

**UNIVERSITY ADMIT ELIGIBILITY PREDICTOR**

**PROJECT REPORT**

*Submitted by*

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*In partial fulfillment for the award of the degree*

*of*

**BACHELOR OF ENGINEERING**

in

**COMPUTER SCIENCE AND ENGINEERING**

**SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY**

**COIMBATORE**

(An Autonomous Institution)



(Approved by AICTE and Affiliated to Anna University,  
Chennai)

ACCREDITED BY NAAC WITH “A” GRADE

**NOVEMBER 2022**

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**BONAFIDE CERTIFICATE**

Certified that this project report “**UNIVERSITY ADMIT ELIGIBILITY PREDICTOR**” is the bonafied work of “**Logeshkumar R (19EUCS074), Manjunathan V (19EUCS080), Mohana Sowdesh R (19EUCS091), Naveen Anend S (19EUCS098)**” who carried out the project work under my supervision.

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This project report is submitted for the autonomous project viva-voice examination held on .....

**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 PROJECT OVERVIEW**

The project is implemented using a Machine-Learning model that predicts whether the user is eligible for an admission in the selected rated universities with provided details such as marks and others. The algorithm works in such a way that when the user provides the details such as (GRE Score, TOEFL Score, University Rating, SOP, LOR, CGPA, Research) the percentage of chance of admit is displayed. The user is provided with a UI (Web based application) in which the user can enter the details mentioned above for prediction. The main advantage of this is that the user can avoid long process of having to check the eligibility of a university admission by himself and make use of this application to predict the eligibility / chance of admit.

### **1.2 PURPOSE**

University and College research being one part of the university application process is itself an arduous and lengthy task. This issue is a big problem for students have not been solved till now. There are recognized sites which filter the best universities and colleges based on the location, tuition fees, major and degree but none of them have use machine learning algorithm to solve the issue.

Hence, we have done this research project to solve that issue to some extent with the use of data mining techniques.

## **CHAPTER 2**

### **LITERATURE SURVEY**

#### **2.1 EXISTING PROBLEM**

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

#### **2.2 REFERENCES**

- [1] Graduate Admission Prediction Using Machine Learning by Sara Aljasmi, Department of Computer Science, University of Sharjah
- [2] M. S. Acharya, A. Armaan, and A. S. Antony, "A Comparison of Regression Models for Prediction of Graduate Admissions," Kaggle, 2018.
- [3] A. B. Nassif, "Software Size and Effort Estimation from Use Case Diagrams Using Regression and Soft Computing Models," University of Western Ontario, 2012.
- [4] N. Chakrabarty, S. Chowdhury, and S. Rana, "A Statistical Approach to Graduate Admissions' Chance Prediction," no. March, pp. 145–154, 2020.
- [5] N. Gupta, A. Sawhney, and D. Roth, "Will i Get in? Modeling the Graduate Admission Process for American Universities," IEEE Int. Conf. Data Min. Work. ICDMW, vol. 0, pp. 631–638, 2016.
- [6] A. Waters and R. Miikkulainen, "GRADE : Graduate Admissions," pp. 64–75, 2014
- [7] S. Sujay, "Supervised Machine Learning Modelling & Analysis for Graduate Admission Prediction," vol. 7, no. 4, pp. 5–7, 2020.

## **2.3 PROBLEM STATEMENT DEFINITION**

Every year thousands of college graduates apply for the master and PhD programs in US universities from all around the world. Applying to US universities is not an easy task, it involves many steps and procedures to follow. Choosing the right universities or colleges is definitely another hurdle students have to face. Many students apply for the universities in which they have little chance of acceptance. This leads students of poor economic backgrounds to frustration and anxiety as they only lose surplus amount of money just for applying to those universities. This is because overall university application cost is not affordable for students with low economic backgrounds. US universities application cost for top level universities range from \$70 to \$90. In the same way total cost to send GRE scores to any individual University is \$27 and cost of sending TOEFL score to any individual university is \$19. These stats show students have to throw away lots of hard works and hard-earned money for nothing if they got rejected in universities they have applied for.

What if there is a system that could guide students and recommend best universities list and predict their admission chance in those universities according to their profile and scores. So, the idea behind 'University Recommendation and Admission Prediction System' is the context mentioned above.



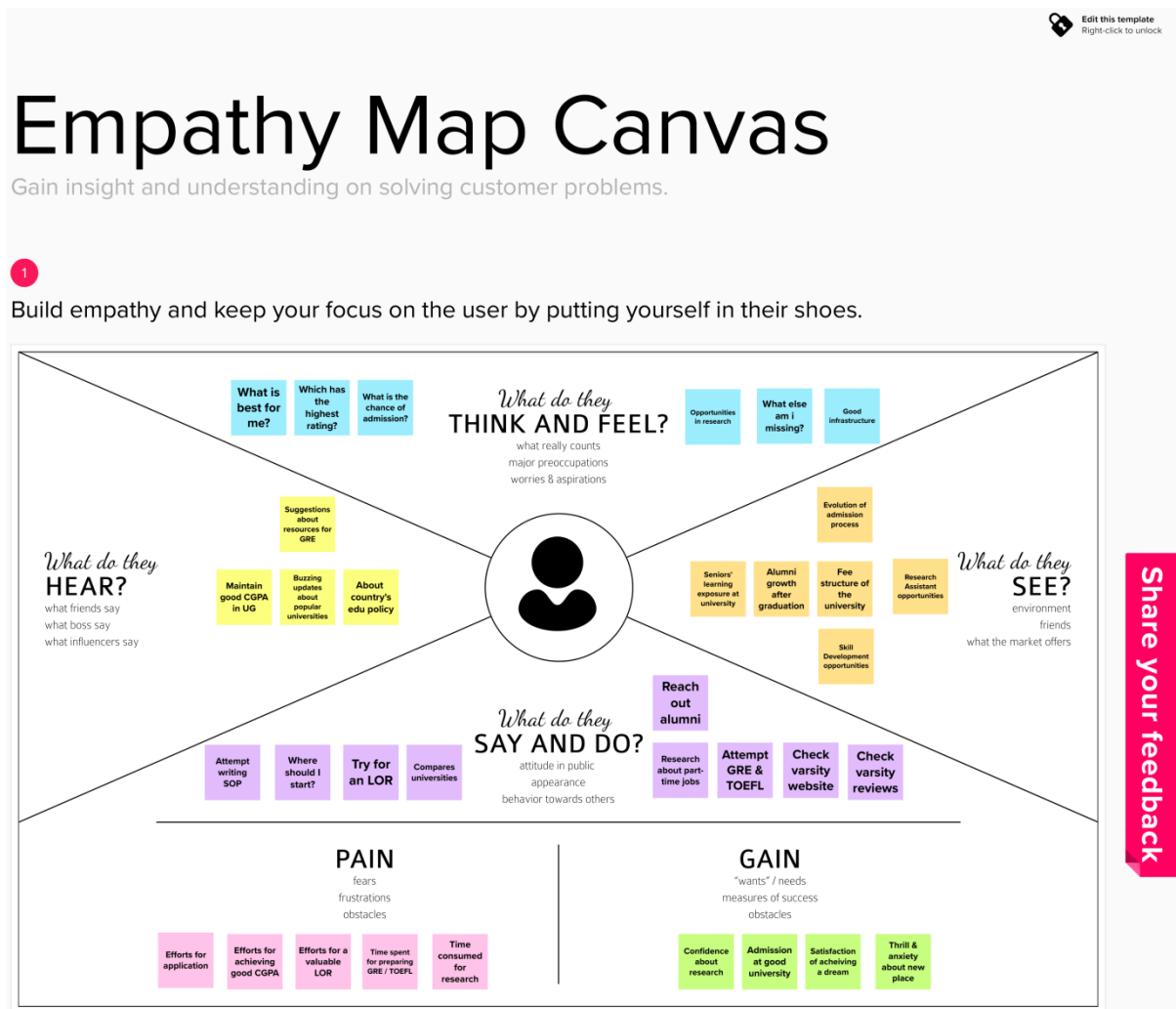
## CHAPTER 3

### IDEATION & PROPOSED SOLUTION

#### 3.1 EMPATHY MAP CANVAS

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes.


- It is a useful tool to help teams better understand their users.
- Creating an effective solution requires understanding the true problem and the person who is experiencing it.
- This exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.



## 3.2 IDEATION & BRAINSTORMING

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

### Step-1: Team Gathering, Collaboration and Select the Problem Statement



## Brainstorm & idea prioritization

Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

- 🕒 10 minutes to prepare
- 🕒 1 hour to collaborate
- 👥 2-8 people recommended

**➔ Before you collaborate**

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕒 10 minutes

---

**A Team gathering**  
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

**B Set the goal**  
Think about the problem you'll be focusing on solving in the brainstorming session.

**C Learn how to use the facilitation tools**  
Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) ➔

**1 Problem statement**

To predict the opportunity of a student to get admitted to a master's program in a university

🕒 5 minutes

---

**PROBLEM**

How might we predict the admissibility of a student in a university?

**Key rules of brainstorming**

To run a smooth and productive session

🗣️ Stay in topic.	💡 Encourage wild ideas.
🕒 Defer judgment.	👂 Listen to others.
🗣️ Go for volume.	👁️ If possible, be visual.

### Step-2: Brainstorm, Idea Listing and Grouping

### Brainstorm

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

10 minutes

### Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. In the last 10 minutes, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

#### Suggestorator

1. Suggestorator	2. Suggestorator
3. Suggestorator	4. Suggestorator
5. Suggestorator	6. Suggestorator
7. Suggestorator	8. Suggestorator
9. Suggestorator	10. Suggestorator

#### Mohamoud Dashboard

1. Mohamoud Dashboard	2. Mohamoud Dashboard
3. Mohamoud Dashboard	4. Mohamoud Dashboard
5. Mohamoud Dashboard	6. Mohamoud Dashboard
7. Mohamoud Dashboard	8. Mohamoud Dashboard
9. Mohamoud Dashboard	10. Mohamoud Dashboard

#### Marginalization

1. Marginalization	2. Marginalization	3. Marginalization
4. Marginalization	5. Marginalization	6. Marginalization
7. Marginalization	8. Marginalization	9. Marginalization
10. Marginalization	11. Marginalization	12. Marginalization

#### November Journal

1. November Journal	2. November Journal
3. November Journal	4. November Journal
5. November Journal	6. November Journal
7. November Journal	8. November Journal
9. November Journal	10. November Journal

#### Front end

1. Front end	2. Front end
3. Front end	4. Front end
5. Front end	6. Front end
7. Front end	8. Front end
9. Front end	10. Front end

#### Home page

1. Home page	2. Home page
3. Home page	4. Home page
5. Home page	6. Home page
7. Home page	8. Home page
9. Home page	10. Home page

#### Menu bar

1. Menu bar	2. Menu bar
3. Menu bar	4. Menu bar
5. Menu bar	6. Menu bar
7. Menu bar	8. Menu bar
9. Menu bar	10. Menu bar

#### Admission

1. Admission	2. Admission
3. Admission	4. Admission
5. Admission	6. Admission
7. Admission	8. Admission
9. Admission	10. Admission

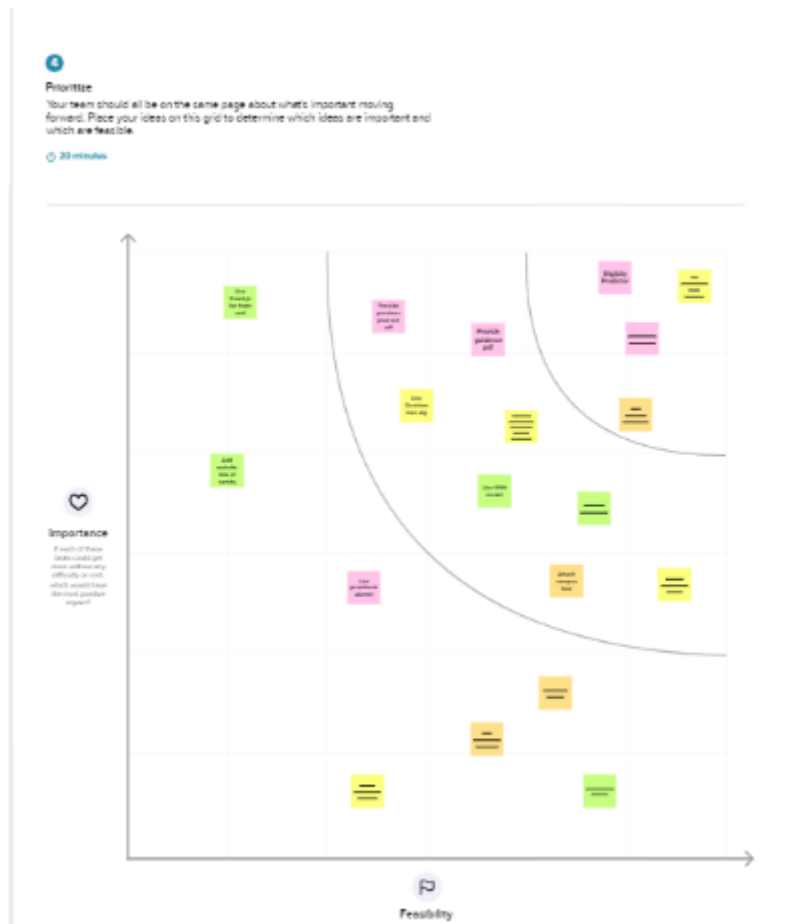
#### Analytics

1. Analytics	2. Analytics
3. Analytics	4. Analytics
5. Analytics	6. Analytics
7. Analytics	8. Analytics
9. Analytics	10. Analytics

#### Analytics

1. Analytics	2. Analytics
3. Analytics	4. Analytics
5. Analytics	6. Analytics
7. Analytics	8. Analytics
9. Analytics	10. Analytics

### Step-3: Idea Prioritization



### 3.3 PROPOSED SOLUTION

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	To predict the probability of a student to get admitted in a master's program in a university
2.	Idea / Solution description	Our project will help UG graduates in short-listing universities for their masters with their CGPA, GRE, TOEFL scores. The predicted output will give them a fair idea about their admission chances in a particular university. This analysis will also help students who are currently preparing or will be preparing to get a better idea. It will students to know more about university in terms of research opportunities, admission process, courses offered and prominent alumni of the university.

3.	Novelty / Uniqueness	The website lists various amenities present at the university, guides to travel to the city where university is situated, scholarship opportunities, GRE/TOEFL prep guide and financial assistance
4.	Social Impact / Customer Satisfaction	This solution will reduce panic among students and their anxiety of getting admitted in their dream institution
5.	Business Model (Revenue Model)	University shall fund the website in order to maintain it. In addition, revenue can be generated by advertising GRE/TOEFL coaching centres/sites
6.	Scalability of the Solution	A future update shall have chat space comprising aspirants, faculty, current students and alumni. It can be scaled for universities all around the world.

### 3.4 PROBLEM SOLUTION FIT

The Problem-Solution Fit simply means that we have found a problem with our customer and that the solution we have realized for it actually solves the customer's problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why.

#### **Purpose:**

- ☐ Solve complex problems in a way that fits the state of your customers.
- ☐ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ☐ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ☐ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ☐ Understand the existing situation in order to improve it for your target group.

Define CS, fit into CC	<div>1. CUSTOMER SEGMENT(S) Who is your customer? i.e. working parents of 0-5 y.o. kids</div> <div>1. UG graduate students 2. Parents of UG graduate students 3. Currently UG pursuing students</div>	<div>6. CUSTOMER CONSTRAINTS What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.</div> <div>Students don't try exploring because of the lack of network and guidance</div>	<div>5. AVAILABLE SOLUTIONS Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros &amp; cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking.</div> <div>1. Travel to the university to get information 2. Paid career coach 3. Paid educators</div>	Explore AS, differentiate
	<div>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 sides.</div> <div>Predict the chance of admission of a UG student in a university through GPA, SAT, GRE/TOEFL scores</div>	<div>9. PROBLEM ROOT CAUSE What is the real reason that this problem exists? What is the back story behind the need to do this job? i.e. customers have to do it because of the change in regulations.</div> <div>Students have to pursue higher education for 1. A better job with great salary 2. Research</div>	<div>7. BEHAVIOUR What does your customer do to address the problem and get the job done? i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)</div> <div>1. Speak to people regarding admission process at abroad 2. Search websites, blogs regarding the university 3. Reach out to alumni of the desired university</div>	
Focus on J&P, tap into BE, understand RC	<div>3. TRIGGERS What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.</div> <div>The seniors, cousins of students are the main motivation for students to fly abroad for higher education. Job opportunities with fancy salary are yet another trigger.</div>	<div>10. YOUR SOLUTION If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.</div> <div>Our solution will help UG graduates in short-listing universities for their masters with their CGPA, GRE, TOEFL scores. The predicted output will give them a fair idea about their admission chances in a particular university. This analysis will also help students who are currently preparing or will be preparing to get a better idea. It will students to know more about university in terms of research opportunities, admission process, courses offered and prominent alumni of the university.</div>	<div>8. CHANNELS of BEHAVIOUR 8.1 ONLINE What kind of actions do customers take online? Extract online channels from #7 8.2 OFFLINE What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</div> <div>Online 1. Talk with friends, relatives, alumni 2. Read blogs Offline 1. Reach out a career coach 2. Search for books relating to university</div>	EM & TR strong identify
Identify strong TR & EM	<div>4. EMOTIONS: BEFORE / AFTER How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure &gt; confident, in control - use it in your communication strategy &amp; design.</div> <div>Before using the tool, students will be anxious. After the tool usage, students will be either excited of moving to new arena or motivated to score high</div>			

## CHAPTER 4

### REQUIREMENT ANALYSIS

#### 4.1 FUNCTIONAL REQUIREMENT

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Calculate admission predictability	Enter GPA, TOEFL, GRE scores
FR-2	Check information about university	Check previous year cut-off
FR-3	Check information about prominent alumni	Access the community channel containing professors, current students and alumni
FR-4	Watch campus tour	Check guide for visa application and other procedures
FR-5	Check financial assistance tab	Check scholarship eligibility and application procedure

#### 4.2 NON-FUNCTIONAL REQUIREMENT

Following are the non-functional requirements of the proposed solution.

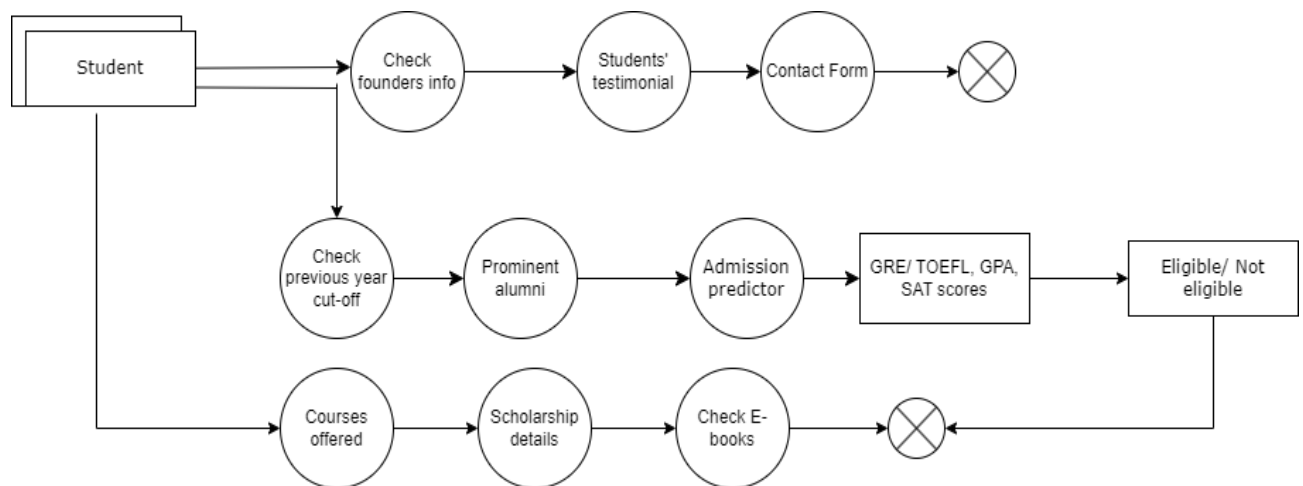
FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The UI/UX enhances the user experience. The entire journey of the customer throughout the application will be hustle free making it a smooth experience for the user.
NFR-2	<b>Security</b>	It is safe to use this application since no user data is stored
NFR-3	<b>Reliability</b>	The system will give accurate and reliable results 98 percent of the times.
NFR-4	<b>Performance</b>	The landing page supporting 1000 users per hour must provide 6 second or less response time in a Chrome desktop browser, including the rendering of text and images and over an LTE connection
NFR-5	<b>Availability</b>	The admission predictor will be available to users 99.98 percent of the time every month.
NFR-6	<b>Scalability</b>	The system must be scalable enough to support 1,000,000 visits at the same time while maintaining optimal performance.

## CHAPTER 5

### PROJECT DESIGN

#### 5.1 DATA FLOW DIAGRAM

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

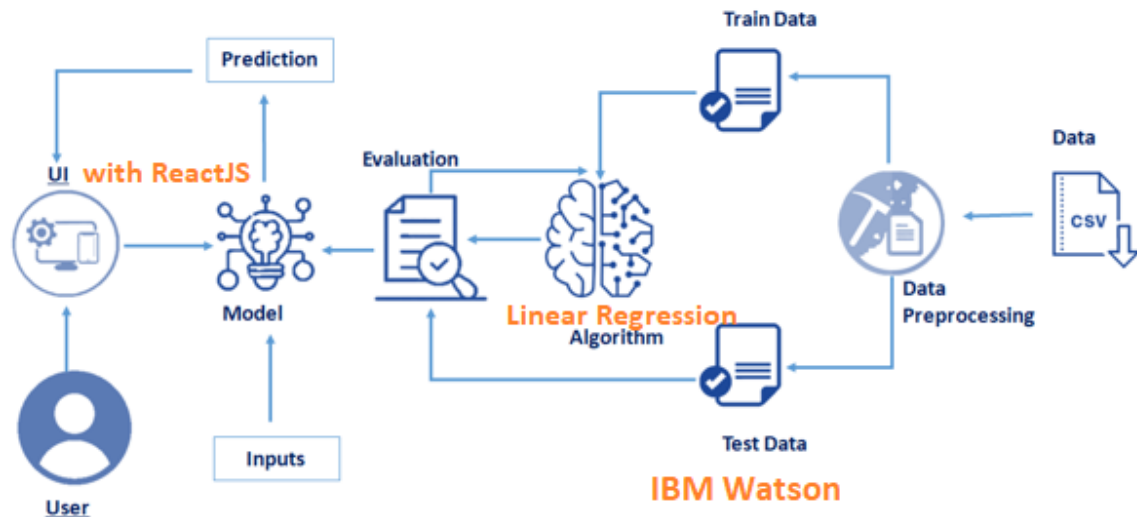


#### 5.2 SOLUTION & TECHNICAL ARCHITECTURE

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, behaviour, 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.





The UI will be developed with React JS. The model will be built using Linear Regression algorithm for good accuracy.

### 5.3 USER STORIES

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Release
Customer	Landing page	USN-1	As a user, I can view the details about the university	Sprint-1
		USN-2	As a user, I can view the latest news about the university	Sprint-1
		USN-3	As a user, I can fill the contact form for queries	Sprint-2
		USN-4	As a user, I can see the social media profiles of the university	Sprint-1
		USN-5	As a user, I can see testimonials of students who graduated from the university	Sprint-1
	Admissions	USN-6	As a user, I can see the previous year cut-off marks	Sprint-2
		USN-7	As a user, I can read about proud alumni of the university	Sprint-2
		USN-8	As a user, I can predict my eligibility for admission at the university	Sprint-2
	Courses offered	USN-9	As a user, I can see the courses offered by the university for PG students	Sprint-3
	Events	USN-10	As a user, I can check various technical events about to happen in the university	Sprint-3

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Release
	E-books	USN-11	As a user, I can download and read e-books relating to visa formalities	Sprint-3
	Scholarship	USN-12	As a user, I shall find resources regarding scholarship availability	Sprint-4
	Test prep materials	USN-13	As a user, I can download and read GRE, TOEFL test preparation materials	Sprint-4
Administrator	Landing page	USN-14	As an administrator, I shall update the news about the university	Sprint-4
	Events	USN-15	As an administrator, I can update the list of activities to be hosted	Sprint-4

## CHAPTER 6

### PROJECT PLANNING & SCHEDULING

#### 6.1 SPRINT PLANNING & ESTIMATION

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story points	Team Members
Sprint-1	Landing page	USN-1	As a user, I can view the details about the university	8	Manjunathan, Mohana Sowdesh
Sprint-1		USN-2	As a user, I can view the latest news about the university	2	Logeshkumar, Naveen Anend
Sprint-2		USN-3	As a user, I can fill the contact form for queries	2	Mohana Sowdesh, Logeshkumar
Sprint-1		USN-4	As a user, I can see the social media profiles of the university	5	Manjunathan, Mohana Sowdesh
Sprint-1		USN-5	As a user, I can see testimonials of students who graduated from the university	5	Logeshkumar, Naveen Anend
Sprint-2	Admissions	USN-6	As a user, I can see the previous year cut-off marks	8	Mohana Sowdesh, Logeshkumar
Sprint-2		USN-7	As a user, I can read about proud alumni of the university	5	Manjunathan, Mohana Sowdesh
Sprint-2		USN-8	As a user, I can predict my eligibility for admission at the university	5	Naveen Anend, Logeshkumar
Sprint-3	Courses	USN-9	As a user, I can see the courses offered by the university for PG	5	Logeshkumar, Naveen Anend

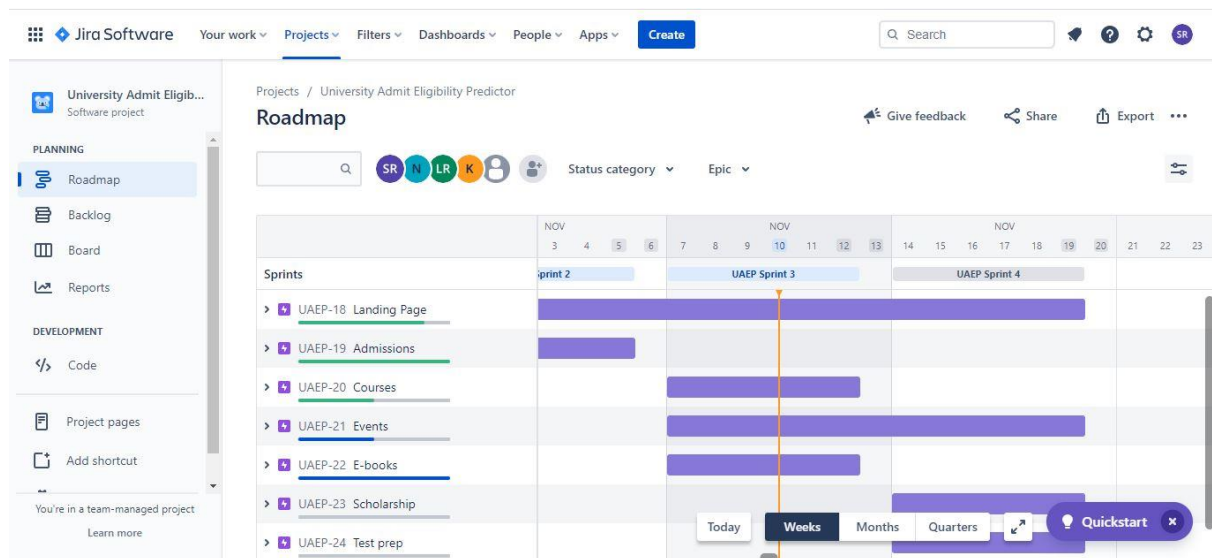
<b>Sprint</b>	<b>Functional Requirement (Epic)</b>	<b>User Story Number</b>	<b>User Story / Task</b>	<b>Story points</b>	<b>Team Members</b>
			students		
Sprint-3		USN-10	As a user, I can see the research facilities at the university	5	Logeshkumar, Mohana Sowdesh
Sprint-3	Events	USN-11	As a user, I can check various technical events about to happen in the university	5	Naveen Anend, Mohana Sowdesh
Sprint-3	E-books	USN-12	As a user, I can download and read e-books relating to visa formalities	5	Naveen Anend, Manjunathan
Sprint-4	Scholarship	USN-13	As a user, I shall find resources regarding scholarship availability	8	Mohana Sowdesh, Logeshkumar
Sprint-4	Test prep	USN-14	As a user, I can download and read GRE, TOEFL test preparation materials	5	Manjunathan, MohanaSowdesh
Sprint-4	Landing page	USN-15	As an administrator, I shall update the news about the university	5	Logeshkumar, Manjunathan
Sprint-4	Events	USN-16	As an administrator, I can update the list of activities to be hosted	2	Logeshkumar, Naveen Anend

## 6.2 SPRINT DELIVERY SCHEDULE

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

## 6.3 REPORTS FROM JIRA

### Roadmap



# Scrum board

Jira Software

Your work

Projects

Filters

Dashboards

People

Apps

Create

Q Search

🔊

?

⚙️

SR

University Admit Eligib...  
Software project

PLANNING

Roadmap

Backlog

**Board**

Reports

DEVELOPMENT

Code

Project pages

Add shortcut

You're in a team-managed project  
Learn more

Does your team need more from Jira? [Get a free trial of our Standard plan.](#)

Projects / University Admit Eligibility Predictor

All sprints

🔗 ☆ ⌚ 0 days remaining **Complete sprint** ⋮

Q

SR N LR K

👤

Epic

Sprint

GROUP BY: None

📊 Insights

TO DO 1 ISSUE

As a user, I can see the research facilities at the university  
COURSES  
UAEP-25 5 SR

IN PROGRESS 2 ISSUES

As a user, I can download and read e-books relating to visa formalities  
E-BOOKS  
UAEP-13 5 K

As a user, I can check various technical events about to happen in the university  
EVENTS  
UAEP-12 1

DONE 9 ISSUES ✓

As a user, I can predict my eligibility for admission at the university  
ADMISSIONS  
UAEP-9 5 1

As a user, I can fill the contact form for queries  
LANDING PAGE  
UAEP-10 2 LR

**Quickstart** ✕

# Backlogs

Jira Software

Your work

Projects

Filters

Dashboards

People

Apps

Create

Q Search

🔊

?

⚙️

SR

University Admit Eligib...  
Software project

PLANNING

Roadmap

**Backlog**

Board

Reports

DEVELOPMENT

Code

Project pages

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Projects / University Admit Eligibility Predictor

Backlog

🔗 ☆ ⌚ 0 days remaining **Complete sprint** ⋮

Q

SR K LR N

👤

Epic

GROUP BY: None

📊 Insights

UAEP Sprint 1 24 Oct – 29 Oct (4 issues)

0 0 20 Complete sprint ⋮

UAEP-5 As a user, I can see testimonials of students who graduated from the university LANDING PAGE 8 DONE ✓ N

UAEP-4 As a user, I can see the social media profiles of the university LANDING PAGE 2 DONE ✓ LR

UAEP-1 As a user, I can view the details about the university LANDING PAGE 5 DONE ✓ K

UAEP-2 As a user, I can view the latest news about the university LANDING PAGE 5 DONE ✓ SR

+ Create issue

UAEP Sprint 2 31 Oct – 5 Nov (4 issues)

0 0 20 Complete sprint ⋮

**Quickstart** ✕

Jira Software

Your work

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Filters

Dashboards

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Backlog

🔗 ☆ ⌚ 0 days remaining **Complete sprint** ⋮

Q

SR K LR N

👤

Epic

GROUP BY: None

📊 Insights

UAEP Sprint 2 31 Oct – 5 Nov (4 issues)

0 0 20 Complete sprint ⋮

UAEP-9 As a user, I can predict my eligibility for admission at the university ADMISSIONS 5 DONE ✓ N

UAEP-10 As a user, I can fill the contact form for queries LANDING PAGE 2 DONE ✓ LR

UAEP-8 As a user, I can read about proud alumni of the university ADMISSIONS 5 DONE ✓ K

UAEP-7 As a user, I can see the previous year cut-off marks ADMISSIONS 8 DONE ✓ SR

+ Create issue

**Quickstart** ✕

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## Backlog

Search [ ] SR K LR N Epic ▾ Insights

▼ UAEP Sprint 3 7 Nov – 12 Nov (4 issues) 5 10 5 Complete sprint

UAEP-11	As a user, I can see the courses offered by the university for PG students	COURSES	5	DONE	LR
UAEP-13	As a user, I can download and read e-books relating to visa formalities	E-BOOKS	5	IN PROGRESS	K
UAEP-12	As a user, I can check various technical events about to happen in the university	EVENTS	5	IN PROGRESS	N
UAEP-25	As a user, I can see the research facilities at the university	COURSES	5	TO DO	SR

+ Create issue

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Add shortcut

Projects / University Admit Eligibility Predictor

## Backlog

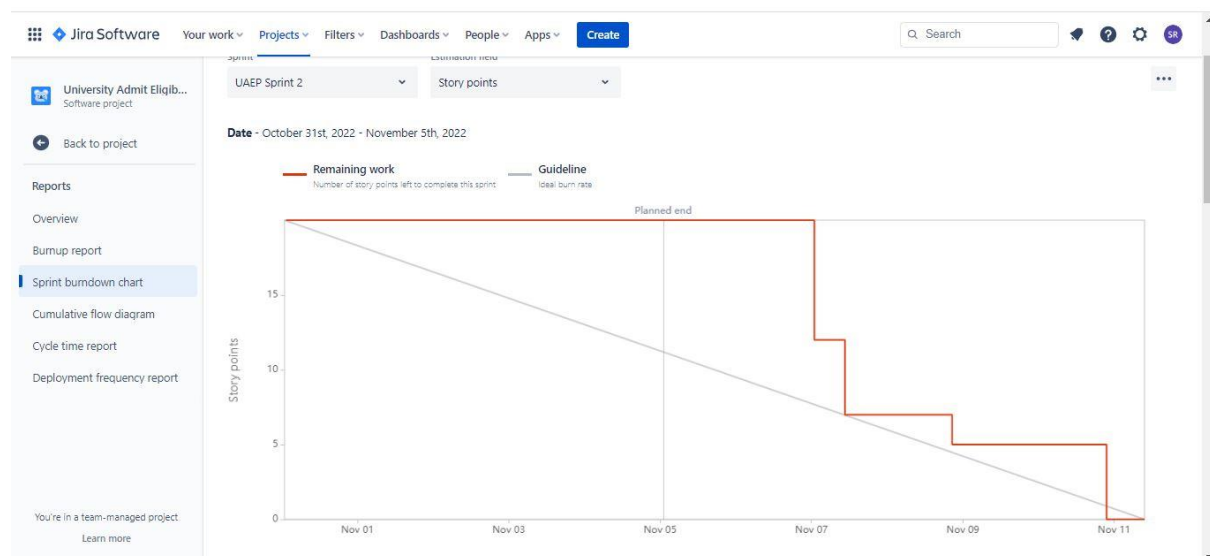
Search [ ] SR K LR N Epic ▾ Insights

▼ UAEP Sprint 4 14 Nov – 19 Nov (4 issues) 20 0 0 Start sprint

UAEP-14	As a user, I shall find resources regarding scholarship availability	SCHOLARSHIP	8	TO DO	K
UAEP-15	As a user, I can download and read GRE, TOEFL test preparation materials	TEST PREP	5	TO DO	SR
UAEP-16	As an administrator, I shall update the news about the university	LANDING PAGE	5	TO DO	LR
UAEP-17	As an administrator, I can update the list of activities to be hosted	EVENTS	2	TO DO	N

+ Create issue

## Burndown chart

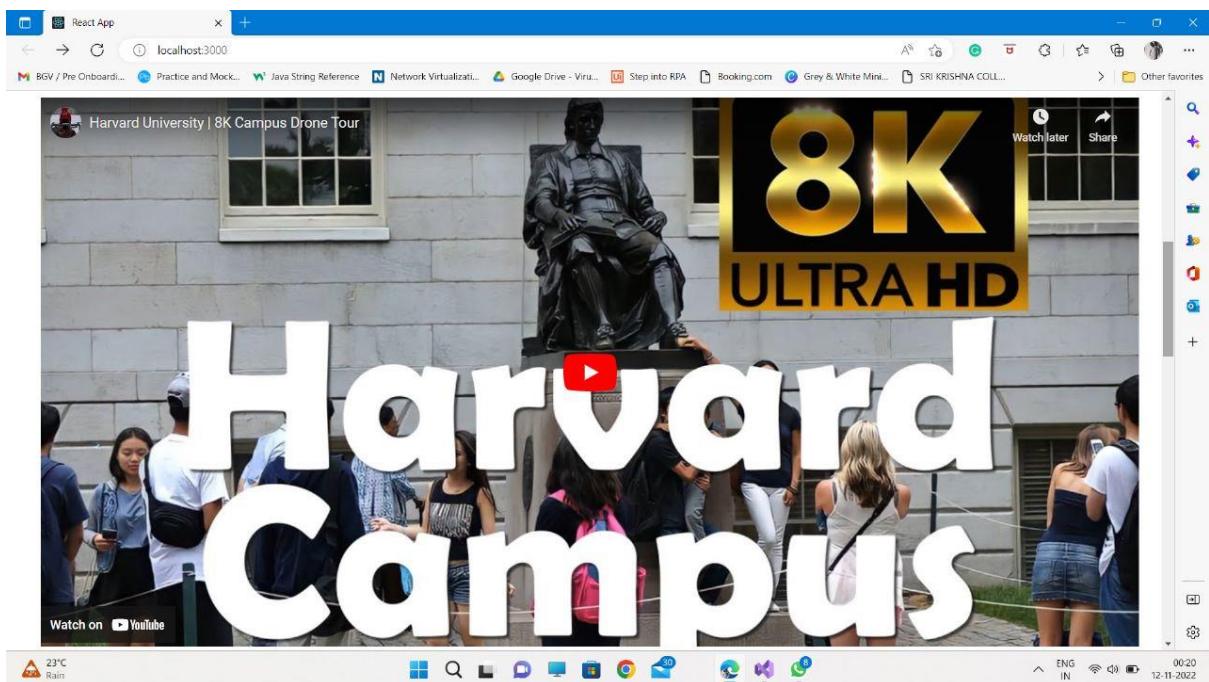
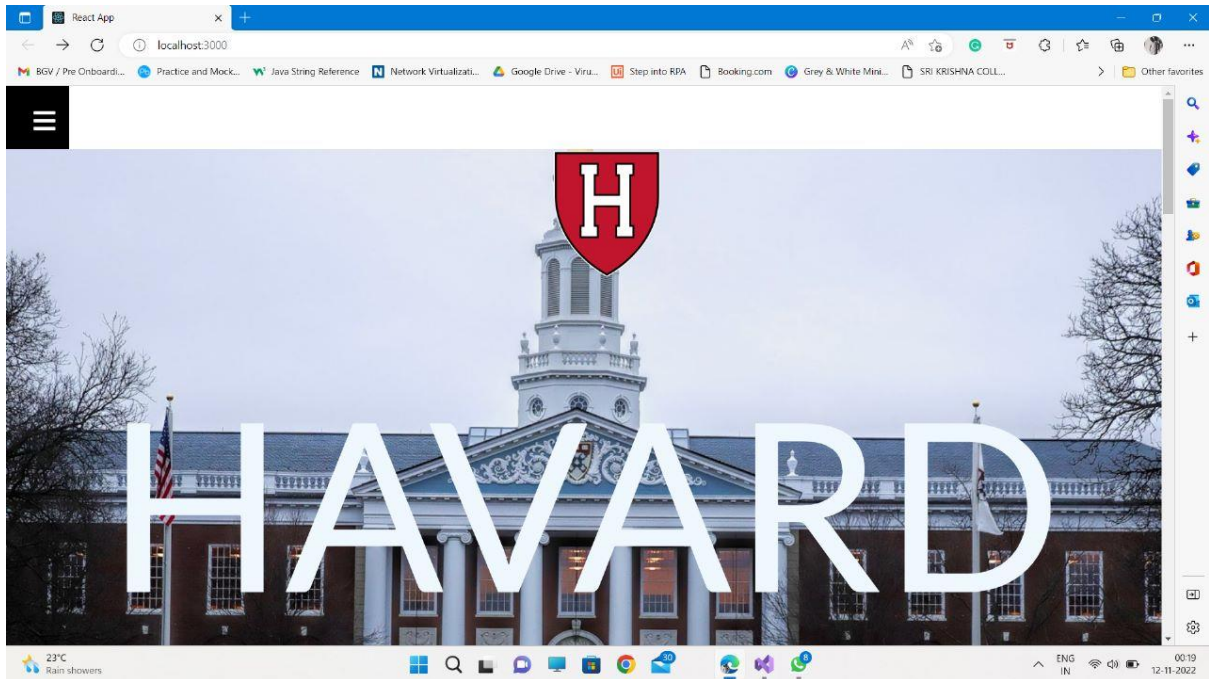




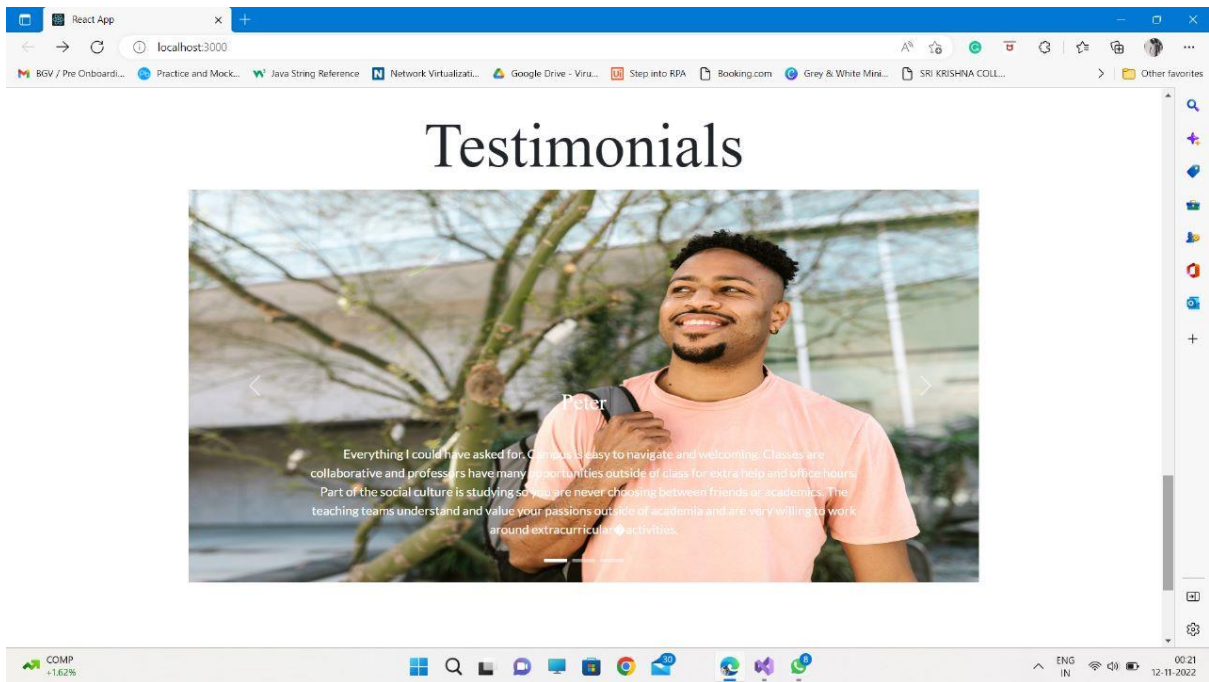
# CHAPTER 7

## CODING & SOLUTIONING

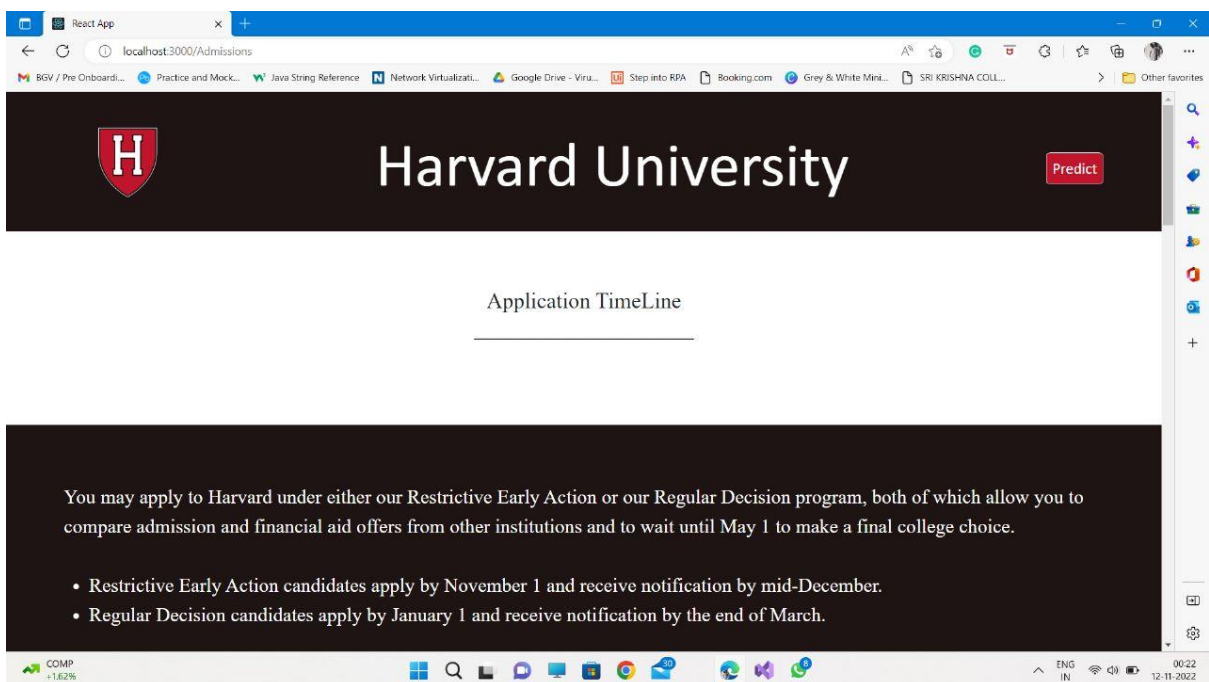
### 7.1 LANDING PAGE

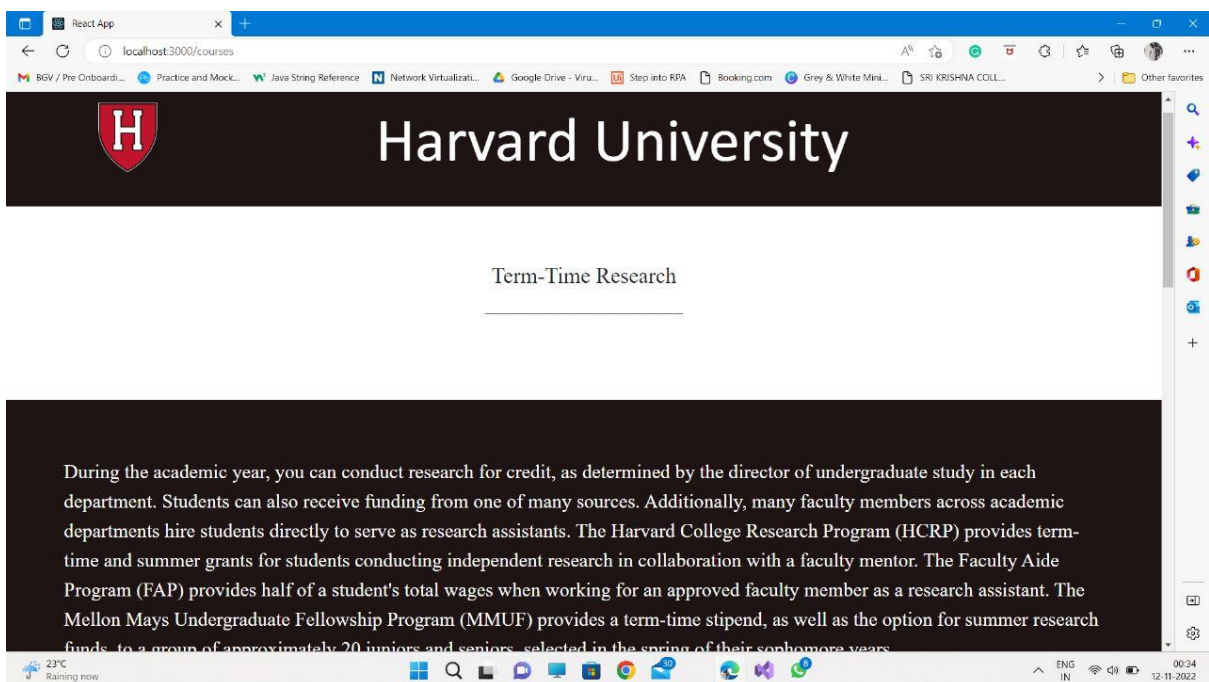
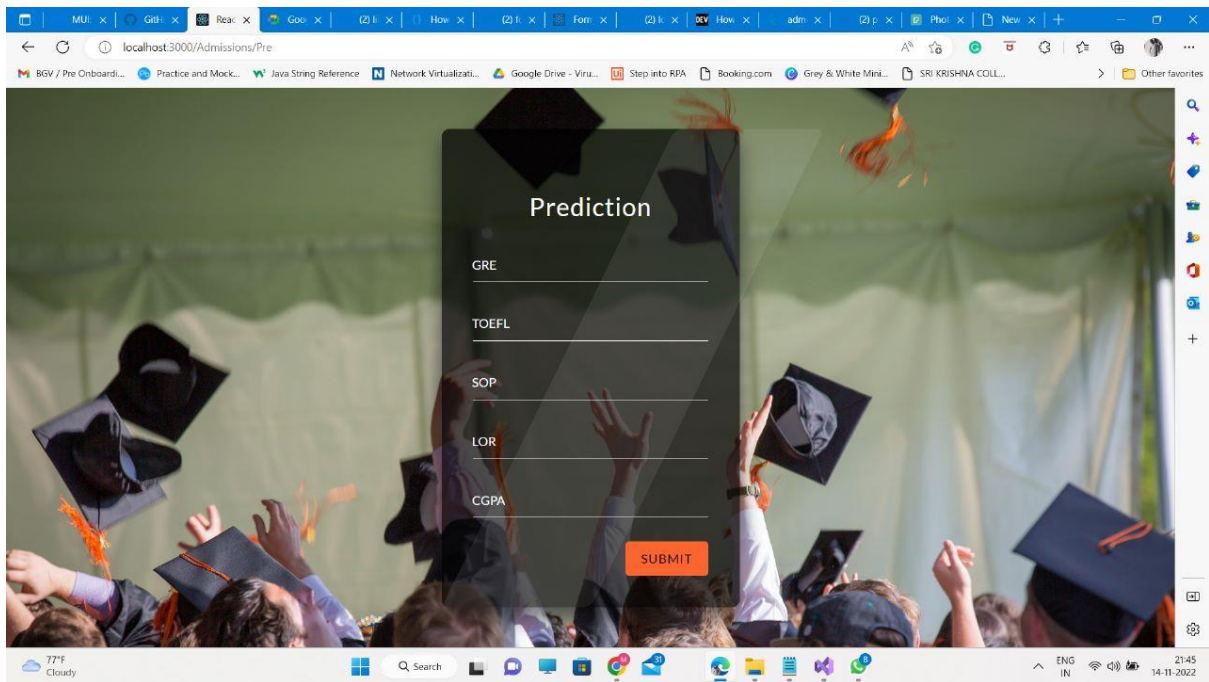






## 7.2 ADMISSIONS





## 7.3 COURSES

SNO	Courses	details
1	Modern Masterpieces of World Literature	<a href="https://www.harvardonline.harvard.edu/course/modern-masterpieces-world-literature">https://www.harvardonline.harvard.edu/course/modern-masterpieces-world-literature</a>
2	World Religions Through Their Scriptures	<a href="https://www.harvardonline.harvard.edu/course/world-religions-through-their-scriptures">https://www.harvardonline.harvard.edu/course/world-religions-through-their-scriptures</a>
3	The Ancient Greek Hero	<a href="https://www.harvardonline.harvard.edu/course/ancient-greek-hero">https://www.harvardonline.harvard.edu/course/ancient-greek-hero</a>
4	Introduction to AI with python	<a href="https://www.harvardonline.harvard.edu/course/cs50s-introduction-artificial-intelligence-python">https://www.harvardonline.harvard.edu/course/cs50s-introduction-artificial-intelligence-python</a>
5	Introduction to Programming with Python	<a href="https://www.harvardonline.harvard.edu/course/cs50s-introduction-programming-python">https://www.harvardonline.harvard.edu/course/cs50s-introduction-programming-python</a>
6	Web Programming with JS and python	<a href="https://www.harvardonline.harvard.edu/course/cs50s-web-programming-python-javascript">https://www.harvardonline.harvard.edu/course/cs50s-web-programming-python-javascript</a>
7	Introduction to Game development	<a href="https://www.harvardonline.harvard.edu/course/cs50s-introduction-game-development">https://www.harvardonline.harvard.edu/course/cs50s-introduction-game-development</a>

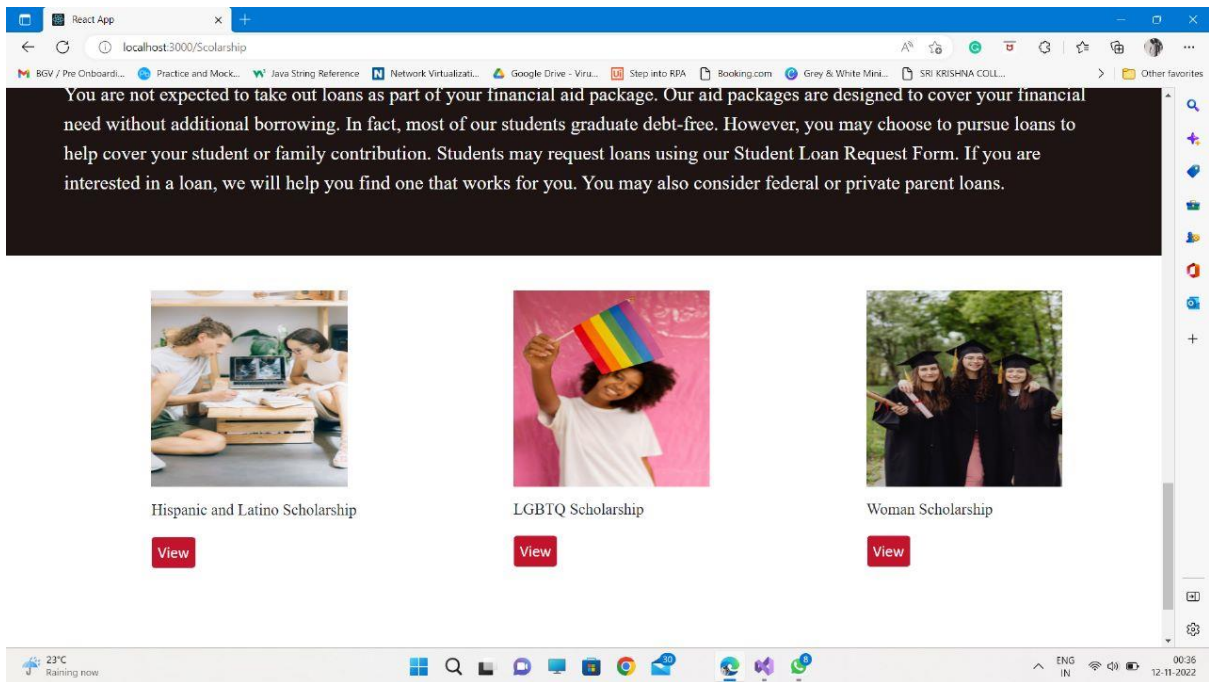
## 7.4 SCHOLARSHIP

### Scholarships and Grants

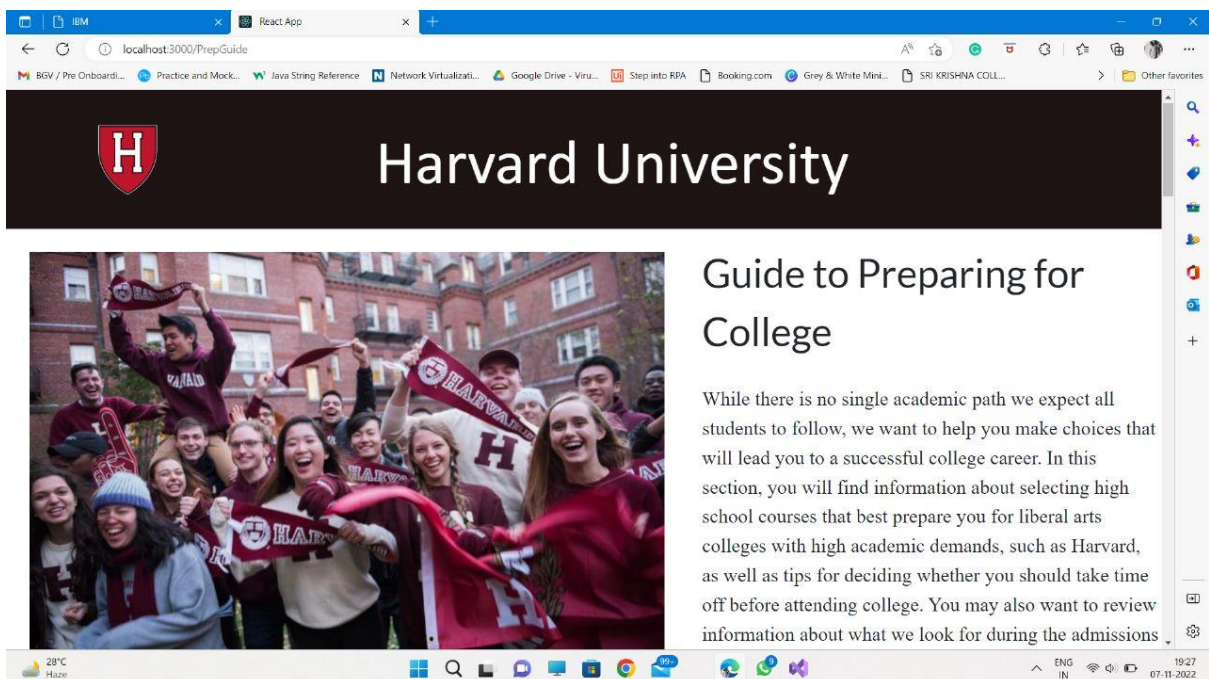
When you qualify for financial aid from Harvard, we use a combination of resources to create an individualized aid package to meet your demonstrated need. This may include scholarship funds and student employment, as well as any awards you have earned from outside sources. Parent and student loans are also available for interested families. Because Harvard is committed to affordability, our scholarships are designed to cover 100% of your demonstrated financial need. Here is our process:

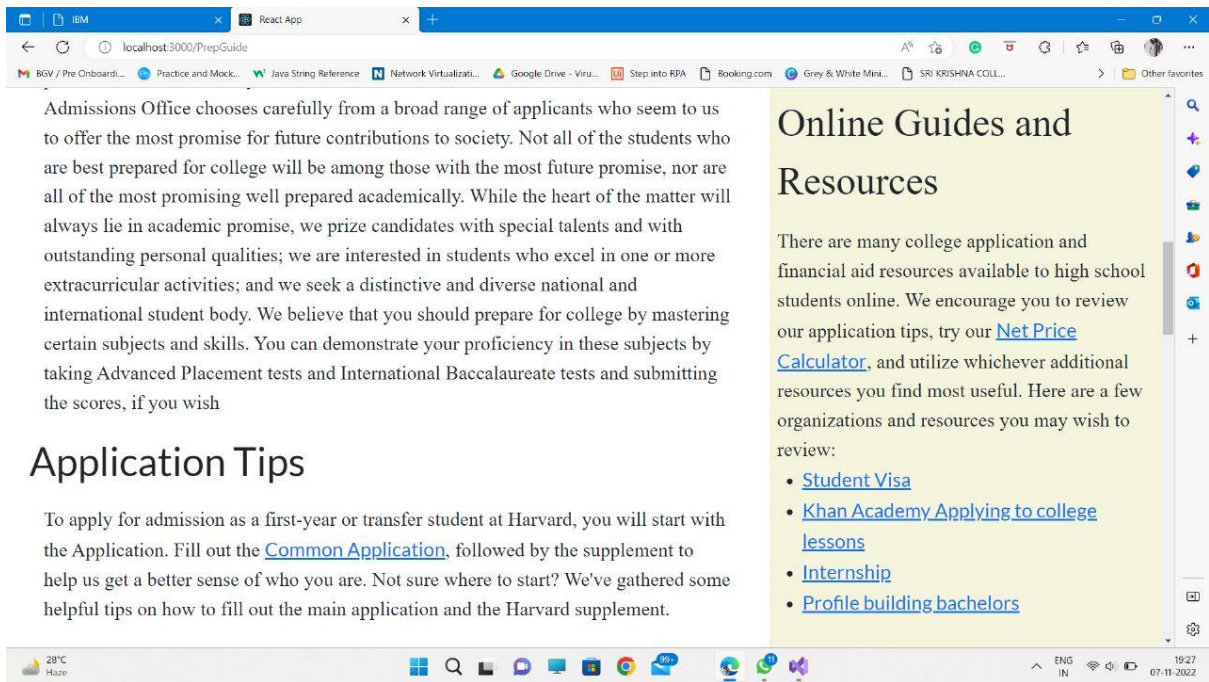
- First we determine your award by establishing your parent contribution
- Then we factor in student employment and any outside awards you have received





## 7.5 PREP GUIDE





## CHAPTER 8

### TESTING

#### 8.1 TEST CASES

1. Verify if user is able to see landing page
2. Verify if the menu bar is works on clicking
3. Verify user is able to navigate to admissions page
4. Verify user is able to see the testimonials
5. Verify the page elements are clear
6. Verify if the social media profiles of the university are accessible
7. Verify if the campus tour video is clear
8. Verify if proud alumni feature of the university are accessible
9. Verify if the chance of admission prediction page receives input correctly
10. Verify if the chance of admission prediction page gives accurate output
11. Verify if the course details table is clearly visible
12. Verify if the guide files are downloaded
13. Verify if the scholarship resources are accessible
14. Verify if the page is responsive
15. Verify if the page is suitable for all devices

#### 8.2 USER ACCEPTANCE TESTING

##### Defect Analysis

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

Resolution	Severity1	Severity2	Severity3	Severity4	Subtotal
By Design	4	4	2	3	13
Duplicate	1	0	3	0	4
External	2	3	0	1	6
Fixed	11	2	4	20	37
Not Reproduced	0	0	1	0	1

Skipped	0	0	1	1	2
Won't Fix	0	5	2	1	8
Totals	18	14	13	26	77

## Test Case Analysis

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

Section	TotalCases	Not Tested	Fail	Pass
Print Engine	2	0	0	2
Client Application	12	0	0	12
Security	1	0	0	1
Outsource Shipping	3	0	0	3
Exception Reporting	1	0	0	1
Final Report Output	4	0	0	4
Version Control	2	0	0	2

## **CHAPTER 9**

### **RESULTS**

#### **9.1 PERFORMANCE METRICS**

1. Hours worked : 50 hours
2. Sticking to Timelines : 100%
3. Consistency of the product : 75%
4. Efficiency of the product : 80%
5. Quality of the product : 85%



## **ADVANTAGES & DISADVANTAGES**

### **ADVANTAGES:**

- Avoids data redundancy and inconsistency.
- It is fast, efficient and reliable.
- 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.

### **DISADVANTAGES:**

- Machine errors are unavoidable when occurred. (Hardware failure, network failure, others).
- Reach to geographically scattered student.
- Reducing time in activities
- Paperless admission with reduced man power
- Operational efficiency
- The predictions made are not 100% accurate but accurate to an acceptable value.

## **CONCLUSION**

The project uses a Linear regressor to predict the output and a web application is built to make the UI more accessible and easy using various technologies such as python, React JS, HTML5, CSS, Flask, Scikit, Matplot, Numpy, Pandas, Seaborn and other libraries. After the deployment of the web application, it can be accessed from anywhere with internet connection. This project reduces the long hours of analysis to predict the eligibility of the admission to a rated university.

## **FUTURE SCOPE**

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

- This can be implemented in less time for proper admission process.
- This can be accessed anytime anywhere, since it is a web application provided only an internet connection.
- The user need not travel a long distance for the admission and his/her time is also saved as a result of this automated system.
- Develop a community consisting of faculty, alumni and aspirants to get to know about the university more

## APPENDIX

### SOURCE CODE

#### Landing Page:

##### App.css

```
.c1
img{
    margin-left:42%;
}
.c1{
    background-image:url(/img2.jpg);
    background-size:cover;
}
.c1 h1 {
    text-align: center;
    font-size: 300px;
    color: aliceblue;
    font-family: 'Lato', sans-serif;
    padding:7%;
}
.car{
    padding:3% 15% 15% 15%;
}
.t1{
    font-size:80px;
    text-align:center;
    padding:3%;
    font-family:'Times New Roman', Times, serif;
}
.campustour{
    padding:3%;
}
.t2{
    font-size: 25px;
    color: white;
    padding: 5%;
    background-color: rgb(30, 20, 20);
    font-family: 'Times New Roman', Times, serif;
}

@import url('https://fonts.googleapis.com/css2?family=Lato&display=swap');
* {
    box-sizing: border-box;
    margin: 0;
```

```

padding: 0;
font-family: 'Lato', sans-serif;
}
.Admissions,
.ebooks,
.courses {
display: flex;
height: 90vh;
align-items: center;
justify-content: center;
font-size: 3rem;
}
.si {
background: rgb(30, 20, 20);
}
.singeCol {
max-width: 750px;
margin: 0 auto;
}
.social-media-icons-white a{
font-size:2rem;
padding:3%;
}

```

## App.js

```

import
'./App.css
';

import i1 from './img1.png'
import React from 'react';
import Navbar from './components/Navbar';
import './node_modules/bootstrap/dist/css/bootstrap.min.css';
import BootstrapCarouselComponent from './pages/BootstrapCarouselComponent'
import { FontAwesomeIcon } from '@fortawesome/react-fontawesome'
import { faFacebook,faTwitter,faInstagram,faLinkedin } from
'@fortawesome/free-brands-svg-icons'
function App() {
return (
<div><div className="c0">
<Navbar />
<div className="c1">
<img src={i1} width="20%" height="20%" alt="fireSpot"
/><br></br>
<h1>HAVARD</h1>
</div>

```

```

<div className="campustour">
  <iframe width="1400" height="700"
src="https://www.youtube.com/embed/_86tHnzxF3Q"
  title="YouTube video player" frameborder="0"
allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope;
picture-in-picture" allowfullscreen></iframe>
</div>
<div>
  <div className="t1"><h3> About
Harvard<br></br>_____</h3></div>
  <div className="t2">
    Harvard University possesses the title of America's
oldest learning institution,
    founded in 1636. At its inception, this university's name
was "New College," and its purpose was mainly
    to educate clergy. In 1639, the school's name became
Harvard University,
    so named for the Rev. John Harvard.
    With some 17,000 Puritans migrating to New England by
1636,
    Harvard was founded in anticipation of the need for
training clergy for the new commonwealth, a "church in the wilderness".
Harvard was established in 1636 by vote of the Great and General Court of the
Massachusetts Bay Colony. In 1638, the school received a printing p
    ress—the only press at the time in what is now the
United States, until Harvard acquired a second in 1659
    On March 13, 1639, the college was renamed Harvard College
after clergyman John Harvard, a University of Cambridge
    alumnus who had willed the new school £779 pounds sterling
and his library of some 400 books</div>
  </div>
  <div className="car">
    <BootstrapCarouselComponent /> </div>
</div>
  <div className="si">
    <div className="singleCol social-media-icons-white d-flex
justify-content-center">
      <a href="https://www.facebook.com/Harvard/">
        <FontAwesomeIcon icon={faFacebook} />
      </a>
      <a
href="https://twitter.com/Harvard?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctw
gr%5Eauthor">
        <FontAwesomeIcon icon={faTwitter} />
      </a>
      <a href="https://www.instagram.com/harvard/?hl=en">

```

```

        <FontAwesomeIcon icon={faInstagram} />
      </a>
      <a href="https://www.linkedin.com/school/harvard-
university/">
        <FontAwesomeIcon icon={faLinkedin} />
      </a>
    </div>
  </div>
</div>
);
}
export default App;

```

## BootstrapCarouselComponent.js

```

import
React
from
"react";

import { Carousel } from 'react-bootstrap';
import i2 from './img3.jpg'
import i3 from './img2.jpg'
import i4 from './img1.jpg'
import 'bootstrap/dist/css/bootstrap.min.css';
import './Carousel.css';
class BootstrapCarouselComponent extends React.Component {
  render() {
    return (
      <div>
        <div className='container-fluid' >
          <div className="row">
            <div className="col-sm-12">
              <center><b><h1>Testimonials</h1></b></center>
            </div>
          </div>
          <div className="row">
            <div className="col-12">
              <Carousel className="r">
                <Carousel.Item>
                  <img
                    className="d-block w-100"
                    src={i2} height="500px" width="500px"
                    alt="First slide"
                  />
                  <Carousel.Caption>
                    <h3>Peter</h3>

```

Everything I could have asked for. Campus is easy to navigate and welcoming. Classes are collaborative and professors have many opportunities outside of class for extra help and office hours. Part of the social culture is studying so you are never choosing between friends or academics. The teaching teams understand and value your passions outside of academia and are very willing to work around extracurricular activities.

There are always amazing people and things

to learn from. There are many ways

to get involved with a diverse array of things,

and the people have been really kind

in my experience.

There are always amazing

people and things to learn from.

There are many ways to get

involved with a diverse array of

things, and the people have been really kind

in my experience.



```
        </div>
      )
    };
  }
  export default BootstrapCarouselComponent;
```

## Carousel.css

```
h1{
    font-family:'Times New Roman', Times, serif;
    font-size:80px;
}
```

## Navbar.css

```
.navbar
{
    background-color: black;
    height: 80px;
    width:80px;
    display: flex;
    justify-content: start;
    align-items: center;
    color:white;
}
.menu-bars {
    margin-left: 2rem;
    font-size: 2rem;
    padding:1% 10% 1% 1%;
    background: none;
}
.nav-menu {
    background-color: #060b26;
    width: 250px;
    height: 100vh;
    display: flex;
    justify-content: center;
    position: fixed;
    top: 0;
    left: -100%;
    transition: 850ms;
}
.nav-menu.active {
    left: 0;
    transition: 350ms;
}
```

```

.nav-text {
  display: flex;
  justify-content: start;
  align-items: center;
  padding: 8px 0px 8px 16px;
  list-style: none;
  height: 60px;
}

.nav-text a {
  text-decoration: none;
  color: #f5f5f5;
  font-size: 18px;
  width: 95%;
  height: 100%;
  display: flex;
  align-items: center;
  padding: 0 16px;
  border-radius: 4px;
}

.nav-text a:hover {
  background-color: #1a83ff;
}

.nav-menu-items {
  width: 100%;
}

.navbar-toggle {
  background-color: #060b26;
  width: 100%;
  height: 80px;
  display: flex;
  justify-content: start;
  align-items: center;
}

span {
  margin-left: 16px;
}

```

## Navbar.js

```

import
React, {
  useState
} from
'react';

import * as FaIcons from 'react-icons/fa';
import * as AiIcons from 'react-icons/ai';

```

```

import { Link } from 'react-router-dom';
import { SidebarData } from './SidebarData';
import './Navbar.css';
import { IconContext } from 'react-icons';
function Navbar() {
  const [sidebar, setSidebar] = useState(false);
  const showSidebar = () => setSidebar(!sidebar);
  return (
    <>
      <IconContext.Provider value={{ color: '#fff' }}>
        <div className='navbar'>
          <Link to='#' className='menu-bars'>
            <FaIcons.FaBars onClick={showSidebar} />
          </Link>
        </div>
        <nav className={sidebar ? 'nav-menu active' : 'nav-menu'}>
          <ul className='nav-menu-items' onClick={showSidebar}>
            <li className='navbar-toggle'>
              <Link to='#' className='menu-bars'>
                <AiIcons.AiOutlineClose />
              </Link>
            </li>
            {SidebarData.map((item, index) => {
              return (
                <li key={index} className={item.cName}>
                  <Link to={item.path}>
                    {item.icon}
                    <span>{item.title}</span>
                  </Link>
                </li>
              );
            })}
          </ul>
        </nav>
      </IconContext.Provider>
    </>
  );
}
export default Navbar;

```

## SlideBarData.js

```

import React from 'react';

/*import * as FaIcons from 'react-icons/fa';
import * as AiIcons from 'react-icons/ai';
import * as IoIcons from 'react-icons/io';

```

```
import PrepGuide from '../pages/PrepGuide';*/
export const SidebarData = [
  {
    title: 'Admissions',
    path: '/Admissions',
    cName: 'nav-text'
  },
  {
    title: 'Courses',
    path: '/courses',
    cName: 'nav-text'
  },
  {
    title: 'Prep Guide',
    path: '/PrepGuide',
    cName: 'nav-text'
  },
  {
    title: 'Scholarship',
    path: '/Scholarship',
    cName: 'nav-text'
  },
];
```

## index.html

```
<!DOCTYPE
html>

<html lang="en">
  <head>
    <meta charset="utf-8" />
    <link rel="icon" href="%PUBLIC_URL%/favicon.ico" />
    <meta name="viewport" content="width=device-width, initial-scale=1" />
    <meta name="theme-color" content="#000000" />
    <meta
      name="description"
      content="Web site created using create-react-app"
    />
    <link rel="apple-touch-icon" href="%PUBLIC_URL%/logo192.png" />
    <!--
      manifest.json provides metadata used when your web app is installed on a
      user's mobile device or desktop. See
      https://developers.google.com/web/fundamentals/web-app-manifest/
    -->
    <link rel="manifest" href="%PUBLIC_URL%/manifest.json" />
    <!--
      Notice the use of %PUBLIC_URL% in the tags above.
```

It will be replaced with the URL of the `public` folder during the build. Only files inside the `public` folder can be referenced from the HTML. Unlike `/favicon.ico` or `favicon.ico`, `%"PUBLIC_URL%/favicon.ico"` will work correctly both with client-side routing and a non-root public URL. Learn how to configure a non-root public URL by running ``npm run build``.

```
-->
<title>React App</title>
</head>
<body>
  <noscript>You need to enable JavaScript to run this app.</noscript>
  <div id="root"></div>
  <!--
    This HTML file is a template.
    If you open it directly in the browser, you will see an empty page.
    You can add webfonts, meta tags, or analytics to this file.
    The build step will place the bundled scripts into the <body> tag.
    To begin the development, run `npm start` or `yarn start`.
    To create a production bundle, use `npm run build` or `yarn build`.
  -->
</body>
</html>
```

## Index.css

```
body
{
  margin: 0;
  font-family: -apple-system, BlinkMacSystemFont, 'Segoe UI', 'Roboto', 'Oxygen',
    'Ubuntu', 'Cantarell', 'Fira Sans', 'Droid Sans', 'Helvetica Neue',
    sans-serif;
  -webkit-font-smoothing: antialiased;
  -moz-osx-font-smoothing: grayscale;
}
code {
  font-family: source-code-pro, Menlo, Monaco, Consolas, 'Courier New',
    monospace;
}
```

## Index.js

```
import React from
'react';

import ReactDOM from 'react-dom/client';
import './index.css';
import App from './App';
import { BrowserRouter as Router, Routes, Route } from "react-router-dom";
```

```
import Admissions from './pages/Admissions';
import Courses from './pages/courses';
import PrepGuide from './pages/PrepGuide';
import Scholarship from './pages/Scholarship';
const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
  <React.StrictMode>
    <Router>

      <Routes>
        <Route path="/" element={<App />} />
        <Route path="Scholarship" element={<Scholarship />} />
        <Route path="Admissions" element={<Admissions />} />
        <Route path="courses" element={<Courses />} />
        <Route path="PrepGuide" element={<PrepGuide />} />

      </Routes>
    </Router>
  </React.StrictMode>
);
```

#### **GITHUB LINK**

<https://github.com/IBM-EPBL/IBM-Project-16755-1659621483>

#### **PROJECT DEMO LINK**

[https://www.youtube.com/watch?v=L5ikJuiF\\_JQ](https://www.youtube.com/watch?v=L5ikJuiF_JQ)