

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



**Final Year Internship Report**  
on  
**InfyRide Plus - Online Cab Booking System**

**Submitted By:**

**Aparna Pandey**  
**0901CS181017**

**Faculty Mentor:**

**Prof Jaimala Jha**

**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:

**Aparna Pandey**  
**0901CS181017**

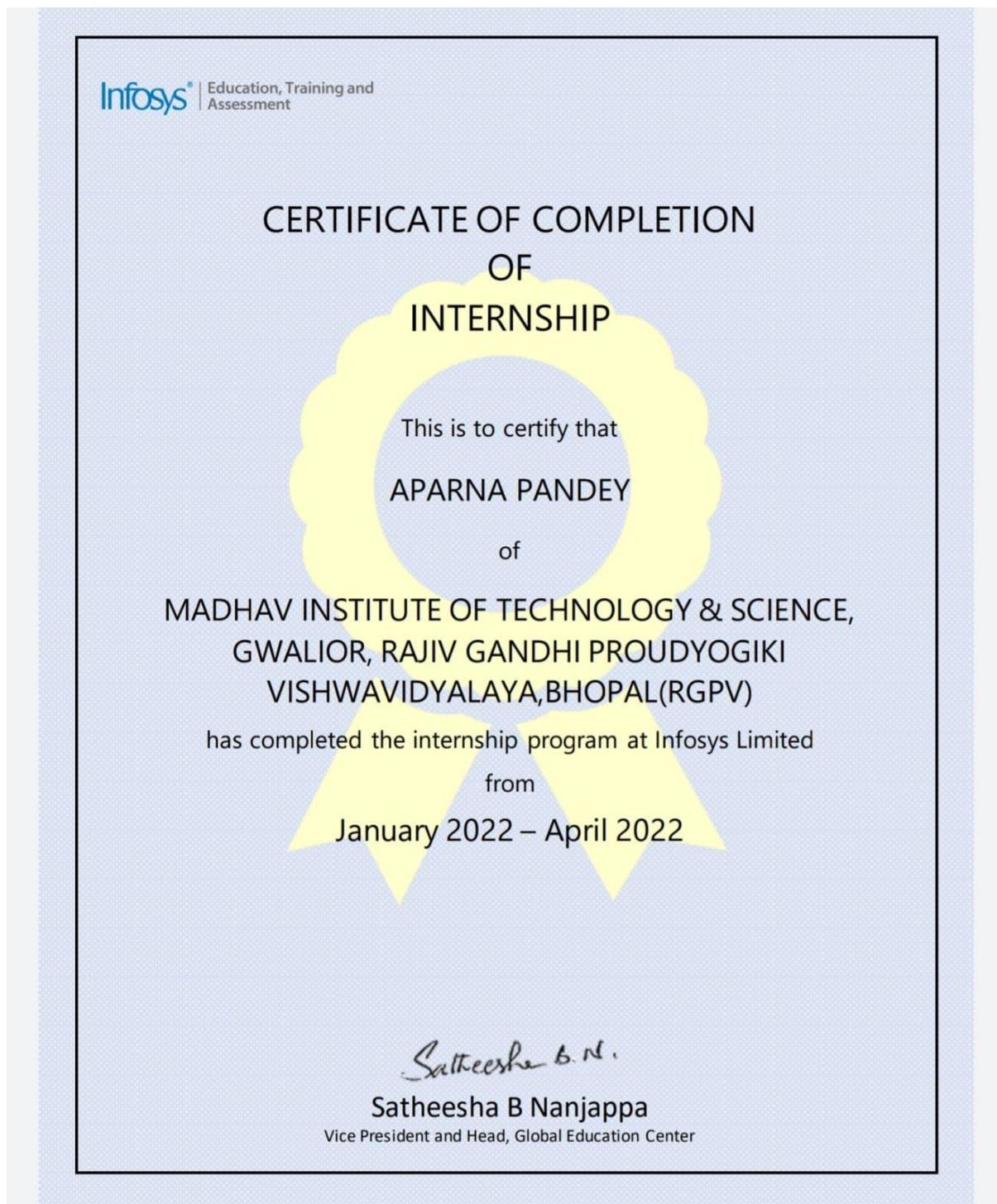
Internship Faculty Mentor:

**Jaimala Jha**  
**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**

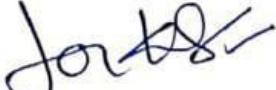
# Internship Certificate Received from Infosys Limited.



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

**CERTIFICATE**

This is to certify that Aparna Pandey (0901CS181017) has submitted an Internship report titled "InfyRide Plus-Online Cab Booking System" of work she completed under the mentorship of Jaimala Jha in partial fulfilment of the requirement for the award of a Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

  
**Jaimala Jha**  
Faculty Mentor  
Assistant Professor  
Computer Science and Engineering

  
**Dr. Manish Dixit**  
Professor and Head  
Computer Science and Engineering  
**Dr. Manish Dixit**  
Professor & Head  
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)

**CERTIFICATE**

This is to certify that Aparna Pandey (0901CS181017) has submitted an Internship report titled "InfyRide Plus-Online Cab Booking System" of work she completed under the mentorship of Jaimala Jha in partial fulfilment of the requirement for the award of a Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

**Jaimala Jha**  
Faculty Mentor  
Assistant Professor  
Computer Science and Engineering

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

## **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 presented in this Internship report is an authenticated and original record of my work under the mentorship of Jaimala Jha, Assistant Professor, Department of CSE, for the partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in CSE at Madhav Institute of Technology & Science, Gwalior.

I certify that the information contained in this report has not been submitted elsewhere for the award of a degree or diploma.



Aparna Pandey

0901CS181017

IV Year,

Computer Science and  
Engineering

# **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 presented in this Internship report is an authenticated and original record of my work under the mentorship of Jaimala Jha, Assistant Professor, Department of CSE, for the partial fulfilment of the requirements for the award of the degree of Bachelor of Technology in CSE at Madhav Institute of Technology & Science, Gwalior.

I certify that the information contained in this report has not been submitted elsewhere for the award of a degree or diploma.

Aparna Pandey  
0901CS181017  
IV Year,  
Computer Science and  
Engineering

## **ACKNOWLEDGEMENT**

My full-semester internship has been really beneficial to my career. I am grateful to Madhav Institute of Technology & Science for allowing me to continue my disciplinary/interdisciplinary internship as a curriculum requirement, as provided by the Flexible Curriculum Scheme (based on the AICTE Model Curriculum 2018), which was approved by the institute's Academic Council. Dr. R. K. Pandit, the institute's Director, and Dr. Manjaree Pandit, the Dean Academics, are to thank for this.

I'd want to express my gratitude to my department, the Department of Computer Science and Engineering, for allowing me to participate in this internship. I gratefully acknowledge Dr. Manish Dixit, Professor and Head, Department of Computer Science and Engineering, for his unwavering assistance during this engagement, which helped to streamline the process and formalities.

I owe a debt of gratitude to my faculty mentors. For her continued support and close mentoring throughout the internship, I am grateful to Jaimala Jha, Assistant Professor, Department of Computer Science and Engineering. I am also grateful to the department's academics and personnel.

Aparna Pandey  
0901CS181017  
IV Year,  
Computer Science and  
Engineering

# **ABSTRACT**

## **An Internship Report for Final Year Evaluation**

### **Internship:**

This internship report is about the project we made under infosys and the training which we got with the help of AEM and eclipse .initial 2 months were based on learning and last 2 months were based on the implementation of our learning . during initial 2 months we learnt different technology like component development and using it inside eclipse and we have implemented these technologies inside our project.

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

**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

<b>TITLE</b>	<b>PAGE NO.</b>
<b>Internship Certificate from Industry</b>	i
<b>Institute Internship Certificate</b>	ii
<b>Declaration</b>	iii
<b>Acknowledgement</b>	iv
<b>Abstract</b>	v
<b>Abbreviation</b>	vi
<b>Chapter 1: Internship Overview</b>	1
1.1    Infy Ride Plus	
1.2    Objective	
<b>Chapter 2: System Requirement</b>	2
<b>Chapter 3: System Analysis</b>	4
<b>Chapter 4: System Design</b>	6
<b>Chapter 5: Implementation</b>	14
<b>Appendices</b>	15

## **LIST OF ABBREVIATIONS**

<b>Abbreviation</b>	<b>Description</b>
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**

## **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 infosys employees.

## **1.2Objective:**

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.

## **1.3Scope:**

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 Learning 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 program gave me the lessons on Java, Adobe Experience Manager, HTML, CSS, JavaScript, MySQL

## **Chapter 2: System Requirement**

### **2.1 System Feasibility:**

The feasibility analysis of the system is a critical step in the system design process. A feasibility study evaluates a system proposal for its influence on the organisation, ability to meet user needs, and resource utilisation. The feasibility study determines whether or not the system has been correctly developed.

### **2.2 Software Implementation Language/Technology:**

1. Java: this is a platform-independent language which allows developer to run the same source code on different systems such as Windows, Linux, and others. It's mostly used for online and mobile app development. It's a multithreaded language with memory management built in. For constructing java servlet pages, we employed java as a backend development programming language.
2. HTML : HTML is the standard mark-up language which produce online pages and web applications. Web browsers accept HTML documents from a web server or local storage and convert them to multimedia web pages. HTML originally included visual clues for the document's appearance and logically represented the structure of a web page
3. CSS: Cascading Style Sheet (CSS) is a style sheet language for expressing how a document produced in a markup language should be presented. Although it's most typically used to style HTML and XHTML web pages and client interfaces, the language may be used to style any XML document, including plain XML, SVG, and XUL, and is suited for speech and other media rendering.
4. JavaScript : JavaScript is a high-level, frequently just-in-time compiled language that is consistent with ECMAScript. It's a programming language that, along with HTML and CSS, is one of the Web's most important technologies. On the client side, JavaScript is used by over 97 percent of websites for page behaviour, with third-party libraries typically added.
5. Adobe Experience Manager (AEM): AEM stands for Adobe Experience Manager. It's an enterprise content management system that makes it easier to create, manage, and deliver content and digital media. It gives us the ability to build new digital experiences. It's a content management system that runs on Java. It is really beneficial to develop websites in which we may create components in Java according to our requirements. CRXDE Lite saves all of its data (Content Repository Extreme Development Environment).

6. MySQL:(Relational Database Management System) is a relational database management system (RDBMS).. It's free and open source. It adheres to the ANSI SQL standards. It's suitable for both little and large projects. It's quick, dependable, scalable, and simple to use. Facebook, Twitter, YouTube, and more sites use it. Content management systems such as WordPress, AEM, and others use it as well.
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 UML behaviour or dynamic diagram is a use case diagram. In use case diagrams, actors and use cases are used to model how a system works. Use cases are a collection of tasks, services, and operations that the system must perform. In this context, a "system" refers to something that is being created or maintained, such as a website. The "actors" are people or things who carry out certain tasks within the system. Use case diagrams are helpful for visualising the functional requirements of a system, which will impact design decisions and development priorities.

#### UML Use Case for Infy Ride Plus:

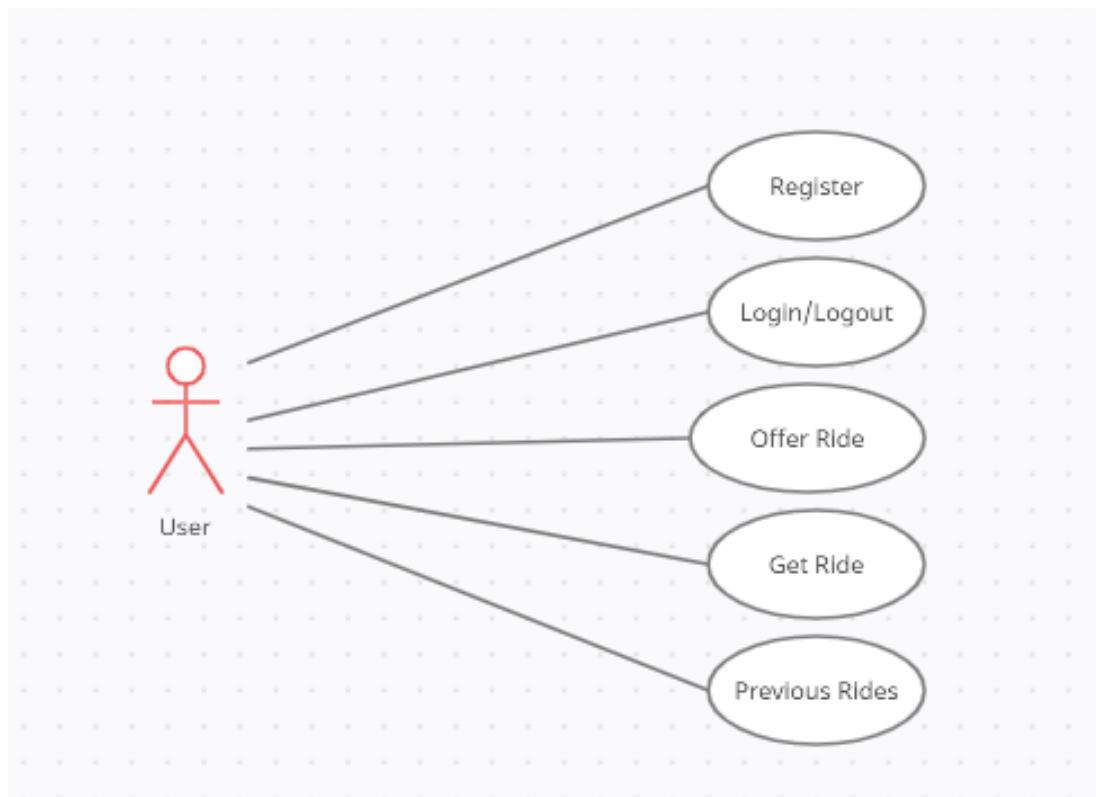
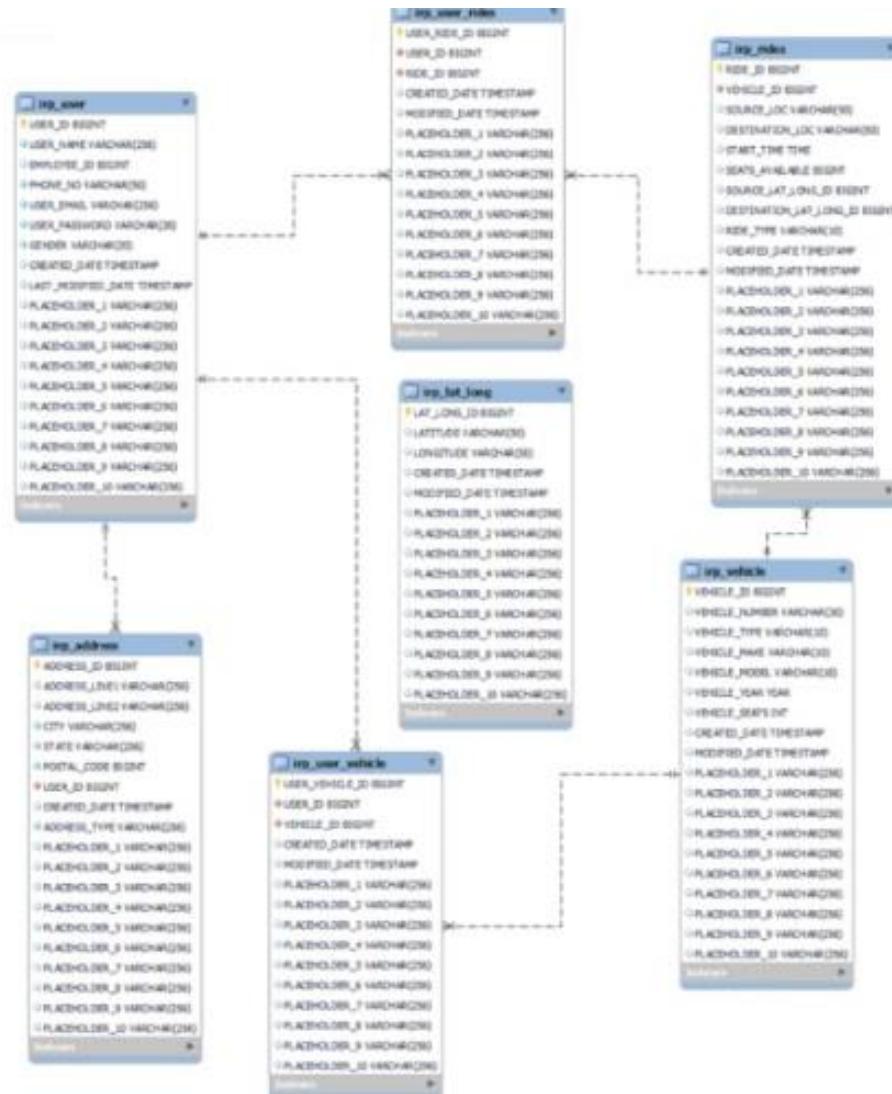


Fig1- use case diagram

**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 2** Data base diagram

# Chapter 4: System Design

## 4.1 Architectural Design

The architectural design is required by the programme in order to express the software design.

"The process of specifying a collection of hardware and software components and their interfaces to provide the foundation for the creation of a computer system," according to the IEEE. Software designed for computer-based systems can take on any of these architectural styles.

### Hierarchy of the project:

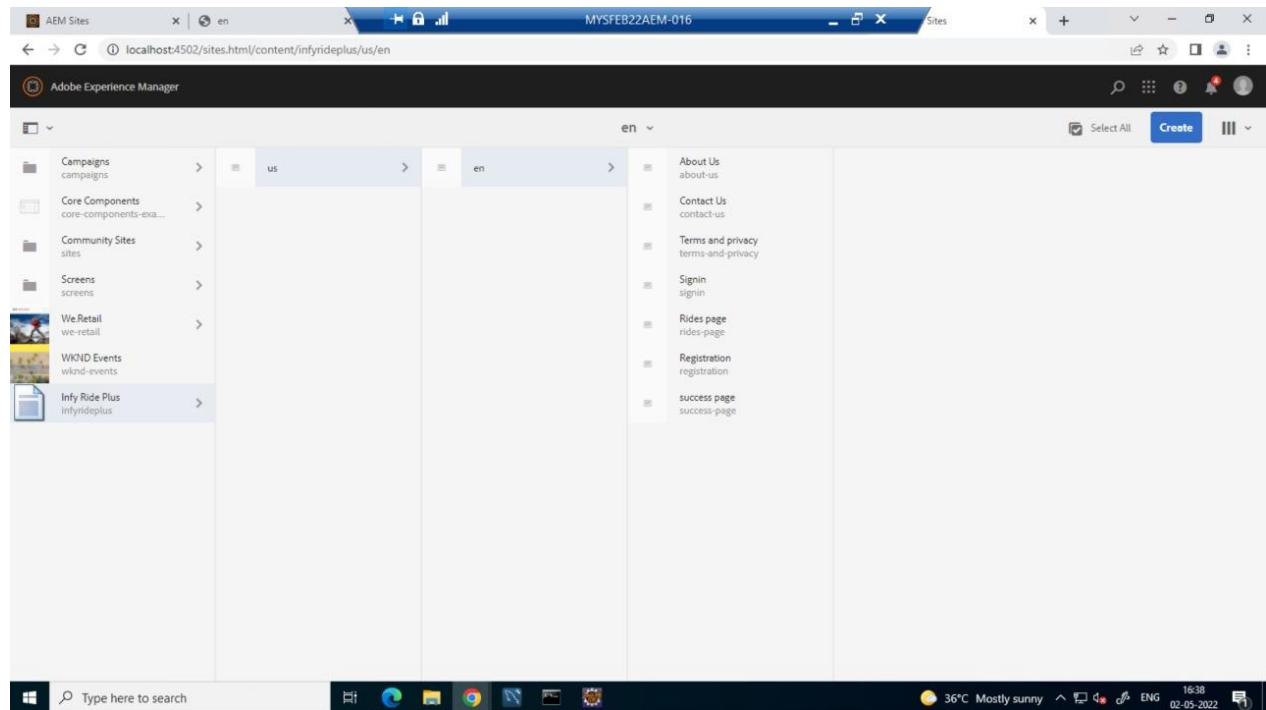


Fig 3: different pages of Infy Ride plus

## 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:

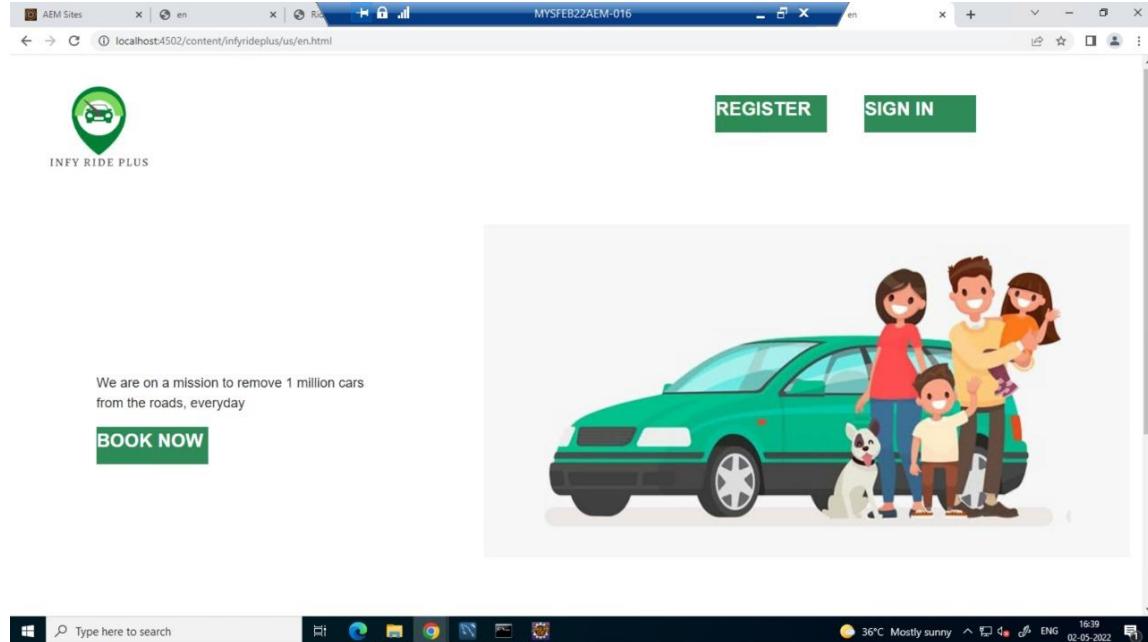


Fig 4:home page

### Sign in Page:

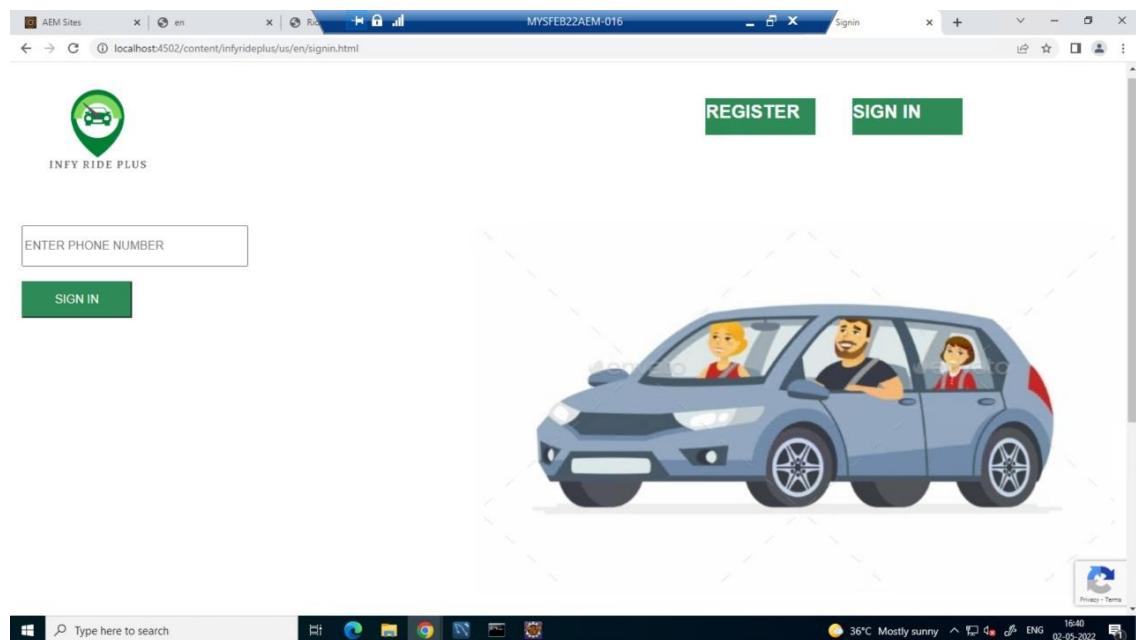


Fig 5: sign in page

## OTP Authentication Page:

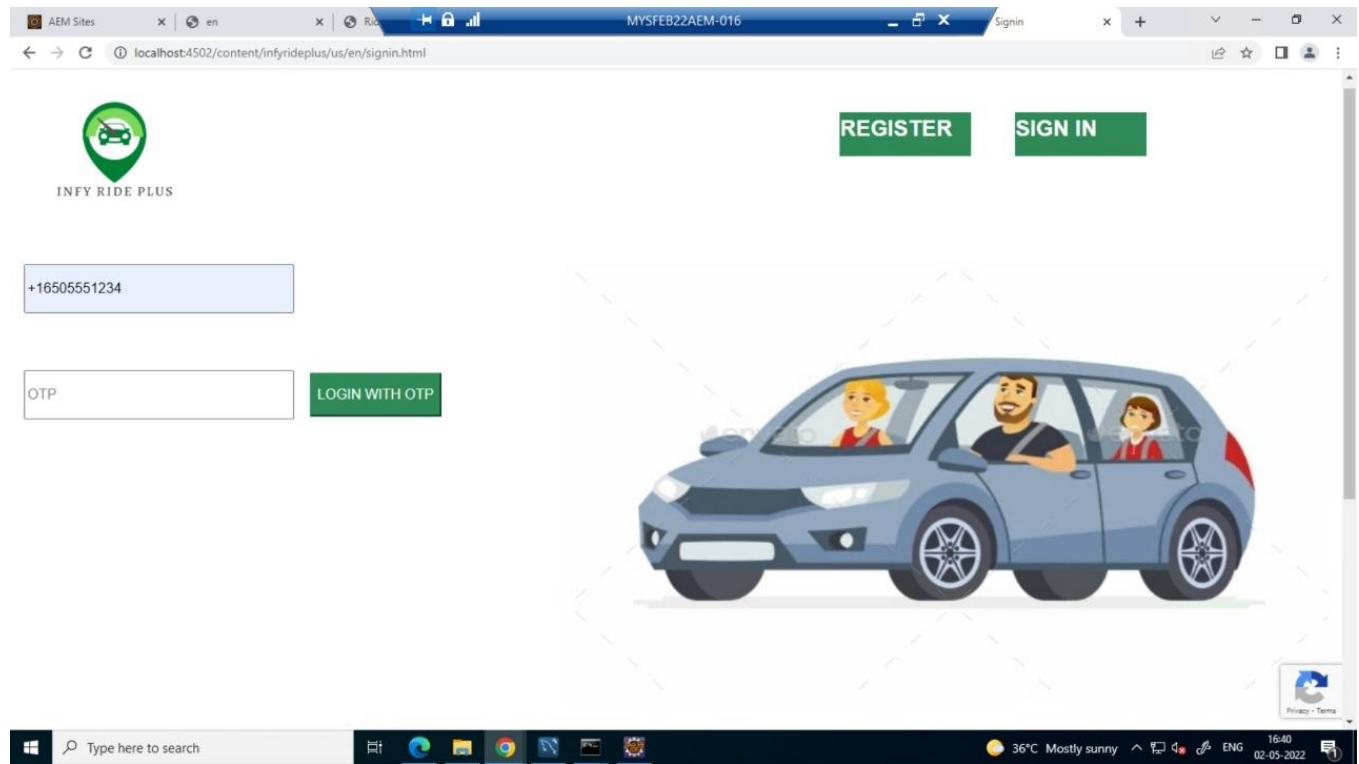


Fig 6: OTP Authentication Page

## Registration Page

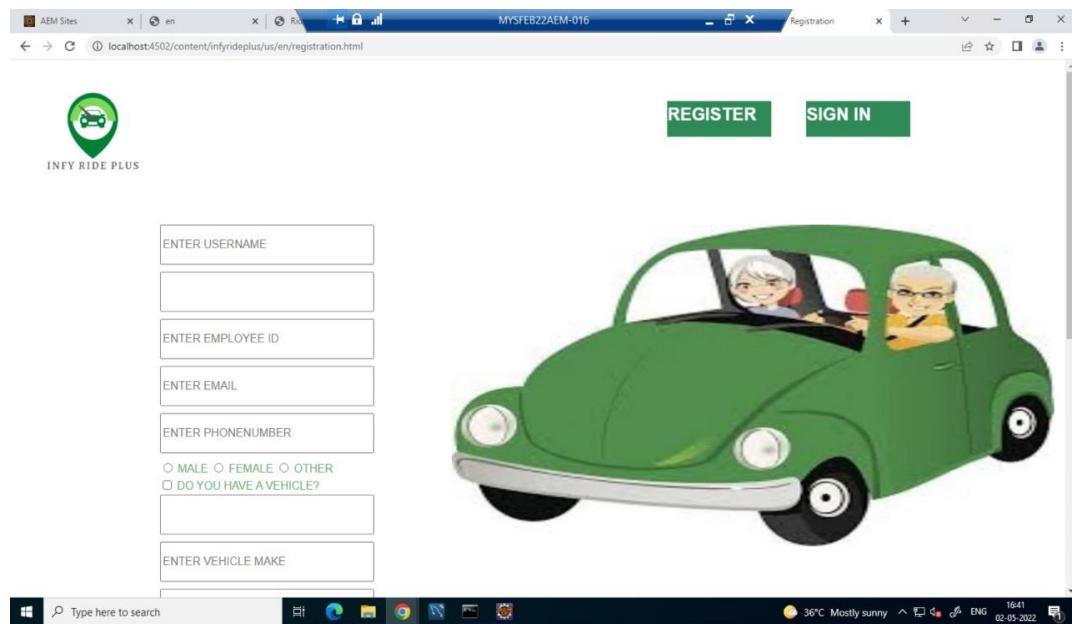
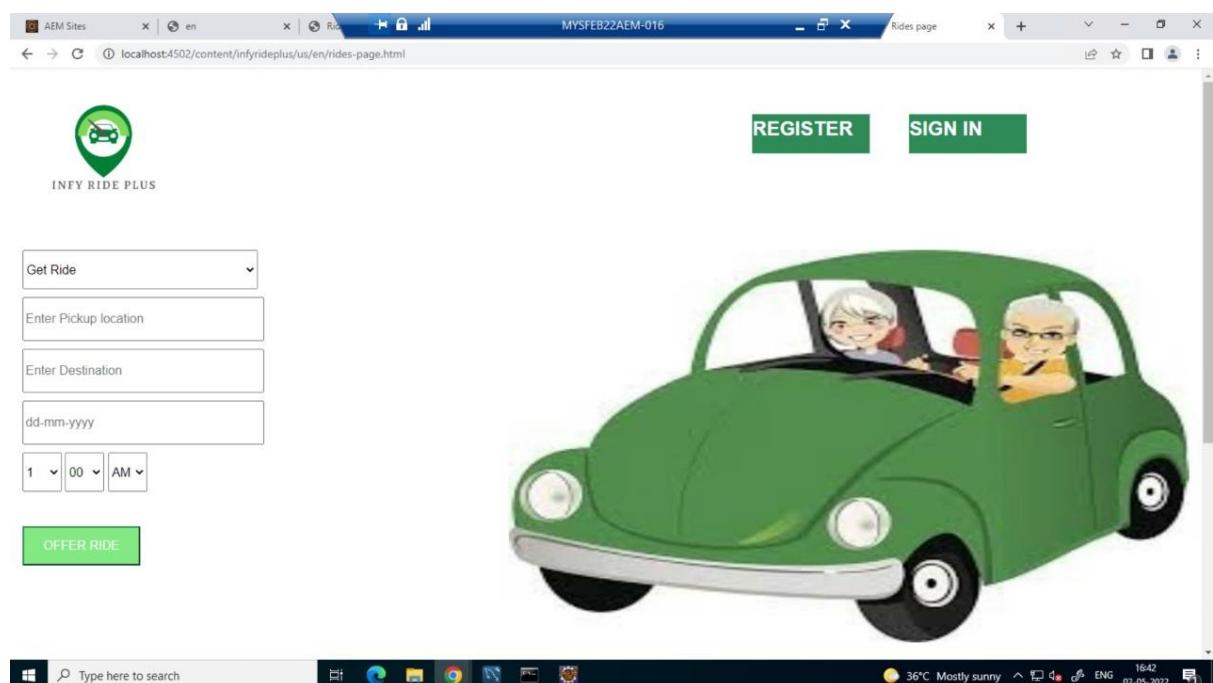


Fig 7: Registration Page

## Get Ride/Offer Ride Page:



**Fig 8: Get Ride/Offer Ride Page**

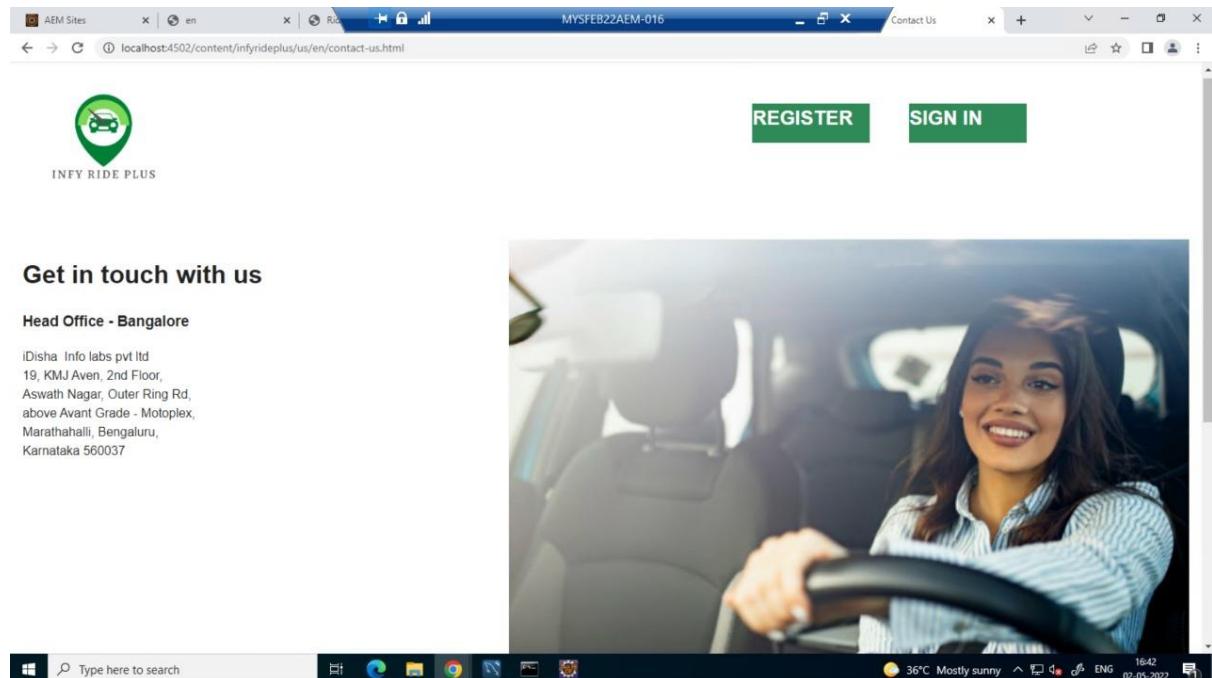
**Fig 9: About Us Page**

The screenshot shows a web browser window for the 'About Us' page of the Infy Ride Plus application. The URL in the address bar is `localhost:4502/content/infyrideplus/us/en/about-us.html`. The page features a green header bar with the text 'AEM Sites' and 'en'. On the right side of the header are 'REGISTER' and 'SIGN IN' buttons. The main content area includes the Infy Ride Plus logo (a green circle with a car icon) and the text 'INFY RIDE PLUS'. To the left of a central illustration of a blue car with three passengers, there is a block of text describing the company's origin: 'The inspiration came from severe parking crunch we faced at our offices. While at the same a number of people would wait at the reception to get the company cab home. A number of employees were also travelling to and fro the same route or destination, but were hesitant to offer rides. It was then, that the idea struck us, to develop a fully automated way for employees to carpool.'

**Fig 10: Terms and Privacy Page:**

The screenshot shows a web browser window for the 'Terms and Privacy' page of the Infy Ride Plus application. The URL in the address bar is `localhost:4502/content/infyrideplus/us/en/terms-and-privacy.html`. The page features a green header bar with the text 'AEM Sites' and 'en'. On the right side of the header are 'REGISTER' and 'SIGN IN' buttons. The main content area includes the Infy Ride Plus logo and the text 'INFY RIDE PLUS'. To the left of a central illustration of a red car with four passengers, there is a block of text about privacy: 'we are dedicated to protect your personal information and informing you upfront about how we use the information. This privacy policy applies to all data gathered, and all transactions supported through the Infy Ride Plus application and services. This policy describes the personal data we collect, how it's used and shared, and your choices regarding this data. Please review this privacy policy periodically as we may revise it as and when required without notice. Each time you use the Infy Ride Plus platform or provide us with information, it is assumed by default that you are accepting the practices and conditions described in this privacy policy.'

## Contact Us Page:



**Fig 11 : Contact Us Page**

# Chapter 5: Implementation :

## 5.1 Implementation:

### 1) Requirements

Recommended System Requirements:

- A good CPU and a GPU with at least 8GB memory.
- Atleast 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

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.



## **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	Aparna Pandey		Department	CSE	
Industry/Organization	Infosys Limited		Date/Duration	Feb22-Apr22	
<b>Criterion</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>
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				
<b>OVERALL GRADE (Any one)</b>	<b>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</b>				
<b>Name of Industry Mentor</b>	Riya Roy				
<b>Signature of Industry Mentor</b>					

Receiving Date		Name of Faculty Mentor		Sign	
----------------	--	------------------------	--	------	--

FPR – 2

**FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR**

Name of student	Aparna Pandey		Department	CSE	
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				
<b>OVERALL GRADE (Any one)</b>	<b>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</b>				
<b>Name of Industry Mentor</b>	Riya Roy				
<b>Signature of Industry Mentor</b>					

Receiving Date		Name of Faculty Mentor		Sign	
----------------	--	------------------------	--	------	--

**FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR**

Name of student	Aparna Pandey		Department	CSE	
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				
<b>OVERALL GRADE (Any one)</b>	<b>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</b>				
<b>Name of Industry Mentor</b>	Riya Roy				
<b>Signature of Industry Mentor</b>					

Receiving Date		Name of Faculty Mentor		Sign	
----------------	--	------------------------	--	------	--

**FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR**

Name of student	Aparna Pandey		Department	CSE	
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				
<b>OVERALL GRADE (Any one)</b>	<b>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</b>				
<b>Name of Industry Mentor</b>	Riya Roy				
<b>Signature of Industry Mentor</b>					

Receiving Date		Name of Faculty Mentor		Sign	
----------------	--	------------------------	--	------	--

**FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR**

Name of student	Aparna Pandey		Department	CSE	
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				
<b>OVERALL GRADE (Any one)</b>	<b>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</b>				
<b>Name of Industry Mentor</b>	Riya Roy				
<b>Signature of Industry Mentor</b>					

Receiving Date		Name of Faculty Mentor		Sign	
----------------	--	------------------------	--	------	--

**FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR**

Name of student	Aparna Pandey		Department	CSE	
Industry/Organization	Infosys Limited		Date/Duration	Feb22-Apr22	
<b>Criterion</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very Good</b>	<b>Excellent</b>
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				
<b>OVERALL GRADE (Any one)</b>	<b>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</b>				
<b>Name of Industry Mentor</b>	Riya Roy				
<b>Signature of Industry Mentor</b>					

<b>Receiving Date</b>		<b>Name of Faculty Mentor</b>		<b>Sign</b>	
-----------------------	--	-------------------------------	--	-------------	--

**FORTNIGHTLY PROGRESS REPORT (FPR) FROM INDUSTRY MENTOR**

Name of student	Aparna Pandey		Department	CSE	
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				
<b>OVERALL GRADE (Any one)</b>	<b>POOR/AVERAGE/GOOD/VERY GOOD/EXCELLENT</b>				
<b>Name of Industry Mentor</b>	Riya Roy				
<b>Signature of Industry Mentor</b>					

Receiving Date		Name of Faculty Mentor		Sign	
----------------	--	------------------------	--	------	--