

# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

TEAM ID: PNT2022TMID38951

Project Link: <http://uaep277.herokuapp.com/>

## 1. INTRODUCTION

### 1.1 Project Overview

Students are regularly concerned approximately their probabilities of admission to University. The intention of this assignment is to assist college students in shortlisting universities with their profiles. The anticipated output offers them a honest concept approximately their admission probabilities in a specific university. This evaluation need to additionally assist college students who're presently getting ready or could be getting ready to get a higher concept .

### 1.2 purpose

A men and women schooling performs a critical function of their life. While making plans for schooling college students regularly have numerous questions concerning the courses, universities, activity opportunities, charges involved, etc. Securing admission of their dream college is certainly considered one among their foremost concerns. It is visible that regularly college students choose to pursue their schooling from universities that have worldwide recognition.

## 2. Literature survey

when it comes to international students the first choice of the majority of them is the United States of America. With the majority of world's highly reputed universities, wide range of courses offered in every sector, highly accredited education system and teaching, scholarships provided to students, best job market and many more advantages make it the dream destination for the international students. According to research, there are above 8 Million international students studying in more than 1700 public and 2500 private universities and colleges across the USA. (MasterPortal (2017)).

### 2.1 Existing problem

Universities take into consideration different factors like score on aptitude based examination like the General Record Examination (GRE), command over the English language is judged based on their score in English competency test like Test Of English as a Foreign Language (TOEFL) OR International English Language Testing System (IELTS), their work experience in same or other fields, the quality of the Letters Of Recommendation (LOR) and the Statement Of Purpose documents provided by the student etc. Based on the overall profile of the student decision is taken by the universities admission team to admit or reject a particular candidate.

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## 2.2 References

1. Geiser, Saul, and with Roger Studley. "UC and the SAT: Predictive validity and differential impact of the SAT I and SAT II at the University of California." Educational Assessment 8.1 (2002):1-26.
2. Rothstein, Jesse M. "College performance predictions and the SAT." Journal of Econometrics 121.1-2 (2004): 297-317.
3. Leonard, David K., and Jiming Jiang. "Gender bias and the college predictions of the SATs: A cry of despair." Research in Higher Education 40.4 (1999): 375-407.

## 2.3 Problem Statement Definition

Build an application that predicts the university admission chances of a student powered by machine learning models. Train the model and host it on IBM cloud. The majority of international students studying in the USA are from India and China. In the past decade, India has seen a huge increase in the number of students opting to pursue their education from foreign universities in countries like The USA, Ireland, Australia, Germany, etc. Although there are significant universities and colleges in India, students are finding it difficult to get admission in the highly ranked colleges and also getting a job is a challenge as the ratio of number of students to the number of work opportunities available is quite high. India is one of the leading countries in the number of software engineers produced each year; it becomes tough for the students to find jobs in elite companies due to high competition. This motivates a good number of students to pursue post-graduation in their field. It is seen that the number of students pursuing Masters in Computer Science field from universities in the USA is quite high; the focus of this research will be on these students.

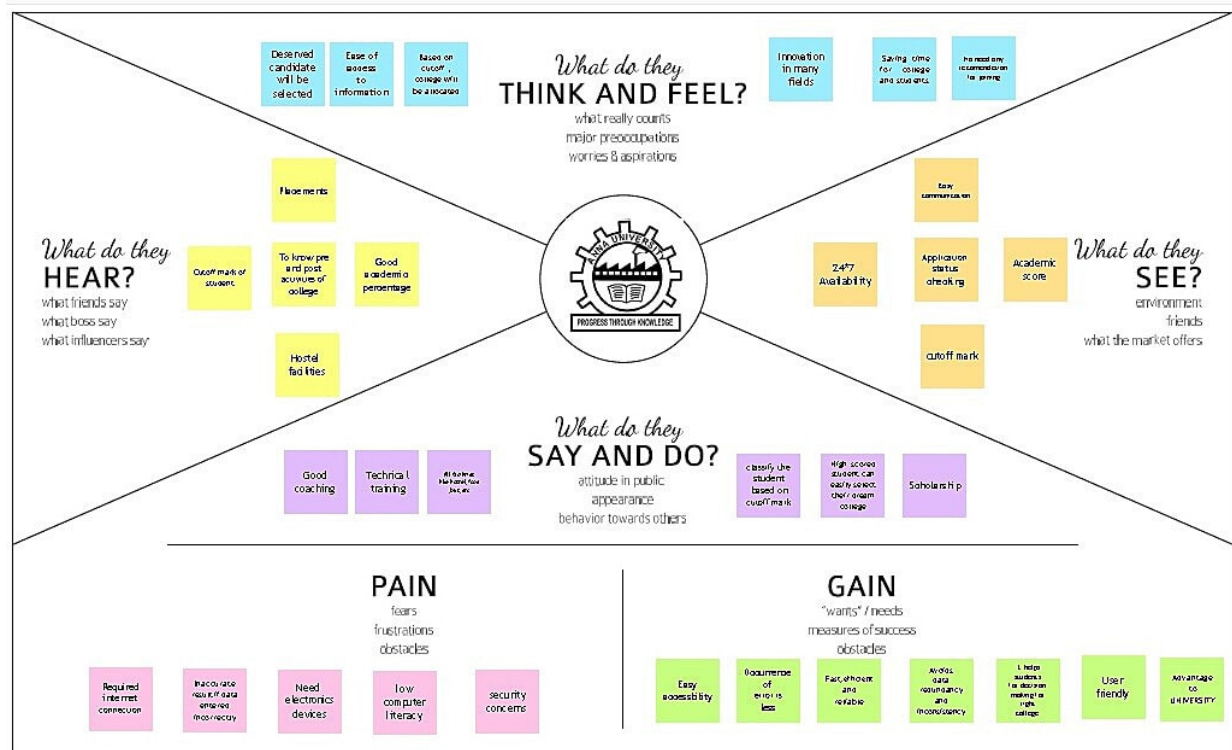
## 3. IDEATION & PROPOSED SOLUTION

The project aims to develop an application that uses artificial intelligence with the help of a chat bot to customize products for the customers which enhance the fame of an e-commerce store and reduce the time which customers spend on choosing products. The application also uses IBM cloud storage for storing objects.

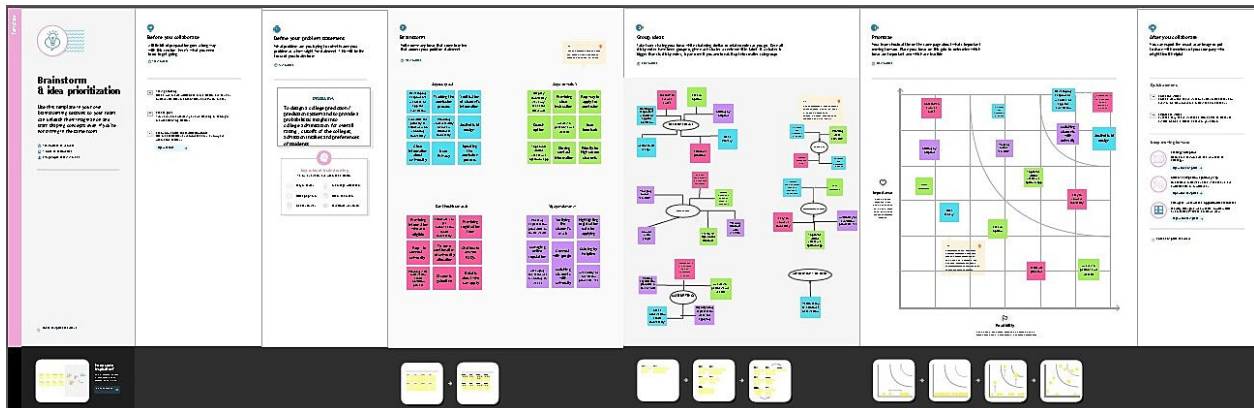
An application that predicts the university admission chances of a student powered by machine learning models. Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. The primary objective of this research is to develop a system to solve the problems the international students are facing while applying for universities in the USA.

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## 3.1 Empathy Map Canvas



## 3.2 Ideation & Brainstorming



This task of shortlisting the universities where the student has high chances of admission is difficult for mainly for the international students, so they end up with applying to many universities in hopes of getting admission in few of them thus investing an extra amount of money in the applications. There are several portals and websites which provide information and help to students in shortlisting the universities, but they are not reliable. Most of the students don't take the risk of evaluating the colleges by themselves, and they seek the

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help of the education consultancy firms to do it for them. Again for this students have to pay a huge amount of fee to the education consultant.

## 3.3 Proposed Solution

Finally, K Nearest Neighbours and Decision Tree algorithms were used as they were found to be the best fit for the system developed. Also, we will be creating a simple user interface which will help the users to input the data related to student profile and get the predicted result for the application based on the profile as output. This research will thus eventually help students saving the extra amount of time and money they have to spend at the education consultancy firms. And also it will help them to limit their number of application to a small number by providing them the suggestion of the universities where they have the best chance of securing admission thus saving more money on the application fees.

## 3.4 Problem Solutionfit

We will be developing a University Admit Eligibility Predictor system which will help the students to predict the chances of their application being selected for a particular university for which they wish to apply based on their profile. Also, the system will provide a recommendation of universities to the student to which the student has a high possibility of getting admission. Multiple machine learning classification algorithms were evaluated to develop the system.

## 4. REQUIREMENT ANALYSIS

Requirements analysis, also called requirements engineering, is the process of determining user expectations for a new or modified product. These features, called requirements, must be quantifiable, relevant and detailed. In software engineering, such requirements are often called functional specifications. Requirements analysis is critical to the success or failure of a systems or software project. The requirements should be documented, actionable, measurable, testable, traceable, related to identified business needs or opportunities, and defined to a level of detail sufficient for system design.

### 4.1 Functional requirement

- prediction
- input form
- percentage of chance

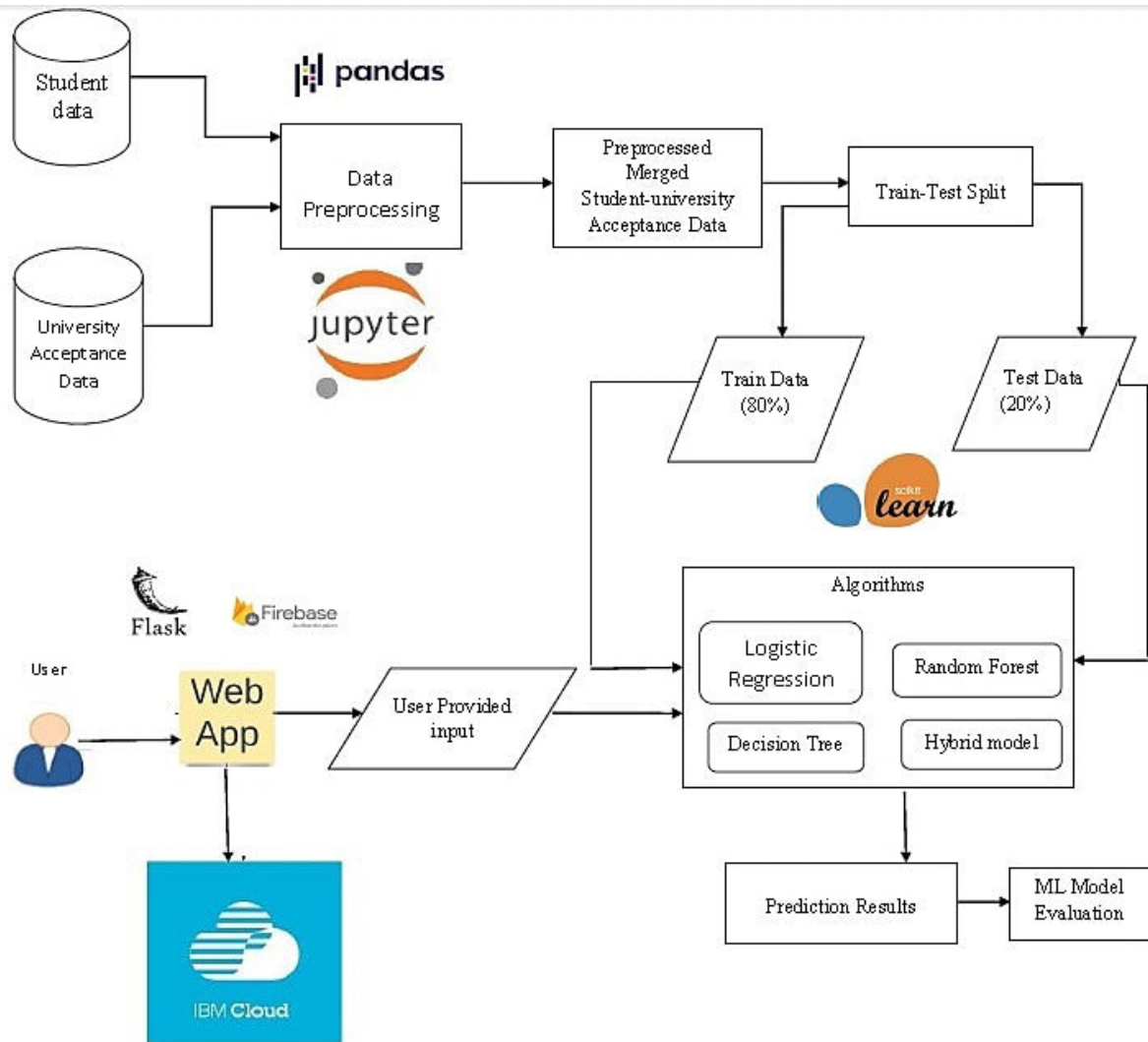
### 4.2 Non-Functional requirements

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- Speed
- Security
- Portability
- Compatibility
- Capacity
- Reliability
- Environment
- Localization

## 5.PROJECT DESIGN

### 5.1 Data Flow Diagrams

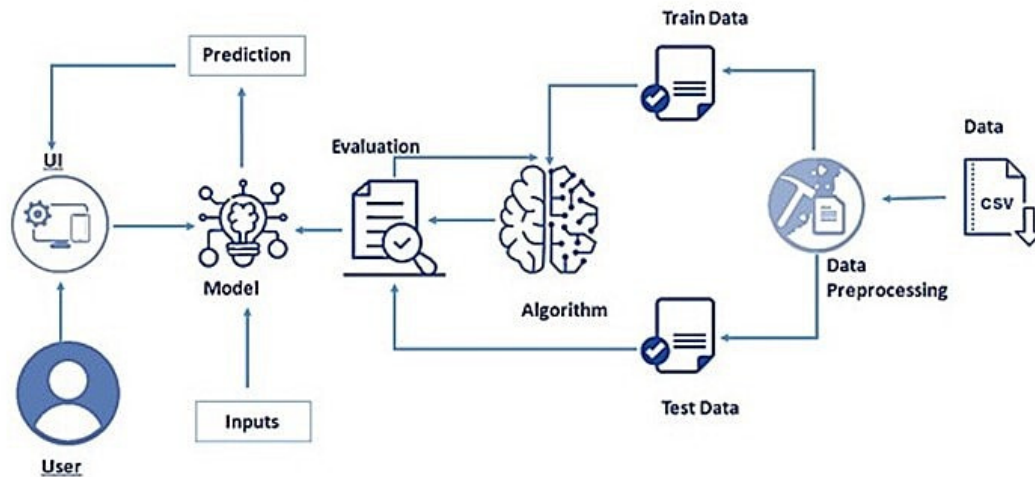


### 5.2 Solution & Technical Architecture

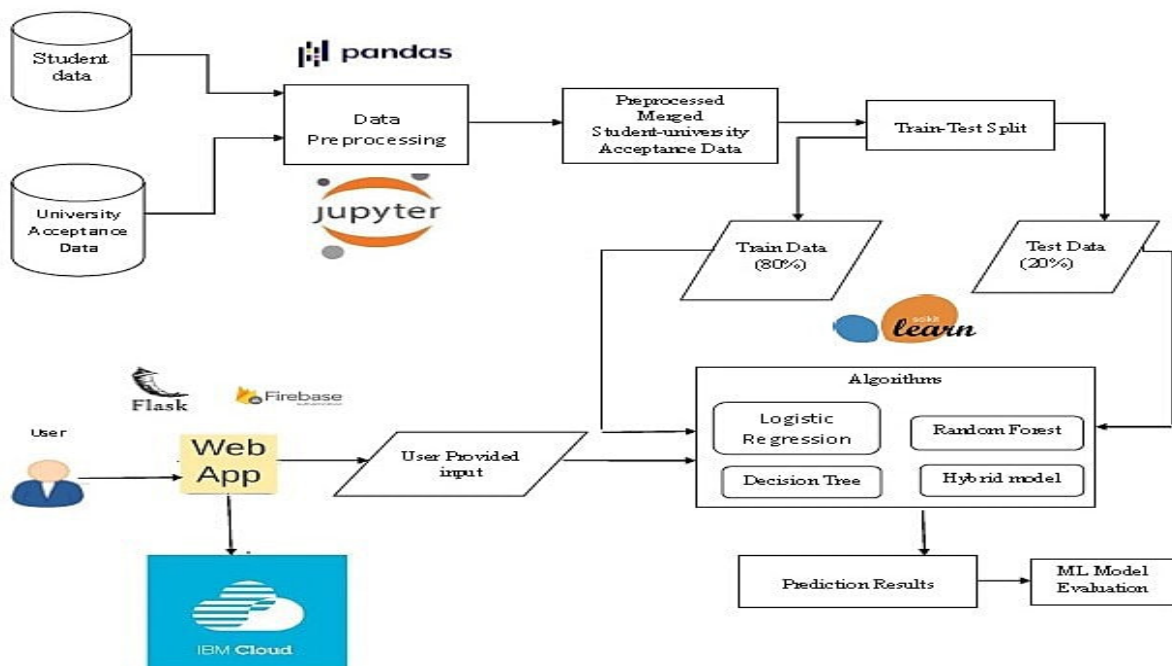
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Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements. Provide specifications according to which the solution is defined, managed, and delivered.



Example - Solution Architecture Diagram



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## 5.3 User Stories

A user story is an informal, natural language description of features of a software system. They are written from the perspective of an end user or user of a system, and may be recorded on index cards, Post-it notes, or digitally in project management software.[1] Depending on the project, user stories may be written by different stakeholders like client, user, manager, or development team.

| 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 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 for the application through Facebook  | I can register & access the dashboard with Facebook Login    | Low      | Sprint-2 |
|                         |                               | USN-4             | As a user, I can register for the application through Gmail   | I can register & access the dashboard with Gmail Login       | Medium   | Sprint-1 |
|                         | Login                         | USN-5             | As a user, I can log into the application by entering email & password  | I can log in and access my account / dashboard               | High     | Sprint-1 |
|                         | Dashboard                     | USN-6             | User need the internet and smart mobile phones to access it   | To access and login , we need internet connection.           | High     | Sprint-1 |
| Customer (Web user)     | Registration                  | USN-7             | As a User, I can register for the application by entering my email, password, and confirming my password in the website | I can access my account / dashboard                          | High     | Sprint-1 |
|                         | Login                         | USN-8             | As a user, I can log into the application by entering email & password in the website of university                     | I can log in and access my account / dashboard               | High     | Sprint-1 |
|                         | Dashboard                     | USN-9             | User need the internet and smart mobile phones to access it   | To access and login , we need internet connection.           | High     | Sprint-1 |
| Customer Care Executive | Registration & Login          | USN-10            | The customer care give the instruction and guide line for the students to register and login their ID                   | The instruction and guidelines are provided                  | High     | Sprint-1 |
| Administrator           | Registration                  | USN-11            | The Administrator can see how many students are registered in the website   | Administrator can access account / dashboard                 | High     | Sprint-1 |
|                         | Login                         | USN-12            | The Administrator can login and see the student's detail in their portal  | Administrator can access the website                         | High     | Sprint-1 |
|                         | Dashboard                     | USN-13            | The Administrator needs the internet for website accessing  | To access and login , administrator need internet connection | High     | Sprint-1 |

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## 6. PROJECT PLANNING & SCHEDULING

### 6.1 Sprint Planning & Estimation

| Sprint   | Functional Requirement (Epic) | User Story Number | User Story / Task  | Story Points | Priority | Team Members    |
|----------|-------------------------------|-------------------|--|--------------|----------|-----------------|
| Sprint-1 | Registration                  | USN-1             | As a user, you can register in the application by entering your email address, password, and confirming the password | 2            | High     | Santhoshkumar.K |
| Sprint-1 |                               | USN-2             | As a user, you will receive a confirmation email after registering in the application                                | 1            | High     | Santhoshkumar.K |
| Sprint-2 |                               | USN-3             | As a user, you can register in the application via Facebook  | 2            | Low      | Vijayavalavan.V |
| Sprint-1 |                               | USN-4             | As a user, you can register in the application via Gmail   | 2            | Medium   | Jaya Sewak.V    |
| Sprint-1 | Login                         | USN-5             | As a user, you can login to the application by entering your email and password                                      | 1            | High     | Jayasurya.J     |

### 6.2 Sprint Delivery Schedule



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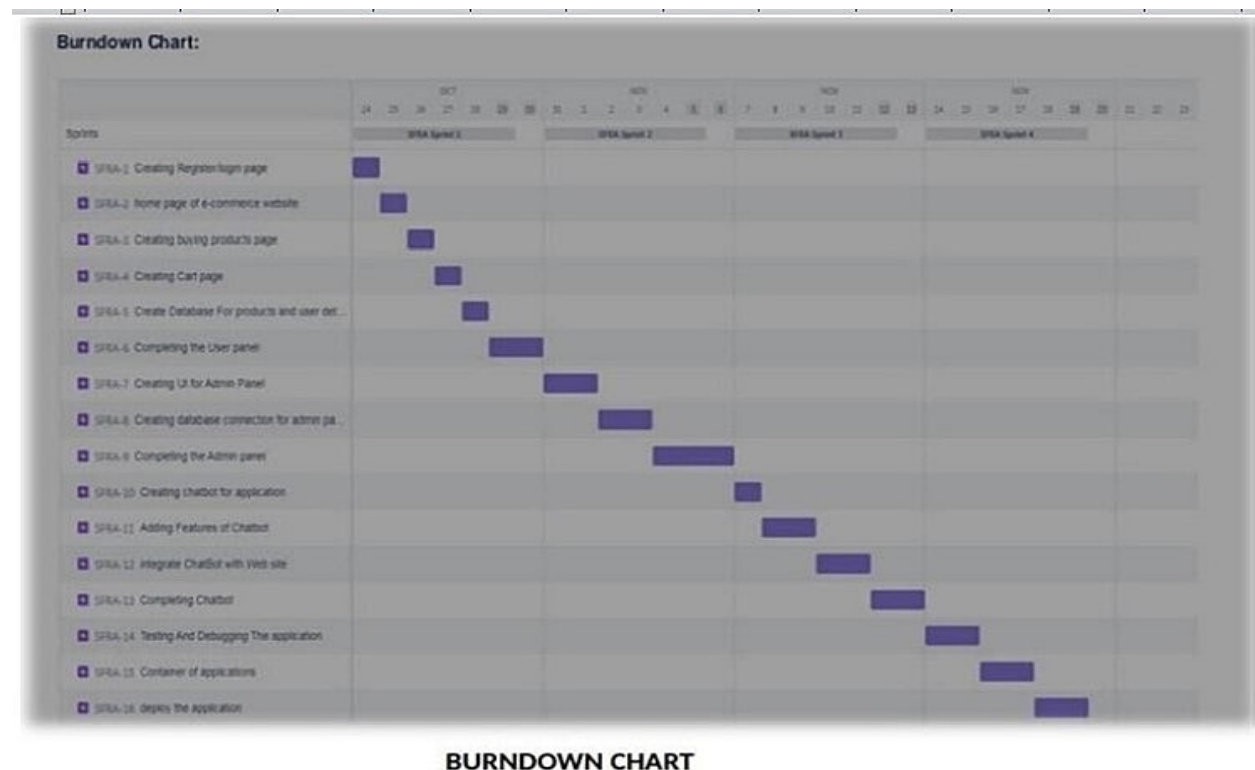
| Sprint   | Total Story Points | Duration | Sprint Start Date | Sprint End Date (Planned) | Story Points Completed (as on Planned End Date) | Sprint Release Date (Actual) |
|----------|--------------------|----------|-------------------|---------------------------|---|------------------------------|
| Sprint-1 | 20                 | 5 Days   | 28 oct 2022       | 12 Nov 2022               | 20  | 16 Nov 2022                  |
| Sprint-2 | 20                 | 4 Days   | 04 Oct 2022       | 14 Nov 2022               | 20  | 16 Nov 2022                  |
| Sprint-3 | 20                 | 4 Days   | 08 Nov 2022       | 15 Nov 2022               | 20  | 16 Nov 2022                  |
| Sprint-4 | 20                 | 4 Days   | 11 Nov 2022       | 15 Nov 2022               | 20  | 16 Nov 2022                  |

## Velocity:

Imagine we have a 10-day sprint duration, and the velocity of the team is 20 (points per sprint). Let's calculate the team's average velocity (AV) per iteration unit (story points per day)

$$AV = \frac{\text{sprint duration}}{\text{velocity}} = \frac{20}{10} = 2$$

## 6.3 Reports from JIRA



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## 7. CODING & SOLUTIONING

### 7.1 Feature 1 - FLASK APP

The following is the flask app code and working

```
1 import pandas as pd
2 from flask import Flask, request, jsonify, render_template
3 import pickle
4 import pyrebase
5 app = Flask(__name__)
6 model = pickle.load(open('linear_regression_model_sc.pkl', 'rb'))
7 config = {
8     "apiKey": "Your-API-Key",
9     "authDomain": "university-admit-predictor.firebaseio.com",
10    "databaseURL": "https://university-admit-predictor-default-
    rtdb.firebaseio.com",
11    "projectId": "university-admit-predictor",
12    "storageBucket": "university-admit-predictor.appspot.com",
13    "messagingSenderId": "471033088541",
14    "appId": "1:471033088541:web:2d05bfca07ad298f2cd4f4",
15    "measurementId": "G-DCEHDHRG4K"
16 }
17 #initialize firebase
18 firebase = pyrebase.initialize_app(config)
19 auth = firebase.auth()
20 @app.route("/register", methods = ["POST", "GET"])
21 def regiter():
22     if request.method == "POST":
23         global name #Only if data has been posted
24         name=request.form.get('name')
25         email=request.form.get('email')
26         password=request.form.get('pass')
27         cpassword=request.form.get('cpass')
28     try:
29         if(password==cpassword):
30
31             user=auth.create_user_with_email_and_password(email,password)
32
33             return render_template("login.html")
34         #return render_template("login.html")
35     except:
36         #return "Your passwaord could not be same Please Try
```

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```
Again"
36         return render_template("signup.html",error="Your
        passwaord could not be same or Already Exist account")
37
38
39 #Login
40 @app.route("/")
41 def login():
42     return render_template("login.html")
43 @app.route("/signup")
44 def signup():
45     return render_template("signup.html")
46
47 @app.route('/welcome')
48 def home():
49     return render_template('index.html')
50 @app.route("/result", methods = ["POST", "GET"])
51 def result():
52     """if('user' in session):
53         return "Hi {}".format(session["user"])"""
54     if request.method == "POST":          #Only if data has been
        posted
55         email=request.form.get('email')
56         password=request.form.get('pass')
57         try:
58             #Try signing in the user with the given information
59             user = auth.sign_in_with_email_and_password(email,
        password)
60             return render_template("index.html")
61         except:
62             return render_template("login.html",error="Your
        Email and Password Invalid Please Try login again or SignUp")
63
64 @app.route('/predict', methods=['GET','post'])
65 def predict():
66
67     GRE_Score = int(request.form['GRE Score'])
68     TOEFL_Score = int(request.form['TOEFL Score'])
69     University_Rating = int(request.form['University Rating'])
70     SOP = float(request.form['SOP'])
```

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```
71 LOR = float(request.form['LOR'])
72 CGPA = float(request.form['CGPA'])
73 Research = int(request.form['Research'])
74
75 final_features = pd.DataFrame([[GRE_Score, TOEFL_Score,
    University_Rating, SOP, LOR, CGPA, Research]])
76
77 predict = model.predict(final_features)
78
79 output = predict[0]
80 if(output>50):
81     return render_template('chance.html',
    prediction_text='Admission chances are {}'.format(output))
82 else:
83     return render_template('nochance.html',
    prediction_text='Admission chances are {}'.format(output))
84
85 if __name__ == "__main__":
86     app.run(debug=True)
87
```

## 7.2 Feature 2 - UI

The following is the UI code for the application

Index.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <SCRIPT language=Javascript>
5         <!--
6         function check(e, value) {
7             //Check Charater
8             var unicode = e.charCode ? e.charCode : e.keyCode;
9             if (value.indexOf(".") != -1)
10                 if (unicode == 46) return false;
11                 if (unicode != 8)
12                     if ((unicode < 48 || unicode > 57) && unicode != 46)
13                         return false;
14         }
15         //-->
```

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```
15 </SCRIPT>
16 <title>University admission prediction System </title>
17 <meta name="viewport" content="width=device-width, initial-
    scale=1">
18 <link rel="icon" type="image/jpg"
    href="https://png.pngtree.com/png-vector/20200211/ourmid/pngtree-
    graduation-caps-vector-convocation-students-png-
    image_2144286.jpg">
19 <link rel="stylesheet"
    href="https://cdnjs.cloudflare.com/ajax/libs/font-
    awesome/4.7.0/css/font-awesome.min.css">
20
21 <style>
22 body {
23     font-family: Arial, Helvetica, sans-serif;
24 }
25
26 * {
27     box-sizing: border-box;
28 }
29
30 /* style the container */
31 .container {
32     position: relative;
33     border-radius: 5px;
34     background-color: #f2f2f2;
35     padding: 20px 0 30px 0;
36 }
37
38 /* style inputs and link buttons */
39 input,
40 .btn {
41     width: 100%;
42     padding: 12px;
43     border: none;
44     border-radius: 4px;
45     margin: 5px 0;
46     opacity: 0.85;
47     display: inline-block;
48     font-size: 17px;
```

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```
49  line-height: 20px;
50  text-decoration: none; /* remove underline from anchors */
51 }
52
53 input:hover,
54 .btn:hover {
55   opacity: 1;
56 }
57
58
59 /* style the submit button */
60 input[type=submit] {
61   content: " ";
62   background-color: #4CAF50;
63   /* background: linear-gradient(#00ccff,#d400d4);
64   animation: animate 4s linear infinite;
65   inset: 4px;
66   border-radius: 20px;*/
67   color: white;
68   cursor: pointer;
69 }
70 @keyframes animate
71 {0%{
72   transform: rotate(0deg);
73 }
74 100%{
75   transform: rotate(360deg);
76 }
77 }
78 input[type=submit]:hover {
79   background-color: #45a049;
80
81 }
82
83 /* Two-column layout */
84 .col {
85   float: left;
86   width: 50%;
87   margin: auto;
88   padding: 0 50px;
```

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```
89  margin-top: 6px;
90 }
91
92 /* Clear floats after the columns */
93 .row:after {
94     content: "";
95     display: table;
96     clear: both;
97 }
98
99 /* vertical line */
100 .vl {
101     position: absolute;
102     left: 50%;
103     transform: translate(-50%);
104     border: 2px solid #ddd;
105     height: 490px;
106 }
107
108 /* text inside the vertical line */
109 .vl-innertext {
110     position: absolute;
111     top: 50%;
112     transform: translate(-50%, -50%);
113     background-color: #f1f1f1;
114     border: 1px solid #ccc;
115     border-radius: 50%;
116     padding: 8px 10px;
117 }
118
119 /* hide some text on medium and large screens */
120 .hide-md-lg {
121     display: none;
122 }
123
124 /* bottom container */
125 .bottom-container {
126     text-align: center;
127     background-color: #666;
128     border-radius: 0px 0px 4px 4px;
```

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```
129 }
130
131 /* Responsive layout - when the screen is less than 650px wide,
    make the two columns stack on top of each other instead of next
    to each other */
132 @media screen and (max-width: 650px) {
133     .col {
134         width: 100%;
135         margin-top: 0;
136     }
137     /* hide the vertical line */
138     .vl {
139         display: none;
140     }
141     /* show the hidden text on small screens */
142     .hide-md-lg {
143         display: block;
144         text-align: center;
145     }
146 }
147 </style>
148 </head>
149 <body style="background-image:
    url('https://i.pinimg.com/564x/84/f1/f1/84f1f1cc416291c8c44e95c7c
    888d781.jpg'); background-position: center;
150 background-repeat: no-repeat;
151 background-size: cover,contain; height: -15px;">
152
153 <div class="container" style="background-image:
    url('https://i.pinimg.com/564x/84/f1/f1/84f1f1cc416291c8c44e95c7c
    888d781.jpg'); background-position: center;
154 background-repeat: no-repeat;
155 background-size: cover,contain; ">
156     <form action="/predict" method="post">
157         <div class="row" style="padding:0px ; height:fit-content">
158             <span class="align-middle"><p class="text-danger"><h1
                class="align-middle" style="height: min-content; color:
                #000080;">UNIVERSITY ADMISSION PREDICTION SYSTEM</h1></p></span>
159             <div class="vl">
160                 <span class="vl-innertext"></span>
```



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```
161     </div>
162
163     <div class="col">
164         <p><b>In this project, I build a linear regression model
            to predict the chance of admission into a particular university
            based on student's profile.</p></b>
165         <h3>Instructions for Input Features</h3>
166         <ul>
167             <li>GRE Score (out of 340)</li>
168             <li>TOEFL Score (out of 120)</li>
169             <li>University Rating (out of 5)</li>
170             <li>Statment of Purpose {SOP} (out of 5)</li>
171             <li>Letter of Recommendation {LOP} Strength (out
                of 5)</li>
172             <li>Undergraduate CGPA (out of 10)</li>
173             <li>Research Experience (Either 0 or 1)</li>
174
175         </ul>
176     </div>
177
178     <div class="col">
179         <div class="hide-md-lg">
180         </div>
181
182         <input type="number" name="GRE Score"
            placeholder="GRE Score" required="required" min="0" max="340"/>
183         <input type="number" name="TOEFL Score"
            placeholder="TOEFL Score" required="required" min="0" max="120"/>
184         <input type="number" name="University Rating"
            placeholder="University Rating" required="required" min="1"
            max="5"/>
185         <input type="number" name="SOP" placeholder="SOP"
            required="required" onkeypress="return check(event,value)"
            step="0.1" min="1" max="5"/>
186         <input type="number" name="LOR" placeholder="LOR"
            required="required" onkeypress="return check(event,value)"
            step="0.1" min="1" max="5"/>
187         <input type="number" name="CGPA"
            placeholder="CGPA" required="required" onkeypress="return
            check(event,value)" step="0.01" min="1" max="10"/>
```

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```
188         <input type="number" name="Research"
placeholder="Research" required="required" min="0" max="1"/>
189
190         <input type="submit" value="Predict"></input>
191
192         <h4 style="text-align:
center;">{{prediction_text}}</h4>
193     </div>
194 </div>
195 </form>
196 </div>
197
198 <div class="bottom-container" style=" padding:0px;" >
199     <div class="row" >
200         <marquee style="padding:0px; background:#000080;
height:50px; margin-block:0px;"><h3 style="color: white;">Model
Developed and Deployed by: Santhoshkumar K</h3></marquee>
201     </div>
202 </div>
203
204 </body>
205 </html>
206
```

## 7.3 Login.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title>University admission prediction System</title>
5     <link rel="icon" type="image/jpg"
href="https://png.pngtree.com/png-vector/20200211/ourmid/pngtree-
graduation-caps-vector-convocation-students-png-
image_2144286.jpg"> <link rel="stylesheet" type="text/css"
href="{{ url_for('static', filename = 'main.css') }}">
6 </head>
7 <body>
8
9     <!-- Icon -->
10     <!-- Login Form -->
```

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```
11     <form action="/result" method="POST">
12 <div class="wrapper fadeInDown">
13     <div id="formContent">
14         <!-- Tabs Titles -->
15         <h2 class="active"> Sign In </h2>
16         <a href="{{url_for('signup')}}"><h2 class="inactive
underlineHover">Sign Up </h2></a> <div class="fadeIn first">
17             
18         </div>
19
20         <input type="email" id="login" class="fadeIn second"
name="email" placeholder="email">
21         <input type="password" id="password" class="fadeIn third"
name="pass" placeholder="password">
22         <input type="submit" class="fadeIn fourth" value="Log In">
23         {{error}}
24     </form>
25 <!--
26 Will add in future
27     <div id="formFooter">
28         <a class="underlineHover" href="#">Forgot Password?</a>
29     </div>
30 -->
31 </div>
32 </div>
33 </body>
34 </html>
```

## SignUp.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title>University admission prediction System</title>
5     <link rel="icon" type="image/jpg"
href="https://png.pngtree.com/png-vector/20200211/ourmid/pngtree-
graduation-caps-vector-convocation-students-png-
image_2144286.jpg"> <link rel="stylesheet" type="text/css"
href="{{ url_for('static', filename = 'main.css') }}">
```

# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

```
6 </head>
7 <body>
8 <div class="wrapper fadeInDown">
9   <div id="formContent">
10     <!-- Tabs Titles -->
11     <a href="/"><h2 class="inactive underlineHover"> Sign In
</h2></a>
12     <h2 class="active">Sign Up </h2>
13
14     <!-- Icon -->
15     <div class="fadeIn first">
16       
17     </div>
18
19     <!-- Login Form -->
20     <form action="/register" method="POST">
21       <input type="text" id="login" class="fadeIn second"
name="name" placeholder="name">
22       <input type="email" id="login" class="fadeIn second"
name="email" placeholder="email">
23       <input type="password" id="password" class="fadeIn third"
name="pass" placeholder="password">
24       <input type="password" id="cpass" class="fadeIn second"
name="cpass" placeholder="Confirm Password">
25       <input type="submit" class="fadeIn fourth" value="Sign Up">
26       {{cerror}}
27     </form>
28
29   </div>
30 </div>
31 </body>
32 </html>
```

Chance.html

```
1 <html>
2 <head>
3 <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.0/dist/css/boots
```

# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

```
trap.min.css" rel="stylesheet" integrity="sha384-
gH2yIJqKdNHPEq0n4Mqa/HGKIhSkIHeL5AyhkYV8i59U5AR6csBvApHHNL/vI1Bx"
crossorigin="anonymous">
4 <meta charset="utf-8">
5     <meta name="viewport" content="width=device-width, initial-
scale=1">
6     <title>University admission prediction System </title>
7 <link rel="icon" type="image/jpg"
href="https://png.pngtree.com/png-vector/20200211/ourmid/pngtree-
graduation-caps-vector-convocation-students-png-
image_2144286.jpg">
8     <!--
9     <style >.center {
10     /*display: block;
11     margin-left:auto;
12     margin-right: auto;*/
13     width: 230px;
14     height: 161px;
15     padding-left:161px;
16     padding-top: 230px;
17 }
18 .body {
19     background-image: url('nochance_output.png');
20     background-repeat: no-repeat;
21     background-attachment: fixed;
22     background-size: cover;
23 }
24 </style>--></head>
25 <body >
26 <div class="row" >
27 <div class="col-md-6"><div class="col-md-12">
28     <h1 style="text-align: center;">You have a chance</h1>
29 
30 <h4 style="width: 750px;
31 height: 161px;
32 padding-left:161px;
33 padding-top: 75px;">{{prediction_text}}</h4></div></div><div
class="col-md-6"><div class="col-md-12">
```

# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

```
34
35 </div></div></div>
36
37 </body>
38 </html>
```

NoChance.html

```
1 <html>
2 <head>
3 <link
    href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.0/dist/css/boot-
    strap.min.css" rel="stylesheet" integrity="sha384-
    gH2yIjQKdNHPEq0n4Mqa/HGKIhSkIHeL5AyhkYV8i59U5AR6csBvApHhNL/vI1Bx"
    crossorigin="anonymous">
4 <meta charset="utf-8">
5     <meta name="viewport" content="width=device-width, initial-
    scale=1">
6     <title>University admission prediction System </title>
7 <link rel="icon" type="image/jpeg"
    href="https://png.pngtree.com/png-vector/20200211/ourmid/pngtree-
    graduation-caps-vector-convocation-students-png-
    image_2144286.jpg">
8 <!--
9 <style >.center {
10 /*display: block;
11 margin-left:auto;
12 margin-right: auto;*/
13 width: 230px;
14 height: 161px;
15 padding-left:161px;
16 padding-top: 230px;
17 }
18 .body {
19 background-image: url('nochance_output.png');
20 background-repeat: no-repeat;
21 background-attachment: fixed;
```

# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

```
22 background-size: cover;
23 }
24 </style>--></head>
25 <body >
26 <div class="row" >
27 <div class="col-md-6"><div class="col-md-12">
28   <h1 style="text-align: center;">You Dont have a chance</h1>
29 
30 <h4 style="width: 750px;
31 height: 161px;
32 padding-left:161px;
33 padding-top: 75px;">{{prediction_text}}</h4></div></div><div
   class="col-md-6"><div class="col-md-12">
34
35 </div></div></div></body>
36 </html>
```

University admission pn x + v

127.0.0.1:5000/result

## UNIVERSITY ADMISSION PREDICTION SYSTEM

In this project, I build a linear regression model to predict the chance of admission into a particular university based on student's profile.

**Instructions for Input Features**

- GRE Score (out of 340)
- TOEFL Score (out of 120)
- University Rating (out of 5)
- Statement of Purpose (SOP) (out of 5)
- Letter of Recommendation (LOR) Strength (out of 5)
- Undergraduate CGPA (out of 10)
- Research Experience (Either 0 or 1)

GRE Score

TOEFL Score

University Rating

SOP

LOR

CGPA

Research

Predict

# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

## 8. TESTING

### 8.1 Test Cases

| Serial No. | GRE Score | TOEFL Score | University Rating | SOP | LOR | CGPA | Research | Chance of Admit |
|------------|-----------|-------------|-------------------|-----|-----|------|----------|-----------------|
| 1          | 337       | 118         | 4                 | 4.5 | 4.5 | 9.55 | 1        | 0.92            |
| 2          | 324       | 107         | 4                 | 4   | 4.5 | 8.87 | 1        | 0.76            |
| 3          | 316       | 104         | 3                 | 3   | 3.5 | 8    | 1        | 0.72            |
| 4          | 322       | 110         | 3                 | 3.5 | 2.5 | 8.67 | 1        | 0.8             |
| 5          | 314       | 103         | 2                 | 2   | 3   | 8.21 | 0        | 0.65            |
| 6          | 330       | 115         | 5                 | 4.5 | 3   | 9.34 | 1        | 0.9             |
| 7          | 321       | 109         | 3                 | 3   | 4   | 8.2  | 1        | 0.75            |
| 8          | 308       | 101         | 2                 | 3   | 4   | 7.3  | 0        | 0.68            |
| 9          | 302       | 102         | 1                 | 2   | 1.5 | 8    | 0        | 0.5             |
| 10         | 323       | 108         | 3                 | 3.5 | 3   | 8.6  | 0        | 0.45            |
| 11         | 325       | 106         | 3                 | 3.5 | 4   | 8.4  | 1        | 0.52            |
| 12         | 327       | 111         | 4                 | 4   | 4.5 | 9    | 1        | 0.84            |
| 13         | 328       | 112         | 4                 | 4   | 4.5 | 9.1  | 1        | 0.78            |
| 14         | 307       | 109         | 3                 | 4   | 3   | 8    | 1        | 0.62            |
| 15         | 311       | 104         | 3                 | 3.5 | 2   | 8.2  | 1        | 0.61            |
| 16         | 314       | 105         | 3                 | 3.5 | 2.5 | 8.3  | 0        | 0.54            |
| 17         | 317       | 107         | 3                 | 4   | 3   | 8.7  | 0        | 0.66            |
| 18         | 319       | 106         | 3                 | 4   | 3   | 8    | 1        | 0.65            |
| 19         | 318       | 110         | 3                 | 4   | 3   | 8.8  | 0        | 0.63            |
| 20         | 303       | 102         | 3                 | 3.5 | 3   | 8.5  | 0        | 0.62            |
| 21         | 312       | 107         | 3                 | 3   | 2   | 7.9  | 1        | 0.64            |
| 22         | 325       | 114         | 4                 | 3   | 2   | 8.4  | 0        | 0.7             |
| 23         | 328       | 116         | 5                 | 5   | 5   | 9.5  | 1        | 0.94            |
| 24         | 334       | 119         | 5                 | 5   | 4.5 | 9.7  | 1        | 0.95            |
| 25         | 336       | 119         | 5                 | 4   | 3.5 | 9.8  | 1        | 0.87            |
| 26         | 340       | 120         | 5                 | 4.5 | 4.5 | 9.6  | 1        | 0.94            |
| 27         | 332       | 109         | 5                 | 4.5 | 3.5 | 8.8  | 0        | 0.76            |

### 8.2 User Acceptance Testing

User Acceptance Testing (UAT) is a type of testing performed by the end user or the client to verify/accept the software system before moving the software application to the production environment. UAT is done in the final phase of testing after functional, integration and system testing is done. The User Acceptance of this product is not surveyed enough to give a solid conclusion. The theoretical and hypothetical acceptance is calculated to be high enough to conclude that this product is usable and valuable.

## 9 RESULTS

### 9.1 Performance Metrics

The Performance is the Accuracy of the model trained.

The training accuracy of the model is 92%.

The testing accuracy of the model is 89%.




# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

University admission pr

127.0.0.1:5000/signup

SIGN IN

SIGN UP



name

email

password

Confirm Password


SIGN UP

University admission pr

127.0.0.1:5000/

SIGN IN

SIGN UP



email

password

LOG IN

# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR



You Dont have a chance



Admission chances are [0.94299409]

## 10. ADVANTAGES & DISADVANTAGES

### > ADVANTAGE

1. Know the percentage
2. Lower investigation
3. Provide Relevant Material
4. Reduce time consumption
5. Good user experience

### > DISADVANTAGE

1. Significant investments required
2. Inable to capture changes
3. Privacy concerns

## 11. CONCLUSION

We have successfully developed an application using python flask, HTML, CSS. By using the application we can predict whether we can get admission in the desired University or not.

## 12. FUTURE SCOPE

In future we would like to enhance the existing model in such a way that consumer feels the same way when purchasing in store using Virtual reality and other upcoming technologies. Research to improve the accuracy of the system is under progress.

# UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

## 13. APPENDIX Source Code GitHub & Project Demo Link

Project Link: <http://uaep277.herokuapp.com/>

github: <https://github.com/IBM-EPBL/IBM-Project-43234-1660714457>

