their fear.
- Whatever may be their scores , this application helps to find the best colleges . Hence, our proposed computer aided system will help the students to get the list of all colleges in which they could get the admission at the click of a button.
- The students only have to enter their marks of TOFEL, GRE Score , etc. With this application, the students can very easily obtain the list of colleges .This will not only make the admission process easy but also minimizes stress for students . The main objective of our system is to make the right choice of colleges.

## **2.LITERATURE SURVEY**

### **2.1 PROBLEM STATEMENT DEFINITION**

This section includes the literature survey of research on the assessment of student enrolment opportunities in universities. Numerous programs and studies have been carried out on topics relating to university admission used many machine learning models which helps the students in the admission process to their desired universities. The Research done in this area using different algorithms 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. Different algorithms 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.

### **2.2 REFERENCES**

1. <https://collegeai.com/>
2. [https://www.researchgate.net/publication/345391208\\_University\\_Admissions\\_Predictor](https://www.researchgate.net/publication/345391208_University_Admissions_Predictor)

### 3.1 EMPATHY MAP CANVAS

- 
- ```

graph TD
    A[admission] --- B[Says]
    A --- C[Things]
    A --- D[Does]
    A --- E[Feels]
    B --- B1[for predicting admit eligibility for various university]
    C --- C1[Scored marks in SSLC , HSC and Entrance test ]
    C --- C2[enter details and get probability of the admission]
    D --- D1[it will work in online mode]
    D --- D2[Predict chances of Admission]
    E --- E1[Helps to Predict Chances of Admission]
    E --- E2[More useful for students]
    E --- E3[Helps to make decision about Admission]
  
```
- The mind map is centered on the word "admission". It has four main branches: "Says", "Things", "Does", and "Feels".
- Says** (teal background): for predicting admit eligibility for various university
  - Things** (pink background):
    - Scored marks in SSLC , HSC and Entrance test
    - enter details and get probability of the admission
  - Does** (yellow background):
    - it will work in online mode
    - Predict chances of Admission
  - Feels** (grey background):
    - Helps to Predict Chances of Admission
    - More useful for students
    - Helps to make decision about Admission

### **3.2 IDEATION & BRAINSTORMING**

- Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions. Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

### 3.3PROPOSED SOLUTION

| S.N | PARAMETER                                         | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | PROBLEM<br>STATEMENT<br>(PROBLEM TO BE<br>SOLVED) | <p>This project aims at developing an application that uses machine learning-based algorithms to determine the feasibility of a particular student's profile being eligible for university admission. The main objective is to save the time and money spent by the students at education.</p> <p>Moreover, if the students apply only to those universities where he/she has a genuine chance of admission would reduce the application process 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.</p> |

|    |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2. | IDEA /<br>SOLUTION<br>DESCRIPTION | <p>Our project will assist UG graduates in getting into shortlisted colleges for master's programmes based on their GRE, CGPA, and TOEFL scores. If the expected production gives them a good picture of their prospects of admission to the university. This study will also assist students who are presently preparing to have a better understanding. It will also provide students with information on the university's research prospects, admissions procedure, courses offered, and noteworthy alumni.</p> |
| 3. | NOVELTY / UNIQUENESS              | <p>The project website can identify numerous amenities available at universities and provide directions to the university where it is located. You can also apply for scholarships and financial aid. By using Machine learning models like Regression models, the probability of a student getting admission at a desired university is predicted.</p>                                                                                                                                                            |



|    |                                            |                                                                                                                                                                                                                                                                                                 |
|----|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4. | SOCIAL IMPACT<br>/CUSTOMER<br>SATISFACTION | This solution will ease their stress about being admitted to their preferred university, as well as minimize student anxiety. And this solution will deliver better outcomes for students who are deciding whether or not to attend university.                                                 |
| 5. | BUSINESS MODEL<br>(REVENUE<br>MODEL)       | In addition, revenue can be generated by advertising the GRE / TOEFL coaching centres. And the University shall fund the website in order to maintain and progress it.<br><br>The universities can also find away to advertise in the website in order to increase the admissions.              |
| 6. | SCALABILITY OF<br>THE SOLUTION             | The solution proposed will be deployed as web application. So, it is easily accessible by anyone who has internet services and has no specific software and hardware specifications. The dataset used for model training can be scaled according to the available universities' admission data. |

### 3.4PROBLEM SOLUTION FIT

|                        |                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                        |                            |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Define CS, fit into CC | <b>1. CUSTOMER SEGMENT(S)</b> <b>CS</b><br>Customers are School completed students and UG and PG graduates who applies for higher studies.                                                            | <b>6. CUSTOMER</b> <b>CC</b><br>Seats must be available in preferred universities of the customers and the Internet facility should be available.                                                                                                                                            | <b>5. AVAILABLE</b> <b>AS</b><br>Prediction using Machine learning algorithms like Linear regression and random forest regression along with Deep Neural Network.                                                                                      | Explore AS, differentiate  |
|                        | <b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <b>I&amp;P</b><br>Students are often confused for choosing collages, like whether they are eligible are not. This website will help them Predicting eligibility. | <b>9. PROBLEM ROOT CAUSE</b> <b>RC</b><br>The root cause of the problem is not having proper profile for students and they might enter the incorrect data and they don't have clarity to choose college.                                                                                     | <b>7.BEHAVIOUR</b> <b>BE</b><br>If seats not available in the preferred university ,user can try another college using this website and they can chat with expert to have clarity .                                                                    |                            |
| Focus on J&P           | <b>3.TRIGGERS</b> <b>TR</b><br>Hearing about the website through friends, adds and social media.                                                                                                      | <b>10.YOUR SOLUTION</b> <b>SL</b><br>Our solution includes accurate prediction using algorithms like Linear regression and random forest regression along with Deep Neural Network and Chat box will be available for clarity of students. Recommending universities based on their profile. | <b>7. CHANNELS of BEHAVIOUR</b> <b>CH</b><br><b>7.1 ONLINE</b><br>Careers 360 and Shiksha.com explore colleges are predicting websites available.<br><b>7.2 OFFLINE</b><br>Asks friends or colleagues for references for getting seat in universities. | Focus on J&P, fit into BE. |
|                        | <b>4. EMOTIONS: BEFORE / AFTER</b> <b>EM</b><br>Before: Confused, Stress, Hopeless.<br>After: Clarity. Aplomb, Time Saving.                                                                           |                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                        |                            |

## 4. REQUIREMENT ANALYSIS

### 4.1FUNCTIONAL REQUIREMENTS:

- Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic)          | Sub Requirement (Story / Sub-Task)                                                                          |
|--------|----------------------------------------|-------------------------------------------------------------------------------------------------------------|
| FR-1   | User Registration                      | Registration through Form<br>Registration through Gmail                                                     |
| FR-2   | User Confirmation                      | Confirmation via Email                                                                                      |
| FR-3   | Calculate admission Prediction         | Enter GPA, TOFEL, GRE Scores                                                                                |
| FR-4   | Check information about the university | Visit the website of the respected university and to contact the alumni and faculties of those universities |
| FR-5   | Check for courses available            | Visit the universities website and view available courses                                                   |

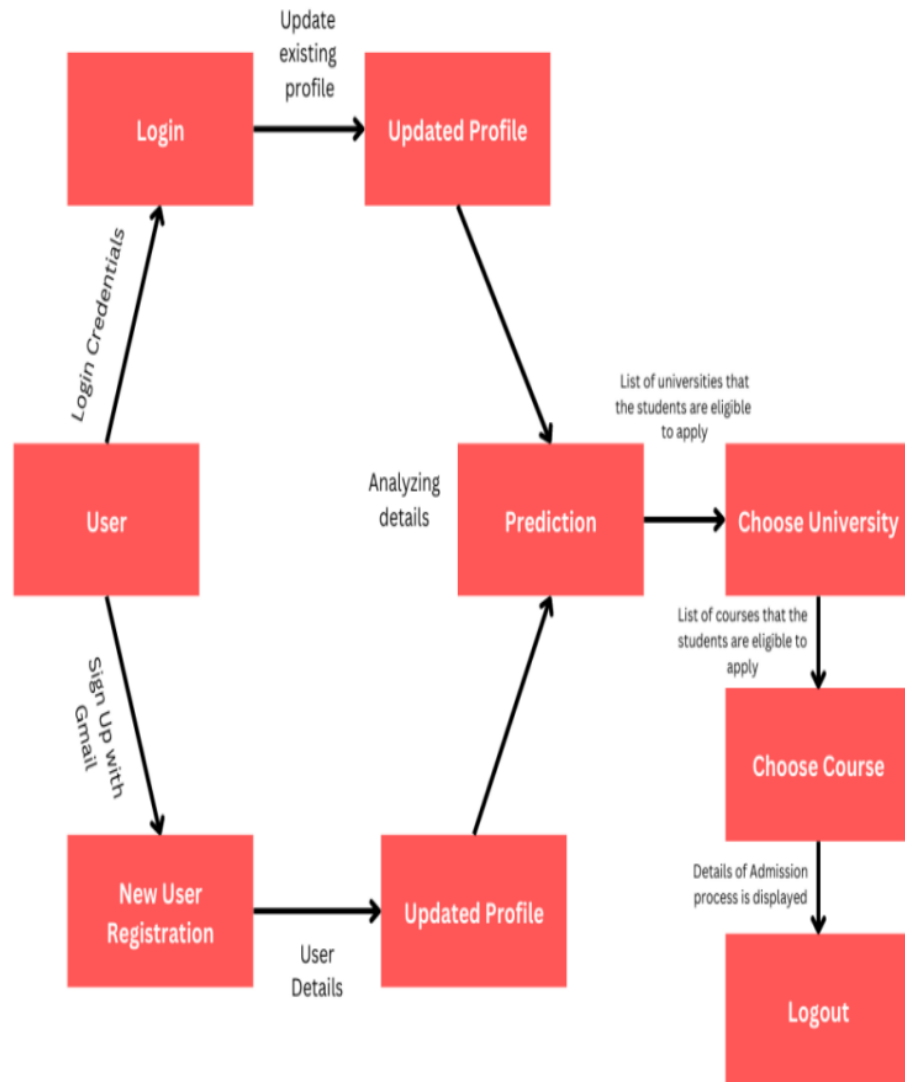
## 4.2 Non Functional Requirments:

| FR No. | Non-Functional Requirement | Description                                                                                                                                                                                                                             |
|--------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NFR-1  | Usability                  | <ul style="list-style-type: none"><li>• The system doesn't expect any technical pre-requisite from the user.</li><li>• User friendly.</li><li>• The page would not take a lot of time to load the content and display them .</li></ul>  |
| NFR-2  | Security                   | <ul style="list-style-type: none"><li>• The user who is has valid login credentials can only be able to access our application.</li><li>• Data that is fed by users will be highly secure and not accessed by unwanted users.</li></ul> |
| NFR-3  | Reliability                | The system would always strive for maximum reliability due to the importance of data and damages that could be cause by incomplete and incorrect data                                                                                   |

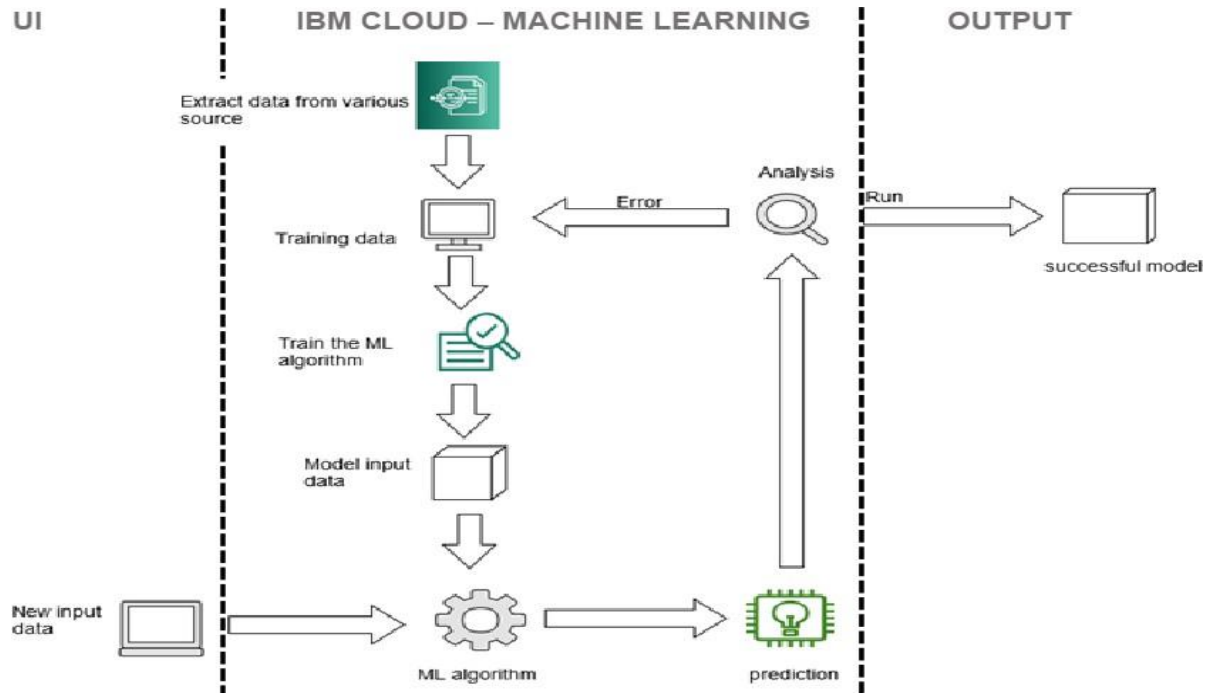
## 5. PROJECT DESIGN

### 5.1 DATA FLOW DIAGRAMS

- A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.



## 5.2 SOLUTION & TECHNICAL ARCHITECTURE



## 5.3 USER STORIES

| USER TYPE              | FUNCTIONAL REQUIREMENT (EPIC) | USER STORY NUMBER | USER STORY / TASK                                                                  | ACCEPTANCE CRITERIA                                              | PRIORITY | RELEASE  |
|------------------------|-------------------------------|-------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------|----------|----------|
| Customer (Mobile user) | Registration                  | USN-1             | As a user, I will visit the home page of the website.                              | I can access the home page.                                      | High     | Sprint-1 |
|                        |                               | USN-2             | As a user, I will go to the prediction page.                                       | I can access the prediction page.                                | High     | Sprint-1 |
|                        | Login                         | USN-3             | As a <u>user</u> , I will enter the information in the page.                       | I can view the website page                                      | High     | Sprint-2 |
|                        | Dashboard                     | USN-4             | As a user, I will view my prediction of <u>chances of</u> admit in the university. | I will view my prediction of chances of admit in the university. | High     | Sprint-3 |
|                        |                               |                   |                                                                                    |                                                                  |          |          |
| Customer (Web user)    |                               | USN-1             | As a user, I will visit the home page of the website.                              | I can access the home page.                                      | High     | Sprint-1 |
|                        |                               | USN-2             | As a user, I will go to the prediction page.                                       | I can access the prediction page.                                | High     | Sprint-1 |
|                        | Login                         | USN-3             | As a <u>user</u> , I will enter the information in the page.                       | I can view the website page                                      | High     | Sprint-2 |
|                        | Dashboard                     | USN-4             | As a user, I will view my prediction of <u>chances of</u> admit in the university  | I will view my prediction of chances of admit in the university. | High     | Sprint-3 |

## 6 .PROJECT PLANNING & SCHEDULING

### 6.1 SPRINT PLANNING & ESTIMATION

| Sprint   | Total Story Points | Duration | Sprint Start Date | Sprint End Date (Planned) | Story Points Completed (ason 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                                             | 50 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                 |

### 6.2 SPRINT DELIVERY SCHEDULE

| Sprint    | Functional Requirement(Epic) | User Story Number | User Story / Task                                                                                                       | Story Points | Priority | Team Members |
|-----------|------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------|--------------|----------|--------------|
| Sprint -2 | Update Profile               | USN-4             | As a user, after login, I will update my profile by providing all the required details                                  | 4            | High     | 4            |
| Sprint-3  | Choose university            | USN-5             | As a user, I will be able to view the list of Universities that the students are eligible to apply                      | 4            | Medium   | 4            |
| Sprint-3  | Choose course                | USN-6             | As a user, I will be able to view the details of Admission process like date and venue of certification verification    | 2            | Low      | 2            |
| Sprint-4  | Admission Process            | USN-7             | As a user, I will be able to view the list of courses that the students are eligible to apply                           | 3            | High     | 3            |
| Sprint-1  | Authentication               | USN-8             | As a admin, the login credential of the user is authenticated my me                                                     | 2            | High     | 2            |
| Sprint-2  | Update profile               | USN-9             | As a admin, I can verify the user Details which are entered by the user.                                                | 4            | High     | 4            |
| Sprint-3  | Prediction                   | USN-10            | As a admin, I can test the trained machine learning model by analyzing the user details by machine learning Algorithms. | 3            | High     | 3            |
| Sprint-4  | Output                       | USN-11            | As a admin, I can pload the confirmation of user for the prediction into the database.                                  | 3            | High     | 4            |

## 7. CODING & SOLUTIONING

### Predict.html

```
<!DOCTYPE html>
<html>
<head>
    <meta charset="utf-8">
    <title>RegistrationForm_v3 by Colorlib</title>
    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <!-- MATERIAL DESIGN ICONIC FONT -->
    <link rel="stylesheet" href="../static/fonts/material-design-iconic-font/css/material-
design-iconic-font.min.css">

    <!-- STYLE CSS -->
    <link rel="stylesheet" href="../static/css/style.css">
</head>
<body>
    <div class="wrapper" style="background-image: url('images/bg-registration-form-
3.jpg');">

        <div class="inner">
            <form action="http://127.0.0.1:5000/predict" method="post">
                <h3>ELIGIBILITY PREDICTOR</h3>
                <div class="form-group">
                    <div class="form-wrapper">
                        <label for="">GRE CORE:</label>
                        <div class="form-holder">

                            <input type="text" name="gre" class="form-control">

                        </div>
                    </div>
                </div>
                <div class="form-wrapper">
                    <label for="">TOEFL CORE:</label>
```

```

        <div class="form-holder">
            <input type="text" name="tofl" class="form-control">
        </div>
    </div>
</div>
<div class="form-group">
    <div class="form-wrapper">
        <label for="">ENTER SOP:</label>
        <div class="form-holder">
            <i style="font-style: normal; font-size: 15px;"></i>
            <input type="text" name="sop" class="form-control">
        </div>
    </div>
    <div class="form-wrapper">
        <label for="">ENTER LOR:</label>
        <div class="form-holder">
            <i style="font-style: normal; font-size: 15px;"></i>
            <input type="text" name="lor" class="form-control">
        </div>
    </div>
</div> >
<div class="form-group">
    <div class="form-wrapper">
        <label for="">ENTER CGPA:</label>
        <div class="form-holder">
            <i style="font-style: normal; font-size: 15px;"></i>
            <input type="text" name="cgpa" class="form-control">
        </div>
    </div>
    <div class="form-wrapper">
        <label for="">SELECT UNIVERSITY RATING:</label>
        <div class="form-holder select">
            <select name="rating" id="ratin" class="form-control">
                <option value="0">--SELECT--</option>
            </select>
        </div>
    </div>
</div>

```



```

        <option value="1">1</option>
        <option value="2">2</option>
        <option value="3">3</option>
        <option value="4">4</option>
        <option value="5">5</option>
    </select>
    <i class="zmdi zmdi-pin"></i>
</div>
</div>
</div>
</div>
<div class="form-wrapper">
    <label for="">RESEARCH:</label>
    <div class="form-holder select">
        <select name="research" id="re" class="form-control">
            <option value="Yes">RESEARCH</option>
            <option value="No">NO RESEARCH</option>
        </select>
        <i class="zmdi zmdi-face"></i>
    </div>
</div>
<div class="form-wrapper">
    <button style="width:100%;text-align:
center;"type="submit" value="submit">SUBMIT</button>
</div>
</form>
</div>
</div>
</body>
</html>

```

## Index.html

```

<html>
<head>
    <link rel="stylesheet" href="../static/css/style.css">

```

```
</head>

<body align="center">

  <form action="http://127.0.0.1:5000/index">

    <h3 style="text-align:center;">UNIVERSITY ADMIT ELIGIBILITY PREDICTING SYSTEM</h3>

    <div class="form-group">

      <button style="width:30%;text-align: center;margin: 0 auto;" type="submit" value="submit">PREDICT

        ELIGIBILITY</button>

    </div>

  </form>

</body>

</html>

<style

  >h3 {

    margin-top: 8%;

  }

  img {

    margin: 0

    auto;display:

    block;

  }

</style>
```

## Chance.html

```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
    <title>Eligible</title>
```

```
    <link href='https://unpkg.com/boxicons@2.1.4/css/boxicons.min.css' rel='stylesheet'>
```

```
    <style>
```

```
      i{
```

```
        font-
```

```
        size:150px;
```

```
        color:orange;
```

```
      }
```

```
      .con3 img{
```

```
        width:50%;
```

```
      }
```

```
    </style>
```

```
  </head>
```

```
  <body align="center">
```

```
    <div class="con">
```

```
      <div class="con1">
```

```
        <i class='bx bx-like'></i>
```

```
      </div>
```

```
    <div class="con2">
```

```
      <h1>You have {{ p }}! chance to get seat</h1>
```

```
</div>
```

```
<div class="con3">
```

```

```

```
</div>
```

```
</div>
```

```
</body>
```

```
</html>
```

## NoChance.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<title>Eligible</title>
```

```
<link href='https://unpkg.com/boxicons@2.1.4/css/boxicons.min.css' rel='stylesheet'>
```

```
<style>
```

```
i{
```

```
font-
```

```
size:150px;
```

```
color:orange;
```

```
}
```

```
.con3 img{
```

```
width:43%;
```

```
height:380p
```

```
x;}
```

```
</style>
```

</head>

<body align="center">

<div class="con">

<div class="con1 ">

<i class='bx bx-dislike'></i>

</div>

<div class="con2">

<h1>You doesn't have chance to get seat</h1>

</div>

<div class="con3">



</div>

</div>

</body>

</html>

## 7.2 FEATURE 2

### UNIVERSITY ADMIT ELIGIBILITY PREDICTOR NOTEBOOK

```
# import required libraries
```

```
import pandas as pd
```

```
import numpy as np
```

```
import matplotlib.pyplot as plt
```

```
import seaborn as sns
```

```
df=pd.read_csv('dataset/Admission_Predict.csv') df.head()
```

```
# drop serial no column
```

```
df.drop('Serial No.', axis=1, inplace=True)df
```

```
df.info()
```

```
df.isnull().any()
```

```
import matplotlib.pyplot as plt
```

```
from matplotlib import rcParams
```

```
df.describe()
```

```
import seaborn as sns
```

```
sns.jointplot(x='GRE Score',y='TOEFL Score',data=df)
```

```
sns.pairplot(df)
```

```
sns.heatmap(df.corr(), annot=True).set_title('Correlation Factors Heat Map', color='black', size='20')
```

```
sns.distplot(df['GRE Score']).set_title('Probability Distribution for GRE Test Scores', size='20')
```

```
plt.show()
```

```
RES_Count = df.groupby(['Research']).count()
```

```
RES_Count = RES_Count['GRE Score']
```

```
RES_Count = pd.DataFrame(RES_Count)
```

```
RES_Count.rename({'GRE Score': 'Count'}, axis=1, inplace=True)
```

```
RES_Count.rename({0: 'No Research', 1:'Research'}, axis=0, inplace=True)
```

```
plt.pie(x=RES_Count['Count'], labels=RES_Count.index, autopct='%1.1f%%')
```

```
plt.title('Research', pad=5, size=30)
```

```
plt.show()
```

```
# Isolating and describing
```

```
University_Rating = df.groupby(['University Rating']).count()
```

```
University_Rating = University_Rating['GRE Score']
```

```

University_Rating = pd.DataFrame(University_Rating)
University_Rating.rename({'GRE Score': 'Count'}, inplace=True, axis=1)
University_Rating
# Barplot for the distribution of the University Rating
sns.barplot(University_Rating.index, University_Rating['Count']).set_title('University Rating', size='20')
plt.show()
SOP = pd.DataFrame(df.groupby(['SOP']).count()['GRE Score'])
SOP.rename({'GRE Score': 'Count'}, axis=1, inplace=True)
SOP
# Barplot for SOP
sns.barplot(SOP.index, SOP['Count']).set_title('Statement of Purpose', size='20')
plt.show()
L = pd.DataFrame(df.groupby(['LOR ']).count()['GRE Score'])
L.rename({'GRE Score': 'Count'}, axis=1, inplace=True)
L
# Distribution of the LOR
sns.barplot(L.index, L['Count']).set_title('Letter of Recommendation', size='20')
plt.show()
df['Chance of Admit ']
sns.distplot(df['Chance of Admit ']).set_title('Probability Distribution of Chance of Admit', size='20')
plt.show()
df.describe()['Chance of Admit ']
COA_corr = pd.DataFrame(df.corr()['Chance of Admit '])
COA_corr.rename({'Chance of Admit ': 'Correlation Coefficient'}, axis=1, inplace=True)
COA_corr.drop('Chance of Admit ', inplace=True)
COA_corr.sort_values(['Correlation Coefficient'], ascending=False, inplace=True)
COA_corr_x = COA_corr.index
COA_corr_y = COA_corr['Correlation Coefficient']
sns.barplot(y=COA_corr_x, x=COA_corr_y).set_title('Chance of Admit Correlation Coefficients', size='20')
plt.show()
COA_corr
X = df.drop(['Chance of Admit '], axis=1)
= df['Chance of Admit '] #Standardization
from sklearn.preprocessing import StandardScaler
scaler = StandardScaler()
X[['CGPA', 'GRE Score', 'TOEFL Score']] = scaler.fit_transform(X[['CGPA', 'GRE Score', 'TOEFL Score']])
x=df.iloc[:,0:7].values
x

```

```

y=df.iloc[:,7:].values
y_train,y_test=
x_train,x_test=x_train.values
y_train,y_test=y_train.values
y_train=(y_train>0.5)
y_test=(y_test>0.5)

## Logistic Regression
from sklearn.linear_model import
LogisticRegression
lr=LogisticRegression(random_state=0)
lr.fit(x_train,y_train)
y_predict=
lr.predict(x_test)
y_predict_train =
lr.predict(x_train)# Model
Evaluation
from sklearn.metrics import
accuracy_score,recall_score,roc_auc_score,confusion_matrix
print("Testing accuracy score = ', accuracy_score(y_test,y_predict)*100)
print("Training accuracy score=
",accuracy_score(y_train,y_predict_train)*100)
print("Testing recall score= ', recall_score(y_test,y_predict)*100)
print("Training recall score= ",recall_score(y_train,y_predict_train)*100)
print("Testing roc score= ', roc_auc_score(y_test,y_predict)*100)
print("Training roc score= ",roc_auc_score(y_train,y_predict_train)*100)
import pickle
pickle.dump(lr,open('university.pkl','wb'))
model=pickle.load(open('university.pkl','rb'))

```



## 8.TEST CASES

### 8.1.USER ACCEPTANCE TESTING

#### PURPOSE OF DOCUMENT

The purpose of this document is to briefly explain the test coverage and open issues of the University Admit Eligibility Predictor project at the time of the release to User Acceptance Testing (UAT).

#### DEFECT ANALYSIS

This report shows the number of resolved or closed bugs at each severity level, and how they were resolved .

Section		Total Cases	Not Tested	Fail	Pass
Print Engine		7	0	3	4
Client Application		0	0	0	0
Resolution	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	0	0	2	2	4
Duplicate	0	0	0	0	0
External	0	0	0	2	2
Fixed	2	0	2	2	6
Not Reproduced	0	0	1	0	1
Skipped	0	0	0	0	0
Won't Fix	0	0	0	0	0
Totals	2	0	2	6	10

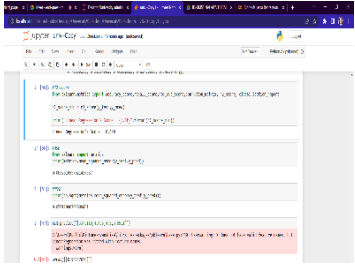

## 8.2 TEST CASES

This report shows the number of test cases that have passed, failed, and untested

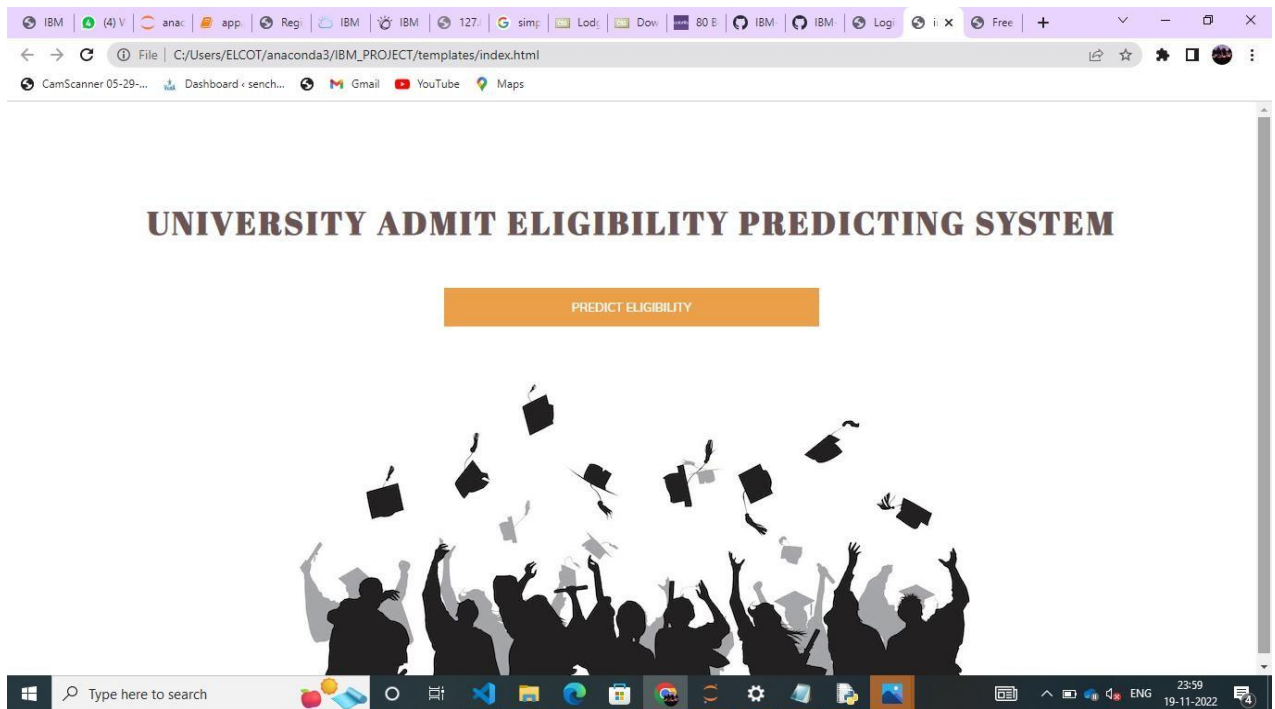
Security	0	0	0	0
Outsource Shipping	0	0	0	0
Exception Reporting	0	0	0	0
Final Report Output	7	0	0	7
Version Control	0	0	0	0

## RESULTS

### 9.1 PERFORMANCE TESTING

S.No.	Parameter	Values	Screenshot
1.	Metrics	<b>Regression Model: Linear</b> Regression R2 Score-0.85 RMSE -0.057 MSE-0.037  <b>Classification Model: None</b>	
2.	Tune The Model	Hyper parameter Tuning:(GridSearchC V) clf.best_score_ - 0.921875 Validation Method – GridSearchCV(e estimator=SVC())	

## RESULT IMAGES:



This screenshot displays the 'ELIGIBILITY PREDICTOR' form. The form includes input fields for GRE CORE (90), TOEFL CORE (99), ENTER SOP (90), ENTER LOR (99), ENTER CGPA (9.9), and a dropdown for SELECT UNIVERSITY RATING (3). There is also a RESEARCH dropdown menu currently set to 'RESEARCH'. A large orange 'SUBMIT' button is located at the bottom of the form. The browser's address bar shows the URL '127.0.0.1:5000/index?'. The Windows taskbar at the bottom shows the system clock as 00:09 on 20-11-2022.

Field	Value
GRE CORE:	90
TOEFL CORE:	99
ENTER SOP:	90
ENTER LOR:	99
ENTER CGPA:	9.9
SELECT UNIVERSITY RATING:	3
RESEARCH:	RESEARCH



**You have 100%! chance to get seat**



## **10.1 ADVANTAGES:**

- **APPLICANTS' CONVENIENCE** – One of the greatest advantages of the online application system is that applicants can choose to submit their applications at their convenience. All that is required is access to a computer and internet connectivity. Messy handwriting, lack of postal connectivity, delay in courier delivery etc. are unlikely to disrupt the application process. This is a great advantage to candidates in rural areas and candidates with disabilities.
- **LOGISTICS** – No more running out of paper application forms, picking the right colour ink pens, illegible prints and wondering if the application has been received at all. The online application process offers university applicants a uniform platform for filling in their applications and also provides prompts on which fields are mandatory. The acknowledgement is almost immediate and the system user-friendly.
- **ADVANTAGE TO UNIVERSITIES** – Universities and educational institutions are also at a major advantage when it comes to an online admission process. Quick access to student records and databases, efficient systems for filtering out candidates and processing of applications is possible through the online application process. The costs of processing applications and employing additional manpower during admissions are slashed with the implementation of an online application system.
- **INCREASES ACCURACY AND EFFICIENCY** – Those who have seen university officials accepting thousands of paper applications each day at office counters understand that high fatigue and monotony involved in the paperwork is a catalyst for errors. Each error could cost students their academic career and educational prospects. The online admission system is highly reliable and efficient and eliminates chances of such errors.
- **DEMOLISHING GEOGRAPHY** – Another great advantage of the online admission system is that it makes it possible for candidates from across the country and even abroad to apply to Indian universities without any hassles. It eliminates the inconveniences caused by ailments and exigencies, providing deserving candidates a convenience that has never before been available.

## **10.2 DISADVANTAGES:**

- **COMPUTER LITERACY AND INTERNET ACCESS** – In India, though Internet penetration is rather high, Internet connectivity and speed issues are major impediments to bringing any real advantage to university applicants. Most rural areas experience high blackouts and electricity issues. This means, once again candidates in urban districts and areas are placed at a significant advantage.
- **LOW COMPUTER LITERACY** – Another major concern is the low rate of computer literacy in India. Current estimates say that only about 6.5 percent Indians are computer savvy. A sudden shift to the online admission process is likely to cause confusion and despondency among a great many applicants.
- **SECURITY CONCERNS** – In a country like India where security fails of online systems have become increasingly common over the years, online applications make it easier for systems to be breached and for applications or scores to be manipulated. The fear that hackers may target universities and educational institutions is a grave one. Unintentional system failures or server crashes may disrupt the entire admission process of universities and educational institutions. Another important concern is the confidentiality of student information and associated security risks involved in online application processing.
- **AUTHENTICITY** – In most manual admission processes, the eligibility of candidates is proved by verification of originals at the time of accepting applications, ensuring that only genuine candidates apply. Online applications make it easier for fraudsters to manipulate the application process and eligibility requirements.
- **INFRASTRUCTURAL REQUIREMENTS** – Building a robust and secure online admission process is a task that requires financial and infrastructural resources. Many universities and educational institutions may not have the necessary resources and all these costs will ultimately be borne by the students. In a country where higher education is a luxury few can afford, increased costs may be a deterrent for education.

## **11.CONCLUSION**

The primary objective of this work is to make a Machine Learning model which could be utilized by understudies who need to seek after their Education. Many AI algorithms were used for this examination. Linear Regression model contrasted with different models gives the best outcome. Understudies can utilize the model to survey their shots at getting induction into a specific University with a normal exactness of 82%. An ultimate objective of examination will be cultivated effectively, as the framework permits understudies to save the parcel of time and cash that they would spend on instructive guides and application charges for schools where they have less shots at getting affirmations. In future this module of expectation can be incorporated with module of robotized handling framework and different models like neural organization. Likewise, segregate investigation can be utilized independently or joined for upgrading dependability and precision forecast. At long last, understudies can have an open-source AI model which will assist the understudies with knowing their opportunity of entrance into a specific college with high exactness.

## **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



## **13 APPENDIX**

### **PROJECT DEMO LINK:**

- [IBM-Project-53156-1661316095 /FINAL DELIVERABLES/Project Demo Link.mp4](#)

























