UNIVERSITY ADMIT ELIGIBILITY PREDICTOR

PROJECT REPORT

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BACHELOR OF ENGINEERING IN
ELECTRONICS AND COMMUNICATION
ENGINEERING



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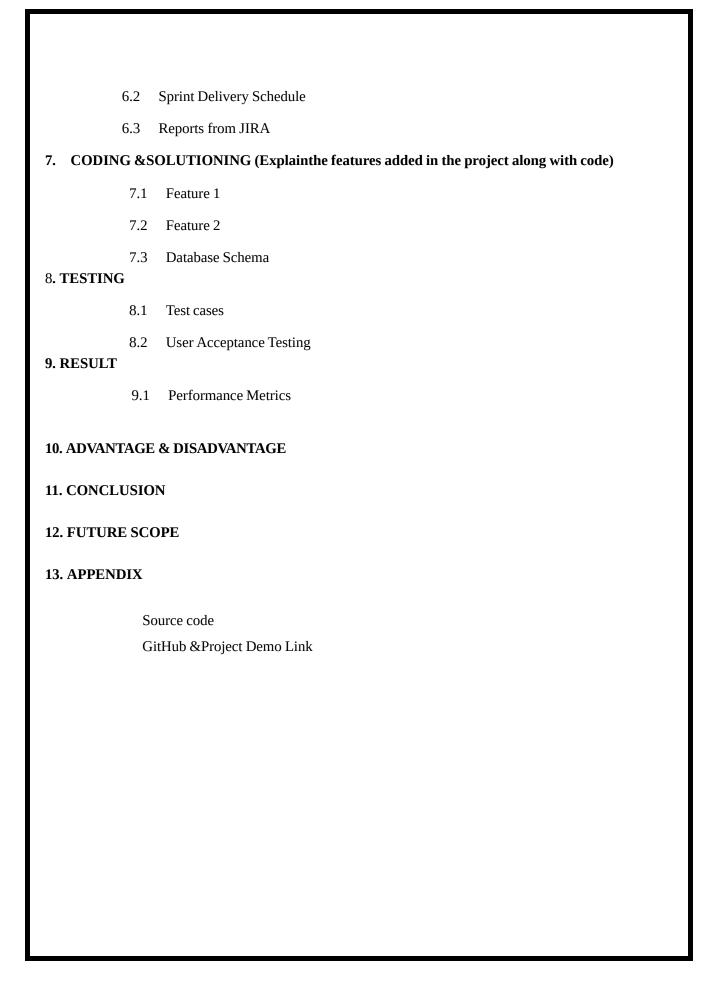
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1. INTRODUCTION

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.

1.2 PURPOSE:

It **helps student for making decision for choosing a right college**. Here the chance of occurrence of error is less when compared with the existing system.

LITERATURE SURVEY

YE	AUTHORS	OBJECTIV	METHODOLO	LIMITATIO
AR		ES	GY	NS
2017	Mr.Pierpao	The principle	Cross industry standard	Student
	lodondio	objective of	process (CRISP)	admission
		the research is	Methodology(Azevdo	predictor system
		to help the	2008) was followed in	will only take
		students	the research. Business	into
		whoare	understanding , data	consideration the
		aspiringto	understanding , data	datarelated to the
		pursue their	preparation , modelling ,	Indian students
		education in	evaluation and	pursuing masters
		the USA. The	deployment .	in computer
		SAP		sciencefrom
		system will		universities in the
		help them to		USA.
		evaluate the		
		chances of the		
		success in the		
		particular		
		university		
		without being		
		depended on		
		anyeducation		
		consultancy		
		firm.		
		It will help		
		them in saving		
		a huge amount		
		of time and		
		money spent in		
		the application		
		process .		
		process .		

2020	Mr.	Earlier	Earlier student	Despite the
	Jubail	studentperforman	performance	many
		ce prediction can	prediction can help	dedicated
		help universities to	decisionmakers to	softwaresthis
		provide	provide needed actions	is stillnot a
		timelyaction , like	at the right movement,	straight
		planning for	and to planning the	forward
		appropriate	appropriatetraining	
		training to improve	order to improve the	process,
		studentssuccess	student rate several	involving
		gate .	studies have been	many
		Exploring	published in using data	directions .
		educational data	mining methods to	
		can certainly helpin	predictstudents	
		achieving the	academic success.	
		desirededucational	One can observe	
		goals.(By applying	several levelstargeted.	
		EDM	~Degree Level	
		Techniques it is	Degree Level	
		possible to develop	~Year Level	
		prediction models	real Level	
		to improve student success), However	~Course Level	
		using data mining	Godise Level	
		techniques can be	~Exam Level	
		daunting and challenging for	DAGIII Devei	
		non-technical	In this study literature	
		person.	relatedto the exam	
			level is excludedas the	
			outcome of a single	
			exam does not	
			necessarilyimply	
			a negative	
			outcome.	

Problem Statement:

Now a days The students having a confusion to choosing the right college for their studies they have a confusion to list their choice of universities according to their marks. They must pay tremendous amounts of money in consulting feesfor this. The application university admit eligibility predictor is web-based application in which students can register with their personal as well as marks details for prediction the admission in colleges. By this application the studentsmaking decision for choosingand listed a prominent college.

Who doesthe problem affect?	Students		
What are the boundaries of	Counselling conducted in		
theproblem?	colleges,Online Websites.		
What is the issue?	The students have difficulty in		
	finding the best colleges with respect		
	to their marks.		
When doesthe issue occurs?	While searching for future studies the		
	students face issue.In counselling		
	also theyface this issue.		

Where is the issueoccurring?	The issue occurs among the students, searching for a good university and while attending the counselling.
Why is it important that we fix the problem?	By solving this issue, students can easily accessthe website and get a clear idea for choosing the best college for themwith their marks.

IDEATION & PROPOSED SOLUTION

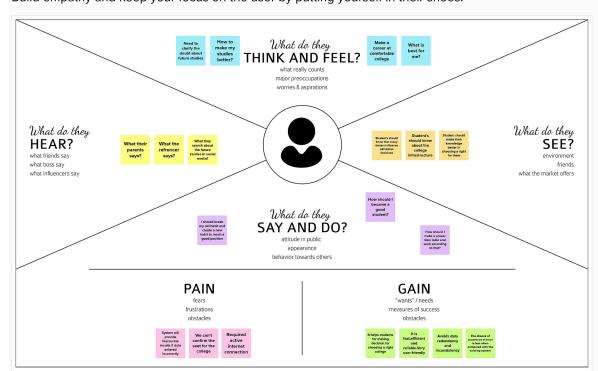
3.1 EMPATHY MAP CANVAS



Empathy Map Canvas

Gain insight and understanding on solving customer problems.

1 This empathy map is based on the project which helps the students in the admission process to their desired universities. Build empathy and keep your focus on the user by putting yourself in their shoes.



BRAINSTORMING:



Brainstorm

Write down any ideas that come to mind that address your problem statement.





Sugash.A Jeya Raman.M Murali kumar.B Ramkumar.B It helps It is fast, Information students for Easy to find Data Data **Query Box** making decision Free of cost efficient should be vaccancies **Analysis** Security is available for choosing a and reliable genuine right college Avoids data Notify on It is friendly The speed Accurate Very user-**Auto verify** Data preredundancy for user is accurate time Eligibility and genuiness friendly processing inconsistency View Easy Consistent More This can be feedback Help line is More to be **Fast Results** accessibility data Convenient implemented available known send by of data collection in less time

3.3 PROPOSED SOLUTION:

Date 24 September 2022	
Team ID	PNT2022TMID49628
Project Name	University Admit Eligibility Predictor

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to besolved)	Now a days the students are facing a difficulty in choosing a best and reputable college for their future studies according to their marks. A university admit eligibility predicator is a websitecan do it all with the click of a button. This website is used for astudents to clarify whether they are eligible or not for a university according to theirmarks.
2.	Idea / Solutiondescription	This website solvea students difficulty in findinga good college for their studies by calculating their cutoffand shows whetherthey are eligible or not for the universities listed by them.
3.	Novelty / Uniqueness	The website has a helpline where the users clear the queries and ML algorthmis to find betterresult.
4.	Social Impact / Customer Satisfaction	It will help the students to list their interested colleges and solve a difficulty in finding a good college for their studies.
5.	Business Model (Revenue Model)	We can collaborate with government and it can utilize the website to help the students who are want to know if they are eligible or not for the universities listed by them
6.	Scalability of the Solution	This application has capacity to handle largenumber of users at a same time.

3.4 PROBLEM SOLUTION FIT:

1. Customer Segments (CS)

Who is our target audience?

ű

- . The qualified students who have finished their undergraduate studies UG and are looking for a university To pursue their post-graduate studies
- · There are many students who require financial assistance and resources to pursue higher education

6. Customer Constraints (CC)

- . To look for the best-suited and most reasonably priced college that is accepting applications for higher
- . To allay a student's anxieties about money
- . To assist students in connecting with the college admissions
- . The current options fall short of accomplishing the goal entirely. They don't meet the necessary requirements that must be taken into account when determining if admission to the targeted university is likely to be successful.
- · Lacks scalability and dynamic character.
- . Insufficient training data.
- . Lack of advanced concepts like logistic and polynomial regression, among other machine learning methods.

5. Available Solutions

- · Lacks dynamic character and scalability
- · Not enough training data
- · Lack of sophisticated ideas like polynomial andlogistic regression among other machine learning techniques

Þ.S differme

2. Jobs To Be Done / Problems

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one-explore different

- The primary goal is to develop a method for anticipating university Admission and to present a probabilistic picture of
- The primary goal is to develop a method for anticipating university admission and to present a probabilistic picture of institution ranking, cutoffs, intake, and student preferences.
- Students will be provided a list of colleges to which they may be admitted so that they may choose from the list.

3. Triggers

· Students commonly experience anxiety and worry related to their chances of being accepted into their preferred colleges

4. Emotions: Before and After

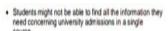
un certainity and lack of knowledge of the

· After secure approachable and cognizant of

potential universities.

processes reduced cost and does not rule out

5. Problem Root Cause (RC)



. Even though the admission standards of the institutions may not be compatible with the information provided by agents, who may use misleading information, a student could obtain false information about their likelihood of admission by looking at the eligibility requirements from the previous year.

7. Behaviour

What does your client do to solve the issue and complete the task? Find the best solar panel installer, estimate usage, and weigh the advantages; indirect relationship: clients volunteer during downtime (i.e. Oneen peace)

. The student will try to visit every university where he or she hopes to be admitted and will contact the present students

10. Your Solution

- · To choose institutions where applying for admission makes sense in order to pursue higher education, the objective is to invest less time, money, and effort.
- The system is fed data about a student's academic performance including their GPA, TOEFL, and GRE scores as well as their resumes, LORs, and SOPs.

8. Channels of Behaviour

The students can research the colleges they want to attend online and gather the essential information.

This is a lengthy process that might omit several intriguing

To get admission information, personally visit your top universities

· Prior failure to select the ideal university owing to

REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENTS:

FR No.	Functional Requirement	Sub Requirement (Story/ Sub-Task)
	(Epic)	
FR-1	User Login	Login into the application
FR-2	User filling the Required details	 Enter the grade&CGPA Enter the University ratings and otherdetails.
FR-3	Analyzing	 Analysis user credentials and compare withuniversities criteria.
FR-4	predicting	Predicting the probability for getting admissions in the universitis by analysing various machine learning algorithms.

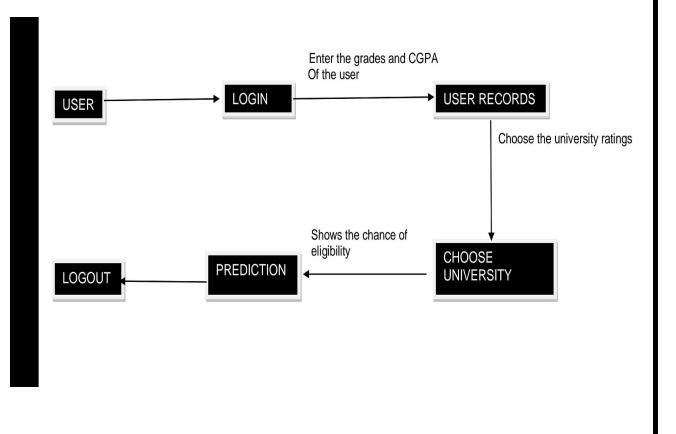
Non-functional Requirements:.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	
		 No training is required to use
		thewebsite.
		The form, home, about, FAQ
		andanalysis pages load up
		within 10 seconds.
		The results from the predictor
		shouldnot take morethan 30
		seconds.

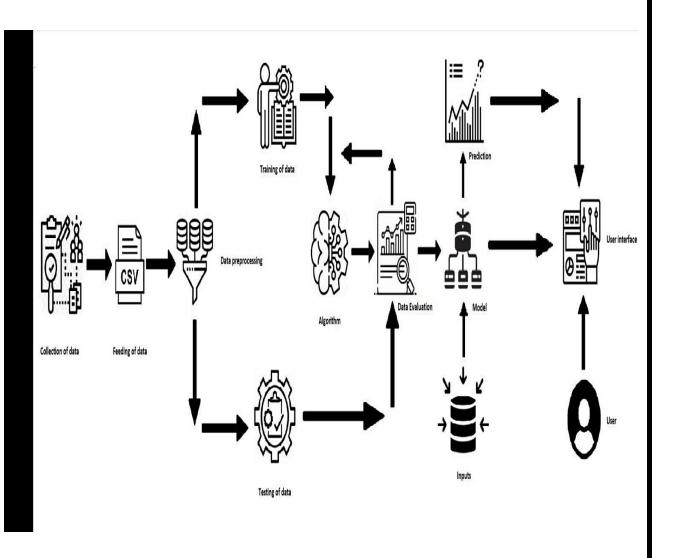
NFR-2	Security	
		 The system shall provide passwordprotected access to the website to allusers students and admins.
NFR-3	Reliability	 The system shall be completely operational all hours of the day unless system failure or upgrade work is to be performed Down timeafter a failureshall not exceed24 hours .
NFR-4	Performance	The mean time to view a web pageover a 56kbps modern connection shallnot exceed 5 seconds.
NFR-5	Availability	 Users willbe able to access the system predictor at any time, anyplace, as needed.
NFR-6	Scalability	 It can handle any amount of data and perform manycomputations in a cost effective and time-saving way.

PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS:



5.2 SOLUTION AND TECHNICALARCHIETECTURE:



User Stories

User Type	Functional Requir ement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
customer	Login	USN-1	As a user, I can log into the application.	I can enter into the homepage	High	Sprint-1
	Input	USN-2	As a user, I can enter my marks, qualifications andother requirements.	I can enter my details/requir ements	High	Sprint-2
		USN-3	As a user,I can choose the University Ratings	I can select the UniversityRatings	High	Sprint-3
	Output	USN-4	As a user ,I can see thechance of Eligibility	I can see the chance of Eligibility	High	Sprint-4
Custom er Care Executi ve	Customer care	USN-5	As an executive, I can solvethe queries andissues.	I can give my support	Low	Sprint-4
Administr ator	Application	USN-6	As an administrator, I can upgrade or update theapplication.	I can modify andimprovethe application	High	Sprint-4

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	Index page	USN-1	As a user, I can log into the application .	1	High	Murali kumar,Ram Kumar,Sugash, Jeyaraman
Sprint-1	Data Collection	USN-2	Gathering the information fromvarious resources	1	Medium	Murali kumar,Ram Kumar,Sugash, Jeyaraman
Sprint-1	Data Preprocessing	USN-3	To Convert and cleanthe raw data	2	High	Murali kumar,Ram Kumar,Sugash, Jeyaraman
Sprint-2	Model Building	USN-4	Using cleaned dataset, Model can be build usingML Algorithm	2	High	Murali kumar,Ram Kumar
Sprint-2		USN-5	Training the classification model	1	High	Sugash, Jeyaraman
Sprint-3	Application Building	USN-6	Building Python code and run the application	1	Medium	Murali kumar,Ram Kumar,Sugash, Jeyaraman
Sprint-3		USN-7	Predicted Resulthas shown to the user	1	Medium	Murali kumar,Ram Kumar,Sugash, Jeyaraman
Sprint-4	Implementation oftheapplication and deployment on cloud	USN-8	Deployed on IBM Cloud	2	High	Murali kumar,Ram Kumar,Sugash, Jeyaraman

MILESTONE & ACTIVITYLIST:

• **PLANNING: Duration:**4 days

• We must plan all the modules which is necessary for our project.

• **REQUIREMENTS: Duration:**3 days

• We must decide what are the softwareand tools we need and install the required process.

• **DESIGN**: **Duration**:6 days

 In our projectWe must design all the modules like login, registration, dashboard,academic details of the user, upload files.

• **DEVELOPMENT: Duration:**1 week

 We are going to develop the predictor which uses the previous dataset and academicdetails of the user. In this phase we will use some algorithms for prediction process.

• **TESTING**: **Duration**:3 day

• Before submitting the project, we must checkout all the modules whether it has error not.

• **DEPLOYMENT: Duration:**2 days

• After finishing all process of our projectthen we must submit our project in GitHub.

6.2 SPRINT DELIVERY SCHEDULE:

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

6.3 REPORTS FROM JIRA:

	T NOV	DEC
Sprints	UAEP UAEP UAEP	
> UAEP-1 Index page		
> UAEP-2 Data Collection		
> UAEP-3 Data Preprocessing		
> UAEP-4 Model Building		
> UAEP-5 Classification		
> UAEP-6 Application Building		
> UAEP-7 Prediction		
> UAEP-8 Implementation of the application and depl		

CODING & SOLUTIONING

7.1 FEATURE 1:

The new feature will predict the chances in the admission of the university. Thefeaturewas designed in the html code connected with app.py as the backend.



Source Code:

```
The model has predicted that you have <strong></strong> chance
<a href="/home" class="btn btn-primary">Go Back</a>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
```

7.1 FEATURE 2:

The new feature will predict the low chances in the admission of the university. The feature was designed in the html code connected with app.py as the backend.



Source Code:

{% extends 'index.html' %} {% block body %}

<div class="container text-center p-4">

TESTING

8.1 Test Cases:

8.2 User Acceptance Testing:

Purpose of Document:

The purpose of this document is to briefly explain the test coverage and open issues of the [Early detection of forest fire using Deep Learning] project at the time of the release to User Acceptance Testing (UAT).

Defect Analysis:

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

Resoluti on	Severity 1	Severity 2	Severity 3	Severity 4	Subtotal
By Design	10	4	2	3	19
Duplicate	0	0	0	0	0
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reprodu ced	0	0	0	0	0
Skipped	0	0	1	1	2
Won't Fix	0	0	0	0	0
Totals	24	14	13	26	64

Test Case Analysis:

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

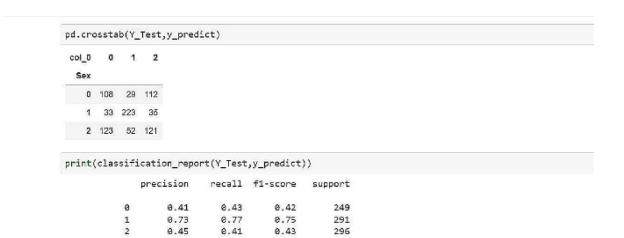
Section	Total Cases	Not Tested	Fail	Pass
Print Engine	7	0	0	7
Client Application	51	0	0	51
Security	2	0	0	2
Outsource Shipping	3	0	0	3
	9	0	0	9
Exception Reporting				
Final ReportOutput	4	0	0	4
Version Control	2	0	0	2

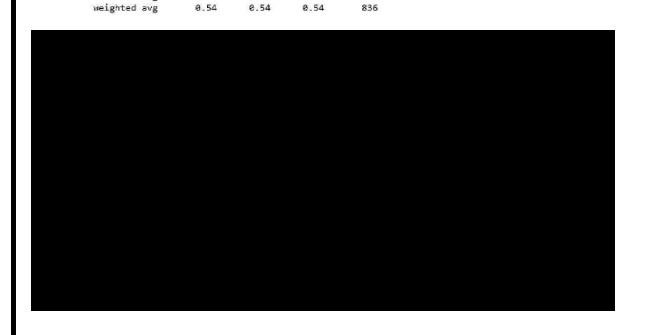
RESULTS

9.1 PERFORMANCSEMETRICS:

accuracy macro avg

Measure the performance using matrices





0.54

0.54

0.53

0.53 0.54

0.54

0.54

836

836

ADVANTAGES & DISADVANTAGES

Advantages

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

DisAdvantages

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

CONCLUSION

This system ,being the first we have created in Python using ML algorithms and other front end languages such as html, css, java script , has proven more difficult than originally imagined. While it may sound simple to fill out a few forms and process the information, much more is involved in the selection of applicants than this. Every time progress was made and features were added, ideas for additional features or methods to improve theusability of the system made themselves apparent. Overall, the system performs well, and while it does not include all of the features that may have been desired, it lives up to initial expectations. The majority of features that are includedwork flawlessly and the errorsthat do exist are minoror graphical.

FUTURE SCOPE

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

This can be accessed anytime anywhere, since it is a web application provided onlyan internet connection.

The user had not need to travel a long distance for the admission and his/her timeis also saved as a result of this automated system.

This can be implemented in less time for proper admission process.

APPENDIX
SOURCE CODE:
Our project source code: link:http://localhost:8888/notebooks/Desktop/New%20folder/Final%20Delivera bles/university%20admit%20eligibility%20predictor.ipynb
Our Githublink: https://github.com/IBM-EPBL/IBM-Project-25257-1659956392
Demo video link: https://www.youtube.com/embed/c-FbbB7u2H4