Functional Requirement Specification (FRS)

(Identify new bikes)

(https://www.zigwheels.com/)

1. Philomina Nancy Arokiaraj Stephen-890201
2 . Poornima Manoharan-890115
3. Shalini Ravi - 890200
4. Shanmugapriya Palanisamy-891373

Table of Contents:

1.0 Introduction 4
- 1.1 Purpose 4
- 1.2 Project Background 4
- 1.3 Scope 4
- 1.4 Point of contacts 4

2.0 Methodology 5

3.0 Solution overall description 5
- 3.1 Solution perspective 5

4.0 Functional Requirement 6
- 4.1 Functional Requirement: Open valid URL 6
- 4.2 Functional Requirement: Login with Google 6
- 4.3 Functional Requirement: Used cars 7
- 4.4 Functional Requirement: Upcoming bikes 8

5.0 Data Flow Diagram 9

6.0 Nonfunctional Requirements 10
- 6.1 Interface Requirement 10
  - 6.1.1 Home Page 10
  - 6.1.2 Login Page 11
  - 6.1.3 Login Page(with error) 12
  - 6.1.4 Home page 13
  - 6.1.5 Used cars page 14
  - 6.1.6 Used cars in Chennai page 15
  - 6.1.7 Home Page 16
  - 6.1.8 Upcoming Honda bikes page 17
- 6.2 Hardware requirement 18
- 6.3 Software requirement 18
- 6.4 Communication requirement 18
- 6.5 Data convention requirement 18

6.6 Security and safety requirement 18
6.7 Reliability 18
6.8 Recoverability 19
6.9 System availability 19
7.0 General performance 20
7.1 Capacity 20
7.2 Data Retention 20
7.3 Error handling 20
7.4 Validation rules 20
7.5 Convention of standards 20

1.0 Introduction:

1.1 Purpose:

This document underlies the functional requirements for identifying upcoming bikes and used cars for zigwheels.com. The overall identification of bikes and cars covers a wide range of features, which are proposed to be implemented on a phase-wise basis.

The document covers the functional requirements for phase I delivery comprising google sign in, popular used cars and upcoming bikes.

1.2 Project Background:

- zigwheels.com will provide services to research cars, bikes, prices, technical specifications and other attributes.
- The services can include listing of your bikes and used cars online or browsing through the list of bikes and used cars listed by users of zigwheels.com.
- zigwheels.com may also provide the user the ability to send SMS to the user's top callers or send an email to the users friends letting them know about the service.

1.3 Scope:

1. User can search the bike and used cars based on their wish
2. Facility to sort the upcoming bike list based on the manufacturer name.
3. Facility to sort the used car list based on the cities.
4. Users have the facility to ask their queries.

1.4 Points of contacts:

Shwetha J.V (338020)

2.0 Methodology:

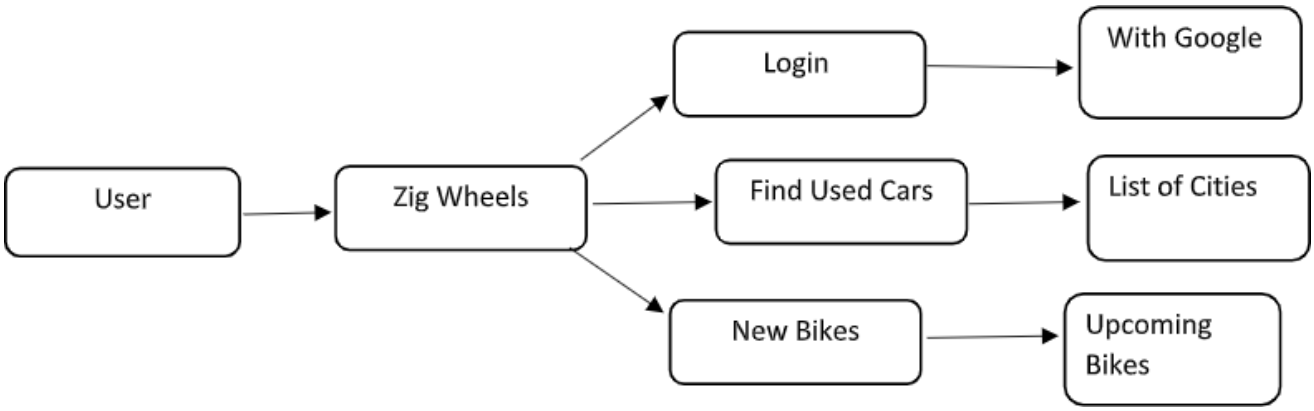
As the project involves integration with multiple development teams, a complex environment and agile methodology will be used for over all implementation of the project.

3.0 Solution overall description:

Solution over view diagram.

3.1 Solution perspective:

At present, customers are purchasing cars and bikes by visiting the showroom. This website is used to book cars and bikes online based on customer requirements. Customer able to purchase their cars and bikes based on their wish.



Solution Overview Diagram

4.0 Functional Requirement:

4.1 Functional Requirement: open valid URL.

Req_id	R001
Requirement	Open the valid URL
Description	User have to open the valid URL
Success Criteria	User will be redirected to the home page.
Exception	Page not visible
Input Data	Website URL
Output Data	Home page
Business rule	*User must open the www.zigwheels.com link
Constraints	Server connectivity

4.2 Functional Requirement: Login with Google

Req_id	R002
Requirement	Click login.
Description	User have to login with Google.
Success Criteria	User will be redirected to the Home page.
Exception	Invalid credentials.
Input Data	Email, Password
Output Data	Home page will be displayed.
Business Rule	User must login with Gmail id and password
Constraints	Server connectivity.

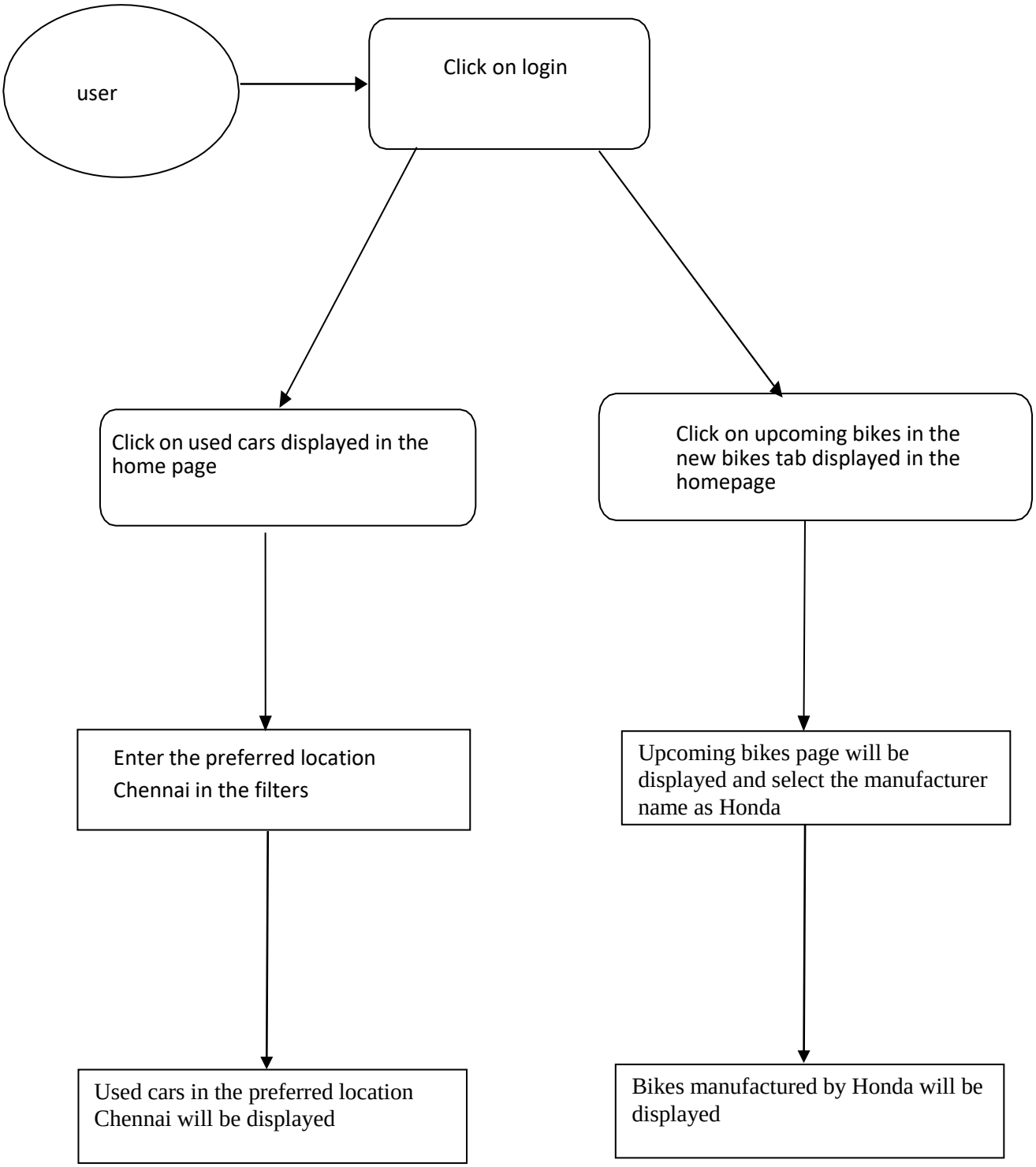
4.3 Functional Requirement: Search Used cars

Req_Id	R003
Requirement	Used cars.
Description	User can search for the used cars.
Success Criteria	User able to view the used cars based on the location.
Exception	User not able to view the used cars
Input Data	*Click used cars *Filter using location as Chennai
Output Data	Used cars will be displayed based on the location
Business Rule	*User can view the used cars in their preferred location *Enter the location Chennai
Assumptions	User can view the used cars details.
Constraints	Server connectivity.

4.4 Functional Requirement: Upcoming bikes

Req_Id	R004
Requirement	Upcoming bikes
Description	User can sort the upcoming bikes based on manufacturer name Honda.
Success Criteria	User able to view the upcoming bikes based on manufacturer name Honda.
Exception	User not able to view the upcoming bikes.
Input Data	*Manufacturer name
Output Data	Upcoming bikes will be displayed.
Business rule	* Upcoming bikes must be displayedbased on manufacturer name.
Constraints	Server connectivity.

5.0 Data Flow Diagram:

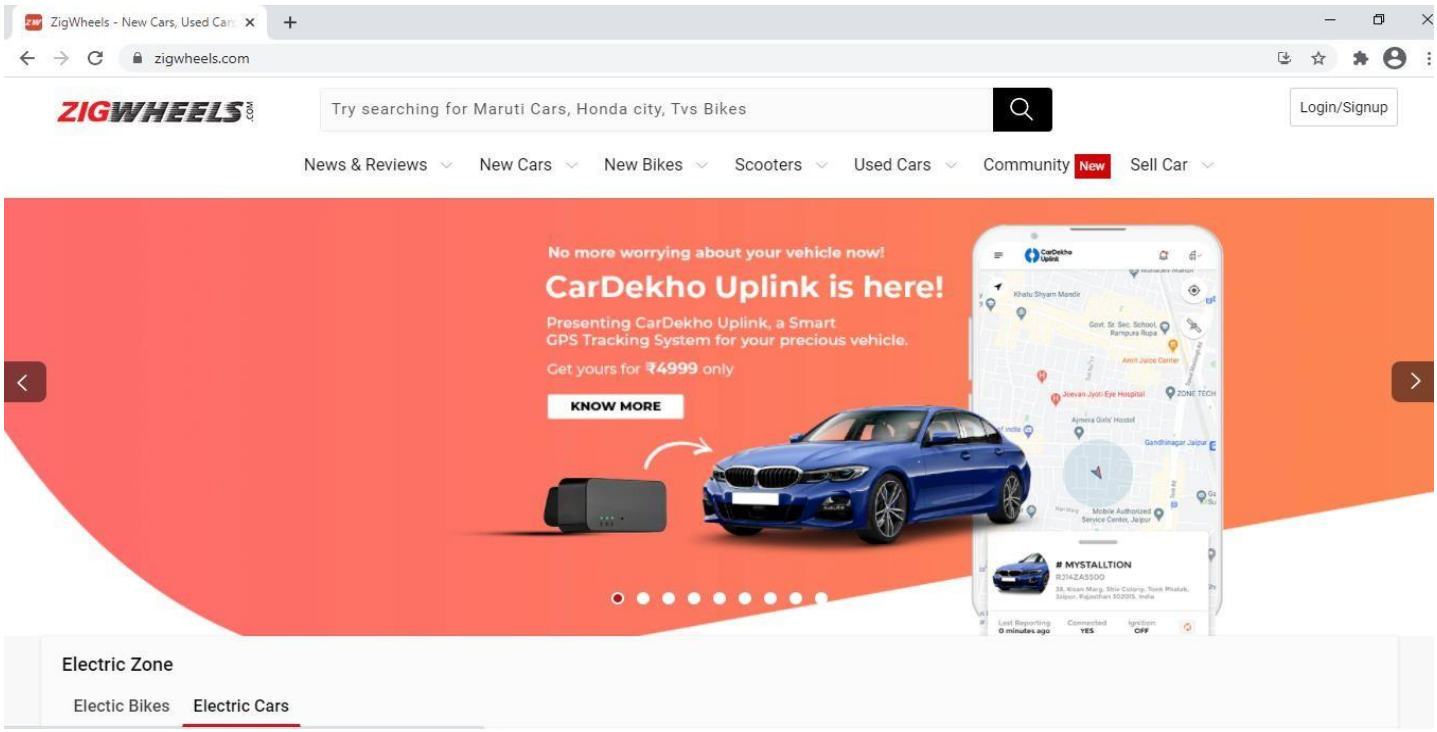


6.0 Non-Functional requirement:

6.1 Interface Requirement:

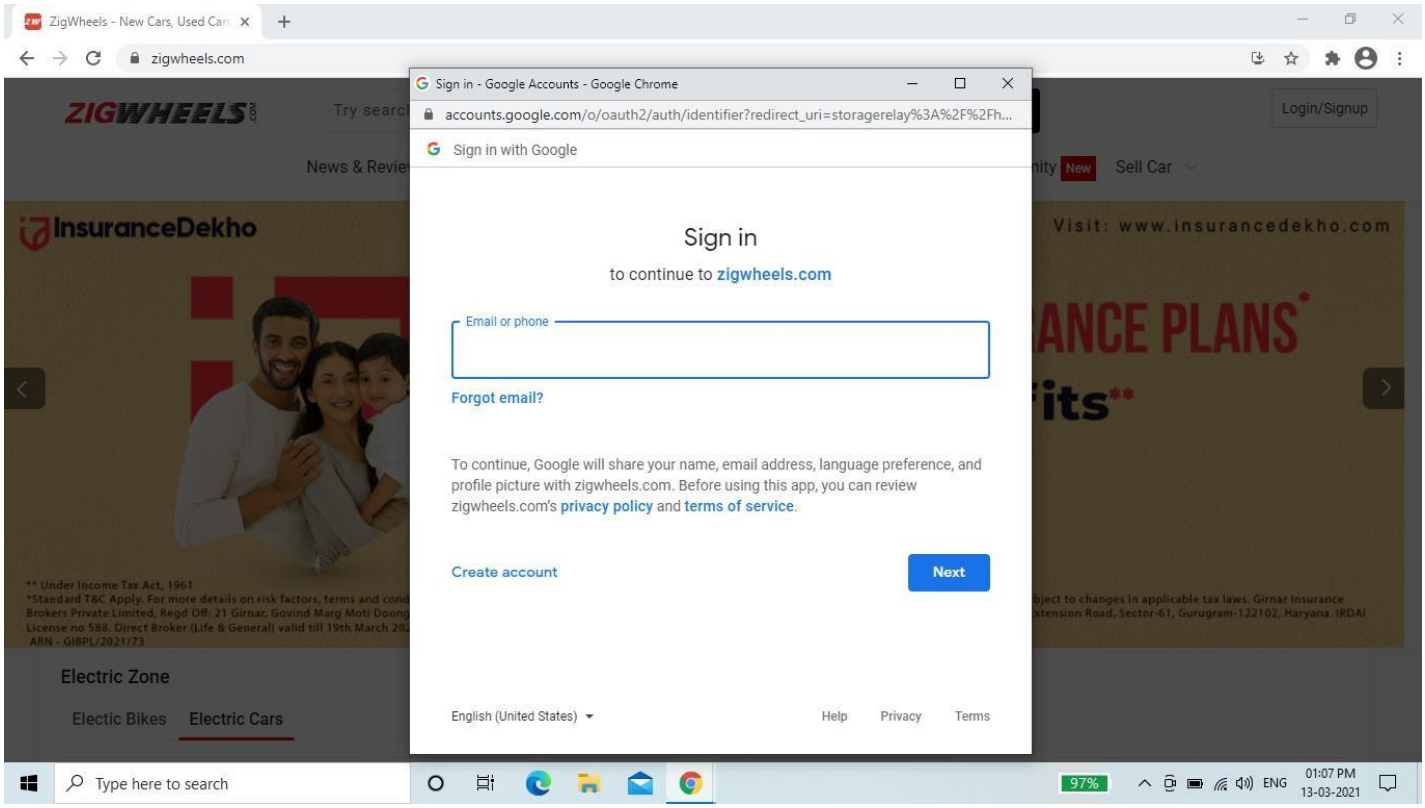
6.1.1 Home Page:

User should open the https://www.zigwheels.com/ webpage.



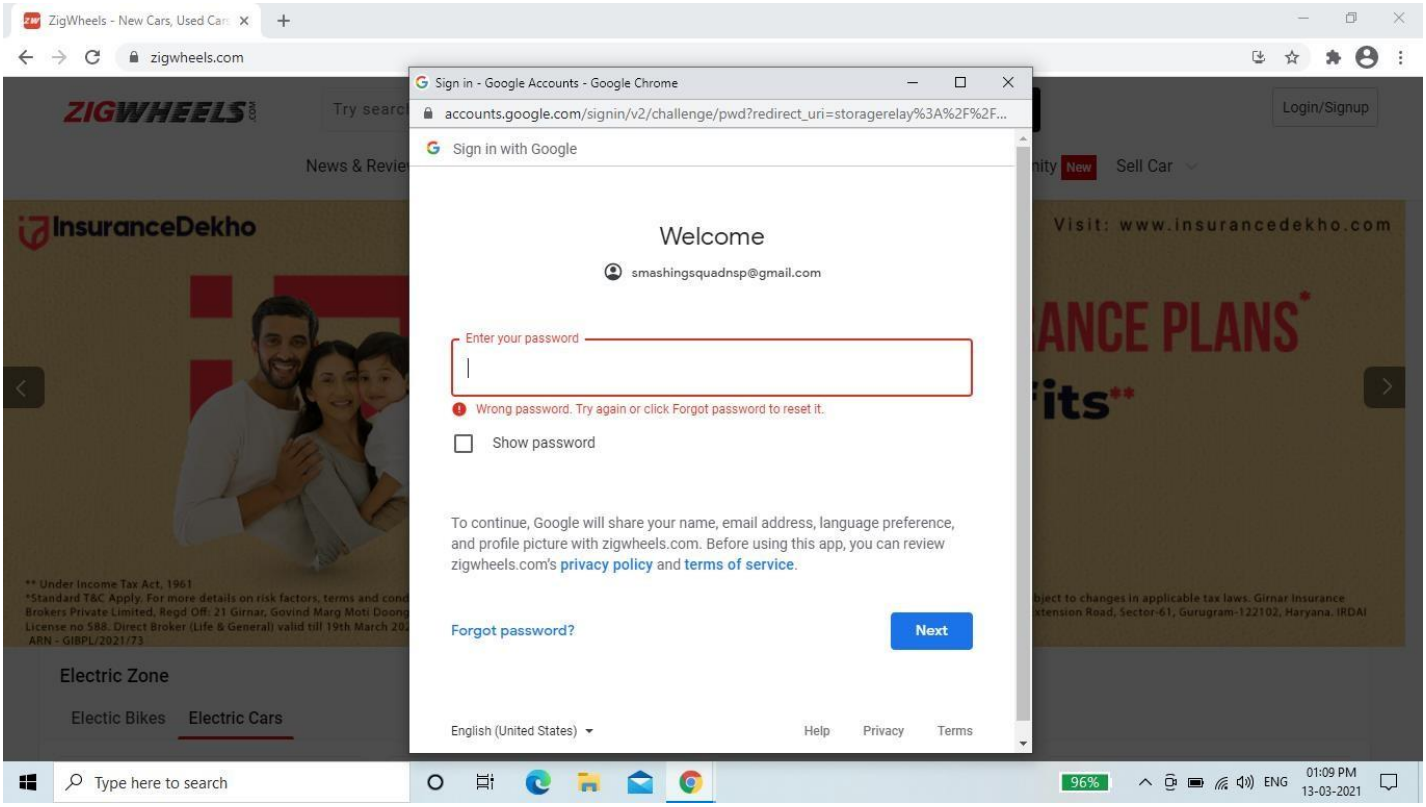
6.1.2 Login page:

User should login with Gmail id and password



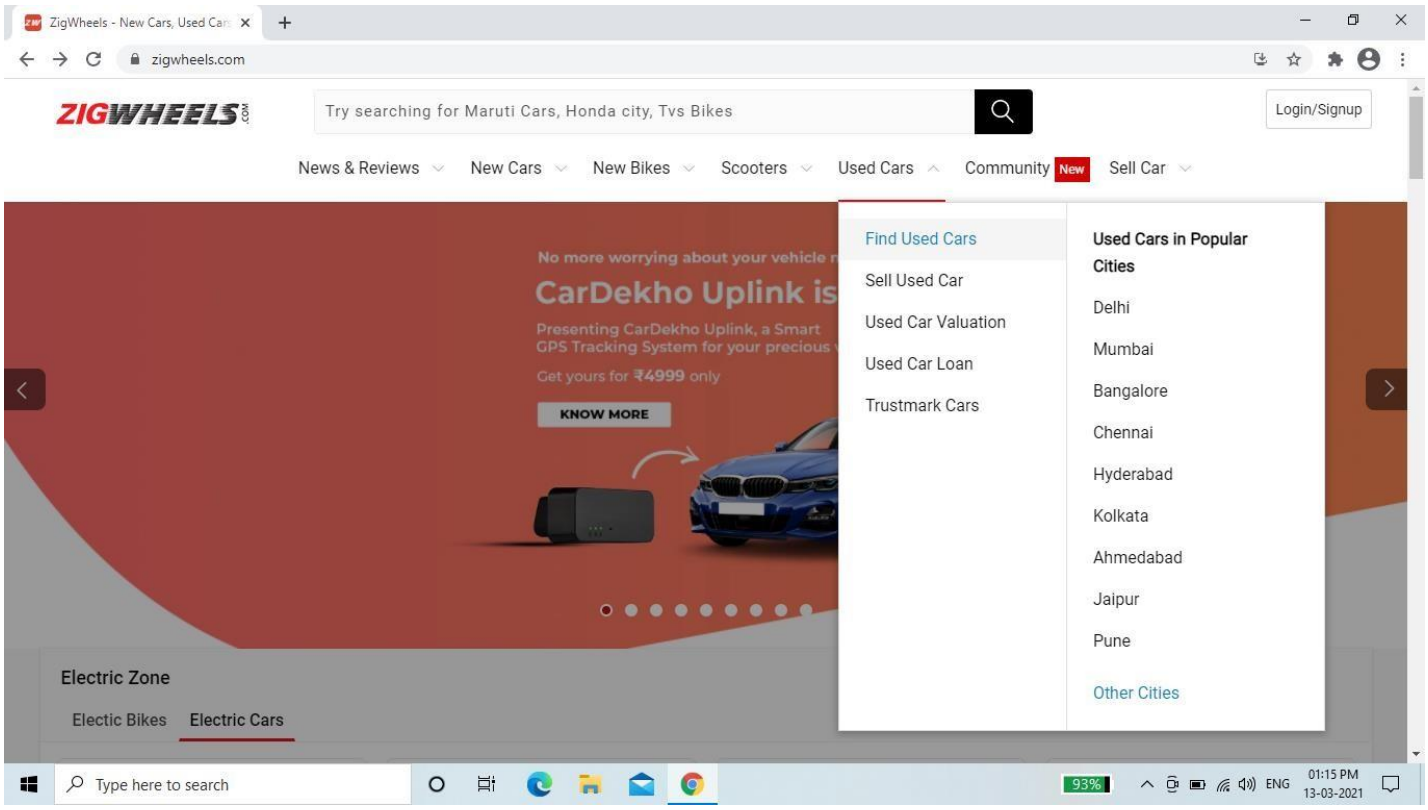
6.1.3 Login Page (with error):

This page shows error for giving the wrong password



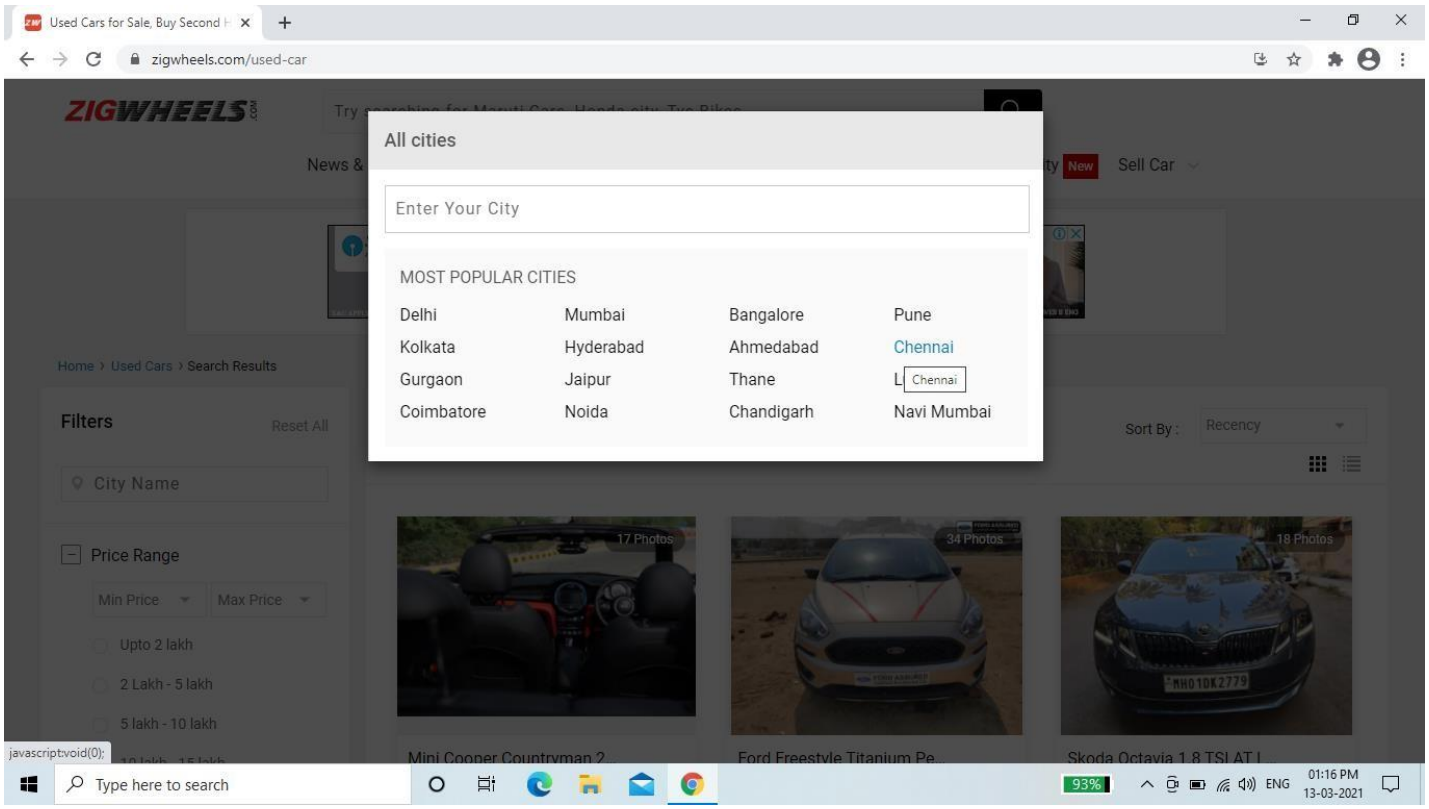
6.1.4 Homepage:

User should click on the used cars tab



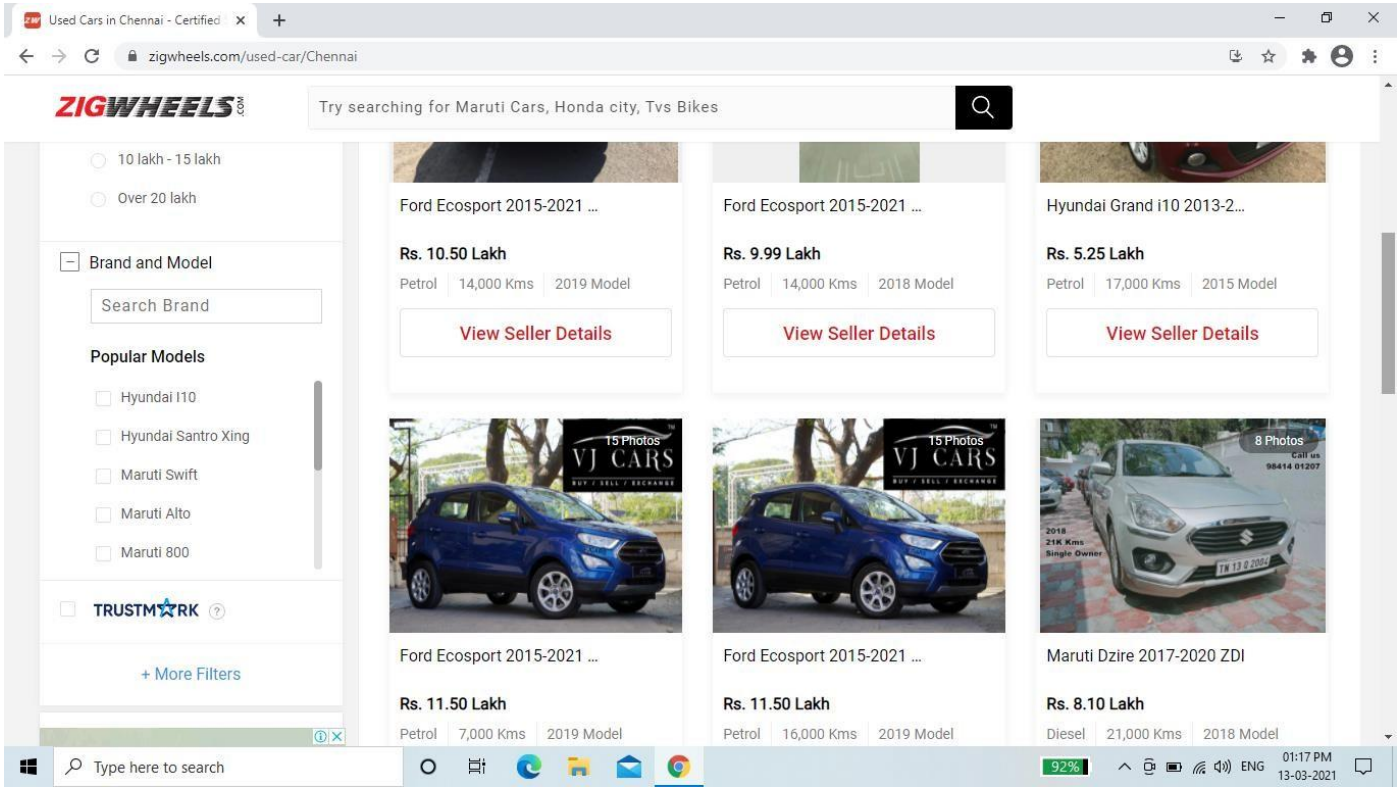
6.1.5 Used cars page:

Select the location as Chennai



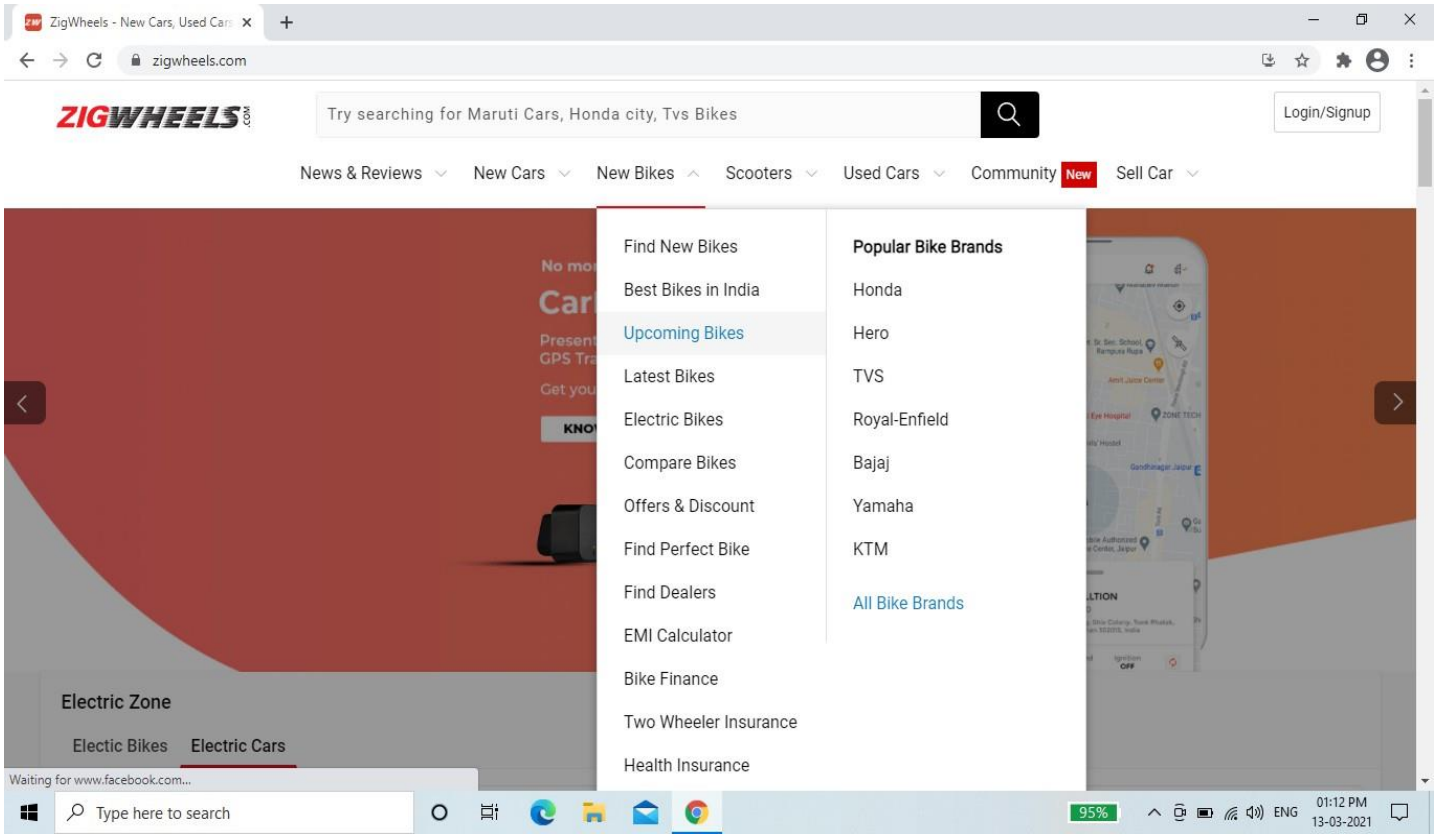
6.1.6 Used cars in Chennai page:

Used cars in the Chennai location will be displayed.



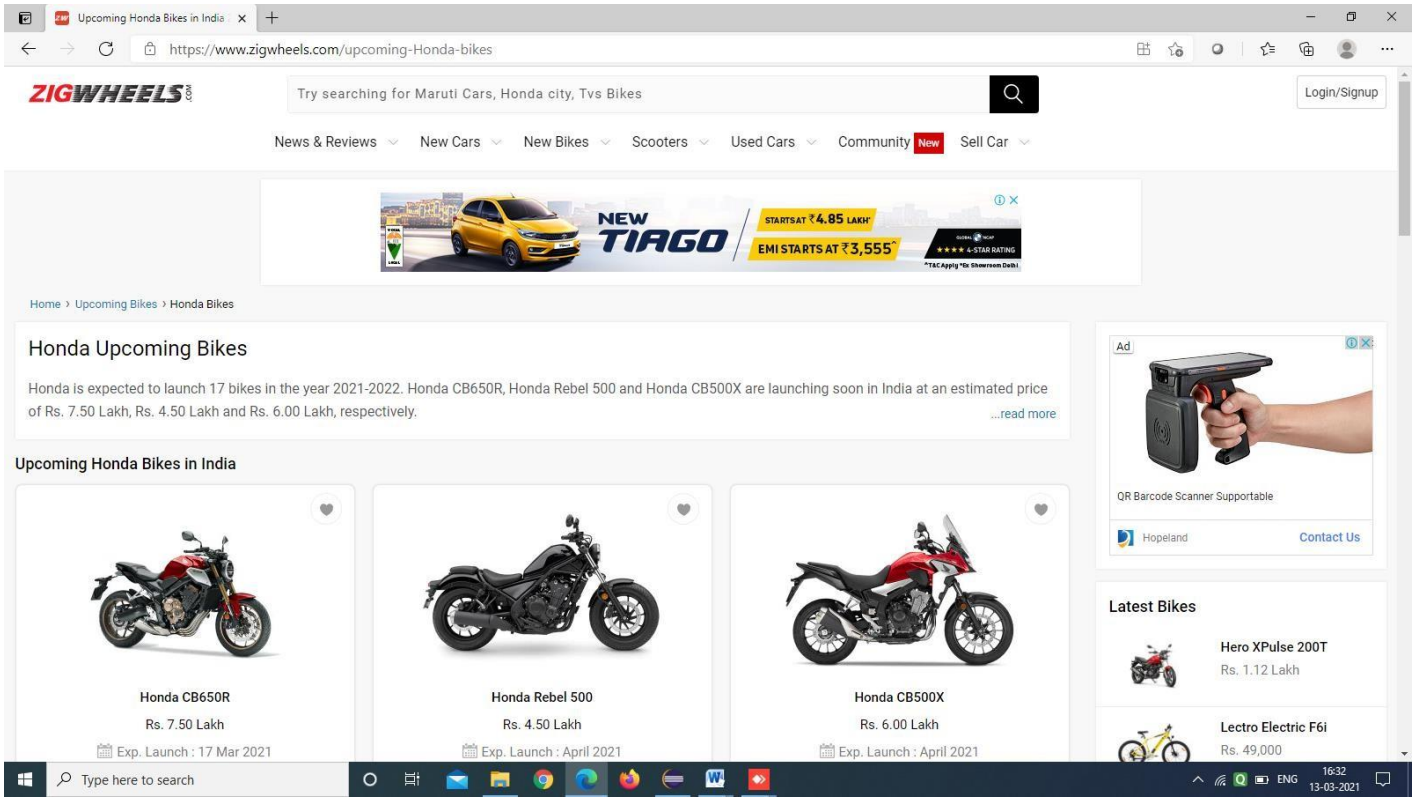
6.1.7 Home page:

Click on the Upcoming Bikes in the New Bikes tab



6.1.8 Upcoming Honda bikes page

This page displays the upcoming Honda bikes



6.2 Hardware Requirement:

- Processor: Intel or AMD
- Ram: 4Gb
- Internet connection required

6.3 Software Requirement:

- Operating System: Windows 7 or higher versions
- Browsers: Chrome, Firefox (Preferred - latest stable version)

6.4 Data convention requirement:

- Valid user name and password should be given

6.5 Security and safety requirement:

- Standard encryption to be used between webserver and application server
- Usage of secured socket layer which ensures server authentication
- The user password should be stored in the encrypted format in the database

6.6 Reliability:

- Hotel details and ship details shown should be valid
- System should be available 24x7 and 365 days for the customer

6.7 Communication Requirement:

- Minimum bandwidth of 2mbps between application server and data server
- Standard TCP/IP protocol between application and data server
- Standard HTTP/HTTPS protocol between web server and application server

6.8 Recoverability:

- There should be a cluster deployment of application server and database server
- Two sets of servers should be maintained in active mode
- Data recovery service should be available
- Database recovery should be restored within five hours

6.9 System availability:

- The system should be available 99% of the time
- Out of every thousand request 999 request should be satisfied
- Planned down time should not exceed four hours during the non-business day and one hour during the business day

7.0 General performance:

7.1 Capacity:

- Minimum thousand user can access the page at the same time
- Response time should be not more than two seconds

7.2 Data Retention:

Retains copies of user information for as long as user maintain their account or as necessary in connection with the purpose set out in the statement unless applicable law required longer retention period

7.3 Error handling:

- Errors are returned with a numeric code, type string, and human-readable message.
- For batch requests, errors will be returned individually within the list for the bad individual items, in the order they were processed.

7.4 Validation rules:

The following validation should be implemented

- ✓ User should login with Gmail Id and password
- ✓ If the login credentials are wrong, error message should be displayed
- ✓ Check whether the used car tab shows find used cars
- ✓ Select the location as Chennai and check whether the preferred location cars are displayed
- ✓ Check whether the New Bikes tab shows upcoming bikes
- ✓ Select the manufacturer name as Honda and check whether Honda bikes are displayed

7.5 Convention of standards:

Programming should follow IEEE standards for software