INFOWAY TECHNOLOGIES,
KOTHRUD, PUNE.

Documentation on

"RIDE RENT"
PG-DAC SEPT 2021

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INFOWAY TECHNOLOGIES

Table of Contents

1. INTRODUCTION:

Ride Rent system is a web based system for a company that rents a vehicle of the customer who is interested in renting a vehicle or taking on rent .This system enables the company to make their services available to the public through the internet and also keep records about their services.

The world has become a place where there is a lot of technological development. Where every single thing done physically has been transformed into computerized form. Nowadays, people's activates have been transformed into work done by computerized systems. One of which is the main target of this project which is about **Ride Rent**. The system of renting a vehicle exist back in the previous years, were people rents their vehicle for their personal reasons. Vehicle renting is essential to many people plan to travel or move from one place to another for business purposes,tour,and visit or holidays, for these reasons vehicle renting is very helpful.

1.1   Problem Statement:

A vehicle rental is a vehicle that can be used temporarily for a fee during a specified period. Getting a rental vehicle helps people get around despite the fact they do not have access to their own personal vehicle or don't own a vehicle at all. The individual who needs a vehicle must contact a rental vehicle company and contract out for a vehicle. The people buy vehicle for their personal use but after sometime owner think that this bad investment so get some money from the vehicles they put their vehicles on rent but they don't get good rent.

1.2   Objectives of project:

- To develop a web based system that will help manage the business of renting the vehicle of customers.

- To help in advertising the vehicle of the owner for rents through service of a company, through the availability of the system online.

2. FEASIBILTY STUDY:

3. ANALYSIS:

3.1 Existing System:

There are lots of web services that rents a vehicle but they did not share customer details to the owner of the vehicle .The deposits of the vehicles are so high for some of the services. Existing web services take high commissions .Local rent services are also available but they are not so efficient customer reviews are not stratifying and vehicle condition are also not good as per demand.

3.2. Proposed System:

> **Admin Management:**

- Admin can add/delete Vehicle, view customer details, owner details and also booking details.
- Admin check document of both owner and users.
- In our system Admin manages list of vehicle available for rent.
- Admin also manages total number of vehicle going on rent.
- Admin manages addition /deletion of vehicle for our system for ex if any vehicle owner not provide good services to customer based on review admin has authority to delete this vehicle from our system.

> **Customer Functionality:**

- Customer can do registration and login.
- Customer search vehicles and book the vehicle.

> **Owner Functionality:**

- Owner can do registration and login.
- Owner can add vehicle.
- Owner can see booking details.

3.3 SOFTWARE REQUIREMENT SPECIFICATION:

5

3.3.1 Hardware:

- Intel i3 processor 3rd generation or later / AMD Ryzen 200 2nd generation or later.
- GB ddr3 ram.
- Windows 7 Home edition or later.
- Sata HDD Space.
- Data Connection 200 kbps.

3.3.2 Software:

➢ **Back End:**

- Framework: Spring Boot
- ORM Tool: Hibernate
- Database: MySQL
- Build Tool: Maven dependencies

➢ **Front End:**

- React-Js.

4. DATABASE DESIGN:

4.1. ADMIN TABLE:

Field	Type	Null	Key	Default	Extra
Aid	bigint	NO	PRI	NULL	auto_increment
name	varchar(32)	NO		NULL	
Email	varchar(32)	NO		NULL	
Password	varchar(32)	NO		NULL	

4.2 BOOKING TABLE:

Field	Type	Null	Key	Default	Extra
Booking id	bigint	NO	PRI	NULL	auto_increment
Car id	bigint	NO		NULL	
Cust id	bigint	NO		NULL	
total_amt	varchar(32)	NO		NULL	
Booking_date	date	NO		NULL	
From_date	date	YES		NULL	
To_date	date	YES		NULL	
Payment_status	Varchar(32)	NO		NULL	
Booking_status	Varchar(32)	NO		NULL	

6

4.3. CARDETAILS TABLE:

Field	Type	Null	Key	Default	Extra
Id	int	NO	PRI	NULL	auto_increment
Car_name	Varchar(32)	YES		NULL	
Car_no	Varchar(32)	YES		NULL	
Brand	Varchar(32)	YES		NULL	
Color	Varchar(32)	YES		NULL	
User_id	int	YES		NULL	
Car_poster	Long_text	YES		NULL	
Per_day_price	Varchar(32)	NO		NULL	
Added_date	date	YES		NULL	

4.4. CITY TABLE:

Field	Type	Null	Key	Default	Extra
City_id	bigint	NO	PRI	NULL	auto_increment
City_name	Varchar(255)	NO		NULL	

4.5 CUSTOMER TABLE:

Field	Type	NULL	Key	Default	Extra
User_id	bigint	NO	PRI	NULL	
User_name	text	NO		NULL	
Email	Varchar(32)	NO		NULL	
Password	Varchar(32)	NO		NULL	
Contact_no	Varchar(32)	NO		NULL	
City_id	int	NO		NULL	
Added_date	datetime	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED
Ustatus	int	NO		1	

4.6. USERS TABLE:

Field	Type	NULL	Key	Default	Extra
User_id	bigint	NO	PRI	NULL	
User_name	text	NO		NULL	
Email	Varchar(32)	NO		NULL	
Password	Varchar(32)	NO		NULL	
Contact_no	Varchar(32)	NO		NULL	
City_id	int	NO		NULL	
Added_date	datetime	NO		CURRENT_TIMESTAMP	DEFAULT_GENERATED
Ustaus	int	NO		1	

4.2. DESIGN:

4.2 UML Diagrams:

4.2.1 Customer:

Figure 1: Use Case for Customer

INFOWAY TECHNOLOGIES

4.1.2 Vehicle Owner:

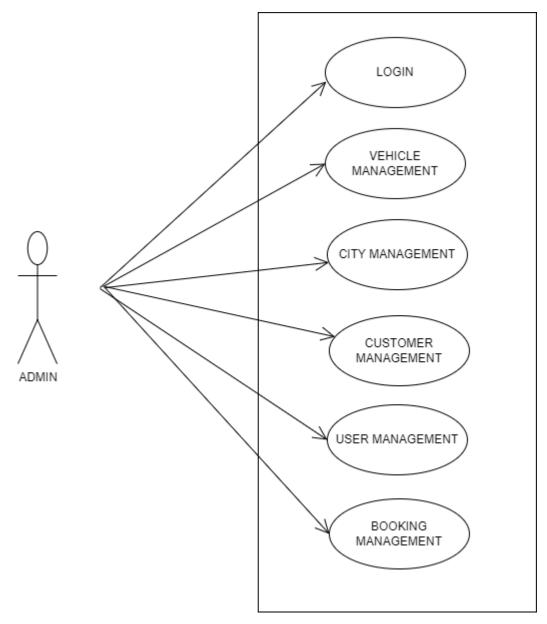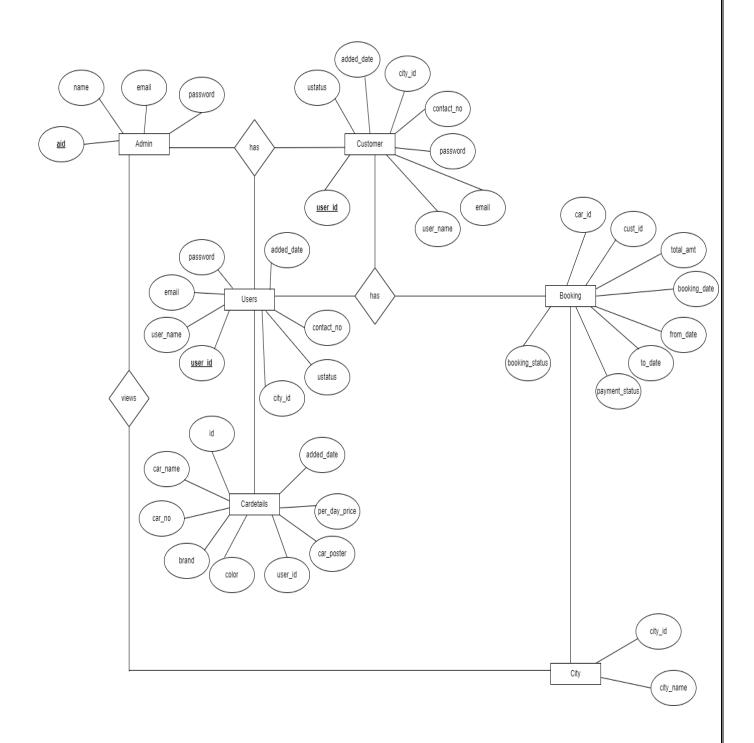**Figure 2: Use-Case Diagram for vehicle owner**

4.2.3Admin:

Figure 3: Use-Case Diagram for Admin

4.3 ER-DIAGRAM:

E-R diagram shows database of Ride Rent System

5. IMPLEMENTATION:

5.1. Modules and Description:

Ride Rent consists of three modules described as below:

- ❖ Customer Module
- ❖ Vehicle Owner Module
- ❖ Admin Module

5.1.1 Customer Module:

- • Customer can login or register.

- • Customer can search for a Vehicle.

- • Customer can book the particular vehicle.

- • Email received for when booking vehicle.

5.1.2 Owner Module:

- • Owner can login or register.
- • Owner can add a vehicle for rent.
- • Owner can delete a vehicle from System.
- • Owner also book an another vehicle.

5.1.3 Admin Module:

- • Admin can login.
- • Admin can approve Booking.
- • Admin can manage your booking.
- • Admin can manage vehicle list.
- • Admin can manage city management.
- • Admin can manage user management.

5.2 Introduction to Technologies:

- **Spring Boot Framework:**

Spring Boot is a project that build on the top of Spring Framework. It provides an easier and faster way to set up, configure, and run both simple and web-based applications.

It is a Spring Module that provides the RAD (Rapid Application Development) feature to the Spring Framework. It is used to create a stand-alone spring based application that we can just run because it needs minimal spring configuration.

Features of Spring Boot Framework:

- **Web Development:**

   It is well suited module for web application development. We can easily create a self-contained HTTP server using embedded servers like Tomcat.

- **Spring Application:**

   It is a class which provides the convenient way to bootstrap a spring application which can be started from main method. We can call start our application just by calling a static run() method.

- **Application Events and Listeners:**

   Spring Boot uses events to handle variety of tasks. It allows us to create factories file that are used to add listeners. We can refer it by using Application Listener key.

- **Admin Support**

   Spring Boot provides the facility to enable admin related features for the application. It is used to access and manage application remotely. We can enable it by simply using spring.application.admin.enabledproperty.

- **Properties Files**

   Spring Boot provides rich set of Application Properties. So, we can use that in properties file of our project. Properties file is used to set properties like:server.port = 8080 and many others. It helps to organize application properties.

- **Security**

   Spring Boot applications are spring based web applications. So, it is secure by default with basic authentication on all HTTP endpoints. A rich set of Endpoints are available for develop a secure Spring Boot application.

14

5.2.1   Advantages of Spring Boot Framework:

1. It creates stand-alone spring applications that can be started using Java -jar.

2. It tests web applications easily with the help of different Embedded HTTP servers such as Tomcat, Jetty, etc. We don't need to deploy WAR files.

3. It provides opinionated 'starter' POMs to simplify our Maven configuration.

4. It provides production-ready features such as metrics, health checks, and externalized configuration.

5. There is no requirement for XML configuration.

6. It offers a CLI tool for developing and testing the Spring Boot application.

7. It offers the number of plug-ins.

- **Hibernate**

  Hibernate is a Java framework that simplifies the development of Java application to interact with the database. It is an open source, lightweight, ORM (Object Relational Mapping) tool. Hibernate implements the specifications of JPA (Java Persistence API) for data persistence.

- **ORM Tool**

  An ORM tool simplifies the data creation, data manipulation and data access. It is a programming technique that maps the object to the data stored in the database. The ORM tool internally uses the JDBC API to interact with the database.

- **JPA:**

  Java Persistence API (JPA) is a Java specification that provides certain functionality and standard to ORM tools. The javax.persistence package contains the JPA classes and interfaces.

  MySQL

  MySQL, the most popular Open Source SQL database management system, is developed, distributed, and supported by Oracle Corporation.

Features of Myself:

- **MySQL is a database management system:**

  A database is a structured collection of data. It may be anything from a simple Salonping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MySQL Server. Since computers are very good at handling large amounts of data, database management systems play a central role in computing, as standalone utilities, or as parts of other applications.

- **MySQL databases are relational:**

  A relational database stores data in separate tables rather than putting all the data in one big storeroom. The database structures are organized into physical files optimized for speed. The logical model, with objects such as databases, tables, views, rows, and columns, offers a flexible programming environment.

- **MySQL software is Open Source:**

  Open Source means that it is possible for anyone to use and modify the software. Anybody can download the MySQL software from the Internet and use it without paying anything.

- **The MySQL Database Server is very fast, reliable, scalable, and easy to use:**

  MySQL Server was originally developed to handle large databases much faster than existing solutions and has been successfully used in highly demanding production environments for several years. Although under constant development, MySQL Server today offers a rich and useful set of functions. Its connectivity, speed, and security make MySQL Server highly suited for accessing databases on the Internet.

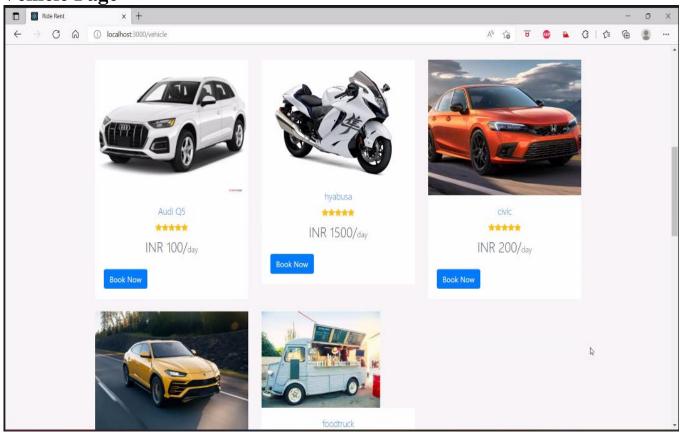- **MySQL Server works in client/server or embedded systems:**
  The MySQL Database Software is a client/server system that consists of a multithreaded SQL server that supports different back ends, several different client programs and libraries, administrative tools, and a wide range of application programming interfaces.
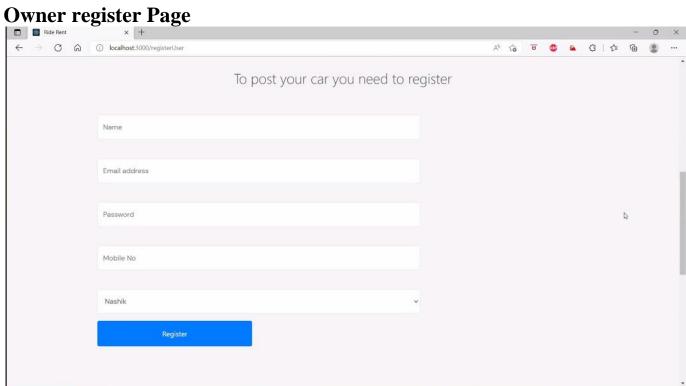
INFOWAY TECHNOLOGIES

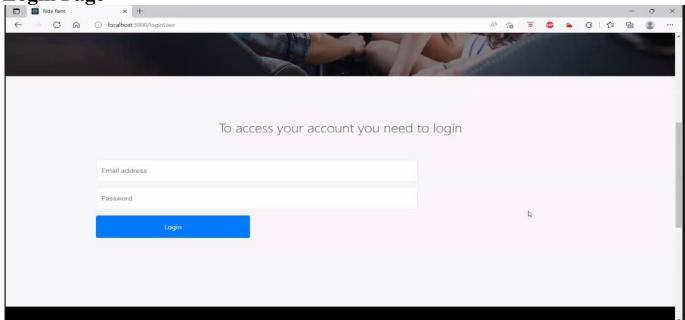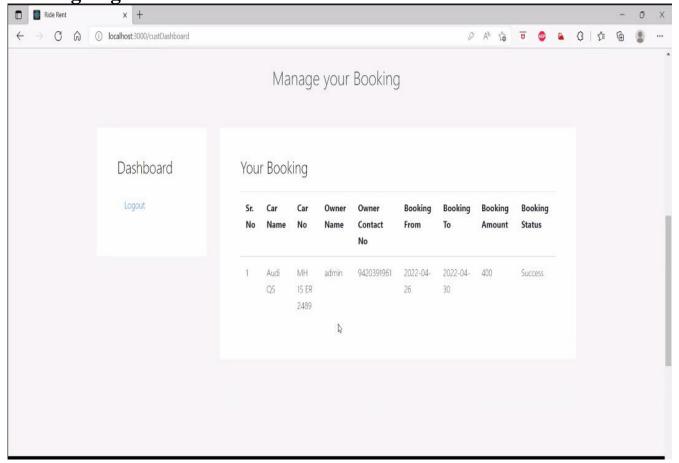# 6. SCREENSHOT:

Home Page
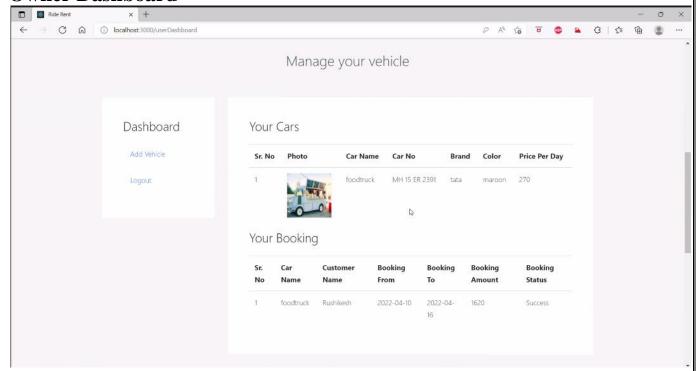
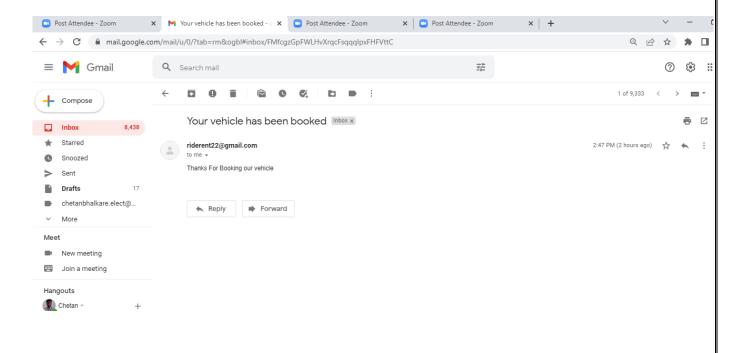# Vehicle Page

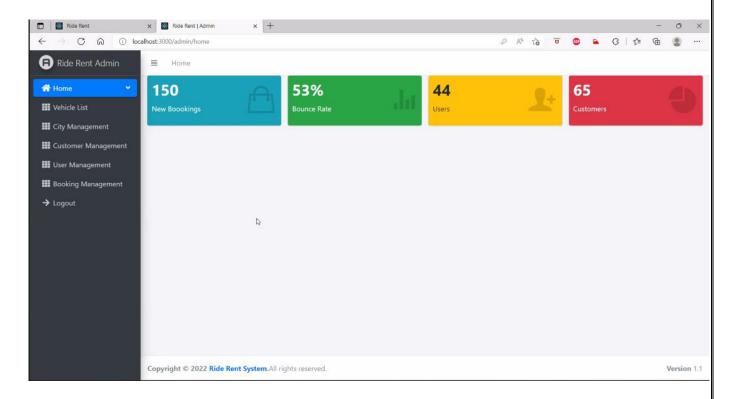# Owner register Page
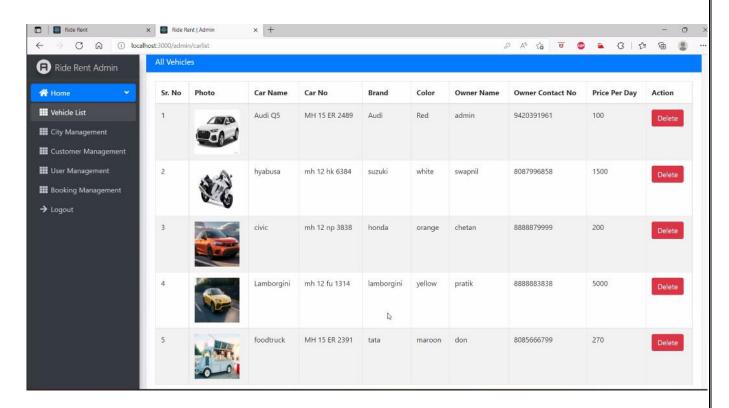
Login Page

Booking Page

Owner Dashboard

Booking Mail Received at Customer Side

Admin Page

Vehicle List

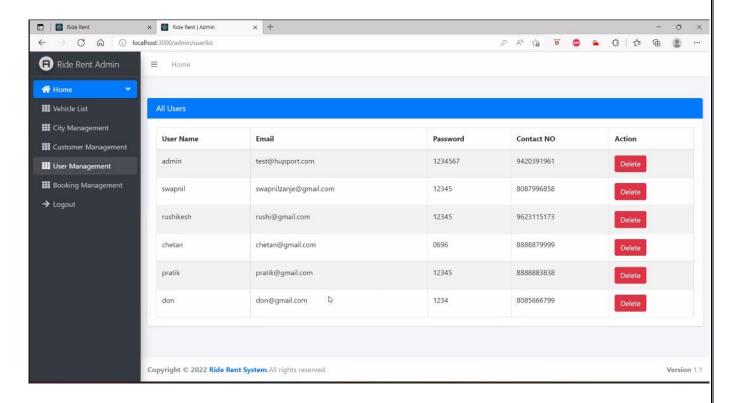INFOWAY TECHNOLOGIES

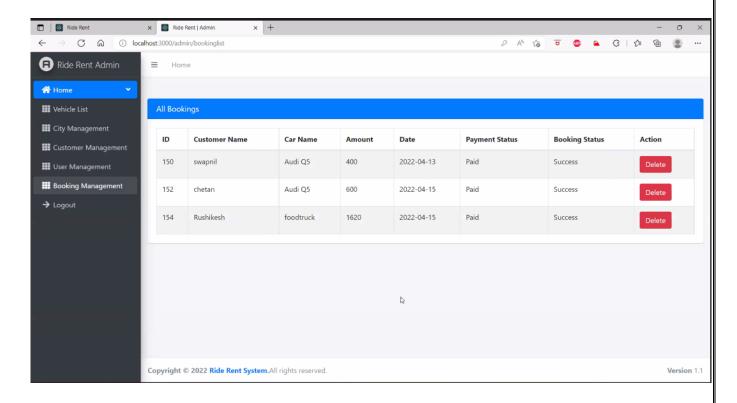# City Management Page

Customer Management Page

INFOWAY TECHNOLOGIES

User Management Page

Booking Management Page

7. CONCLUSION:

Vehicle rental business has emerged with a new goodies compared to the past experience where every activity concerning vehicle rental business is limited to a physical location only. Even though the physical location has not been totally eradicated; the nature of functions and how these functions are achieved has been reshaped by the power of internet. Nowadays, customers can reserve vehicles online, rent vehicle online, and have the vehicle brought to their door step once the customer is a registered member or go to the office to pick the vehicle. The web based vehicle rental system has offered an advantage to customer as well as Owners and vehicle Rental Companyto efficiently and effectively manage the business and satisfies customers' need at the click of a button.

8. FUTURE SCOPE:

1. We will arrange chat application for customers as well as owners.

2. Pickup and Drop system by Ride Rent.

3. GPS-Detection Technology.

4. The User payment for the current booking receipt will be generate and sending via E-mail.