

**UNIVERSITY ADMIT ELIGIBILITY PREDICTOR**

**NALAIYA THIRAN PROJECT BASED LEARNING**

**PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY, AND  
ENTREPRENEURSHIP**

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**November 2022**

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## **1.INTRODUCTION**

### **1.1 PROJECT OVERVIEW**

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. This project University Admission Predictor System is web based application in which students can register with their personal as well as marks details for prediction the admission in colleges and the administrator can allot the seats for the students. Administrator can add the college details and he batch details. Using this software, the entrance seat allotment became easier and can be implemented using system. The main advantage of the project is the computerization of the entrance seat allotment process. The total time for the entrance allotment became lesser and the allotment process became faster.

### **1.2 PURPOSE**

The primary purpose is to discuss the prediction of student admission to university based on numerous factors and using logistic regression. Many prospective students apply for different courses. The admission decision depends on criteria within the college or degree program. The independent variables in this study will be measured statistically to predict graduate school admission. Exploration and data analysis, if successful, would allow predictive models to allow better prioritization of the applicants screening process to various degree programme which in turn provides the admission to the right candidates.

## **2.LITERATURE SURVEY**

### **2.1 EXISTING PROBLEM**

Today in colleges student details are entered manually. The student details in separate records are tedious task. Referring to all these records updating is needed. There is a chance for more manual errors.

Require much manpower i.e., many efforts, much cost and hard to operate and maintain.

Since, all the work is done in papers, so it is very hard to locate a particular student record when it is required.

### **2.2 REFERENCES**

- Abdul Fatah S; M, A. H. (2012). Hybrid Recommender System for Predicting College Admission, pp. 107–113.
- Bibodi, J., Vadodaria, A., Rawat, A. and Patel, J. (n.d.). Admission Prediction System Using Machine Learning.
- Eberle, W., Simpson, E., Talbert, D., Roberts, L. and Pope, A. (n.d.). Using Machine Learning and Predictive Modelling to Assess Admission Policies and Standards.
- Jamison, J. (2017). Applying Machine Learning to Predict Davidson College's Admissions Yield, pp. 765–766.
- Mane, R. V. (2016). Predicting Student Admission decisions by Association Rule Mining with Pattern Growth Approach, pp. 202–207.

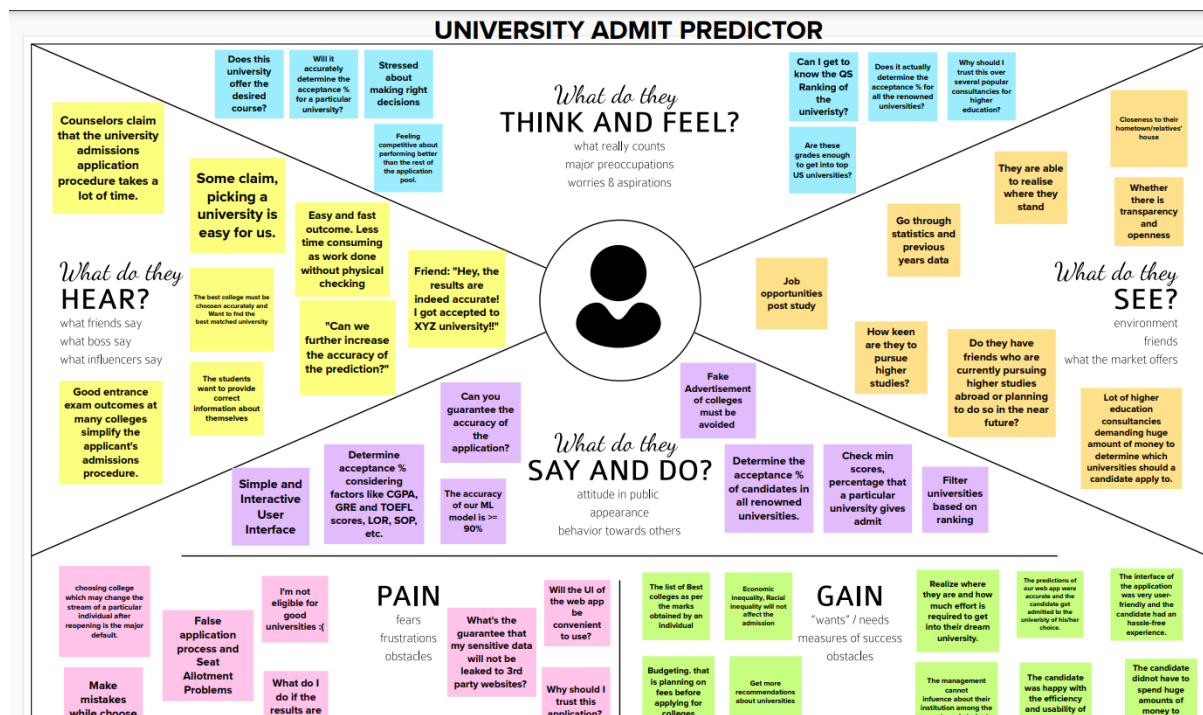
## 2.3 PROBLEM STATEMENT DEFINITION

| Problem Statement | I am          | I'm trying to                        | But  | Because   | Which makes me feel                         |
|-------------------|---------------|--------------------------------------|--|---|---|
| PS-1              | Student       | Enroll for a course in the college   | I'm unaware of eligibility criteria          | The calculation for the cut off is not available in the website   | Getting confused regarding the admission    |
| PS-2              | Administartor | To download data of all the students | Details given by the students are incomplete | There is the problem in the server because of huge amount of data | Frustrated about unable to download details |

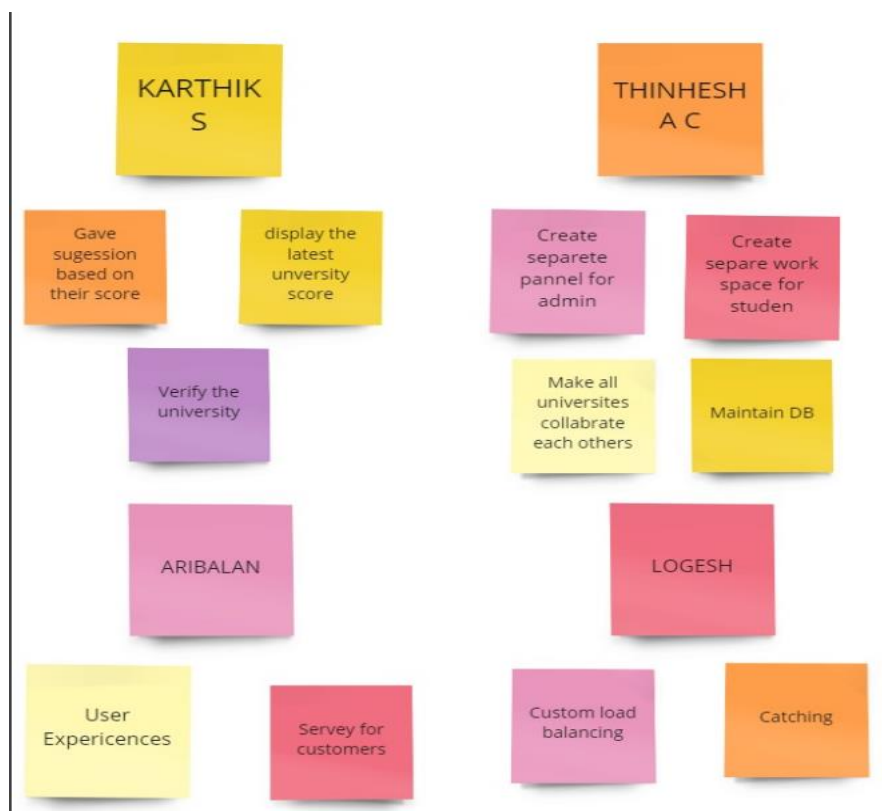


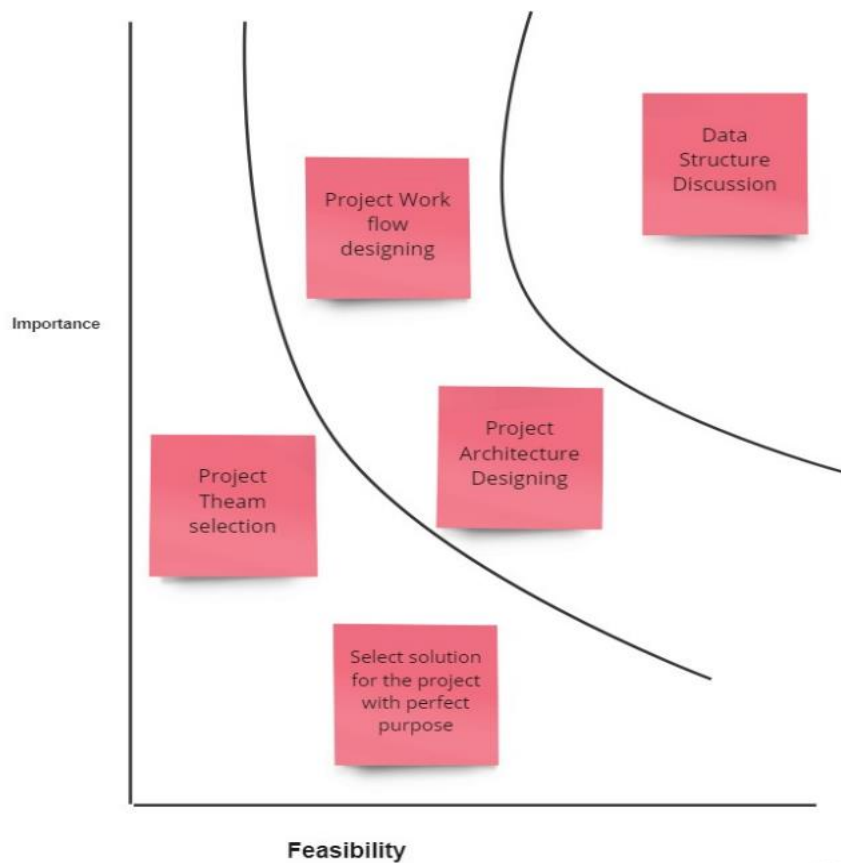
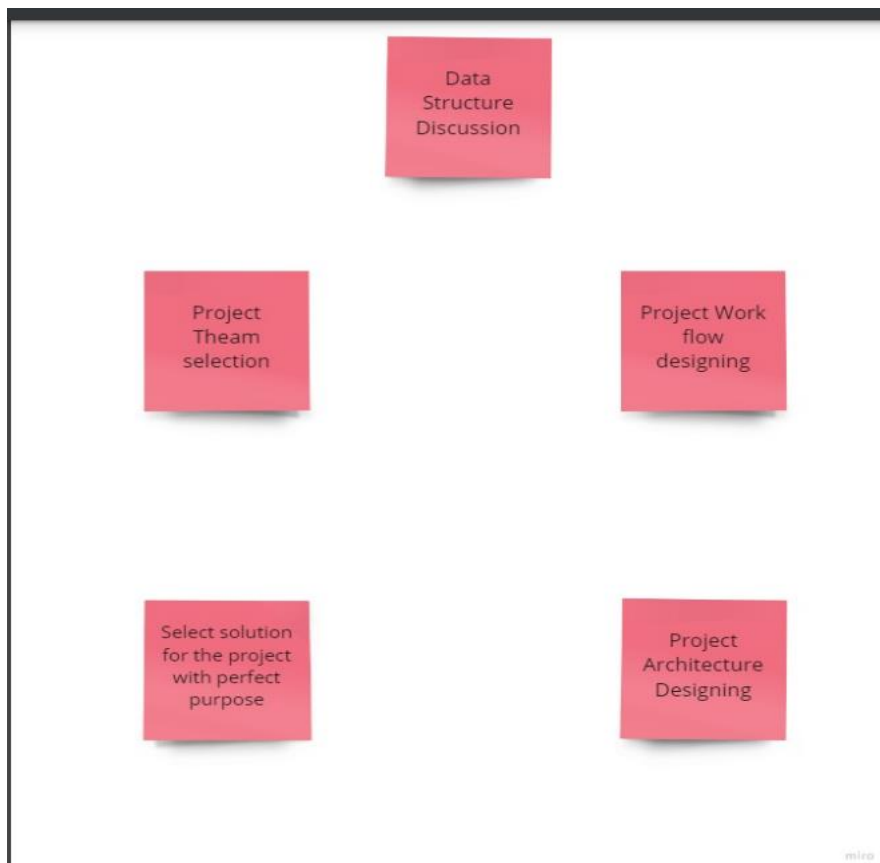
### 3.IDEATION AND PROPOSED SOLUTION

#### 3.1 EMPATHY MAP CANVAS



#### 3.2 IDEATION & BRAINSTORMING





### 3.3 PROPOSED SOLUTION

| 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>  |

### 3.4 PROBLEM SOLUTION FIT

|                        |   |   |   |                           |
|------------------------|---|---|---|---------------------------|
| Define CS, fit into CC | <b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> <ul style="list-style-type: none"> <li>Students who have completed their higher secondary school, diploma and UG degree.</li> <li>Students who wish to know their chances of getting a seat in a specific university.</li> </ul>  | <b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span> <ul style="list-style-type: none"> <li>Privacy is one of the constraint because online applications are hacked on a regular basis.</li> <li>Rural people lack internet connection.</li> </ul>                          | <b>5. AVAILABLE SOLUTIONS</b> <span>AS</span><br><b>The existing software solutions for admission prediction lack good user interface. They are a little bit difficult for new users.</b>   | Explore AS, differentiate |
|                        | <b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>JP</span> <ul style="list-style-type: none"> <li>To help students in the process of shortlisting universities.</li> <li>To provide an idea for the students about the chances for them to get into a specific university.</li> </ul> | <b>9. PROBLEM ROOT CAUSE</b> <span>RC</span> <ul style="list-style-type: none"> <li>It is a difficult process to process the students records and check the chances offline.</li> <li>On the other hand online record processing and filtering are easier.</li> </ul> | <b>7. BEHAVIOUR</b> <span>BE</span> <ul style="list-style-type: none"> <li>Students can upload their profile and filter the universities suitable for them.</li> <li>Students can check eligibility, availability of seats and chances of getting a seat in a specific university.</li> </ul> |                           |

|  |  |  |
|--|--|--|
| <b>3. TRIGGERS</b> <span>TR</span><br>The availability of an easier way to find the right university which is a very tough process would trigger them to use our | <b>10. YOUR SOLUTION</b> <span>SL</span><br>Machine Learning based University Admit Eligibility Predictor application.<br>Collecting the marks of the students and other | <b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span><br><b>8.1 ONLINE</b><br>Students upload their profile online and search for the availability of seats in universities.<br><b>8.2 OFFLINE</b> |
|--|--|--|

|  |   |   |
|--|---|---|
| <b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span><br>The output of this project eliminates stress of the students to find the right university. | details and check their chances using efficient algorithms. | Students collect data from seniors and visit the university to check availability of seats. |
|--|---|---|

## 4.REQUIREMENT ANALYSIS

### 4.1 FUNCTIONAL REQUIREMENTS

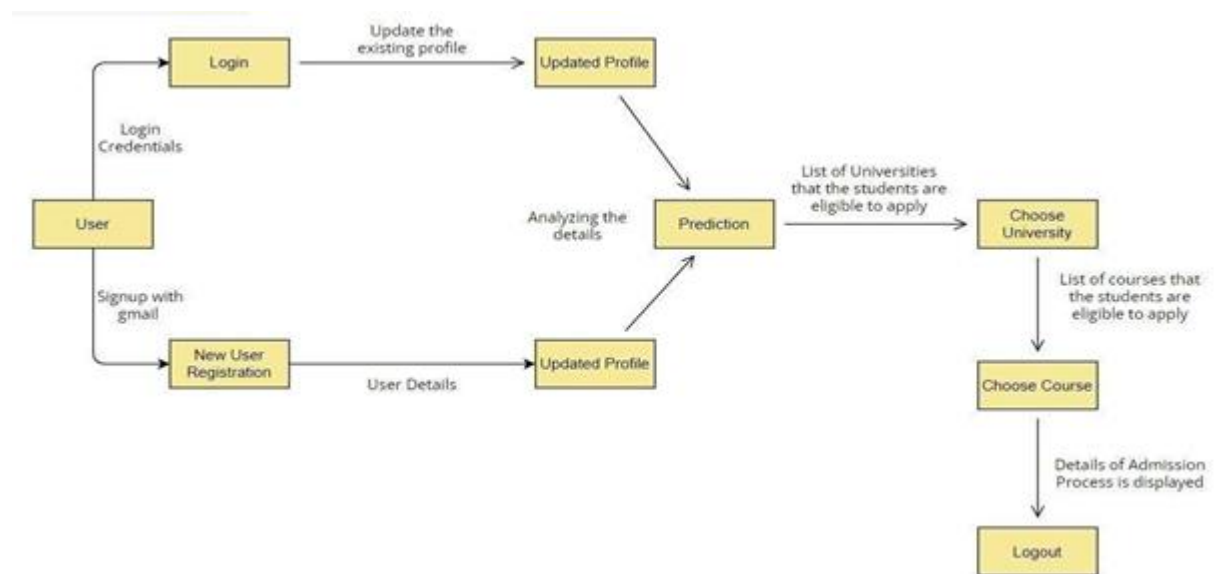
| FR NO | Functional Requirement | Sub- Requirement(Story/Sub-Task)  |
|-------|------------------------|---|
| FR-1  | User Registration      | Registration through forms by providing correct details.  |
| FR-2  | User Login             | Login by providing username and Password  |
| FR-3  | User Profile           | Complete user profile by providing the Student Academic details.  |
| FR-4  | User Data Collection   | The following information about students' scores is gathered:<br>If they are PG applicants, their ,<br>HSC<br>SSLC<br>CGPA.                               |
| FR-5  | Evaluation             | Analysing the data entered by the pupils using ML algorithms and putting the ML model that has been produced to the test using the supplied data.         |
| FR-6  | Prediction             | The list of universities to which the students are qualified to apply will be shown after the prediction is made based on the findings of the evaluation. |
| FR-7  | Output                 | The list of universities to which the students are qualified to apply will be shown after the prediction is made based on the findings of the evaluation. |

## 4.2 NON-FUNCTIONAL REQUIREMENTS

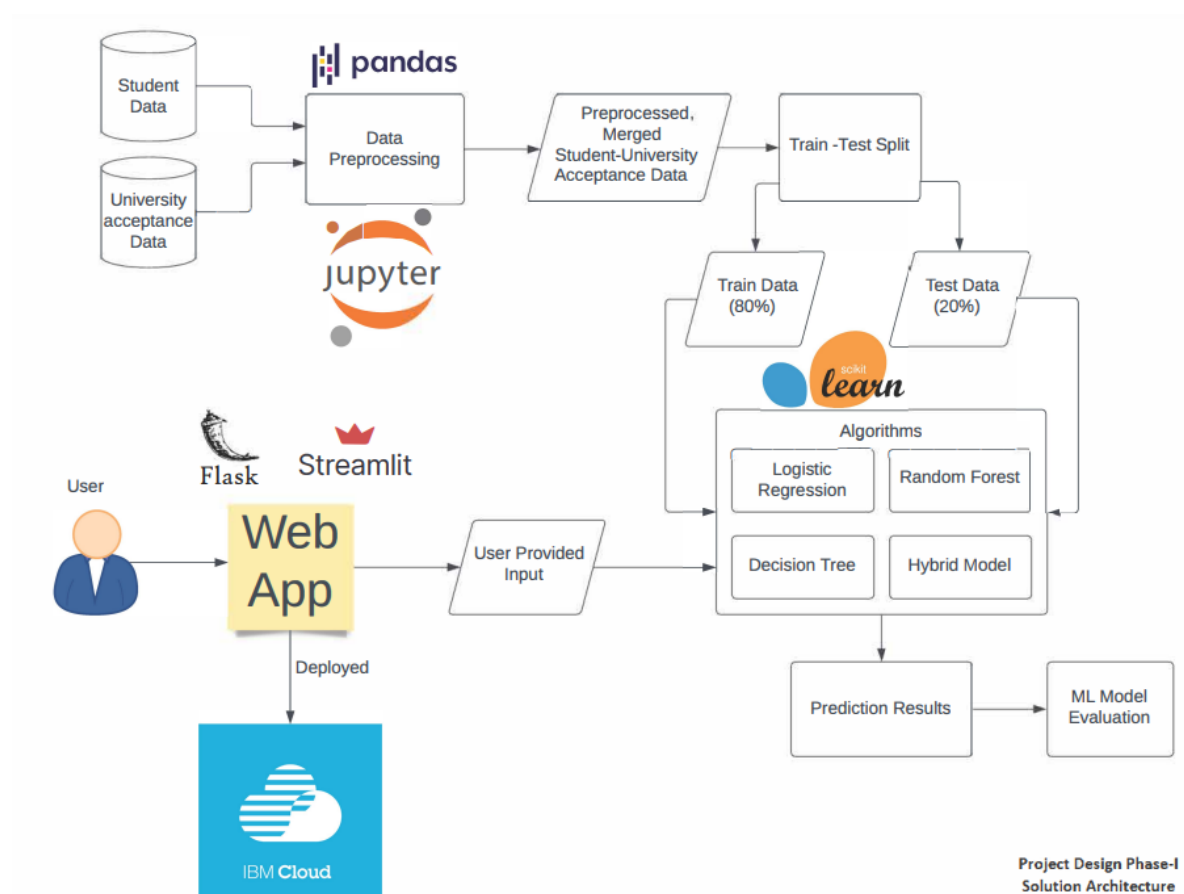
| NFR No | Non-Functional Requirement | Description  |
|--------|----------------------------|--|
| NFR-1  | <b>Usability</b>           | 1) Interactive and powerful progress visualisation<br>2) Customer Satisfaction<br>3) Easy to Learn   |
| NFR-2  | <b>Security</b>            | 1) User details are secured from unauthorized parties.<br>2) When the programme isn't being used, it automatically logs out to prevent unauthorised users from accessing the user's account. |
| NFR-3  | <b>Reliability</b>         | The users can find universities based on their preferred location and results.   |
| NFR-4  | <b>Performance</b>         | The website will provide the list of universities within 30 seconds.   |
| NFR-5  | <b>Availability</b>        | The system predictor will be accessible to users wherever they are and whenever they need it.  |
| NFR-6  | <b>Scalability</b>         | It can handle any volume of data and carry out several computations efficiently and quickly.   |

## 5. PROJECT DESIGN

### 5.1 DATA FLOW DIAGRAM



### 5.2 SOLUTION AND TECHNICAL ARCHITECTURE



## 5.3 USER STORIES

| User Type           | Functional Requirement (Epic) | User Story Number | User Story / Task   | Acceptance criteria   | Priority | Release  |
|---------------------|-------------------------------|-------------------|---|---|----------|----------|
| Customer (Web user) | Registration                  | USN-1             | As a user, I can register for the application by entering my email, password, and confirming my password.             | I can access my account / dashboard   | High     | Sprint-1 |
|                     |                               | USN-2             | As a user, I will receive confirmation email once I have registered for the application                               | I can receive confirmation email & click confirm  | High     | Sprint-1 |
|                     |                               | USN-3             | As a user, I can register to the application through Gmail  | I can access my account   | Medium   | Sprint-1 |
|                     | Login                         | USN-4             | As a user, I can log into the application by entering email & password  | I can access my account   | High     | Sprint-1 |
|                     | Update Profile                | USN-5             | As a user, after logging in, I will have to update my profile by providing all the required details.                  | I can complete the profile to proceed with the prediction process.                      | High     | Sprint-2 |
|                     | Choose University             | USN-6             | As a user, I will be able to view the list of Universities that the students are eligible to apply.                   | I can choose the University from the List of University provided in the drop down menu. | High     | Sprint-3 |
|                     | Choose Course                 | USN-7             | As a user, I will be able to view the list of courses that the students are eligible to apply.                        | I can choose the course from the List of courses provided in the drop down menu.        | Medium   | Sprint-3 |
|                     | Admission Process             | USN-8             | As a user, I will be able to view the details of Admission process like date and venue of certification verification. | I can view the details of Admission process being displayed at the end of prediction.   | Low      | Sprint-4 |
| Administrator       | Authentication                | USN-9             | As a admin, the login credential of the user is authenticated my me.  | I can retrieve and make use of all the user details.                                    | High     | Sprint-1 |
|                     | Update Profile                | USN-10            | As a admin, I can verify the user entered details.  | I can confirm and access the user details.  | High     | Sprint-2 |

## 6. PROJECT PLANNING AND SCHEDULING








### 6.1 SPRINT PLANNING AND ESTIMATION

| Sprint   | Functional Requirement (Epic) | User Story Number | User Story / Task  | Story Points | Priority | Team Members |
|----------|-------------------------------|-------------------|--|--------------|----------|--------------|
| Sprint-1 | User Registration             | USN-1             | As a user, I can register for the application by entering my email, password, and confirming my password.  | 2            | High     | 2            |
| Sprint-1 |                               | USN-2             | As a user, I will receive confirmation email once I have registered for the application  | 1            | High     | 1            |
| Sprint-2 |                               | USN-3             | As a user, I can check the eligibility criteria for various universities by uploading the necessary documents                                    | 2            | Low      | 2            |
| Sprint-3 |                               | USN-4             | As a user, I can register for the desired university through Gmail and can also upload further course completion documents if necessary.         | 2            | Medium   | 2            |
| Sprint-4 | User Login                    | USN-5             | As a user, I can log into the application by entering email & password   | 1            | High     | 2            |
|          | Dashboard                     |                   | Check dashboard for further updates and upload the details according to the desired and eligible universities based on the eligibility criteria. |              |          | 4            |

### 6.2 SPRINT DELIVERY SCHEDULE

| 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   | 30 Oct 2022       | 2 November 2022           | 20  | 3 November 2022              |
| Sprint-2 | 20                 | 6 Days   | 3 November 2022   | 8 November 2022           | 20  | 9 November 2022              |
| Sprint-3 | 20                 | 6 Days   | 10 November 2022  | 15 November 2022          | 15  | 16 November 2022             |
| Sprint-4 | 20                 | 6 Days   | 16 November 2022  | 20 November 2022          | 25  | 20 November 2022             |

### 6.3 REPORTS FROM JIRA

|  | T   | NOV   | DEC |  |
|--|---|---|-----|--|
| >  UN-1 Sprint 1- User Registration <span>DONE</span> |  |   |     |  |
|  UN-2 Sprint 2- Eligibility <span>DONE</span>         |   |  |     |  |
|  UN-3 Sprint 3- Check eligibility <span>DONE</span>   |   |  |     |  |
|  UN-5 Sprint 4 -Results                               |   |  |     |  |

Pj

Epic

GROUP BY

None

TO DO

+ Create issue

IN PROGRESS 1 ISSUE

Sprint 4 Results

☒ UN-8

DONE 3 ISSUES

+

Login

SPRINT 1 - USER REGISTRATION

☒ UN-4

Sprint 2 -Eligibility

☒ UN-6

Sprint -3 Check eligibility



## 7. CODING AND SOLUTIONING

### 7.1 FEATURE 1

```
from flask import Flask, render_template, redirect, url_for, request
```

```
import requests
```

```
app = Flask(__name__)
```

```
@app.route("/", methods = ['POST', 'GET'])
```

```
def index():
```

```
    if request.method == 'POST':
```

```
        arr = []
```

```
        for i in request.form:
```

```
            val = request.form[i]
```

```
            if val == ":
```

```
                return redirect(url_for("home"))
```

```
            arr.append(float(val))
```

```
# deecode ignore HardcodedNonCryptoSecret: <please specify a reason of  
ignoring this>
```

```
API_KEY = "_y5HXZoBIP-pbdVhiMEylryHoMWR2xyJcXeISGPJIRuz"
```

```
token_response
```

```
=
```

```
requests.post('https://iam.cloud.ibm.com/identity/token', data={
```

```
    "apikey": API_KEY,
```

```
    "grant_type": 'urn:ibm:params:oauth:grant-type:apikey'
```

```
})
```

```
mltoken = token_response.json()["access_token"]
```

```
header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' +
mltoken}
```

```
payload_scoring = {
    "input_data": [{"fields": [ 'GRE Score',
                                'TOEFL Score',
                                'University Rating',
                                'SOP',
                                'LOR ',
                                'CGPA',
                                'Research'],
                    "values": [arr]
                    }]
}
```

```
response_scoring = requests.post(
    'https://jp-tok.ml.cloud.ibm.com/ml/v4/deployments/62772227-bda0-
483c-9213-98ad2f100980/predictions?version=2022-11-17',
    json=payload_scoring,
    headers=header
).json()
```

```
result = response_scoring['predictions'][0]['values']
```

```
if result[0][0] > 0.5:
```

```
    return redirect(url_for('chance', percent=result[0][0]*100))
```

```
else:
```

```
    return redirect(url_for('no_chance', percent=result[0][0]*100))
```

```
else:
```

```
    return redirect(url_for("home"))
```

```
@app.route("/home")
```

```
def demo2():
```

```
    return render_template("home.html")
```

```
@app.route("/chance/<percent>")
```

```
def chance(percent):
```

```
    return render_template("chance.html", content=[percent])
```

```
@app.route("/nochance/<percent>")
```

```
def no_chance(percent):
```

```
    return render_template("noChance.html", content=[percent])
```

```
@app.route('/<path:path>')
```

```
def catch_all():
```

```
    return redirect(url_for("home"))
```

```
if __name__ == "__main__":
```

```
    app.run()
```

## 7.2 FEATURE 2

```
{% extends 'index.html' %}
```

```
{% block body %}
```

```
    <div class="p-4">
```

```

<div class="row mb-3">
  <div class="col-4">
    <h2 class="text-responsive-h">
      Enter you Scoring to view prediction
    </h2>
    <p class="text-responsive">
      Students can Use their marks for prediction the admission in colleges
      and the administrator can allot the seats for the students. It will help student to
      make a better choice.
    </p>
    <div class="d-flex justify-content-right">
      
    </div>
  </div>
  <div class="col-8">
    <div class="card p-2 ms-2 my-2">
      <div class="card-body">
        <h5 class="card-title pb-4">
          Enter the Score
        </h5>
        <form action="/" method="post" id="theForm">
          <div class="row mb-3">
            <label for="gre" class="col-lg-2 col-form-label">GRE
Score:</label>
            <div class="col-lg-10">
              <input type="number" class="form-control" id="gre"
name="gre" min="250" max="340" required>

```

```
        </div>
    </div>
    <div class="row mb-3">
        <label for="tofel" class="col-lg-2 col-form-label">TOFEL
Score:</label>
        <div class="col-lg-10">
            <input type="number" class="form-control" id="tofel"
name="tofel" min="50" max="120" required>
        </div>
    </div>
    <div class="row mb-3">
        <label for="university_rating" class="col-lg-2 col-form-
label">University Rating:</label>
        <div class="col-lg-10">
            <input type="number" class="form-control"
id="university_rating" step="0.01" name="university_rating" min="1" max="5"
required>
        </div>
    </div>
    <div class="row mb-3">
        <label for="sop" class="col-lg-2 col-form-label">SOP:</label>
        <div class="col-lg-10">
            <input type="number" class="form-control" id="sop"
name="sop" step="0.01" min="1" max="5" required>
        </div>
    </div>
    <div class="row mb-3">
        <label for="lor" class="col-lg-2 col-form-label">LOR:</label>
```

```

        <div class="col-lg-10">
            <input type="number" class="form-control" id="lor"
name="lor" step="0.01" min="1" max="5" required>
        </div>
    </div>
    <div class="row mb-3">
        <label for="cgpa" class="col-lg-2 col-form-
label">CGPA:</label>
        <div class="col-lg-10">
            <input type="number" class="form-control" id="cgpa"
name="cgpa" step="0.01" min="5" max="10" required>
        </div>
    </div>
    <fieldset class="row mb-3">
        <legend class="col-form-label col-sm-2 pt-
0">Research:</legend>
        <div class="col-sm-10">
            <div class="form-check">
                <input class="form-check-input" type="radio"
name="yes_no_radio" id="gridRadios1" value="1">
                <label class="form-check-label" for="yes_no_radio">
                    Yes
                </label>
            </div>
            <div class="form-check">
                <input class="form-check-input" type="radio"
name="yes_no_radio" id="gridRadios2" value="0" checked>
                <label class="form-check-label" for="yes_no_radio">

```

```

        No
    </label>
</div>
</div>
</fieldset>
<div class="row lg-3">
    <div class="col-lg-2 mb-2 me-3">
        <button type="submit" class="btn btn-success"
id="button">Let's try</button>
    </div>
    <div class="col-lg-2" id="spinner">
        <div class="spinner-border text-primary m-1"
role="status">
            <span class="visually-hidden">Loading...</span>
        </div>
        <div class="spinner-grow text-primary m-1" role="status">
            <span class="visually-hidden">Loading...</span>
        </div>
    </div>
</form>
</div>
</div>
</div>
</div>
</div>
{% endblock %}

```

## 8.TESTING

### 8.1 TEST CASES

If the student is eligible for the university, it will give output as True. Otherwise, the output will be False.

Deployments / University Admit Eligible Predict... / prediction /

University Admit Eligible Predictor deployment Deployed Online

API reference **Test**

Enter input data

Text input JSON input

Enter data manually or use a CSV file to populate the spreadsheet. Max file size is 50 MB.

[Download CSV template](#) [Browse local files](#) [Search in space](#) [Clear all](#)

|    | GRE Score (int64) | TOEFL Score (int64) | University Rating (int64) | SOP (float64) | LOR (float64) | CGPA (float64) | Research (int64) |
|----|-------------------|---------------------|---------------------------|---------------|---------------|----------------|------------------|
| 1  | 337               | 118                 | 4                         | 4.5           | 4.5           | 9.65           | 1                |
| 2  | 323               | 108                 | 3                         | 3.5           | 3             | 8.6            | 0                |
| 3  | 307               | 109                 | 3                         | 4             | 3             | 8              | 1                |
| 4  | 312               | 120                 | 2                         | 9             | 4             | 6              | 1                |
| 5  | 315               | 125                 | 1                         | 6             | 2.5           | 7              | 0                |
| 6  | 255               | 98                  | 1                         | 3             | 4             | 6              | 1                |
| 7  | 315               | 100                 | 1                         | 2             | 3.8           | 6.6            | 1                |
| 8  | 300               | 111                 | 1                         | 3.4           | 3.4           | 7.8            | 0                |
| 9  | 315               | 97                  | 5                         | 2             | 4.3           | 6.5            | 1                |
| 10 | 301               | 103                 | 4                         | 4.1           | 4.1           | 7              | 1                |

10 rows, 7 columns

Predict

Prediction results

Prediction type

Binary classification

Prediction percentage

10 Records

Confidence level distribution

Amount of records

Table view ☒ JSON view

|    | Prediction | Confidence |
|----|------------|------------|
| 1  | true       | 100%       |
| 2  | true       | 98%        |
| 3  | true       | 91%        |
| 4  | false      | 71%        |
| 5  | true       | 96%        |
| 6  | false      | 96%        |
| 7  | true       | 53%        |
| 8  | true       | 98%        |
| 9  | false      | 90%        |
| 10 | false      | 71%        |
| 11 |            |            |
| 12 |            |            |
| 13 |            |            |
| 14 |            |            |
| 15 |            |            |
| 16 |            |            |

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## 9. RESULTS

### 9.1 PERFORMANCE METRICS

```
In [26]: from sklearn.metrics import confusion_matrix
from sklearn.metrics import accuracy_score
from sklearn.metrics import classification_report
from sklearn.metrics import roc_auc_score
from sklearn.metrics import log_loss
results = confusion_matrix(y_Test, y_pred)
print ('Confusion Matrix :')
print(results)
print ('Accuracy Score is',accuracy_score(y_Test, y_pred))
print ('Classification Report : ')
print (classification_report(y_Test, y_pred))
print('AUC-ROC:',roc_auc_score(y_Test, y_pred))
print('LOGLOSS Value is',log_loss(y_Test, y_pred))
```

```
Confusion Matrix :
[[ 3  3]
 [ 2 52]]
Accuracy Score is 0.9166666666666666
Classification Report :
```

|              | precision | recall | f1-score | support |
|--------------|-----------|--------|----------|---------|
| False        | 0.60      | 0.50   | 0.55     | 6       |
| True         | 0.95      | 0.96   | 0.95     | 54      |
| accuracy     |           |        | 0.92     | 60      |
| macro avg    | 0.77      | 0.73   | 0.75     | 60      |
| weighted avg | 0.91      | 0.92   | 0.91     | 60      |

```
AUC-ROC: 0.7314814814814814
LOGLOSS Value is 2.8782713461140674
```

## **10. ADVANTAGES AND DISADVANTAGES**

### **ADVANTAGES:**

- It helps students for making decision for choosing a right college.
- Here the chance of occurrence of error is less when compared with the existing system.
- It is fast, efficient, and reliable.
- Avoids data redundancy and inconsistency.
- Very user-friendly.
- Easy accessibility of data.

### **DISADVANTAGES:**

- Required active internet connection.
- System will provide inaccurate results if data entered incorrectly.

## **11. CONCLUSION**

The results of this examination appear to indicate that it greatly contributes to the response variable 'Chance of Admit'. Higher the GRE, TOEFL score then higher the admit chances. The model predicts 91.5% accuracy and can be used for predicting the admit chances based on the above factors. This model will be helpful for the universities to predict the admission and ease their process of selection and timelines. As part of the hypothesis, the model proved that admission to Master's degree program is dependent on GRE, TOEFL and other scores. This model would likely be greatly improved by the gathering of additional data of students from different universities which has similar selection criteria to choose the candidates for Master's program.

## **12. FUTURE SCOPE**

- 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**

#### **SOURCE CODE LINK**

<https://drive.google.com/drive/folders/1uvuErcuLCxM8NlmmSZgzuN3FNBmCyAq7?usp=sharing>

#### **GITHUB LINK**

<https://github.com/IBM-EPBL/IBM-Project-2182-1658465378.git>

#### **DEMO LINK**

[https://drive.google.com/file/d/15hMwhOuawjN0ZPRy-AZaMon0B0jsomCb/view?usp=share\\_link](https://drive.google.com/file/d/15hMwhOuawjN0ZPRy-AZaMon0B0jsomCb/view?usp=share_link)