MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Final Year Internship Report

on

InfyRide - Online Cab Booking System

Submitted By:

Puneet Kumar
0901CS181073

Faculty Mentor:

Dr. Ranjeet Kumar Singh

Assistant Professor
Computer Science Engineering

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE
GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

InfyRide - Online Cab Booking System

A final year internship report submitted in partial fulfilment of the requirement for the degree

of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

Submitted by:

Puneet Kumar

0901CS181073

Internship Faculty Mentor:

Dr. Ranjeet Kumar Singh

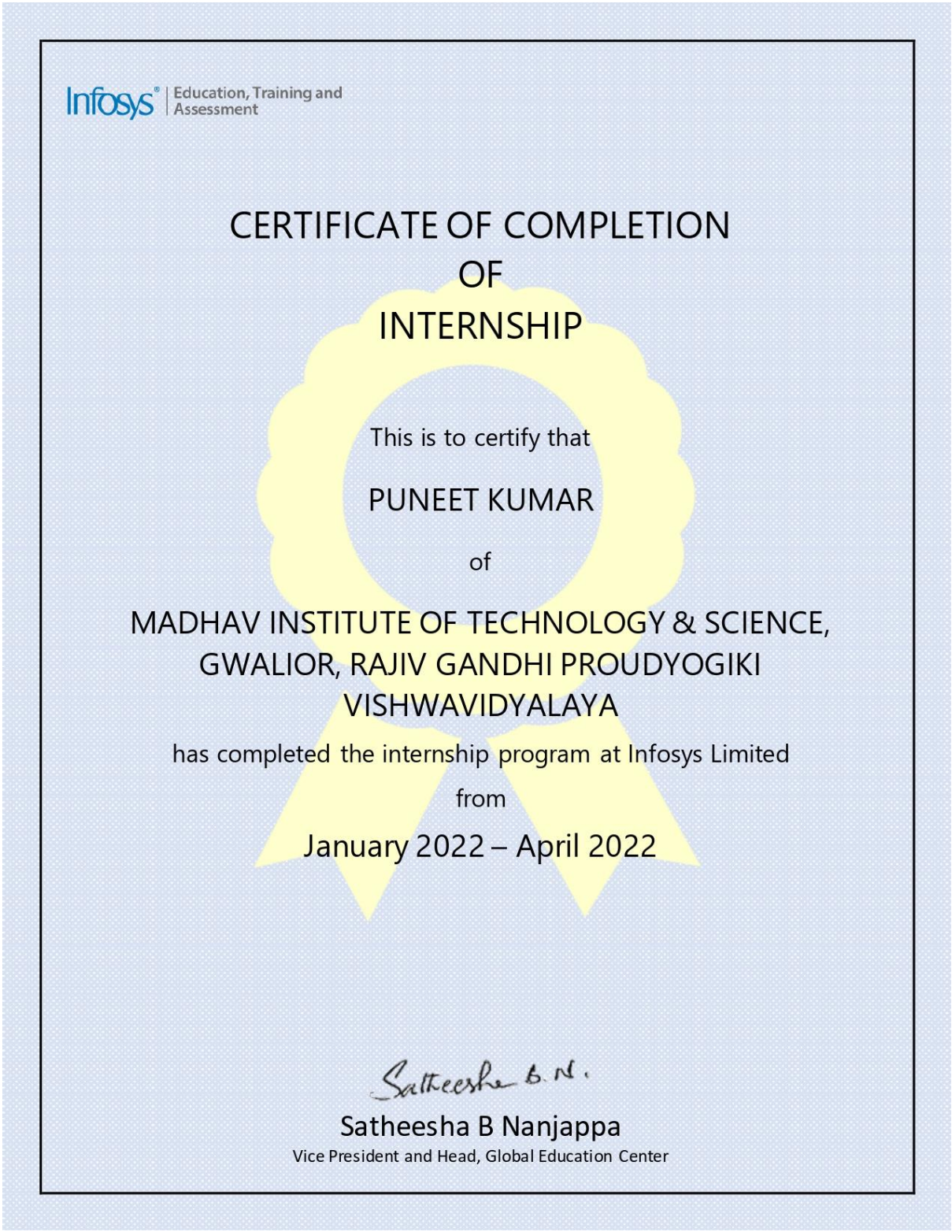
Assistant Professor
Computer Science and Engineering

Submitted to:

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE
GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

Internship Certificate Received from Infosys Limited.



Infosys | Education, Training and Assessment

CERTIFICATE OF COMPLETION
OF
INTERNSHIP

This is to certify that

PUNEET KUMAR

of

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR, RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA

has completed the internship program at Infosys Limited

from

January 2022 – April 2022

Satheesha B N

Satheesha B Nanjappa
Vice President and Head, Global Education Center

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

CERTIFICATE

This is certified that **Puneet Kumar (0901CS181073)** has submitted the Internship report titled **"InfyRide-Online Cab Booking System"** of the work he has done under the mentorship of **Dr. Ranjeet Kumar Singh**, in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

Dr. Ranjeet Kumar Singh
Faculty Mentor
Assistant Professor
Computer Science and Engineering

Dr. Manish Dixit
Professor and Head,
Computer Science and Engineering

Dr. Manish Dixit
Professor & HOD
Department of CSE
M.I.T.S. Gwalior

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

DECLARATION

I hereby declare that the work being presented in this Internship report, for the partial fulfilment of requirement for the award of the degree of Bachelor of Technology in CSE at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of Dr. Ranjeet Kumar Singh, Assistant Professor, Department of CSE.

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.

Puneet Kumar
0901CS181073
IV Year,
Computer Science and
Engineering

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
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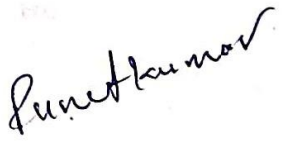
ACKNOWLEDGEMENT

The full semester internship has proved to be pivotal to my career. I am thankful to my institute, **Madhav Institute of Technology and Science** to allow me to continue my disciplinary/interdisciplinary internship as a curriculum requirement, under the provisions of the Flexible Curriculum Scheme (based on the AICTE Model Curriculum 2018), approved by the Academic Council of the institute. I extend my gratitude to the Director of the institute, **Dr. R. K. Pandit** and Dean Academics, **Dr.Manjaree Pandit** for this.

I would sincerely like to thank my department, **Department of Computer Science and Engineering, for allowing** me to explore this internship. I humbly thank **Dr. Manish Dixit**, Professor and Head, Department of Computer Science and Engineering, for his continued support during the course of this engagement, which eased the process and formalities involved.

I am sincerely thankful to my faculty mentors. I am grateful to the guidance of Dr. Ranjeet Kumar Singh, Assistant Professor, Department of Computer Science and Engineering, for his continued support and close mentoring throughout the internship. I am also very thankful to the faculty and staff of the department.



Puneet Kumar
0901CS181073
IV Year,
Computer Science and
Engineering

ABSTRACT

About the Organisation:

Infosys is a global leader in next-generation digital services. and consultation. Infosys empowers clients in more than 50 countries to navigate. their digital transformation. With more than thirty years of experience in managing systems once. International business operations, Infosys guides our customers strategically in their digital journey. Infosys does this by empowering businesses with an AI-powered core that helps prioritize transformation.

Internship:

In the duration of my Internship, I have developed a web application named Infy Ride Plus.

Infy Ride Plus: Infy Ride plus helps to connect with other like-minded professionals who are travelling on the same route and same time. InfyRide helps commuters to start sharing the ride instead of travelling alone. Innovative technology to discover, connect, route match, coordinate and cost-share in a seamless manner. Infy Ride Plus automates end to end process of car pooling & bike pooling and makes pooling safe, comfortable and free for the infy commuters.

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

Abbreviation	Description
AEM	Adobe Experience Manager
SQL	Structured Query Language
DB	Database
HTML	Hyper Text Markup Language
CSS	Cascading Style Sheets
JS	JavaScript
IRP	Infy Ride Plus
VM	Virtual Machine

Chapter 1: INTERNSHIP OVERVIEW

1.1 Introduction:

I am appointed as System engineer intern in Infosys Limited. I have worked as a full stack developer using technologies AEM and Java development to create flexible and responsive web applications. In the duration of Internship, I have developed following web application:

Infy Ride Plus: Infy Ride plus helps to connect with other like-minded professionals who are travelling on the same route and same time. Infy Ride helps commuters to start sharing the ride instead of travelling alone. Innovative technology to discover, connect, route match, coordinate and cost-share in a seamless manner. Infy Ride Plus automates end to end process of car pooling & bike pooling and makes pooling safe, comfortable and free for the infyosys employees.

1.2 Objective:

As the title suggests the objective of this project to to give the better riding facilities to the Infosys employees, reduce the travel cost and to make Infosys campus environment friendly by reducing the number of vehicles.

1.3 Scope:

Scope of the project is very vast. This project will enhance the riding facilities for the Infosys employees and let them know more about their colleagues who are living near them. Also, this project will provide the facility to get and offer ride according to their locations. We can give the option of community so the same kind of people can come in contact and have communication.

1.4 Winternship programme of Infosys:

I have done internship under the winternship cum training programme from Infosys . This internship includes the learning of courses like Data Structures and Algorithms using Java, Introduction to Java, Data Base Management System from Infosys Springboard, an online learning platform of Infosys. After the self-learning, we undergo a training of 8 weeks and then we made a project under the guidance of a project mentor. This internship programme gives me the lessons on Java, Adobe Experience Manager, HTML, CSS, JavaScript, MySQL.

Chapter 2: System Requirement

2.1 System Feasibility: Feasibility study of the system is a very important state during system design. Feasibility study is a test of a system proposal according to its workability impact on the organization, ability to meet user needs, and use of resources. Feasibility study decides whether the system is properly developed or not.

2.2 Software Implementation Language/Technology:

1. **Java:** It is an independent forum language that is very useful for developers so that they can use the same source code .Different platforms like Windows, Linux, etc. Widely used for web and application development. It is a multilingual language and provides automatic memory management. We have used java as the backend language for developing java servlet pages.

2. **HTML:** Hypertext Mark-up Language (HTML) is a common markup language for creating web pages and web applications. Web browsers retrieve HTML documents from web servers or local archives and render them on multimedia web pages

3. **CSS:** Cascading Style Sheet (CSS) is a style sheet language used to describe the presentation of text written in mark language. Although commonly used to set the visual style of web pages and HTML written client communications, the language can be used in any XML document, including plain XML, SVG and XUL, and is useful for rendering speech, or elsewhere. the media.

4. **JavaScript:** JavaScript is a high-performance integrated system. language compliant with the ECMAScript standard. Language editing is one of the basic technologies on the World Wide Web, next to HTML and CSS. Most websites use JavaScript on the client side for web page behavior, which usually includes third-party libraries.

5. **Adobe Experience Manager (AEM):** Adobe Experience Manager is abbreviated as AEM. It is an enterprise content management system that enhance the authoring, management, and delivery of content and digital media. It allows us to create the new digital experiences. It is java based content management system. It is really very helpful to create the websites, in which we can create the components according to our need in java. All it's data is saved in CRXDE Lite (Content Repository Extreme Development Environment).

6. **MySQL:** MySQL is an Integrated Data Management System (RDBMS). It is an open and free resource. Based on ANSI SQL standards. Suitable for both small and large applications. It is very fast, reliable, scalable and easy to use. Used by Facebook, Twitter, YouTube, etc. Also used for content management system such as WordPress, AEM, etc.

7. **Firebase:** It is also used for web and app applications. I have used Firebase for OTP authentication.

Chapter 3: System Analysis

3.1 Information Flow Representation:

3.1.2 UML Use Case Diagram : A use case diagram is a dynamic or behavioral diagram in the UML. Use diagram examples of system operating systems using characters and operating conditions. Usage conditions are a set of actions, services, and tasks that the system needs to perform. In this context, a "system" is something that is built or used, such as a website. "Actors" are individuals or organizations operating under defined roles within the system. Use dynamics that are important in visualizing the operational requirements of the system that will translate into design choices and priorities for development.

UML Use Case for Infy Ride Plus:

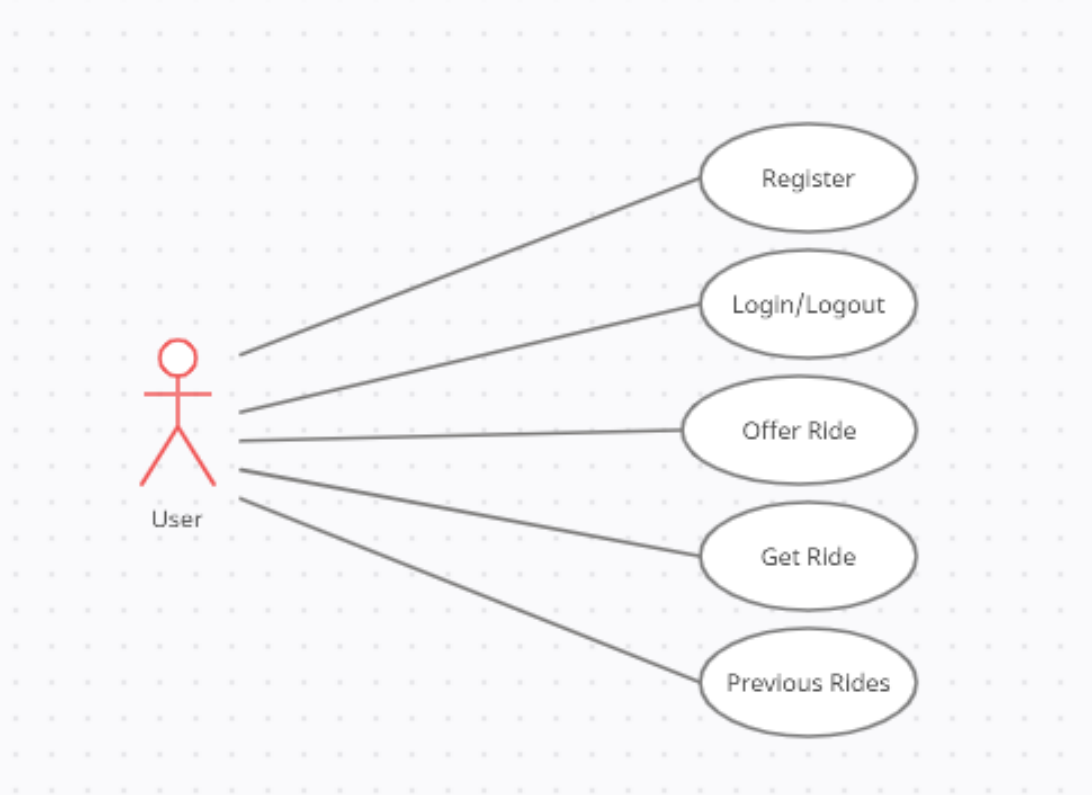


Fig-01: Use case diagram

3.1.2 Database Diagram: Database diagrams are used to represent the structure of the database using graphical interface , I have created following database diagram for the project Infy Ride Plus .

Database diagram for Infy Ride Plus

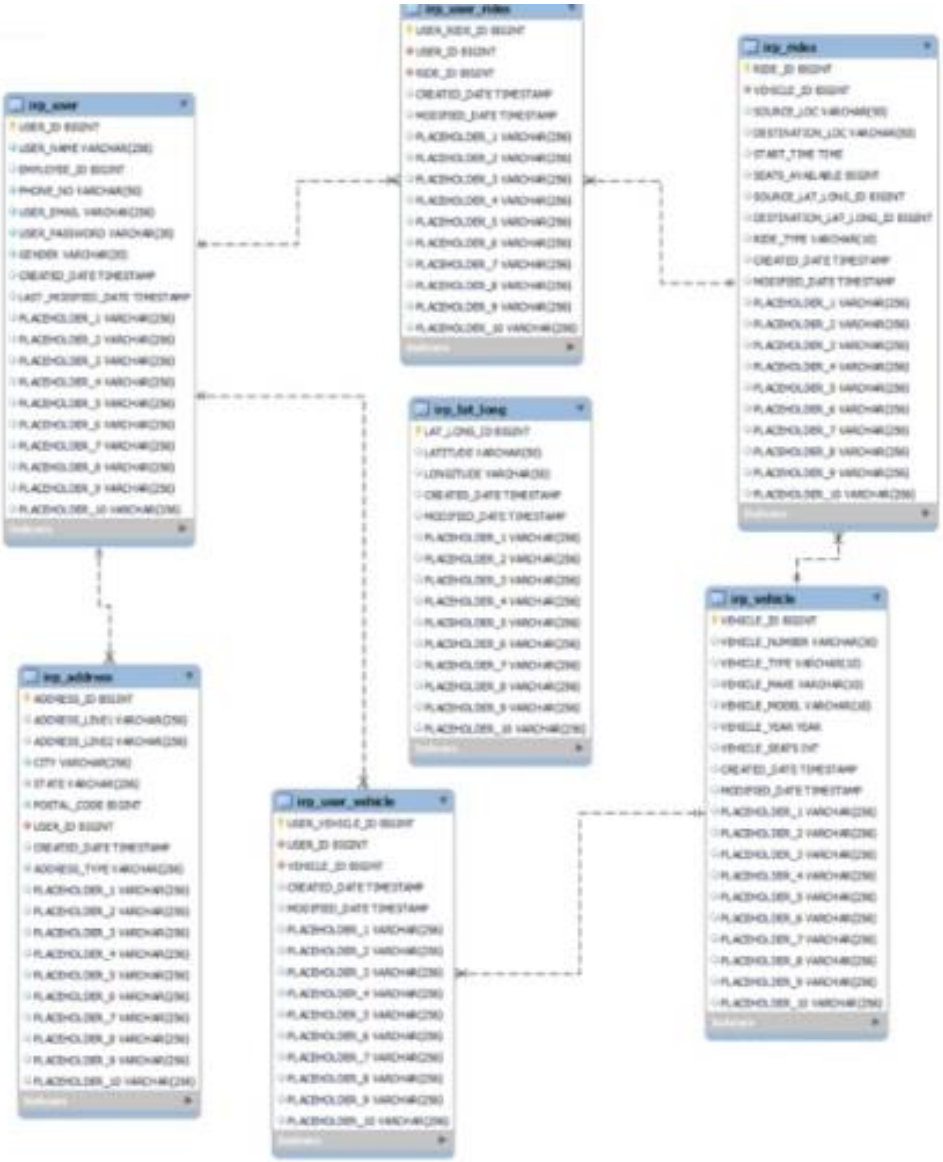


Fig-02: Database diagram

Chapter 4: System Design

4.1 Architectural Design: Software requires architectural design to represent the design of the software. IEEE defines architecture as "the process of defining a set of computer hardware and software components and their connections to establish a framework for computer system development." Software built for computer-based systems can display one of these many architectural styles.

Hierarchy of the project:

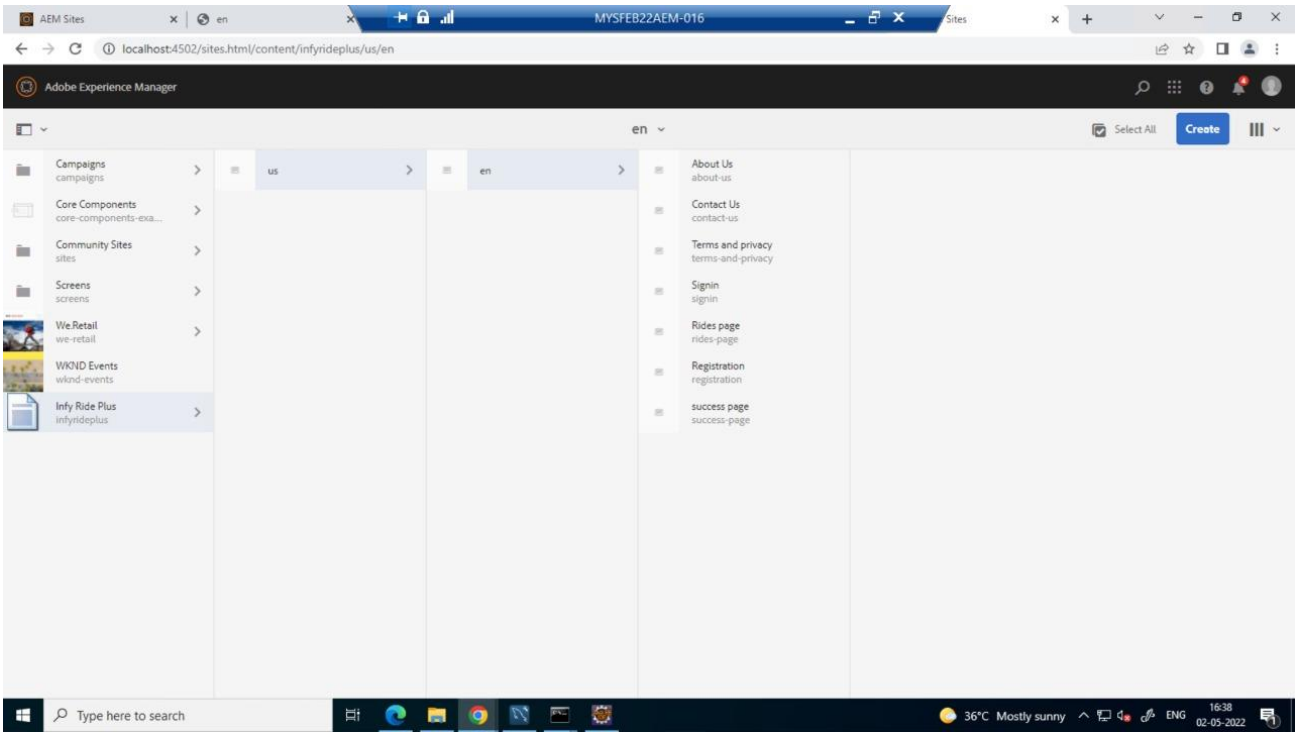


Fig-03: Site hierarchy

4.2 Modules used:

Main modules of project is :

- **Register :** Using this module, user can create their account using their personal details on the web application by generating his/her credentials. It will save all the details of the user in the database.
- **Login:** From this, user can login to website using username and password at any time.It will redirect the user to Home page after successful login.

- **Home:** Here, User have to choose a option either he/she can offer a ride or can get a ride .
- **Get Ride:** Using this module , user can book a ride from the list of available rides .
- **Offer Ride:** Using this module , user can offer a ride to a particular location by entering source and destination location .
- **Rides :** Using this, Users can view all his previous and upcoming rides.
- **Navigation:** After a successful booking user can navigate to source location using available Map component.

4.3 Interface Design:

Home page:

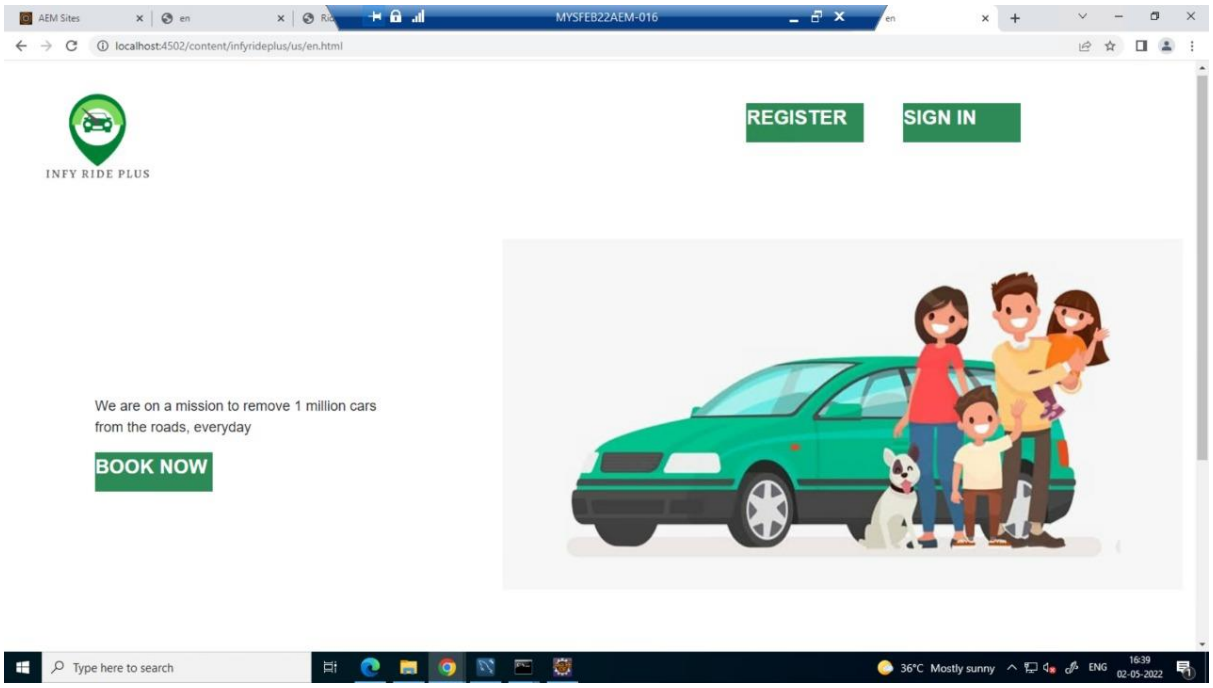


Fig-04: Home page

Sign in Page:

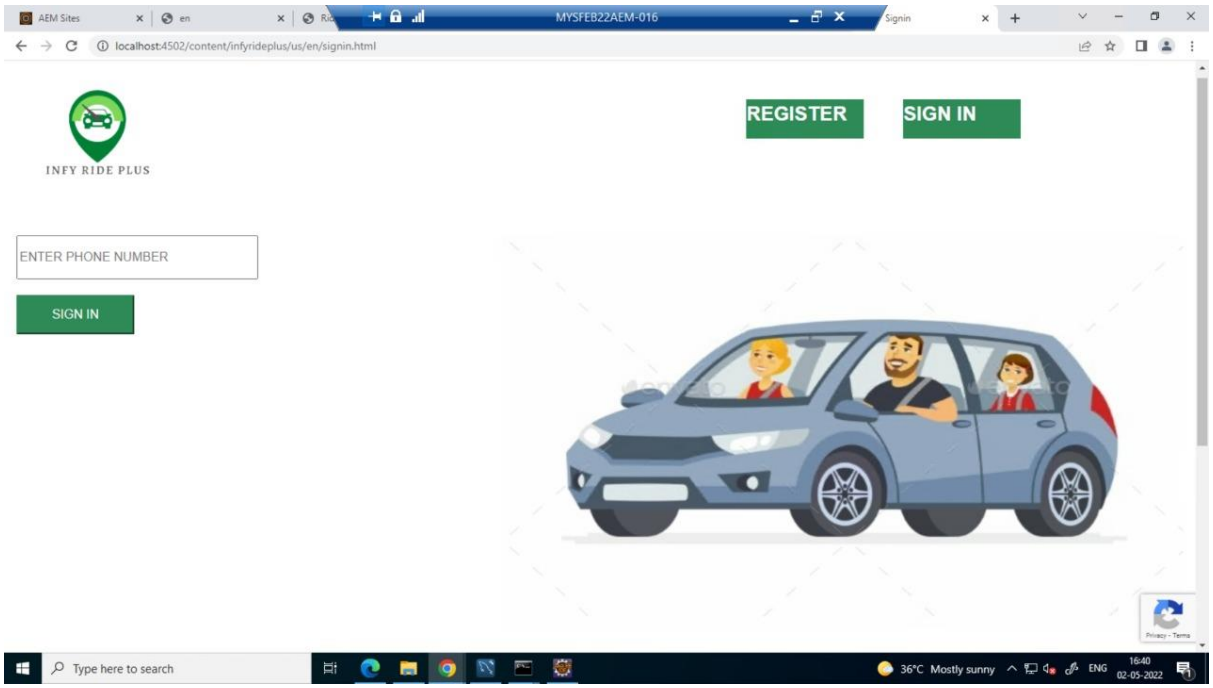


Fig-05: Sign page

OTP Authentication Page:

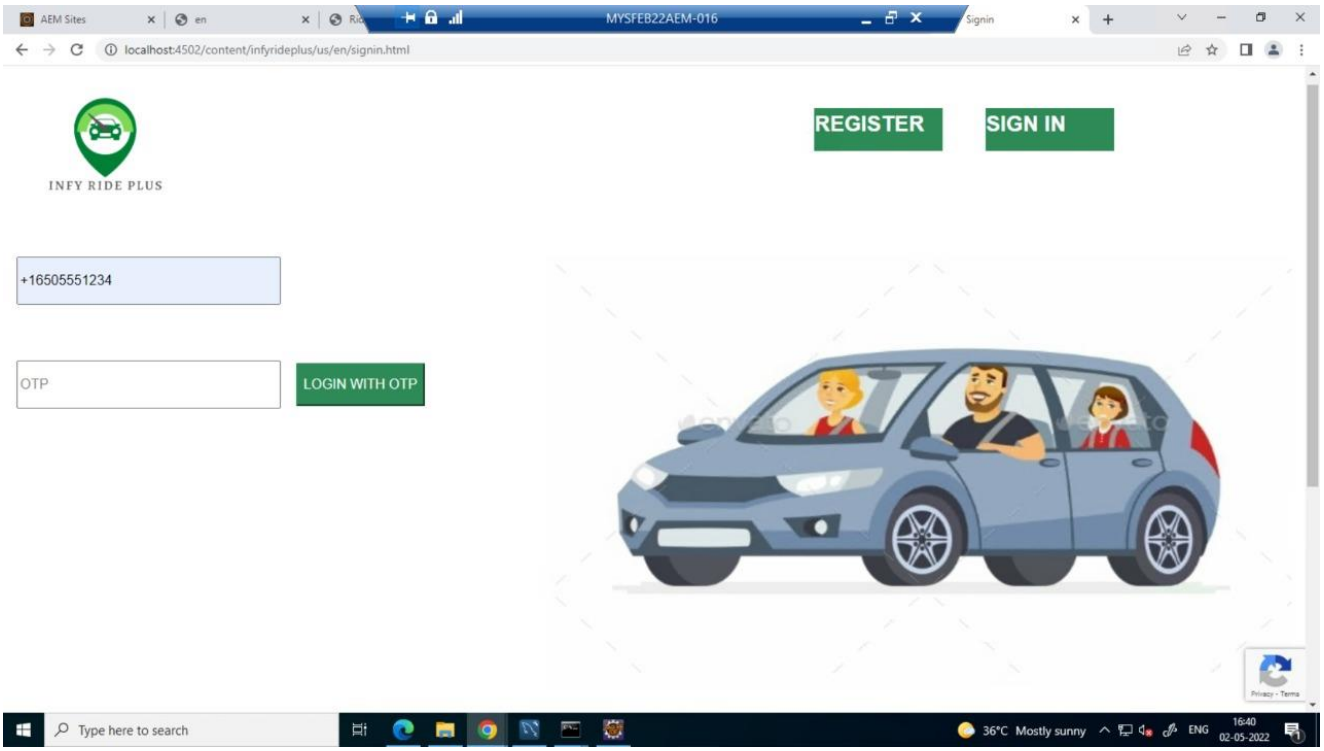


Fig-04: Authentication page

Registration Page:

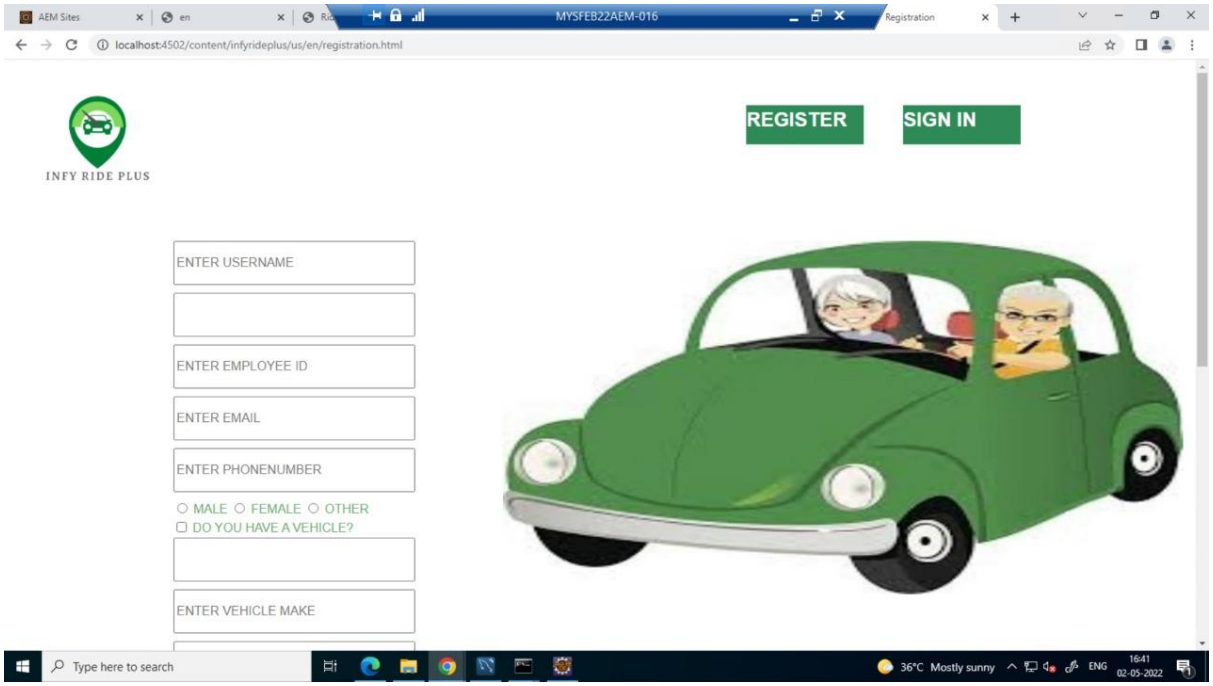


Fig-05: Registration page

Get Ride/Offer Ride Page:

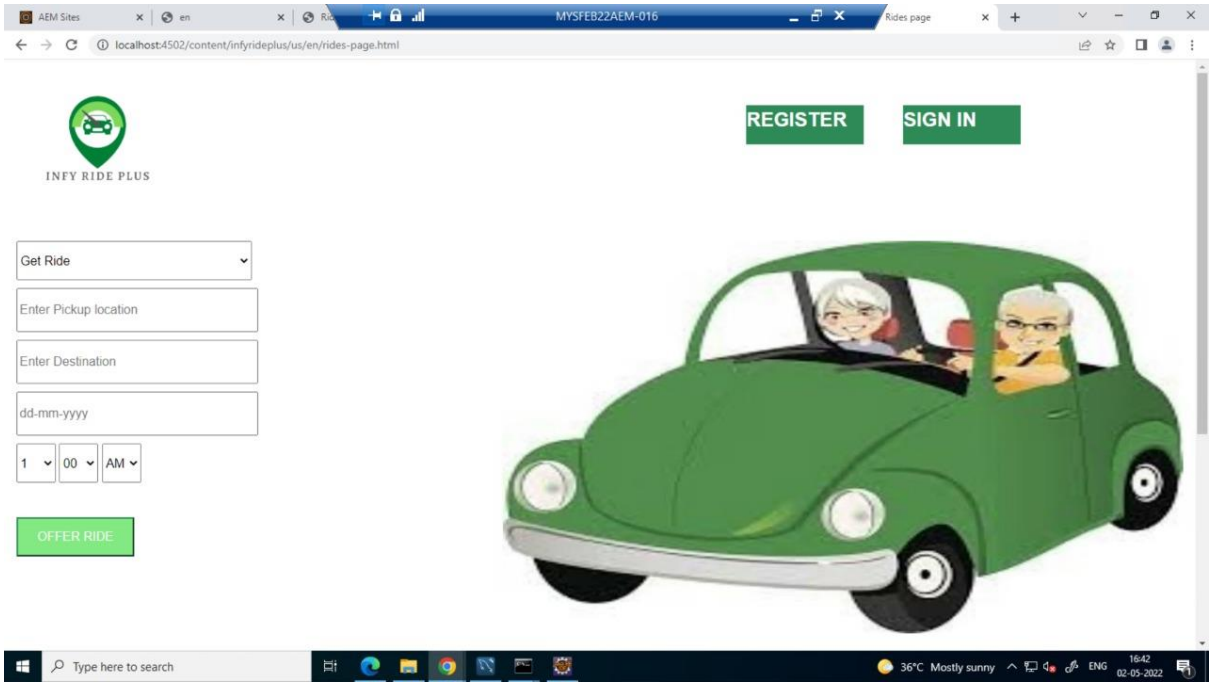


Fig-06: Get Ride page

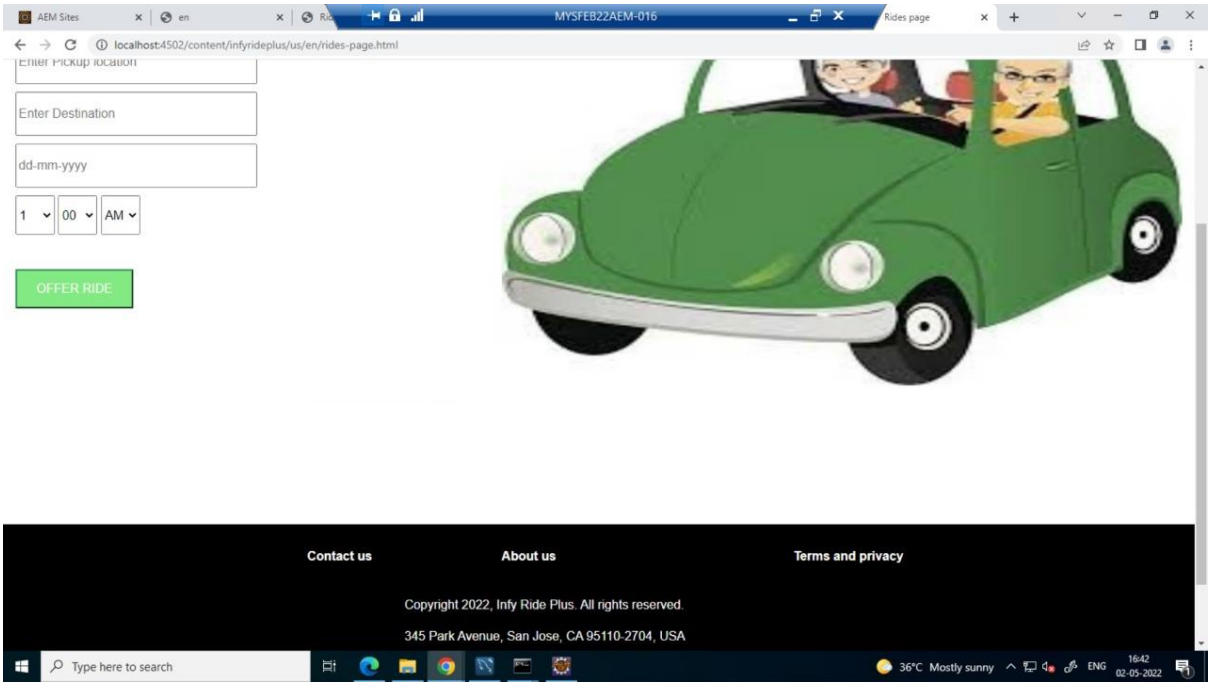


Fig-07: Get Ride/offer ride page

About Us Page:

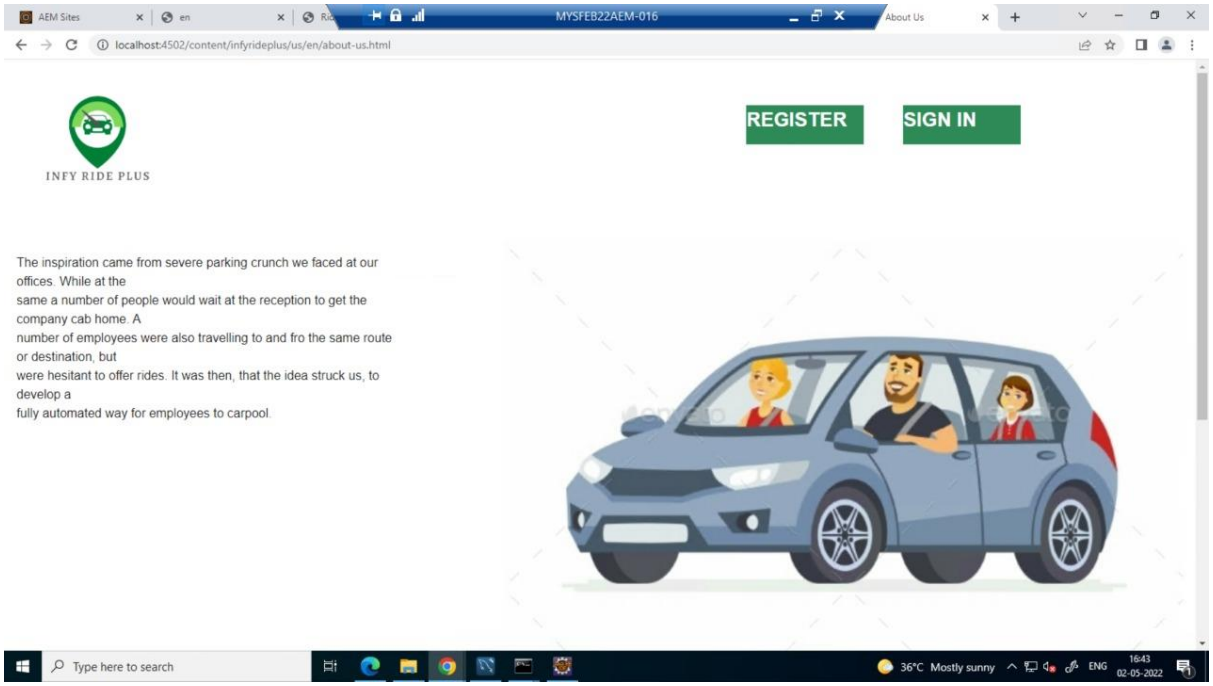


Fig-08: About us page

Terms and Privacy Page:

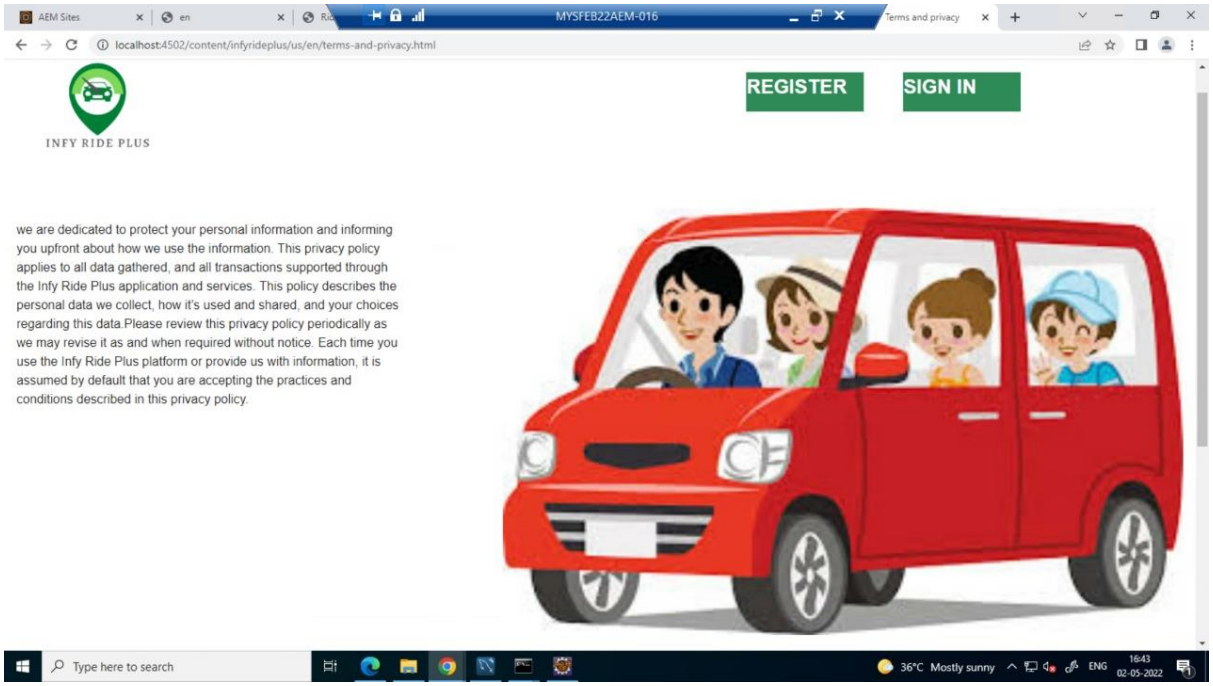


Fig-09: Terms and privacy page

Contact Us Page:

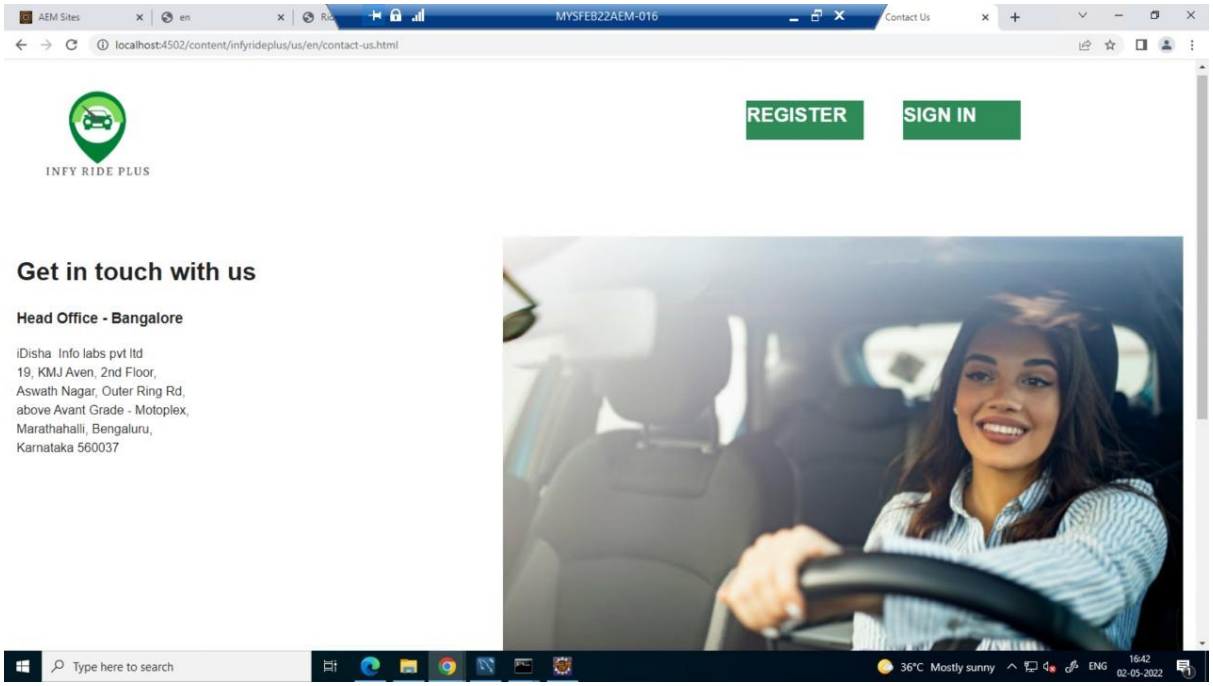


Fig-10: contact us page

Chapter 5: Implementation and Testing:

5.1 Implementation:

1) **Requirements**

Recommended System Requirements:

- A good CPU and a GPUwith at least 8GB memory.
- At least 8GB of RAM.
- Active internet connection so that the system can access the online resources through links.

Recommended Software Requirements:

- Eclipse IDE
- AEM 6.5
- Apache maven 3.3.9.

2) **Front - end :** The frontend of the project has been developed in AEM itself with the help of Java. The frontend development includes the HTML and CSS which helps in web designing and styling of the web pages and components used on the website. The coding of HTML and CSS is done in Eclipse IDE..

3) **Back - end :** The backend is coded in Java in Eclipse only. The database is designed in MySQL. In the backend, we have created four classes for each functionality- Model class, Service class, Servlet class and DAO class. DAO class is used to connect the UI to the database.

5.2 Testing:

Testing methods used:

1. **Unit Testing:**
   In this testing, we checked the individual modules of the project will be working properly or not. i.e. we tested each and every unit of the application separately in developer's environment. In our project, we have used unit testing. With unit testing, we can test for each and every function individually.

2. **Integration Testing**:

   In integration testing, system consists different modules, where in each module can arise problems during the testing. Integration testing should be developed from the system specification. Firstly, a minimum configuration must be integrated and then tested.

Chapter 6: Conclusion:

Infyride Plus is the name of the project which I have created with 5 more co-trainees of this intership. This website is developed for the employees of Infosys Limited. Employees can use this application to travel from one place to another place. During their journey, they can offer the ride to other infoscions also. When they are booking a ride, they get two options- find ride and offer ride.

During this project, I have learnt teamwork, punctuality and how to do all the work with a clear understanding and worked on some technologies like AEM and Java.

7.3 References

- Infosys global application ***LEX*** for Education and Training purposes

  URL*:* *https://lex.infosysapps.com*

- Infosys global application ***SPRING BOARD*** for Education and Training purposes

  URL*:* *https://infyspringboard.onwingspan.com/*

Appendices:

Note: ***As*** *per Infosys Limited, Mysore's privacy policies, Industrial mentor cannot give signature on FPR reports.*

FPR-1

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Puneet Kumar		Department	Computer Science	
Industry/Organization	Infosys Limited		Date/Duration	Jan 22 - Apr 22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good work done				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT** ✓				
Name of Industry Mentor	Riya Roy				
Signature of Industry Mentor					

Receiving Date		**Name of Faculty Mentor**		**Sign**	

FPR – 2

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Puneet Kumar		Department	Computer Science	
Industry/Organization	Infosys Limited		Date/Duration	Feb 22- May 22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good work done				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT** ✓				
Name of Industry Mentor	Riya Roy				
Signature of Industry Mentor					

Receiving Date		**Name of Faculty Mentor**		**Sign**	

FPR – 3

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Puneet Kumar		Department	Computer Science	
Industry/Organization	Infosys Limited		Date/Duration	Jan 22 - Apr 22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good work done				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT** ✓				
Name of Industry Mentor	Riya Roy				
Signature of Industry Mentor					

Receiving Date		**Name of Faculty Mentor**		**Sign**	

FPR – 4

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Puneet Kumar		Department	Computer Science	
Industry/Organization	Infosys Limited		Date/Duration	Feb22-Apr22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good work done				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT** ✓				
Name of Industry Mentor	Riya Roy				
Signature of Industry Mentor					

Receiving Date		**Name of Faculty Mentor**		**Sign**	

FPR – 5

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Puneet Kumar		Department	Computer Science	
Industry/Organization	Infosys Limited		Date/Duration	Feb22-Apr22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good work done				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT** ✓				
Name of Industry Mentor	Riya Roy				
Signature of Industry Mentor					

Receiving Date		**Name of Faculty Mentor**		**Sign**	

FPR – 6

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Puneet Kumar		Department	Computer Science	
Industry/Organization	Infosys Limited		Date/Duration	Feb 22- May 22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good work done				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT** ✓				
Name of Industry Mentor	Riya Roy				
Signature of Industry Mentor					

Receiving Date		**Name of Faculty Mentor**		**Sign**	

FPR – 7

FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR

Name of student	Puneet Kumar		Department	Computer Science	
Industry/Organization	Infosys Limited		Date/Duration	Feb22-Apr22	
Criterion	**Poor**	**Average**	**Good**	**Very Good**	**Excellent**
Punctuality/Timely completion of assigned work					✓
Learning capacity/Knowledge up gradation					✓
Performance/Quality of work					✓
Behaviour/Discipline/Team work					✓
Sincerity/Hard work					✓
Comment on nature of work done/Area/Topic	Good work done				
OVERALL GRADE (Any one)	**POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT** ✓				
Name of Industry Mentor	Riya Roy				
Signature of Industry Mentor					

Receiving Date		**Name of Faculty Mentor**		**Sign**	