"On Road Assist"

Dissertation submitted in partial fulfillment of the requirement for the degree
of

BACHELOR OF TECHNOLOGY
IN
Computer Science and Engineering

By
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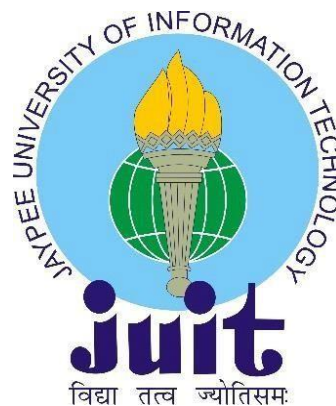**Devesh Yadav (151391)**
Tejan Sharma (151394)

UNDER THE GUIDANCE OF

Mr. Krishna Kumar Pamula
Senior System Engineer - Education, Training & Assessment, ETA, Infosys
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To

Department of Computer Science & Engineering and Information Technology

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY

WAKNAGHAT, SOLAN

Certificate

I hereby declare that the work presented in this report entitled **"On Road Assist"** submitted in the department of Computer Science & Engineering and Information Technology, **Jaypee University of Information Technology, Waknaghat** is an authentic record of our work carried out under the supervision of **Mr. Krishna Kumar Pamula**, Senior System Engineer - Education, Training & Assessment, ETA, Infosys Mysore. We have not submitted this work elsewhere for any degree or diploma.

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This is to certify that the above statement made by the candidate is true to the best of my knowledge.

Mr. Krishna Kumar Pamula
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Date: May, 2019

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Contents

LIST OF FIGURES

LIST OF TABLES

Abstract

With the amount of vehicle traffic and number of accidents on rise, we need to develop certain methods to handle such situations and provide immediate measures for such situations. Our projects aim to deal with such scenarios and provide immediate help in areas where it is tough to find any. The On-Road assist is a platform where the providers and seekers can provide and look for services accordingly. It is a great medium for service providers to find customers. The seekers can get help on their location. The web application has various other functionalities to support this process.

We are using Asp.net, HTML, CSS, SQL queries, C#, MVC for that. Visual Basic 2015 is out platform for performing and testing. In our project we have used the Google Maps API to find the seeker's and the provider's location.

CHAPTER 1

INTRODUCTION

Introduction

It is constantly enjoyable to have an excursion with certain companions. You may have arranged each and everything and you should likewise have played it safe so as to have a safe and a brilliant outing however who knows whether any issue emerges with your vehicle like some sort of breakdown or you need any sort of street side help. We will probably guarantee that your concern must be settled regardless and you get help at the earliest opportunity with the goal that you can be back on street.

The On Road Assistance site is created with the point of giving the on street help benefits if there should be an occurrence of any crises 24*7 to guarantee that there is no interference in the middle of and the client appreciates the voyage all through. This site is intended to upgrade the client experience and it additionally guarantees that the client get quick and the best assistance if there should be an occurrence of any vehicle breakdown. This site will try all the potential endeavors to discover the closest repairman who is accessible by then of time and it will guide the administration searcher to the specialist organization's area.

The application doesn't just guarantee administration on account of vehicle breakdown just however it likewise gives assistance if there should arise an occurrence of mechanical breakdown like towing, roadside help, punctured tire, kick off, kept out, out of fuel, stuck in jettison, flatbed towing, outlandish vehicle towing and so forth. The web application furnishes the precise area with the separation from your place with the bearings utilizing google maps. It will provide services as per the availability in the region where you are stuck finding he nearest ant eh most optimal help that can be found around you.

Problem Statement

During the winter or the late spring get-away or during the festive seasons the general population will go to better places because of which vehicle breakdown cases increment more as the long voyages put the vehicles in danger. The number of road accidents might increase with the high concentration of traffic in a specific area or expressways where the vehicle movement is high at some times.

At national expressways it is simpler to get the assistance as the street side help is given there however in state course it is extremely hard to get any assistance since driver may not be comfortable with the spot. Progressively finished if there is any vehicle breakdown in any rural regions it is increasingly hard to get any assistance as the specialist organization might be a long way from that place.

Finding the ideal help becomes an issue for anyone stuck in areas where you cannot find the well-built shops just near you or nay other assistance available in sight. There should be some sort of verified help that can be trusted and a valid source too.

Taking a look at the above issues, it is significant that vital arrangement must be given to tackle this issue faced by the general population. As a driver out and about, vehicle breakdown can occur at any time. So at whatever point a driver is stuck in such circumstance, one unquestionably would to be stranded out and about for a really long time discovering help with no pieces of information.

Objective

The objective of this application is to find mechanics in a well-defined manner in order to get rid of any type breakdowns in your vehicle. This allows to look for mechanics near the area where you have been commuting. The application helps in overcoming the problem by giving the mechanic's details who acts as the provider to our seeker.

This is the efficient way for locating mechanic anywhere and can be accessed from anywhere at any point of time. 24/7 assistance can be availed on just a single click.

This application is accessed by two entities- Service Seeker and Service Provider.

A provider can view requests, cancel request and add details and on other hand the seeker can create request, view request and edit details. This allows to show one-to-one mapping between seeker and provider. Register allows to register as Service Seeker and Service Provider. Provider provide services such as flat tires, towing, out of fuel etc. Seeker is the one who can avail services according to his/her problem. Feedback of application can be provided which allows to store data whether the experience of using the application is worth or any improvement is needed. Seeker can send a request and can appoint a mechanic at respective date and time. Seeker can view the estimated cost of repair. Estimated cost depends on extent of damage in the vehicle whether it is minor or major.

Road Assistance is the most affordable way to protect you and your family during a breakdown like flat tire, out of fuel, jump start etc. 'On Road Assist' provides assistance at any point of time and anywhere. It is the most reliable and efficient way to get help in case of a breakdown.

Methodology

In this web application, we will provide different functionalities for various users. The application should be accessible to all users all the time. The application consists of a login page where the user can enter their information to either login or register and specify if they are seeking a service or providing them. Fig 1.1 shows what a non- registered can do.
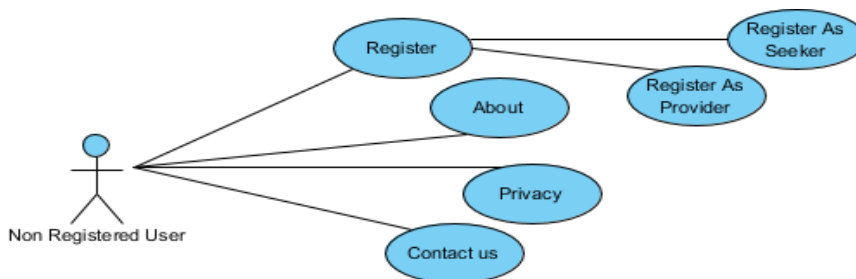

Figure 1.1: Modules in the system

The register/login page should allow the service seeker to register and input their basic information like name, phone number, email id, their vehicle type if it is two- wheeler or four-wheeler. They should be able to choose or describe the problem that they are facing.

After specifying all the details and information about the breakdown, they should be able to send an assist request. Fig 1.2 shows the services that seeker can have access to.
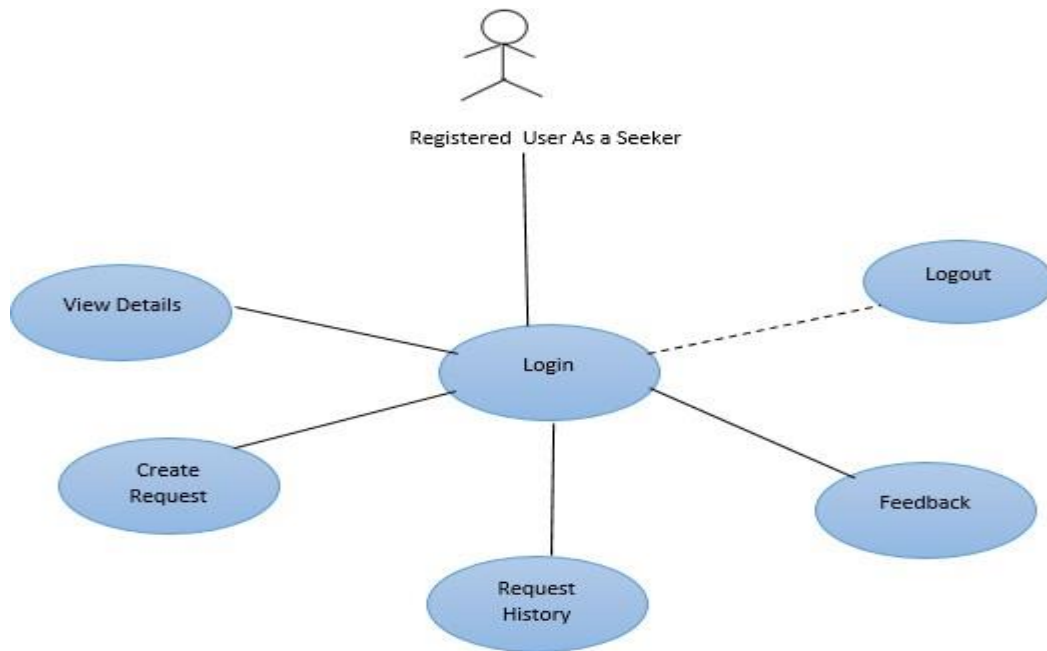

Figure 1.2: Service Seeker

The register/login page should allow the service provider to register and input their basic information like name, phone number, email id, username and once they login they should provide the list of services provided by them and the estimated cost for each service, the hours they are available for to provide services and the range which they can cover while heading to provide help to the seeker. Fig 1.3 shows the services that service provider can have access to.
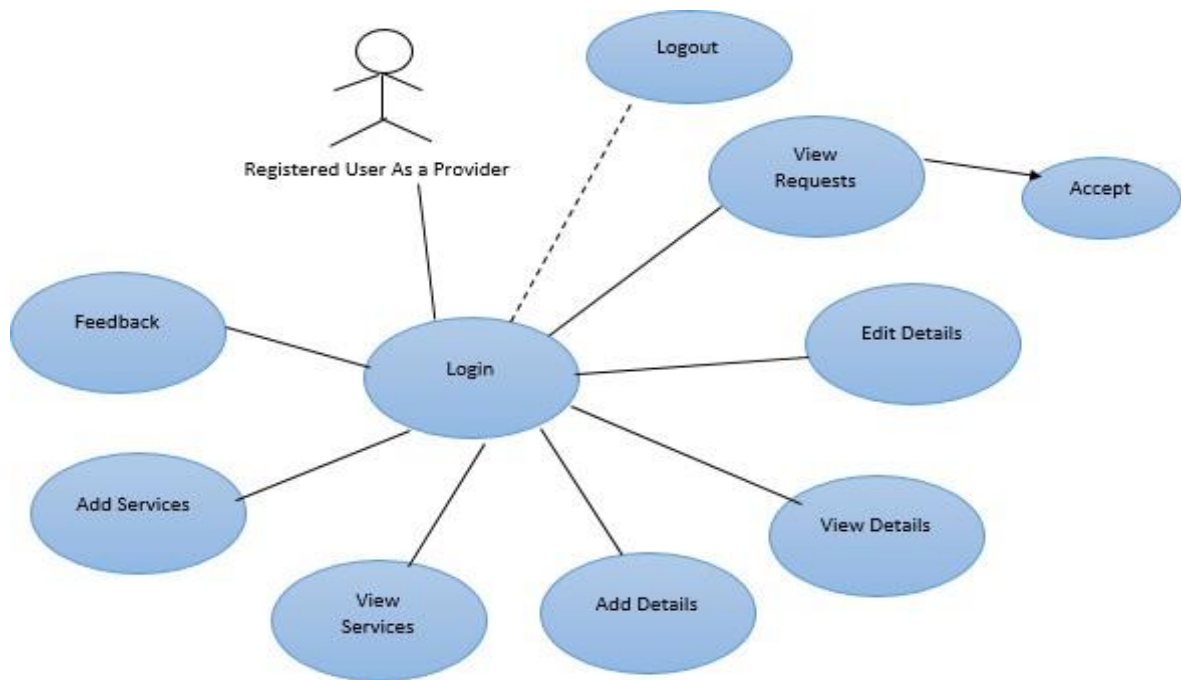
Figure 1.3: Service Provider

The seeker as well as the provider both should be able to provide their accurate locations for proper access of each other's locations for ease purpose.

Whenever a service seeker sends a request it should be accessible to all the service providers in that range of service. The request should be sent only the one's accessible at that hour, based on availability time that had been already is given by service providers during their sign up.

Once when a service provider accepts the request sent by service seeker, the service request should be available only to that service provider and the seeker. It should be made sure that

the alert should be not available to any other service providers. Only that service provider should be able to see the service seeker's details once that provider accepts the request.

There should be an option for the service provider to see the request and he can choose if he wants to take the request or not. He can choose not to take up any request he does not want to take.

If the service provider accepts the request, both should be able to contact each other and the service provider should be shown a proper route to reach the place where the seeker is (where they are waiting for the service.)

The service seeker should be able to able to see the location of the provider and keep a track of them arriving at their location where they are waiting.

There should be an option to show the estimated cost to the provider and seeker which would include the cost of service transportation cost or any such other expenses that the seeker has to bear for the services provided.

There should be another functionality which would provide the option to cancel before the provider arrives for the service and the cancellation charges would be able to applicable to the person who has cancelled be, it the service provider or the service seeker.

After the service, the service seeker should be able to give a feedback to the web application as well as the service provider. After the service, the service provider should be able to five a feedback to the web application as well as the service seeker.

Chapter-2

Literature Survey

ASP.Net MVC

The MVC is a method we use in our development process which enables working using models, views, controller. ASP.Net is utilised in creating web applications. It uses System.Web.MVC Assembly. One of the advantages of .NET Core is that it can be run on various platforms like Linux, Mac OS apart from windows.

The MVC pattern works on the separation of various aspects of application by allowing loose associations between the following:
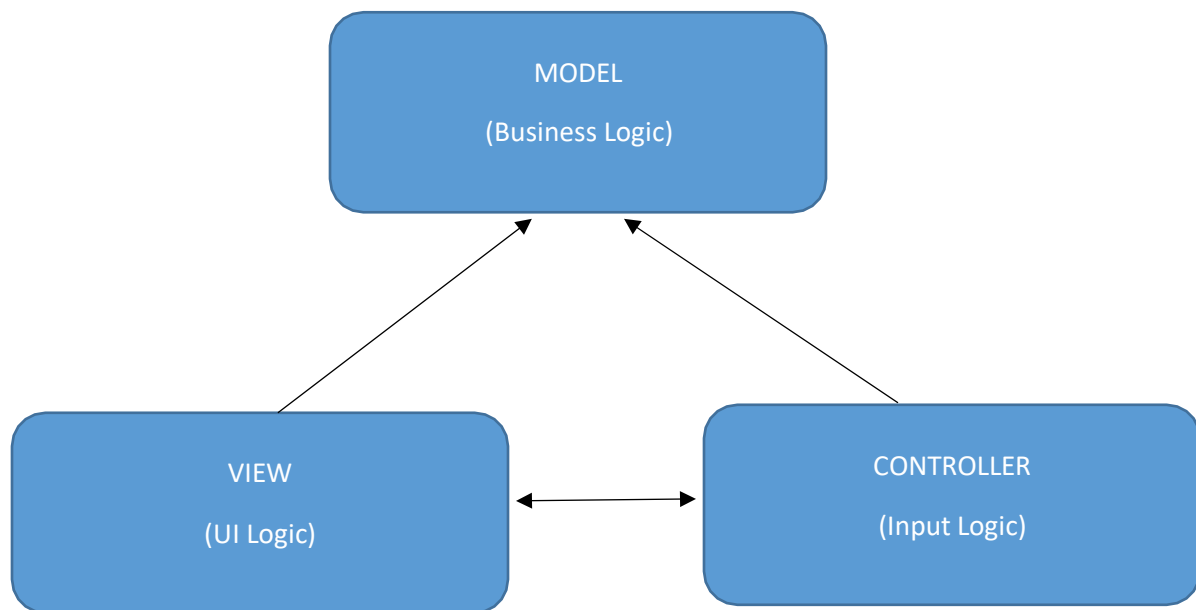
FIG 2.1 : COMPONENTS OF MVC

The MVC has following parts:

(i)   Models: It is used for "input logic" part or business logic. It holds and sends the process data via Data Access Layer and performs the above specified business logic on extracted data to execute complete functionality.The Model class is used for passing data on to Views so we are able to execute the data in controllers.

(ii)   Views: It displays the application's user interface(UI). UI is made with the model data. We could take the view products module as an example of view. When we click on it a separate page for veiwing products is displayed.

(iii)   Controllers: It carries the handling of the user interaction, working with model and eventually selects a view to render and getting displayed via UI. In our application the View can only be providing display.

Benefits of MVC-Based Web Application:

1) It brings down complexity by dividing an application into model, view and controller.

2)   It gives developers complete authority over the responses of our application.

3) It utilises a Front Controller pattern that handles the app requests via a single controller. This gives the developer a well-functioning moderator infrastructure.

4) Test-Driven Development(TDD) has best functioning in the MVC app.

5) MVC app works better in bigger teams of developers and Web designers who need high degree of control over application's response.

Functions of ASP.net MVC Framework:

1) Differentiation of tasks, testability and take a look at the driven creation. The sample object can be used to check the interface primarily based application. One by one checking out becomes rapid and bendy. Any unit checking out the framework is utilised that is suitable with internet environment framework.

2) Components of MVC are designed for without any difficulty changed and customized. User can use its own View Engine, motion-method parameter ordering, URL routing coverage and such other additives.

3) Sizable help for ASP.net routing, that would be effective URL-mapping issue which the user build packages that have comprehendable and findable URLs. URLs no longer ought to include file-name extensions, and are designed to help URL naming styles which paints properly for SEO (search engine optimization).

4) Helps for the use of ASP.net web page(.aspx) markup, consumer manages(.ascx) and controller pages(master) markup files as view templates. Consumer can make use of present ASP.net features by ASP.net MVC framework, like in-line expressions, nested master pages, declarative server controls, templates, statistics-binding, localization etc.

Entity Framework

Entity Framework is an open-source ORM (object Relational mapper) framework for .net programs supported via Microsoft that allows developers for working with statistics that's stored in database without the usage of database however from facts the usage of objects of area unique lessons at the given database tables. while operating on entity framework, builders have a better degree of abstracting from the statistics and the code that is written to apply those applications are a whole lot shorter than compared to the normal database packages. We don't have to any longer write the lengthy codes to get right of entry to the database, rather we get an .edmx version created at the code stage. We do now not need to understand the square to apply the EF.
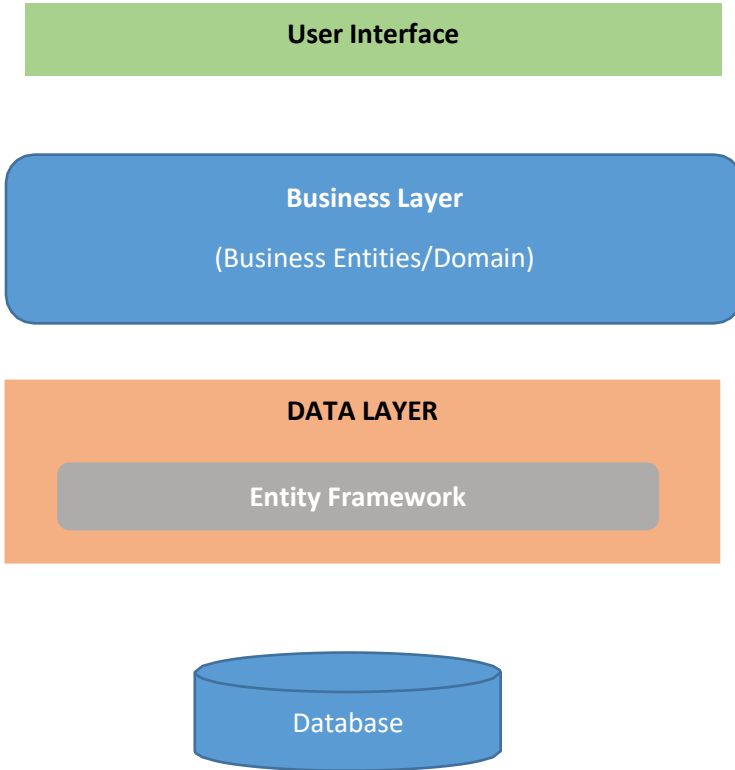
User Interface

Business Layer

(Business Entities/Domain)

DATA LAYER

Entity Framework

Database

FIG 2.2: Entity Framework Structure

Chapter-3

System Development

Functional Requirements

On Road Assist web application is designed to solve the problems faced by people in case of a car breakdown or any issue related with their vehicle. Our system connects the service providers and the service seekers which allows the vehicle owner to contact the nearby service provider in case of any breakdown. This system will detect the service providers in a particular range nearest to the reported incident. Users can select any service provider that they want according to their needs from the list of service providers visible to them. The analysis phase will analyze the pros and cons of the existing systems. Development phase will come after the system requirements have been finalized to enhance the development. This On Road Assist is basically a web application which is designed to help the people which are stranded on the road due to their car breakdown. This application will help to track the nearest service provider location to seek help.

As a user of the application new users must login or register into the web application in order search for any nearby service provider to seek any kind of help. The system requires the minimum information from the user in order to provide the assistance and not to frustrate the user. The service seeker only needs to provide the username, email-id, password, phone number. Fig 3.1 shows the details of the service seeker that the user need to provide while registering.
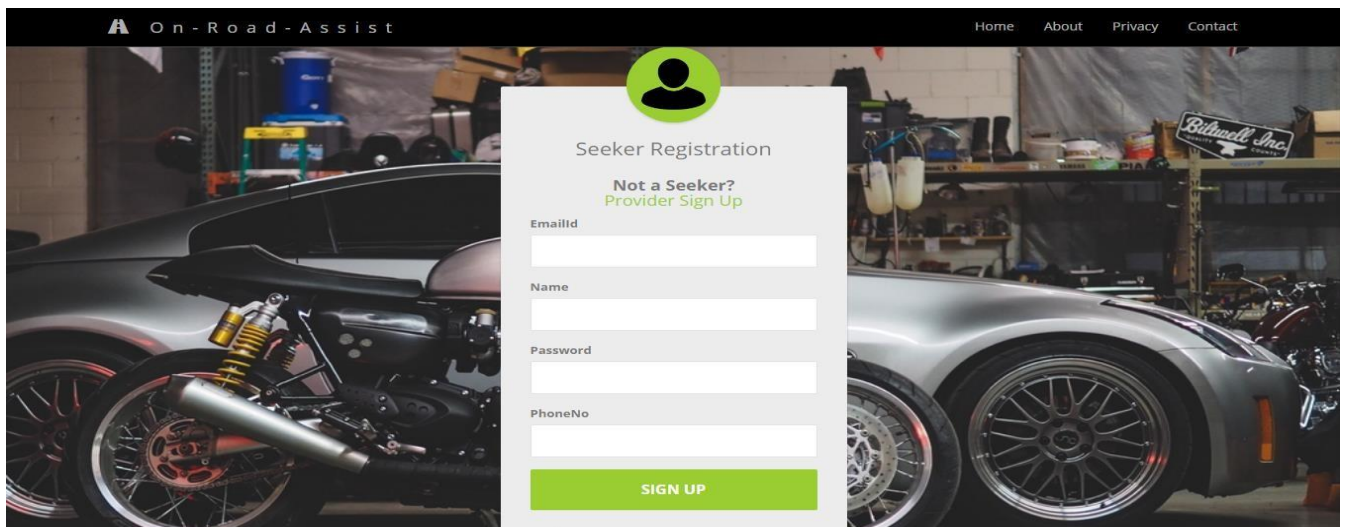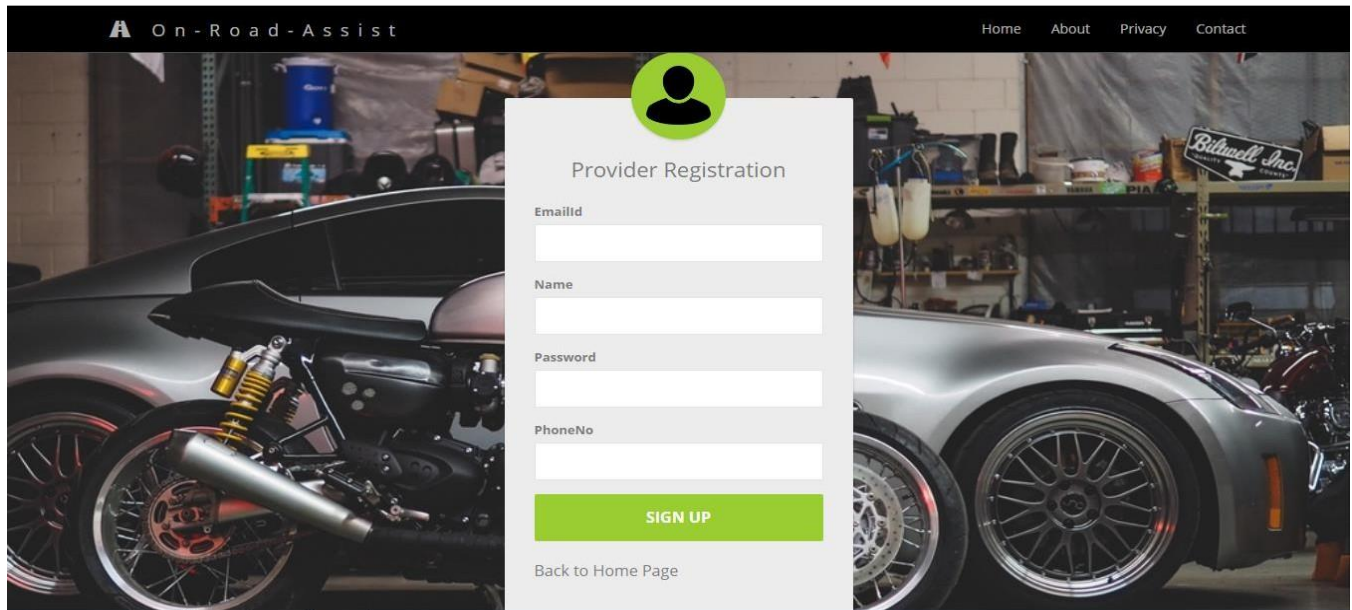

Figure 3.1: Service Seeker Registration

As a service provider I need to provide the same details while registering into the application and the service provider will be able to add the further details after he/she has login into his/her account. Fig 3.2 shows the details of the service provider that the user need to provide while registering.

Figure 3.2: Service Provider Registration

User Interface

- It should be easy to interpret and also user-friendly.
- It should be able to adapt to various screen sizes.

Non-Functional Requirements

1. Security: The user passwords on the website should be encrypted with a hash function and saved in the database which makes it more safe for end-users.

2. Performance: Every function of the project is created with a low complexity algorithm to make the website performance more optimal.

3. Session Security: User should not be able to access websites functionalities without logging in and each time a user attempts accessing a website's page without logging in, he is sent to login page.

4. Verified users: Anybody can register himself/herself on the website by providing his/her credentials. The user will be given a unique Email-Id to log in into the website.

Hardware requirements

Processor/RAM/HDD: 4GB

Software requirements

OS for Web server   : WINDOWS 7/8/10

OS for Database Server   :   WINDOWS 7/8/10

DBMS   :   SQL

Third Party S/Ws   : NA

Development Environment Requirements

IDE   : Microsoft Visual Studio 2017

Chapter-4

PROJECT DEVELOPMENT

Database Implementation

Here in this MVC Application 'database first' approach is used and database named 'On Road Assist' database is created at initial stage.

- Users: This table consists of following attributes:
    - User Id- This attribute is used for uniquely identifying each User. It is a primary key.
    - User Name- This attribute is a not null attribute.
    - User Password- This attribute is a not null attribute.
    - Role Id- This attribute is a not null attribute which allows to check Role Id. Role Id can be either S or P i.e. Seeker or Provider.
    - E-Mail Id- This attribute is a not null and a unique attribute.
    - Phone No- This attribute is a not null and a unique attribute.

- Service Provider: This table consists of following attributes:
    - Provider Id: This attribute is used for uniquely identifying each Provider.
    - User Id: This attribute is used for uniquely identifying each User. It is a Foreign Key from Users Table.
    - Username: This attribute is a not null attribute.
    - Email-Id: This attribute is a not null and a unique attribute.
    - Phone No.: This attribute is a not null and a unique attribute

- o Location: This attribute is of geography datatype and it is also not null attribute. This attribute by default picks up the service provider location and stores it in the database.
- o Start Time: Not null attribute.
- o End Time: Not null attribute.
- o Service Range: Not null attribute. It contains the range in which the service provider can provide the services.
- o Feedback: Not null attribute. This attribute enables the service provider to give the feedback.

- • Service Status: This table consists of following attributes:
    - o Id: This attribute is used for uniquely identifying each service that is provided by the service provider.
    - o Request Id: This attribute is used for uniquely identifying each service request. It is not null attribute.
    - o Seeker Id: It is a Foreign Key from the service seeker table. It is a not null attribute. It is used for identifying that which seeker has used which service.
    - o Provider Id: It is a Foreign Key from the service provider table. It is a not null attribute. It is used for identifying that which provider has provided which service.
    - o Services Provided: It is a null attribute i.e. it can contain null values.
    - o Amount: It is not null attribute. It contains the amount which the seeker needs to pay after he has used the service.
    - o Timestamp: It is a not null attribute which contains the date and the time of the service provided to the user.
    - o Status: It is a not null attribute. It tells the status of service i.e. whether the service is completed or not.
    - o Feedback: It is a not null attribute.

- • Service Seeker: This table consists of following attributes:
    - o Seeker Id This attribute is used for uniquely identifying each User. It is a primary key.

- o User Id: It is Foreign Key from the users table. It is a not null attribute.
- o Username: This attribute is a not null attribute.
- o Email Id: This attribute is a not null and a unique attribute.
- o Phone No. This attribute is a not null and a unique attribute.
- o Feedback: Not null attribute. This attribute enables the service seeker to give the feedback.

- **Services:** This table consists of following attributes:
  - o Service Id: This attribute is used for uniquely identifying each Service. It is a primary key.
  - o Service Name: Not null attribute. It contains the name of each service that is provided.

- **Requests:** This table consists of following attributes:
  - o Request Id: This attribute is used for uniquely identifying each Request. It is a primary key.
  - o Service Id: It is Foreign Key from the services table. It is a not null attribute.
  - o Seeker Id: It is Foreign Key from the service seeker table. It is a not null attribute.
  - o Location: This attribute is of geography datatype and it is also not null attribute. This attribute by default picks up the service provider location and stores it in the database.
  - o Vehicle Type: It is not null attribute. This attribute contains whether the vehicle is a two wheeler or a four-wheeler.
  - o Description: It is a not null attribute. It contains the description about the problem that the service seeker is facing.
  - o Request Status: It is a not null attribute. It is changed to complete once the request is completed.
  - o Request Time: It contains the time at which the request was created.
  - o Request Completion Time: It contains the time taken to complete the request.

- **Services Provided:** This table consists of following attributes:

- o Id: This attribute is used for uniquely identifying each Service provided. It is a primary key.
  - o Service Id: It is Foreign Key from the services table. It is a not null attribute.
  - o Provider Id: It is Foreign Key from the service provider table. It is a not null attribute.
  - o Cost: It is a not null attribute. It contains the estimated cost of the service provided.
  - o
- Services Required: This table consists of following attributes:
  - o Id: This attribute is used for uniquely identifying each Service Required. It is a primary key.
  - o Service Id: It is Foreign Key from the services table. It is a not null attribute.
  - o Seeker Id: It is Foreign Key from the service seeker table. It is a not null attribute.

Tables

1. **Users**

No.	Field Name	Size	Type	Keys
1.	User Id	(100,1)	INT	Primary
2.	User Name	20	VARCHAR	Not Null
3.	User Password	20	VARCHAR	Not Null
4.	Role Id	1	CHAR	Not Null
5.	Email ID	20	VARCHAR	Not Null (Unique)
6.	Phone No	10	VARCHAR	Not Null (Unique)

Table 4.1- Users

2. **Service Provider**

No.	Field Name	Size	Type	Keys
1.	Provider Id	6	VARCHAR	Primary
2.	User Id		INT	Not Null (Foreign)
3.	User Name	20	VARCHAR	Not Null
4.	Email ID	20	VARCHAR	Not Null (Unique)
5.	Phone No	10	VARCHAR	Not Null (Unique)
6.	Location	100	VARCHAR	
7.	Start Time		TIME	Not Null
8.	End Time		TIME	Not Null
9.	Service Range		INT	Not Null
10.	Feedback	200	VARCHAR	

Table 4.2- Service Provider

3. **Service Status**

No.	Field Name	Size	Type	Keys
1.	Id		INT	Primary
2.	Request Id	6	VARCHAR	Not Null (Foreign)

No.	Field Name	Size	Type	Keys
3.	Seeker Id	6	VARCHAR	Not Null (Foreign)
4.	Provider Id	6	VARCHAR	Not Null (Foreign)
5.	Services Provided	200	VARCHAR	
6.	Amount		NUMERIC	Not Null
7.	Time Stamp		DATETIME	Not Null
8.	Status	20	VARCHAR	
9.	Feedback	200	VARCHAR	

Table 4.3- Service Status

4. Service Seeker

No.	Field Name	Size	Type	Keys
1.	Seeker Id	6	VARCHAR	Primary
2.	User Id	(100,1)	INT	Foreign Key
3.	User Name	20	VARCHAR	Not Null
4.	Email ID	20	VARCHAR	Not Null (Unique)

No.	Field Name	Size	Type	Keys
5.	Phone No	10	VARCHAR	Not Null (Unique)
6.	Feedback	200	VARCHAR	

Table 4.4- Service Seeker

5. Service

No.	Field Name	Size	Type	Keys
1.	Service Id	10	VARCHAR	Primary
2.	Service Name	50	VARCHAR	Not Null

Table 4.5- Service

6. Requests

No.	Field Name	Size	Type	Keys
1.	Request Id	6	VARCHAR	Primary
2.	Seeker Id	6	VARCHAR	Foreign Key
3.	Service Id	10	VARCHAR	Foreign Key (Not Null)
4.	Location	100	VARCHAR	Not Null
5.	Vehicle Type	15	VARCHAR	Not Null
6.	Description	500	VARCHAR	Not Null

No.	Field Name	Size	Type	Keys
7.	Request Status	20	VARCHAR	
8.	Request Time	-	DATE TIME	Not Null
9.	Request Completion Time	-	DATE TIME	

Table 4.6- Requests

7. Services Provided

No.	Field Name	Size	Type	Keys
1.	Id	Identity	INT	Primary
2.	Service Id	10	VARCHAR	Foreign Key(Not Null, Unique)
3.	Provider Id	6	VARCHAR	Foreign Key(Not Null)
4.	Cost	(10,2)	NUMERIC	Not Null

Table 4.7- Service Provided

8. Services Required

No.	Field Name	Size	Type	Keys
1.	Id	Identity	INT	Primary
2.	Service Id	10	VARCHAR	Foreign Key(Not Null)
3.	Seeker Id	6	VARCHAR	Foreign Key(Not Null)

Table 4.8- Service Required

Data Access Layer

On Road Assist Data Access Layer is made by scaffolding in which LINQ Queries are written and with the help of this basic structure is formed. CRUD Operations are performed on database in order to proceed further in this project. CRUD stands for CREATE, READ, UPDATE, DELETE.

The functions used in Data Access Layer are:

1. **Get Service Id:**
   This function allows to retrieve the service Id from Services Table.

2. **Get Provider Id**
   This function allows to retrieve Provider Id from Users Table.

3. **Get Seeker Id**
   This function allows to retrieve Seeker Id from Service Seeker Table.

4. **Validate Credentials**

This function allows to validate credentials by checking whether the entered user Id and password is correct or not.

5. **Add Services Provided**

This function allows to add services as per the requirement.

CONTROLLERS

Controllers are classes that store various action methods which built the basic to form the execution flow and perform different functionalities needed for the website.

There are 3 controllers in our project:

1. Home Controller
2. Provider Controller
3. Seeker Controller

Home Controller:

The controller performs validations of logging in and logging out sessions. The main functionalities of this controller are-

- Login/Logout functionality.
- Validate User Credentials
- It contains various actions that allows to ensure validations on different model classes.

Provider Controller:

This controller is responsible to perform operations like- Add Services, View Services and Add Details in context with the On Road Assist Application. The main functionalities of this controller are-

- View Requests Functionality
- Accept Service Request Functionality
- Cancel Request Functionality

Seeker Controller:

This controller is responsible to perform operations like- Add Seeker Details, View Seeker Details and Update Seeker Details in context with the On Road Assist Application. The main functionalities of this controller are-

- Delete Request Functionality
- View Provider Details Functionality
- Update Seeker Details Functionality

Views

All the views are categorized into three views which are as follows:

1. **Home-**
   - About

Figure 4.1: About Us Page

- Contact
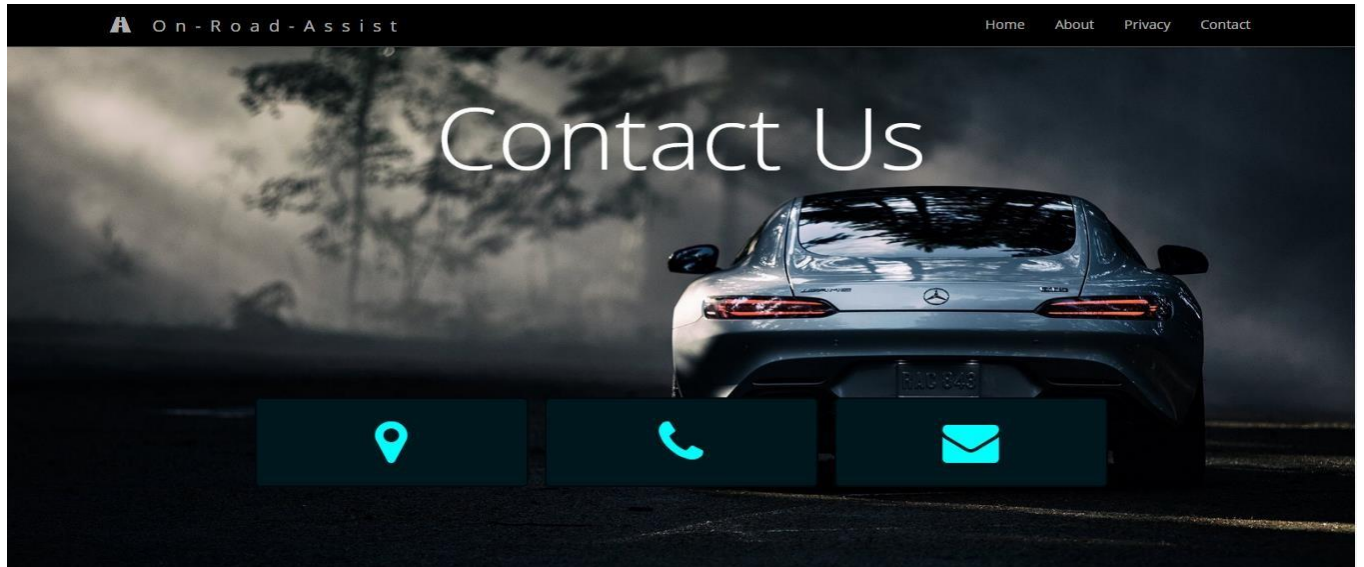
Figure 4.2: Contact Us Page

- Index
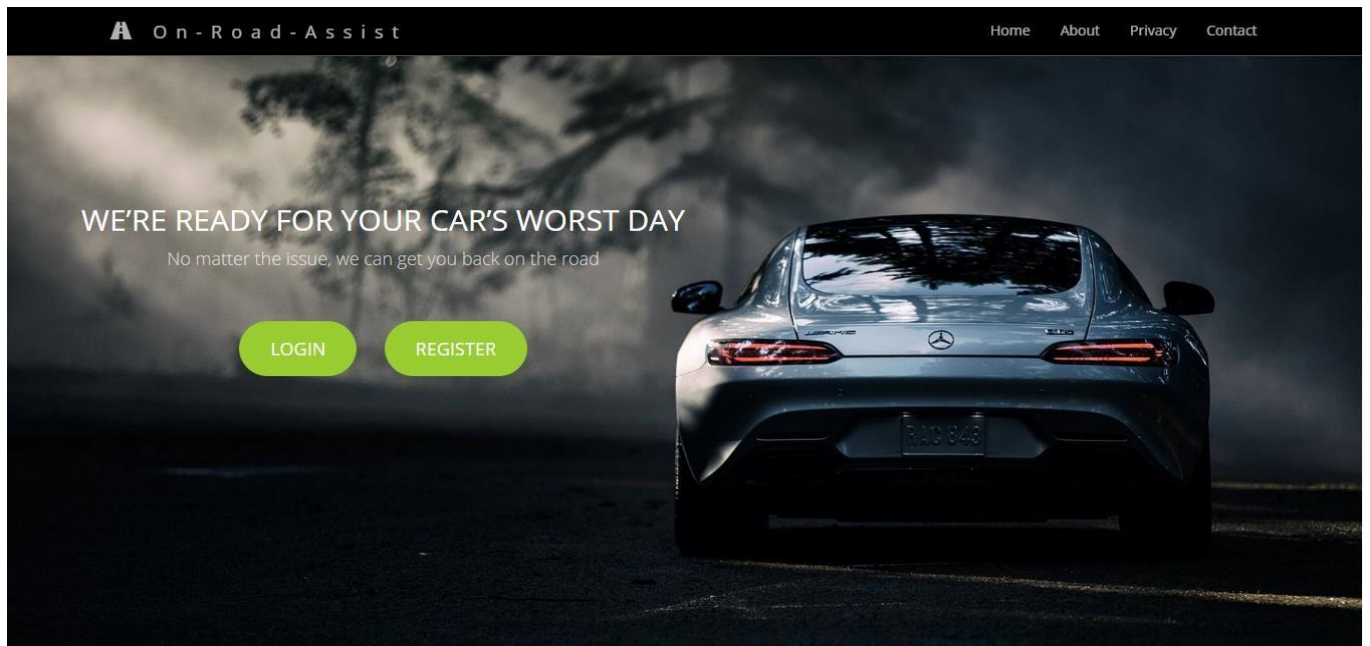
Figure 4.3: Home Page

Figure 4.4: Services Page

- Login
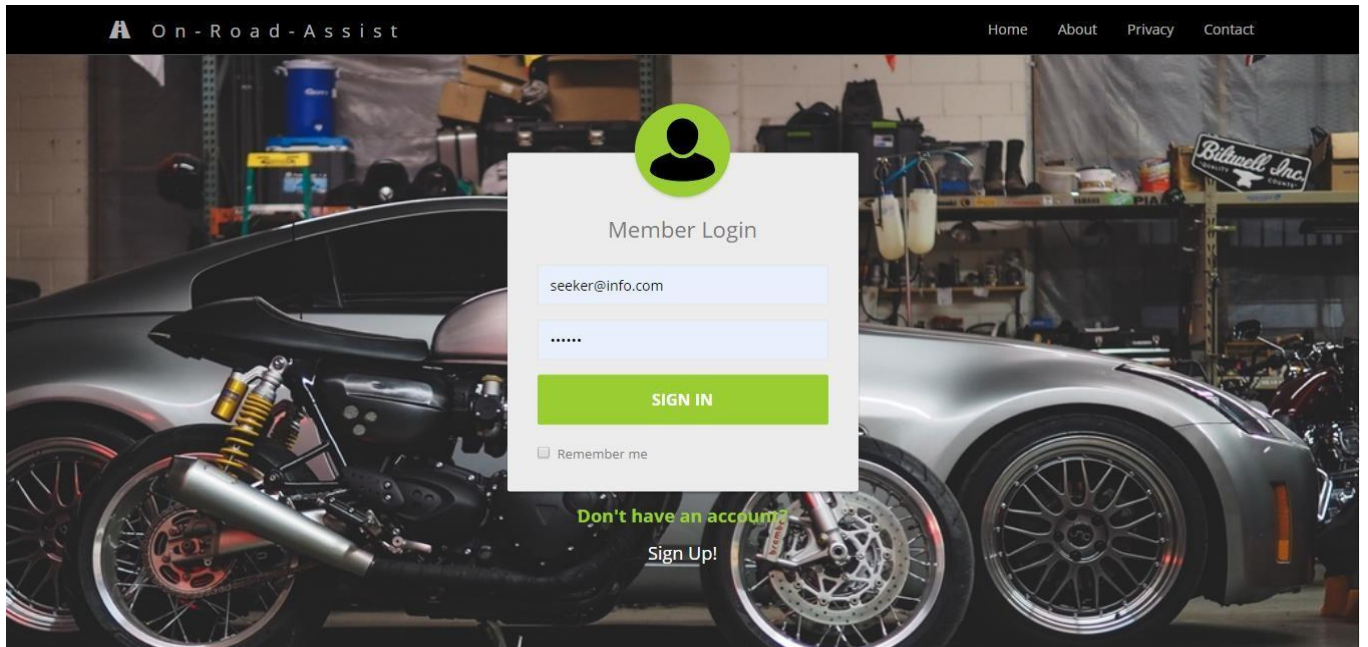
Figure 4.5: Login Page

- Privacy
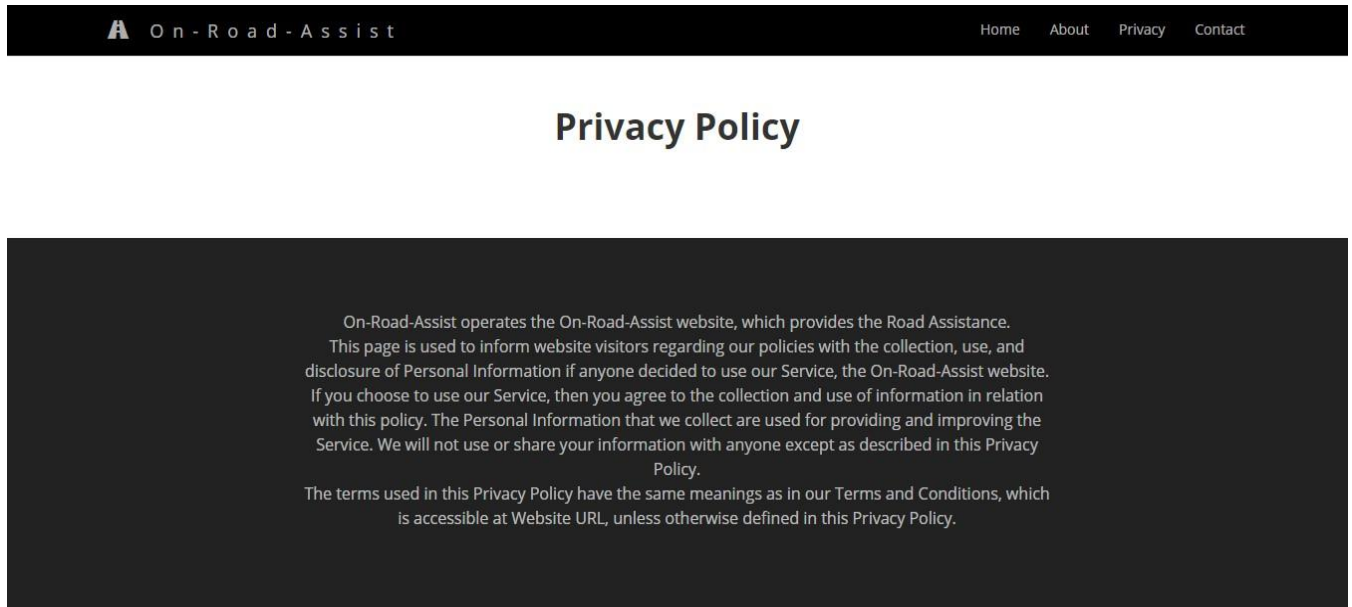
Figure 4.6: Privacy Page

- Register user
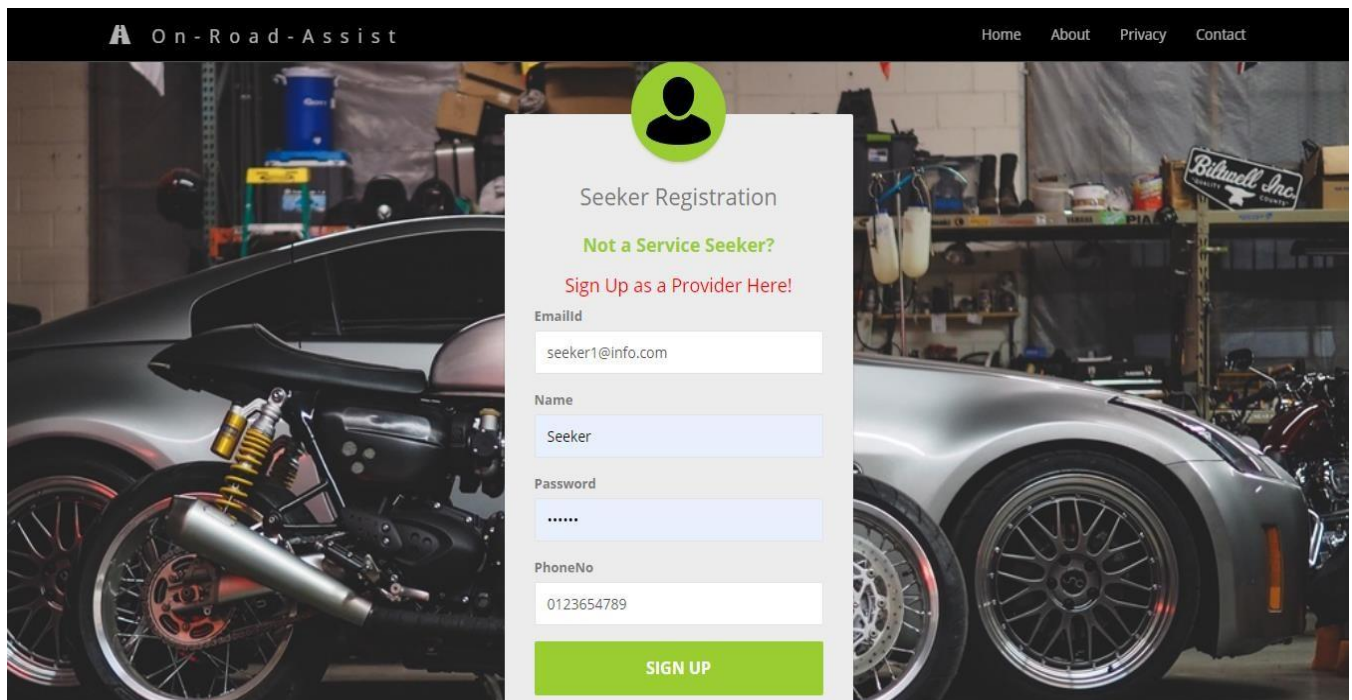
Figure 4.7: Register Page

- Register Provider
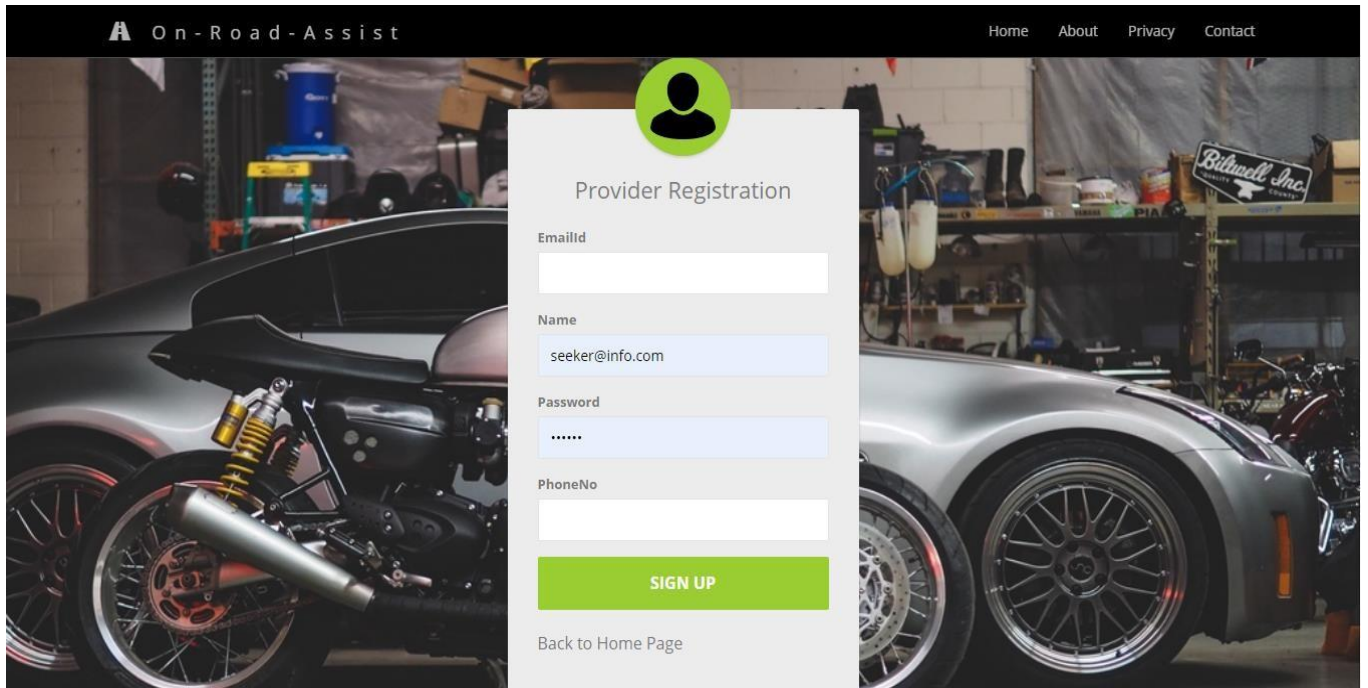
Figure 4.8: Provider Registration Page

2. **Provider-**

- Provider Home
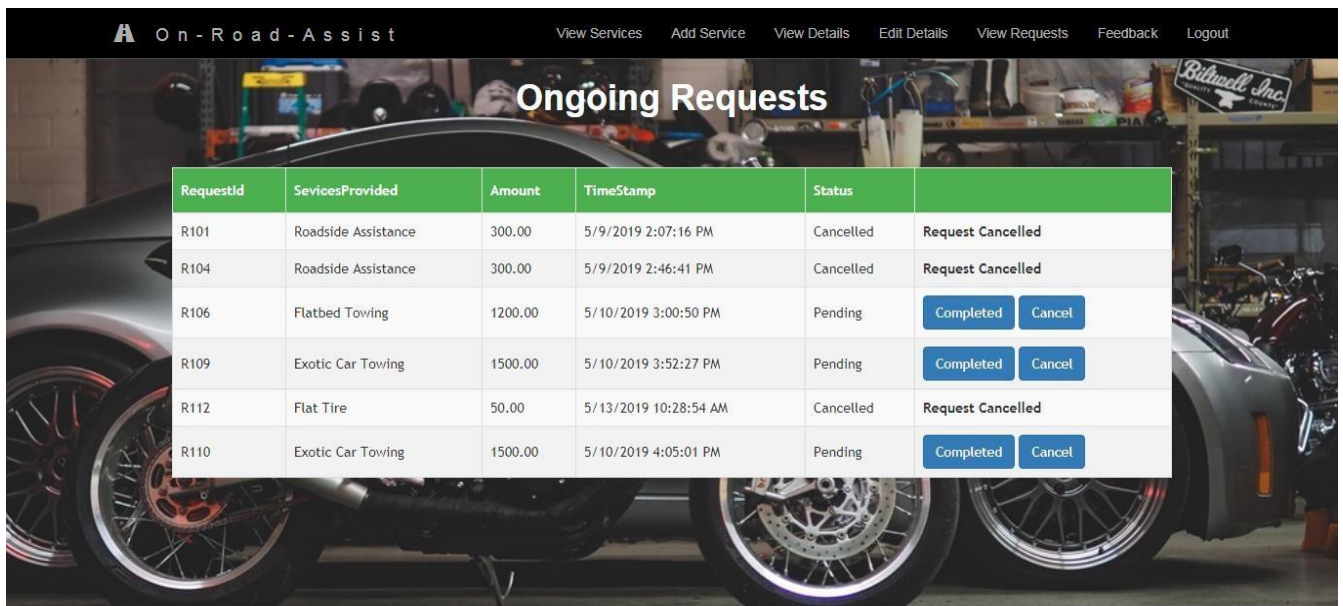
Figure 4.9: Ongoing Requests Page

- Add Services Provided
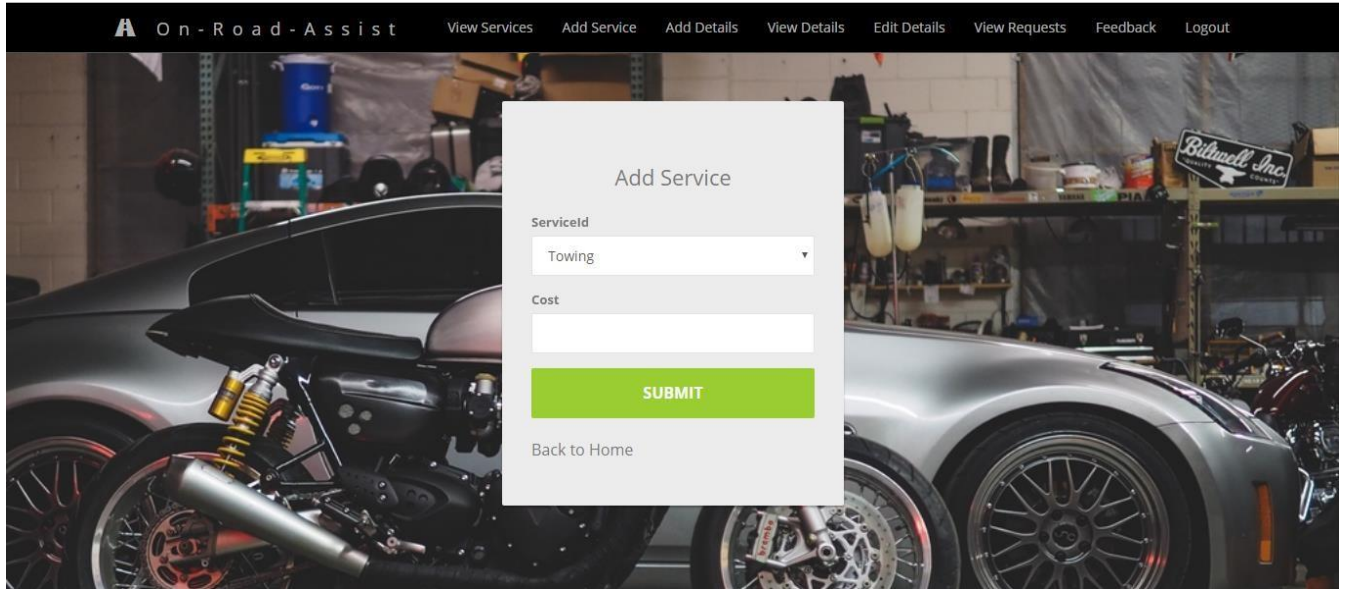
Figure 4.10: Add Service Page

- Update Provider Details
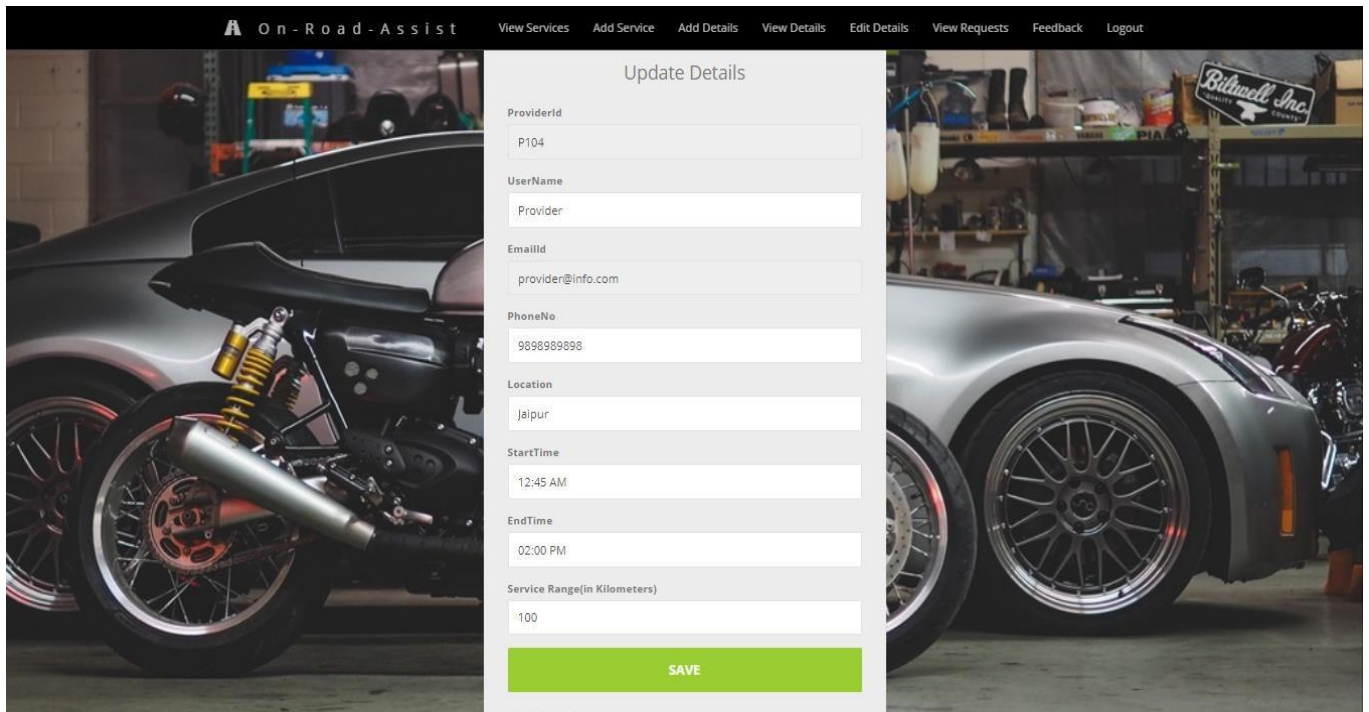
Figure 4.11: Update Details Page

- View Requests
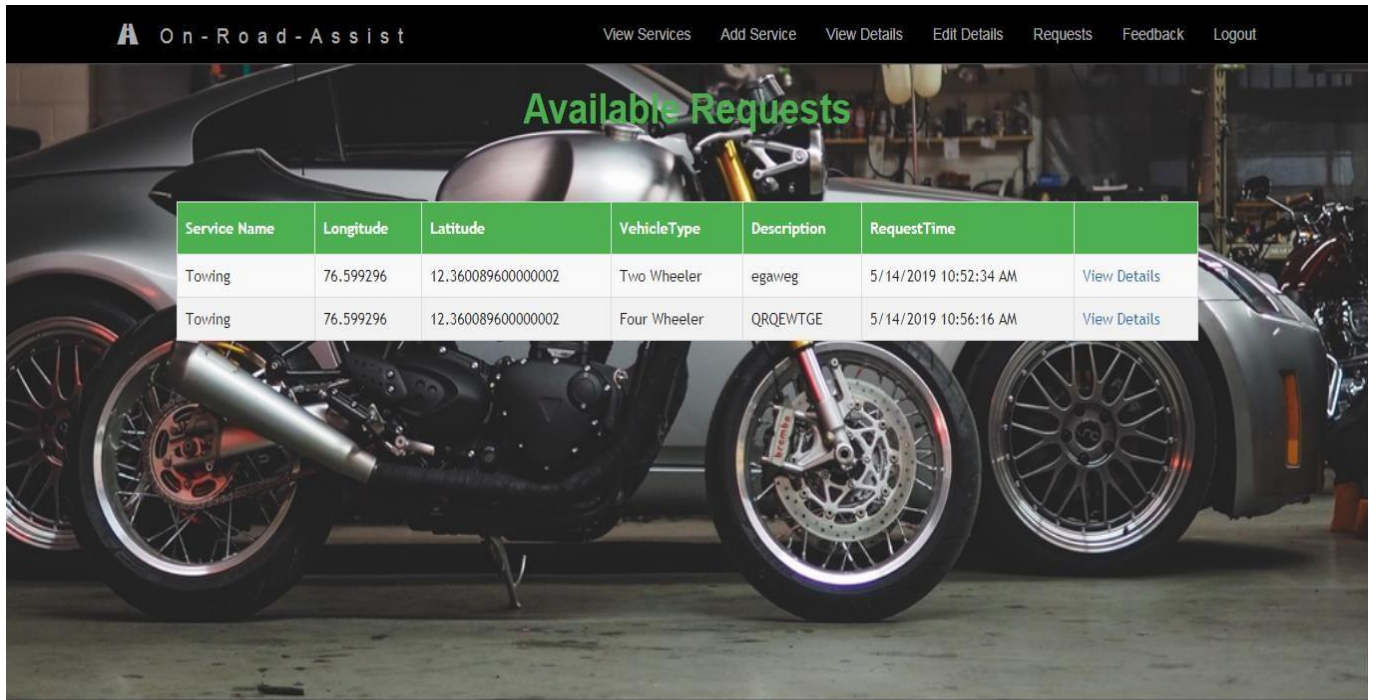
Figure 4.12: Available Requests Page

- View Request Details
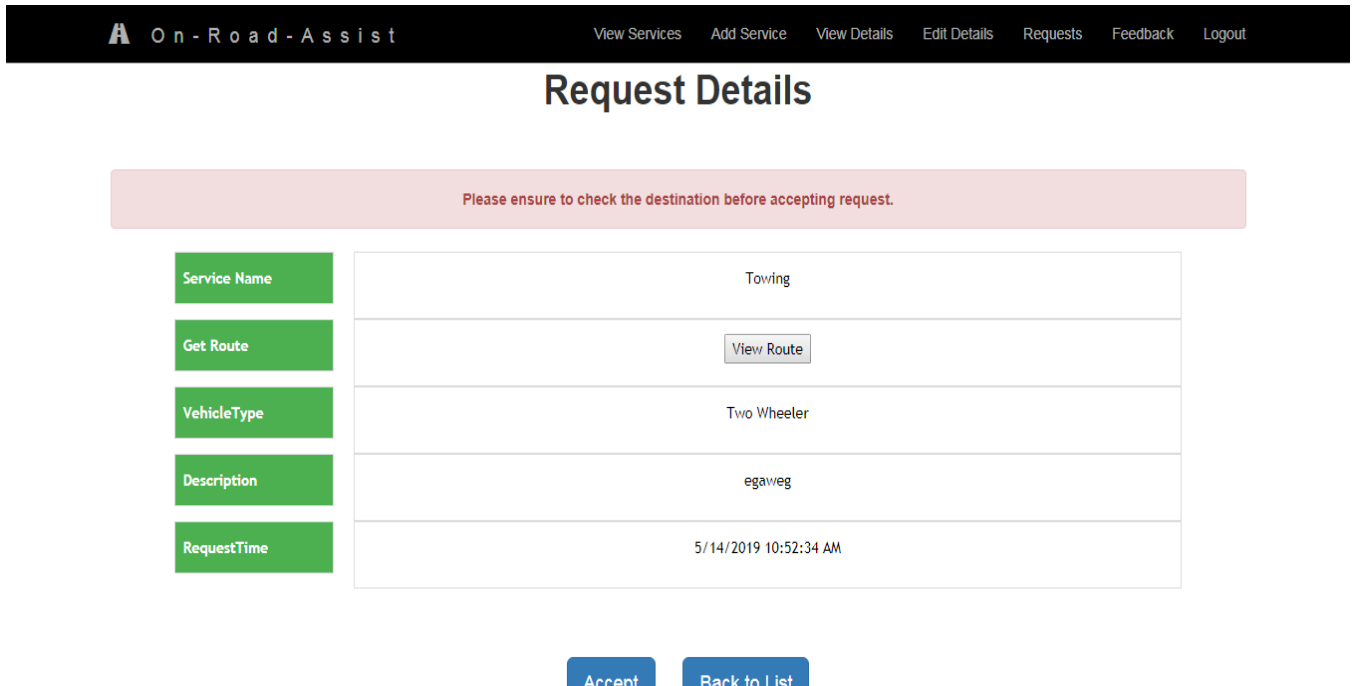
Figure 4.13: Request Details Page
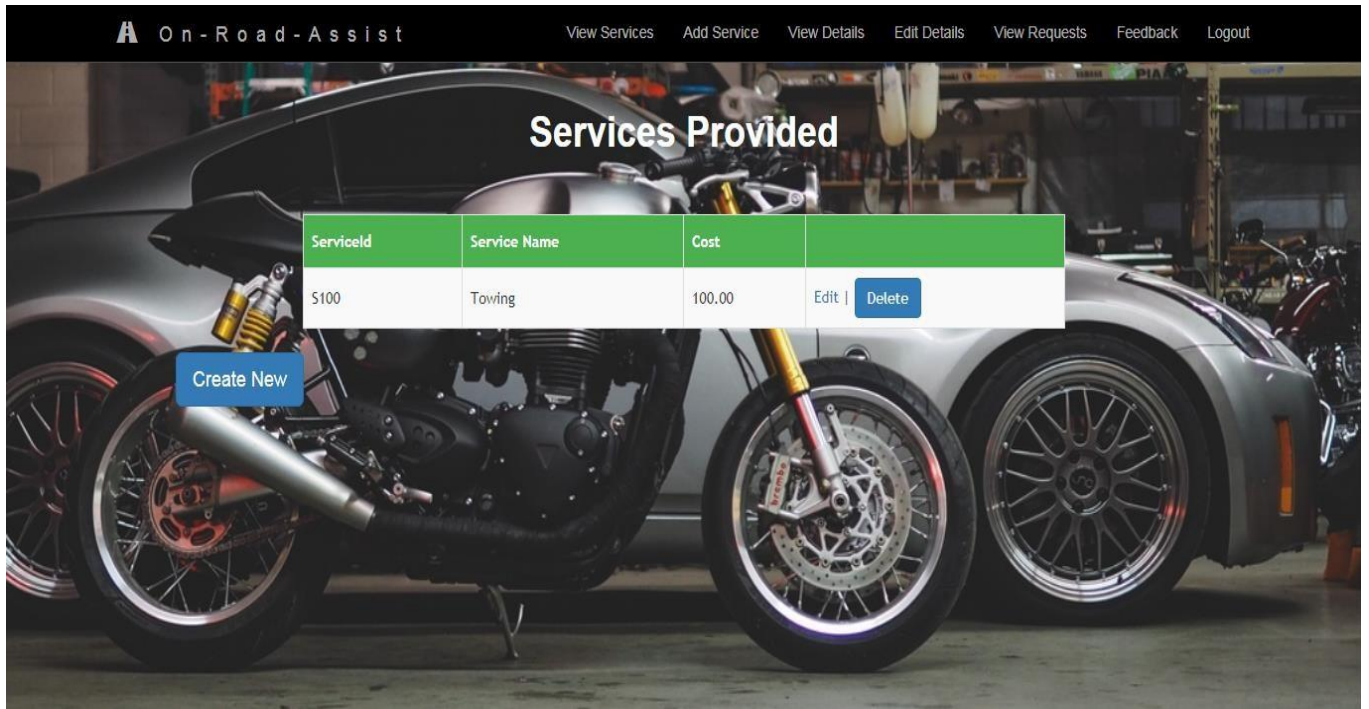
- View Services Provided

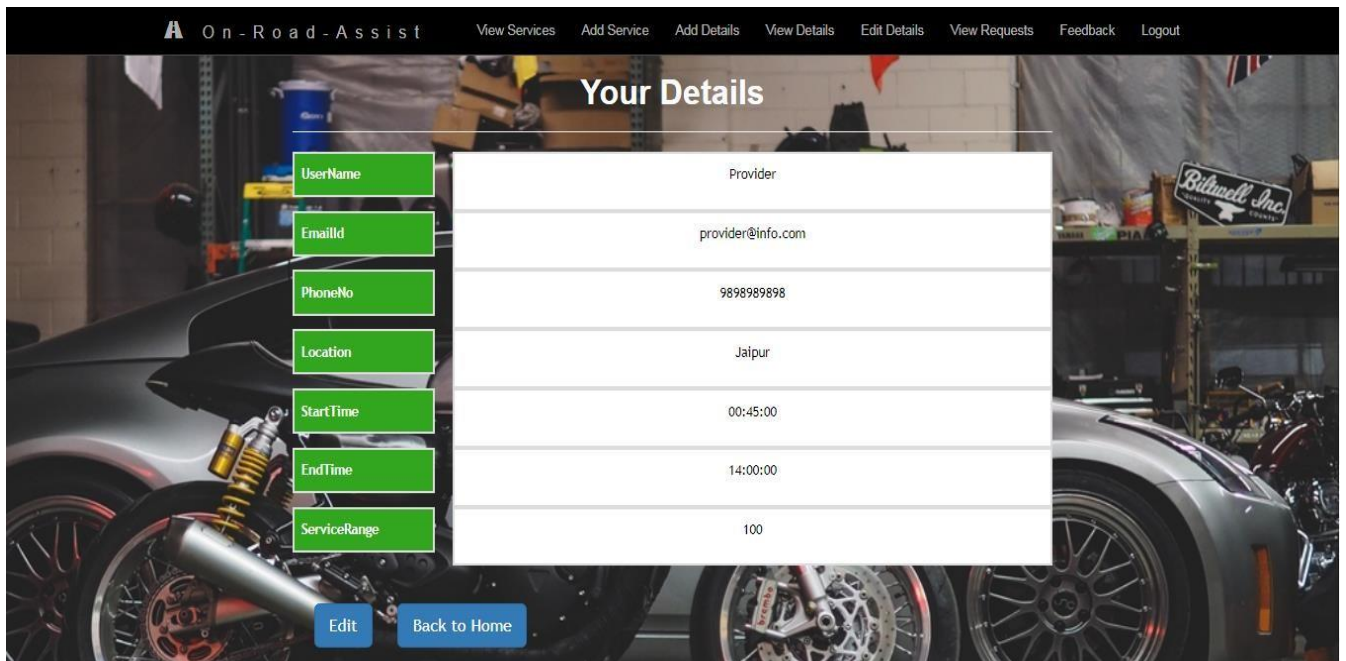**Figure 4.14**: Services Provided Page

- View Details

Figure 4.15: Your Details Page
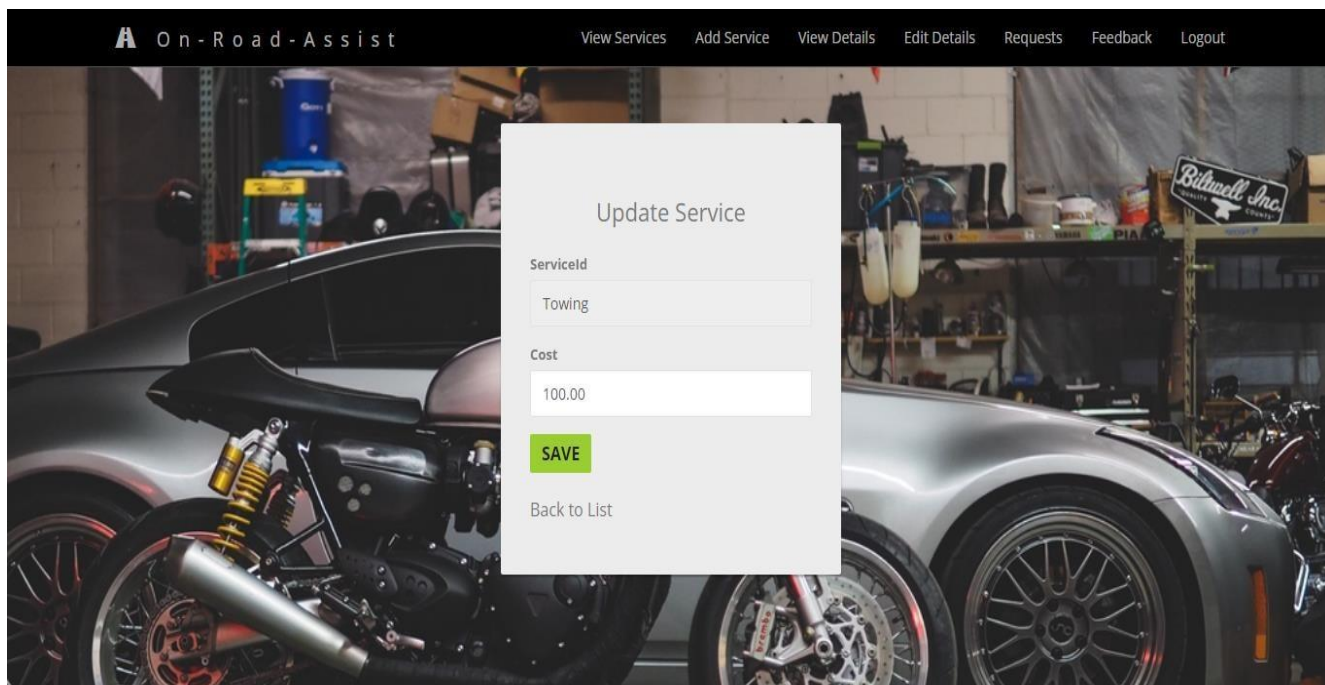
- Edit Services Provided

Figure 4.16: Update Service Page
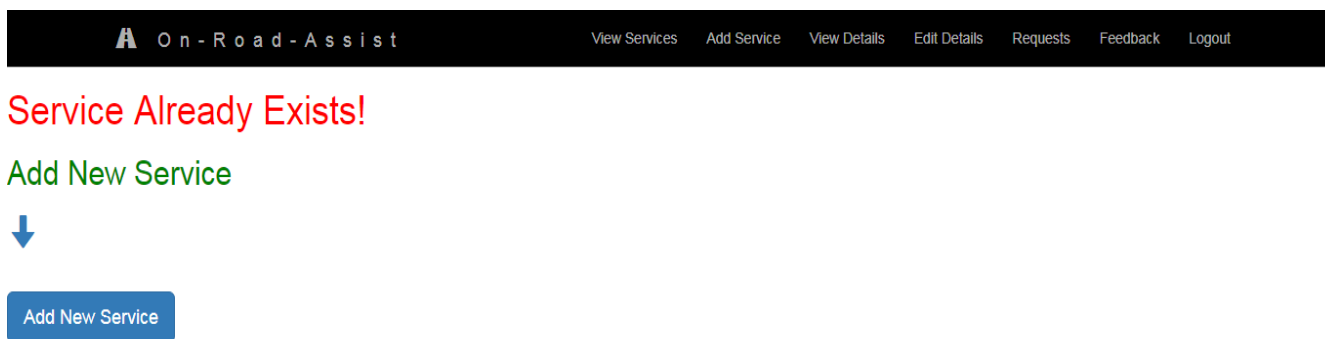
- Service Already Exist Error

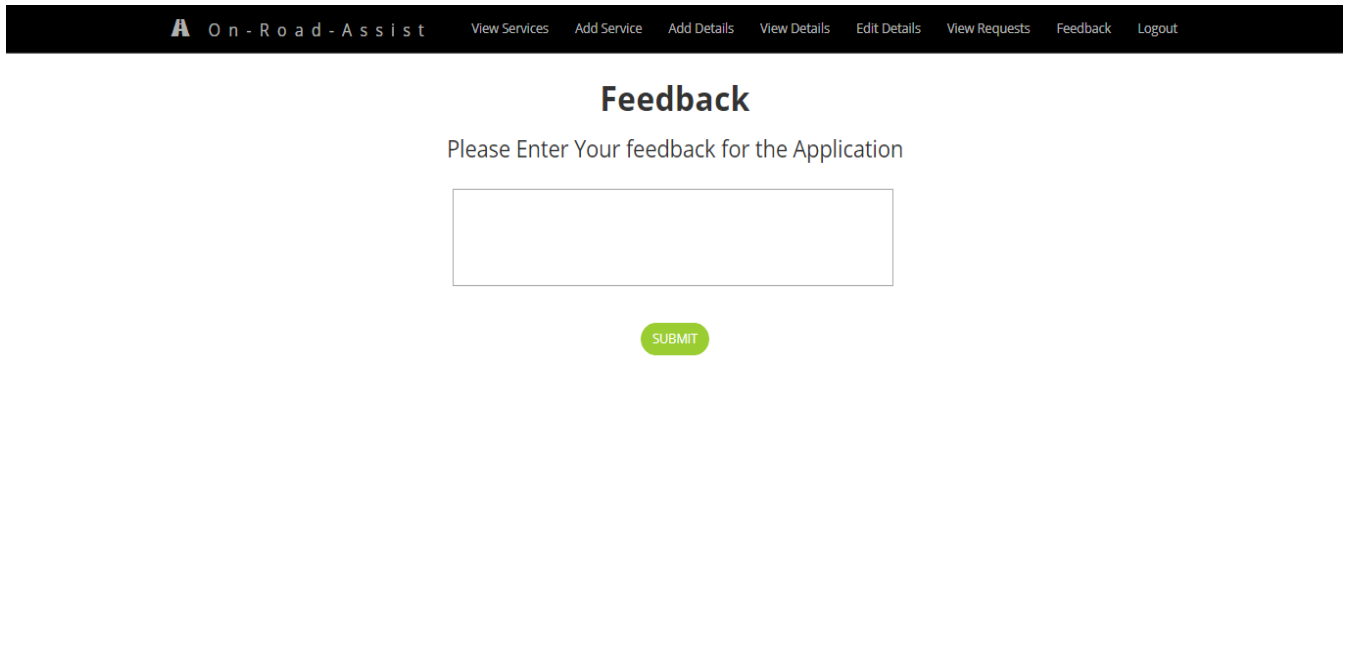
Figure 4.17: Service Already Exists Page

- Feedback

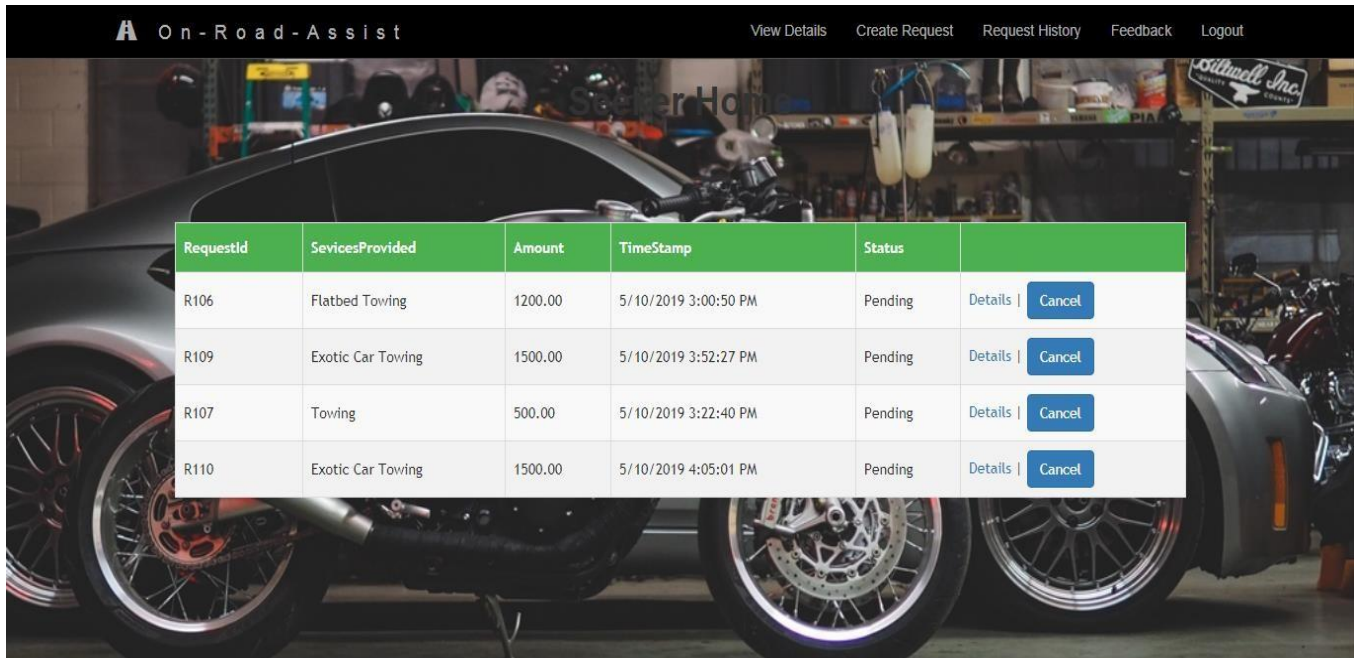**Figure 4.18**: Feedback Page

3. Seeker

- Seeker Home

Figure 4.19: Seeker Home Page

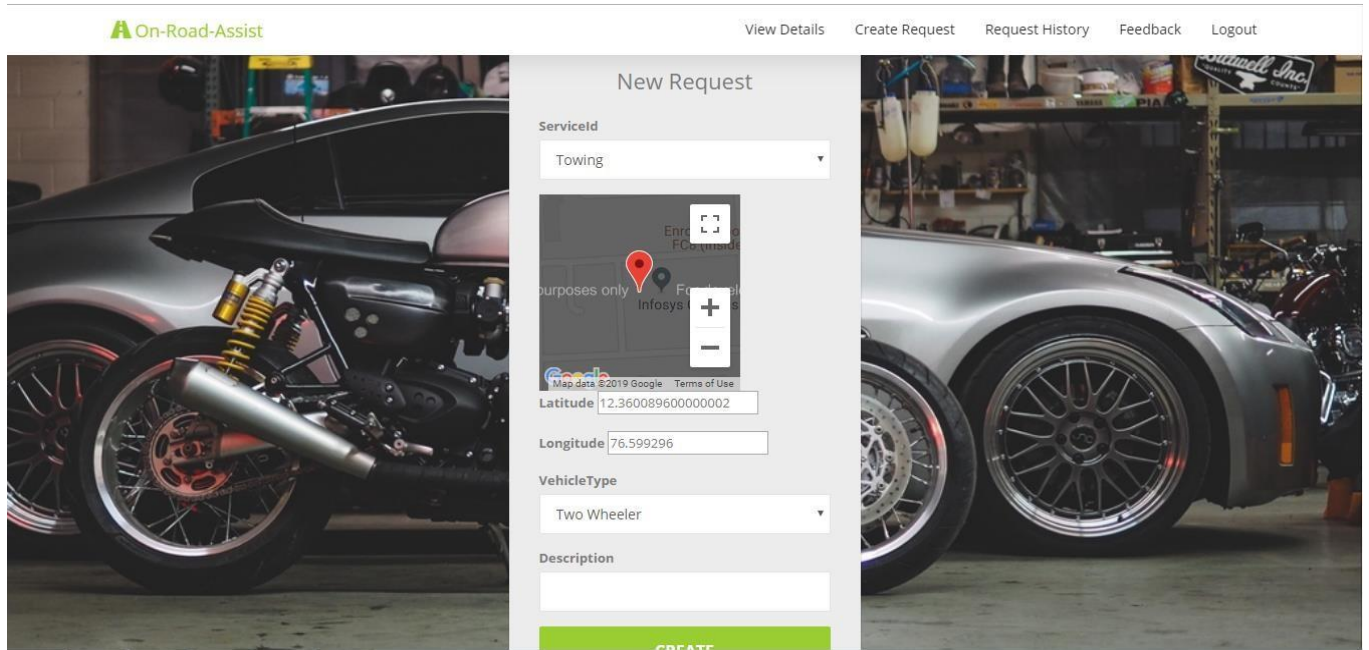- Create Request

Figure 4.20: Create Request Page

- View Request History

Figure 4.21: View Request History Page

- View Seeker Details
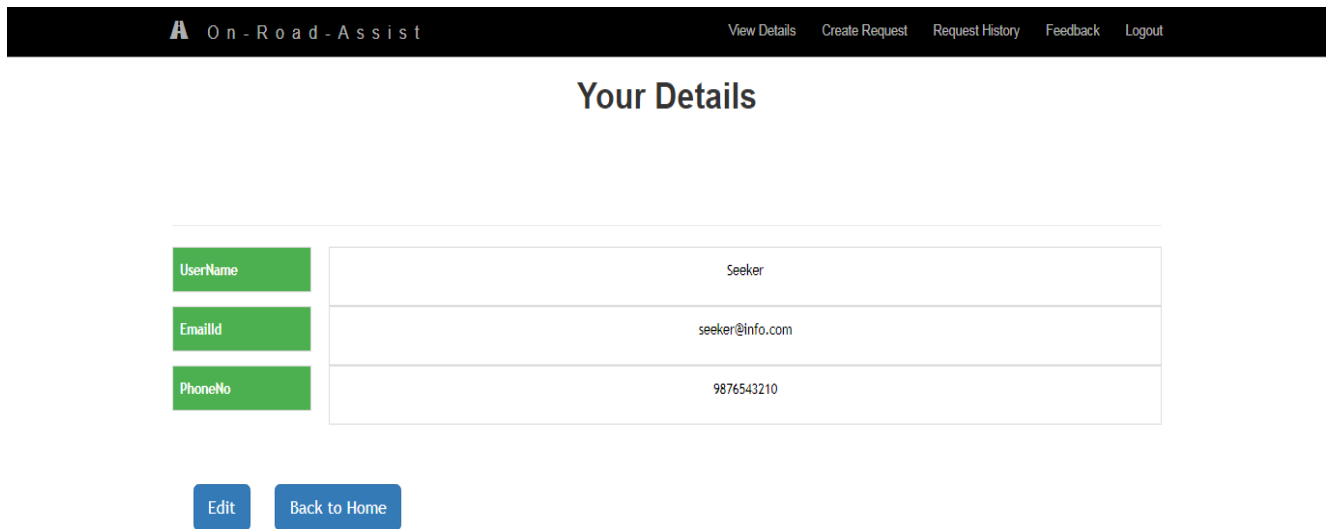
Figure 4.22: Your Details Page

- Edit Seeker Details
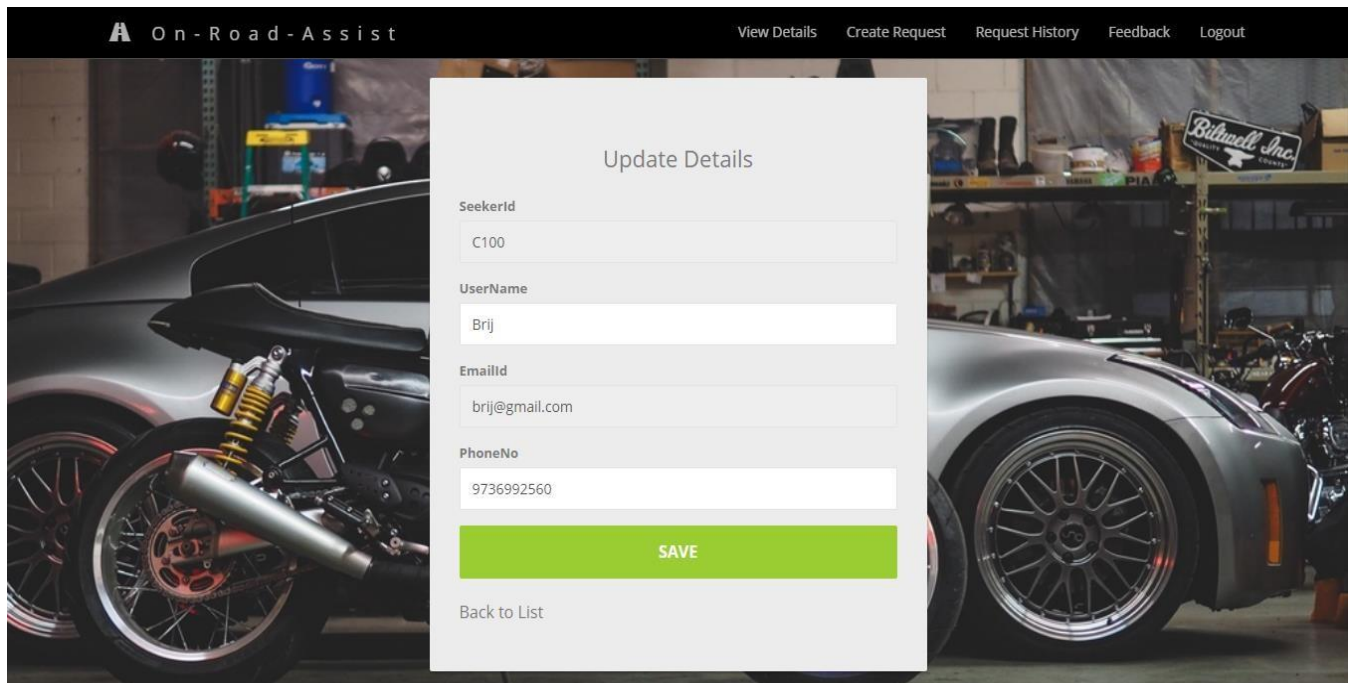
Figure 4.23: Update Details Page

- Feedback

Figure 4.24: Feedback Page

Layouts

Our project has various views which use common layouts in other views. Our app has header, footer. A continuous appearance should be kept across pages of our website. Therefore, by giving the same code for the common layout file, we remove repetition, which helped us to save time and redundancy of the code.

The following layouts are used in our project:

- _Layout
- _LayoutProvider
- _LayoutSeeker
- _NoDetailsError
- _UserDoesNotExist

- _ValidationsScriptsPartial
- _WrongPwd
- Error
- ServiceAlreadyExistError
- ViewDetailsLayout
- ProviderFixedFooter
- SeekerFixed

- **Navigation Bar**

Figure 4.25: On Road Assist Navigation Bar

- Home: The home button is the link to the index (main) page. On clicking this, the control is shifted to the index page of the website.
- About: The About button is the link to about page. On clicking this the control shifts to the about page. This page contains the information about the website designer.
- Privacy: This button is the link to the privacy page. On clicking this the user can visit the privacy page so as to read the privacy policy.
- Contact: This button is the link to the contact page. This page contains the contact information about the website owner.

Chapter 5

Test Plan

5.1 Test Plan

Agile Software Development Lifecycle is a reiterative process. It is the software development lifecycle which enables to record the working in a catastrophically. It consists two iterations i.e. Sprint1 and Sprint2. This lifecycle is recorded on a MS-Excel Spread Sheet. Each Sprint consists of Product backlog spread sheet which contains user stories arranged in chronological order. Each of Sprint 1 and Sprint 2 are time bound with appropriate deadline. Each sprint is of

fourteen days. It is basically made when one is working in a team or a group of members. It is mainly used to analyze individual effort when working in a team and tells about the progress of one. Dashboard shows graphical representation of delay or progress with respect to planned effort. This line is analyzed with respect to optimal line.

The agile development lifecycle consists of four core elements:

1. Stand Meeting of Team Members with Scrum Master

2. Planning project into small chunks i.e. Sprint 1 and Sprint 2

3. Capacity Planning

4. Retrospection

5. Dashboard

1. Stand Meeting of Team Members with Scrum Master.

Scrum is one who manages task within the group or team as a whole. Scrum plays avital role in software development lifecycle. Scrum meeting is a meeting for 15 minutes max where team members summarize where they are when they are in project phase.

This discussion is necessary as it is quite helpful whenever one is stuck at any point of time. These discussions among each other results in clarity of several doubts which one is facing. This meeting is carried out at start of the day and at the end of the day.
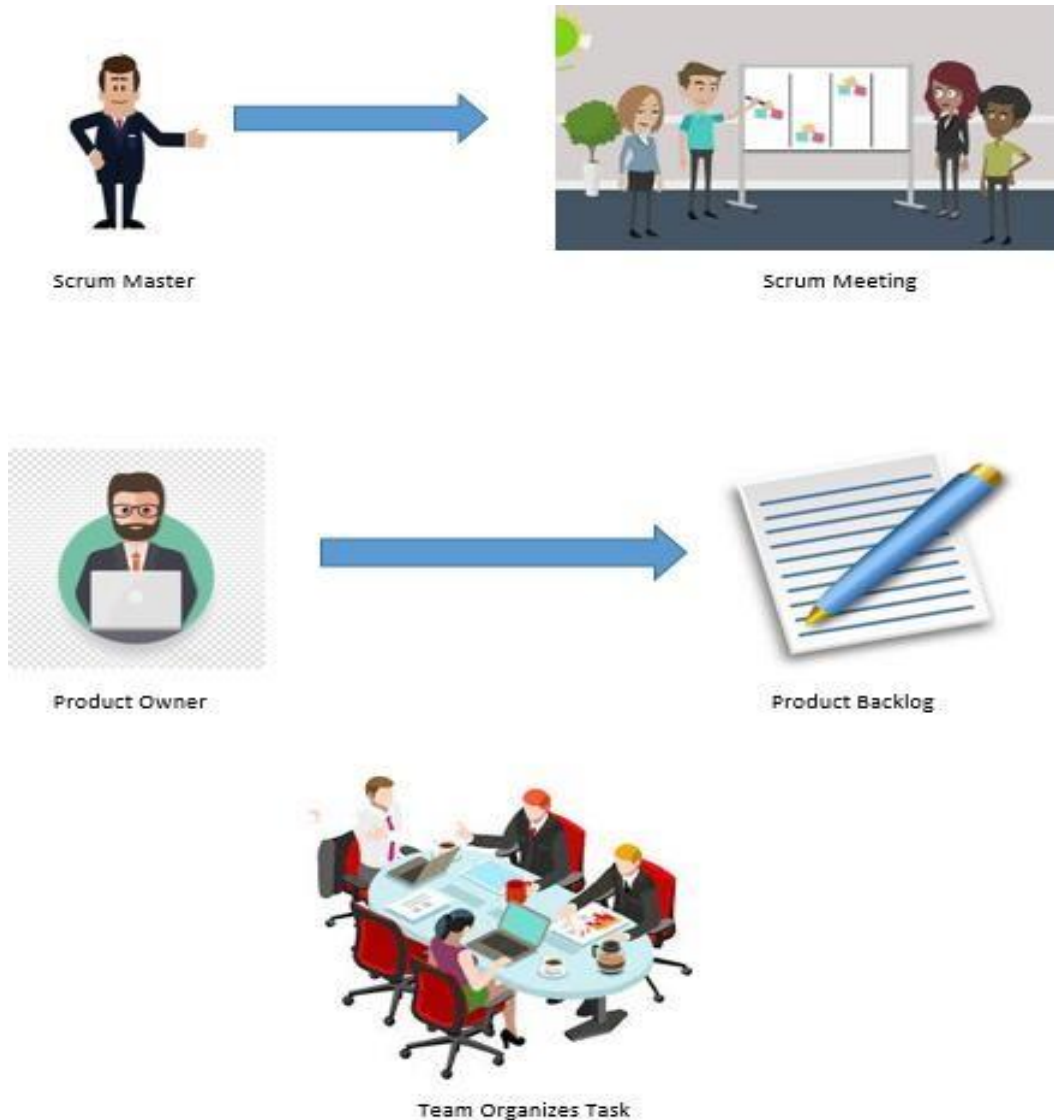

Figure 5.1: Scrum Meeting Lifecycle

2. Planning Project into small chunks i.e. Sprint1 and Sprint 2

This workflow starts with standup meeting and then the workflow is divided into smaller chunks each of which consists of fourteen days. The first sprint is sprint 0 in which each and every doubt

is cleared and each and every minute detail is planned before starting actual development. Sprint1 allows to deliver a little amount of business value. It is the baseline which basically focusses on user stories blueprint and further processed in order to make working software. It ensures the proper usability of tools and helps in proper development from initial stage itself so that proper pace is maintained. One can adapt at initial more easily at initial stage it is easier to mold.

The team will break the features down into tasks. Developers then sign up for tasks and estimate them. Errands regularly run, with most undertakings fit for being conveyed inside. Undertakings bigger than two days ought to by and large be separated into littler assignments. Sporadically amid errand arranging an element is resolved to be have been woefully thought little of in the first discharge plan. For this situation, the group should work with the client on giving an adjusted gauge and figuring out what highlight or highlights may should be postponed therefore.

3. Capacity Planning

Toward the start of each dash, an Agile gathering is given a lot of client stories, which depict include necessities from the objective client's perspective. The group allocates story focuses - an estimation of size and multifaceted nature with respect to other client stories - to every story, and further separates those that can't fit into a dash. Scope organization enables a group to see what number of story guides they are likely toward achieve inside a run and considers organization and individual downtime, and duties that sway the complete time accessible for gainful task work.

4.Retrospection

Retrospection is the part which basically affects the project and it is the report which is made after first meeting with client. The client can raise several issues during project phase which are to be amended and which are taken into account during further analysis.

It consists of eight columns sprint number, start date, end date, team members, start doing, stop doing, continue doing and action taken. Various corrections and validations are made according to client's opinion. This leads to proper implementation and analysis.

Changes which are to be made are assigned to each and every group member and according to client requirement the changes can be made.
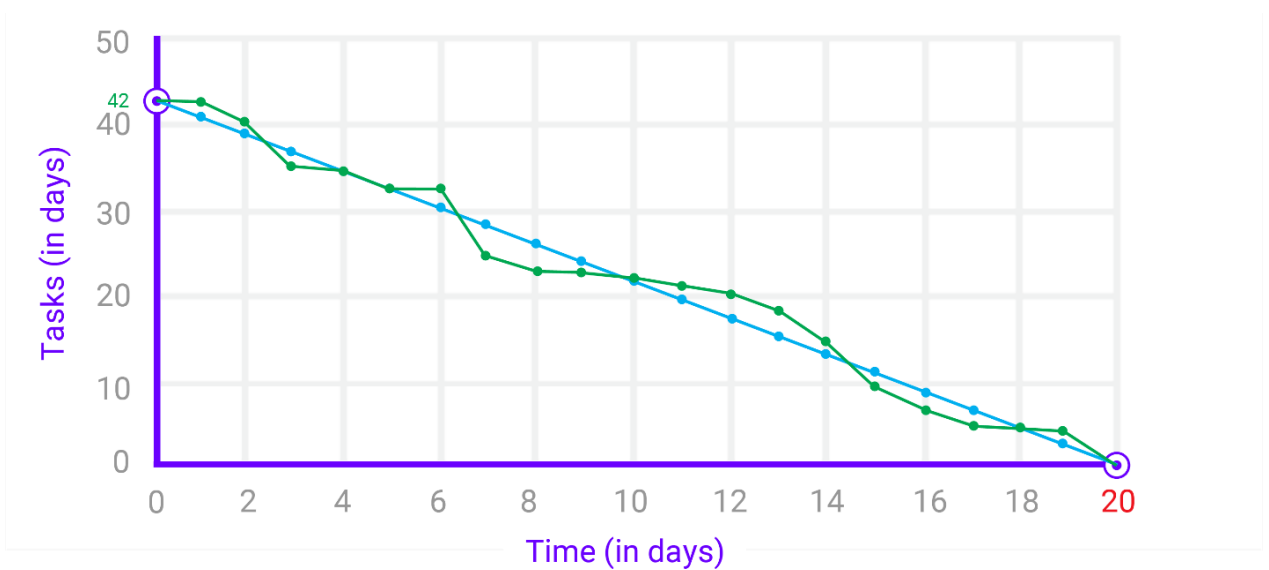
5.Dashboard

Figure 5.2: Burn Down Chart

Dashboard allows to view the graphical representation of work whether work is going on proper pace or not. The blue line in above graph is optimal line which is plotted with time on x-axis and tasks on o y-axis, the green line is how the project is actually going on. If green line is above the blue line then the work is lagging behind.

Chapter 6:

Performance Analysis

TEST ENVIRONMENT

- **Hardware**: Window 7 Desktop

- **Software**: 32-bit Operating System, Visual Basic 2015

1. For Login Page

Sr. No:	Condition to be tested	Expected Result	Test Status
1	Successful Login(Seeker)	Seeker Home Page	Pass
2	Successful Login(Provider)	Provider Home Page	Pass
3	Validation of credentials	Alert Box	Pass
4	Checking Data Annotations	Proper User Friendly message	Pass

Table 6.1: Test Table 1

2. For Adding Provider Details

Sr. No:	Condition to be tested	Expected Result	Test Status
1	Displaying the Provider Details	Available information of provider	Pass
2	Range for the entered data should be displayed if the entered data is out of range	User Friendly message should be displayed	Pass
3	Checking Data Annotations of theentered date	Proper User Friendly message	Pass
4	No entered data should be out of range like the contact number, Service range etc.	Proper User Friendly message	Pass
5	Empty Tags	Proper User Friendly message	Pass

Table 6.2: Test Table 2

3. For Adding Seeker Details

Sr. No:	Condition to be tested	Expected Result	Test Status
1	Displaying the Seeker Details	Available information of seeker	Pass
2	Range for the entered data should be displayed if the entered data is out of range.	User Friendly message should be displayed	Pass
3	Checking Data Annotations of the entered data.	Proper User Friendly message	Pass
4	No entered data should be out of range like the contact number.	Proper User Friendly message	Pass
5	Empty Tags	Proper User Friendly message	Pass

Table 6.3: Test Table 3

4. For Successful Login

Sr. No:	Condition to be tested	Expected Result	Test Status
1	When the correct email Id and password is entered by the provider.	User is redirected to the provider home page.	Pass
2	When the correct email Id and password is entered by the seeker.	User is redirected to the seeker home page.	Pass
3	When the entered email id or password is incorrect.	User friendly message appears	Pass

Table 6.4: Test Table 4

Chapter-7

Conclusion

The app we created was very specific and completed all our functional requirements It works well in the intranet arena. We tested the app in various conditions and all the misfunctioning features were taken care of in checking/testing phase of the project. The Users can access the application from two different systems at a time and can login and logout without any error. It can be optimised further and can be made more attractive.

Future Scope

The App satisfies all the basic user requirements provided to us by the required person. It can be changed more to implement all the extra requirements and the improvements can be made because the coding is done properly. Changes can be made by making changes in implemented modules or by adding more modules. Further enhancements that can be added includes:

1. More optimal UI
2. More security methods can be implemented.
3. More functionalities can be made on the On Road Assist.