VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELAGAVI – 590 018

An Internship Project Report
on

Automobile Service Station

Submitted in partial fulfillment of the requirements for the VII Semester of degree of **Bachelor of Engineering in Information Science and Engineering** of Visvesvaraya Technological University, Belagavi

Submitted By

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1RN18IS106

Under the Guidance of

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ESTD:2001
An Institute with a Difference

Department of Information Science and Engineering

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2021-2022

RNS INSTITUTE OF TECHNOLOGY

Dr. Vishnuvaradhan Road, Rajarajeshwari Nagar post,
Channasandra, Bengaluru - 560098

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

CERTIFICATE

Certified that the Internship work entitled ***Automobile Service Station*** has been successfully completed by **Sinchana Chandrashekar (1RN18IS106)** a Bonafede student of **RNS Institute of Technology, Bengaluru** in partial fulfillment of the requirements of 8th semester for the award of degree in **Bachelor of Engineering in Information Science and Engineering** of **Visvesvaraya Technological University, Belagavi** during academic year **2021-2022**. The internship report has been approved as it satisfies the academic requirements in respect of internship work for the said degree.

Dr. R Rajkumar	**Dr. Suresh L**	**Dr. M K Venkatesha**
Internship Co-Ordinator	Professor and HoD	Principal
Associate Professor	Department of ISE	RNSIT
Department of ISE	RNSIT	

External Viva

Name of the Examiners	**Signature with Date**
1. _____	**1.** _____
2. _____	**2.** _____

DECLARATION

I, **Sinchana Chandrashekar [USN: 1RN18IS106]** student of VII Semester BE, in Information Science and Engineering, RNS Institute of Technology hereby declare that the Internship work entitled ***Automobile Service Station*** has been carried out by us and submitted in partial fulfillment of the requirements for the *VII Semester degree of* ***Bachelor of Engineering in Information Science and Engineering*** *of Visvesvaraya Technological University, Belagavi* during academic year 2021-2022.

Place: Bengaluru

Date:

Sinchana Chandrashekar (1RN18IS106)

ABSTRACT

The purpose of Automobile Service Station is to automate the existing manual system with the help of computerized equipment and deliver full-fledged working software, fulfilling their automobile service requirements, so that their valuable data can be stored for a longer duration with ease of access and manipulation if needed. The required software and hardware are easily available and easy to work.

Automobile Service Station, as described above, can lead to error free, secure, reliable and fast management systems. It can assist the user to concentrate on their various activities rather than concentrating on the record keeping action. Thus, it will help the organization in better utilization of resources and platform to access the services. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

Basically, the project describes how to manage and have good performance and better services for the clients. The single application which caters all the details of services along with detailed description that are offered to the clients or end users by the company. The existing application has been enhanced to make the application user friendly with various operations.

ACKNOWLEDGMENT

At the very onset I would like to place my gratefulness to all those people who helped me in making the Internship a successful one.

Coming up, this internship to be a success was not easy. Apart from the sheer effort, the enlightenment of the very experienced teachers also plays a paramount role because it is, they who guided me in the right direction.

First of all, I would like to thank the **Management of RNS Institute of Technology** for providing such a healthy environment for the successful completion of internship work.

In this regard, I express sincere gratitude to our beloved Principal **Dr. M K Venkatesha,** for providing us all the facilities.

We are extremely grateful to our own and beloved Professor and Head of Department of Information science and Engineering, **Dr. Suresh L**, for having accepted to patronize us in the right direction with all his wisdom.

We place our heartfelt thanks to **Ms. Poonam Kumari** Assistant Professor, Department of Information Science and Engineering for having guided internship and all the staff members of the department of Information Science and Engineering for helping at all times.

I to thank **Mr. Ramesh Kumar, Partner, TechieAid**, for providing the opportunity to be a part of the Internship program and having guided me to complete the same successfully.

I also thank our internship coordinator **Dr. R Rajkumar,** Associate Professor, Department of Information Science and Engineering. I would thank our friends for having supported with all their strength and might. Last but not the least, I thank our parents for supporting and encouraging me throughout. I have made an honest effort in this assignment.

Sinchana Chandrashekar

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ABBREVIATIONS

Acronym	Description
ADO	Active X Data Object
SQL	Structed Query Language
MSSQL	Microsoft SQL Server
HTML	Hypertext Markup Language
CSS	Cascading Style Sheets
CLR	Common Language Runtime
IE	Internet Explorer
VB	Visual Basics
ISO	International Organization of Standardization
ANSI	American National Standard Institutes

1. INTRODUCTION

C# is a general-purpose, object-oriented programming language that is structured and easy to learn. It runs on Microsoft's .Net Framework and can be compiled on a variety of computer platforms.

C# is a boon for developers who want to build a wide range of applications on the .NET Framework Windows applications, Web applications, and Web services—in addition to building mobile apps, Windows Store apps, and enterprise software. It is thus considered a powerful programming language and features in every developer's cache of tools.

ADO.NET is a set of classes (a framework) to interact with data sources such as databases and XML files. ADO is the acronym for ActiveX Data Objects. It allows us to connect to underlying data or databases. It has classes and methods to retrieve and manipulate data.

The following are a few of the .NET applications that use ADO.NET to connect to a database, execute commands and retrieve data from the database.

- ASP.NET Web Applications
- Console Applications
- Windows Applications

Merits of C#:

- Being an object-oriented language, C# allows you to create modular, maintainable applications and reusable codes.
- Easy to develop as it has a rich class of libraries for smooth implementation of functions.
- Enhanced integration as an application written in .NET will integrate and interpret better when compared to other NET technologies
- As C# runs on CLR, it makes it easy to integrate with components written in other languages.

- It's safe, with no data loss as there is no type-conversion so that you can write secure codes.
- The automatic garbage collection keeps the system clean and doesn't hang it during execution and cross-platform support as it requires to run on NET Framework.

1.1. BACKGROUND

The "Automobile Service Station" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and, in some cases, reduce the hardships faced by this existing system. Moreover, this system is designed for the need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides an error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus, by this all it proves it is user-friendly. Automobile Service Station, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather than concentrating on the record keeping. Thus, it will help organizations in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and manage the information of Car, Service Centre, Centre Location, Payment, Registration. This system is designed to assist in strategic planning and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executives who are always on the go. Our systems come with remote access features, which will allow you to manage your workforce anytime, always. These systems will ultimately allow you to better manage resources

It may help collect perfect management in detail. In a very short time, the collection will be obvious, simple, and sensible. It also helps in current work relative to the Automobile Service Station Management System. It will also reduce the cost of collecting the management & collection procedure will go on smoothly.

Our project aims at Business process automation, i.e., we have tried to computerize various processes of the Automobile Service Station Management System.

1.2. REQUIREMENTS

Software Requirements

Name of Components	Specification
Operating System	Windows 10
Language	HTML, CSS, C#, JavaScript, Bootstrap
Database	MSSQL
Browser	Chrome, IE
Integrated Development Environment	Microsoft Visual Studio 2019, Microsoft SQL Server 2019

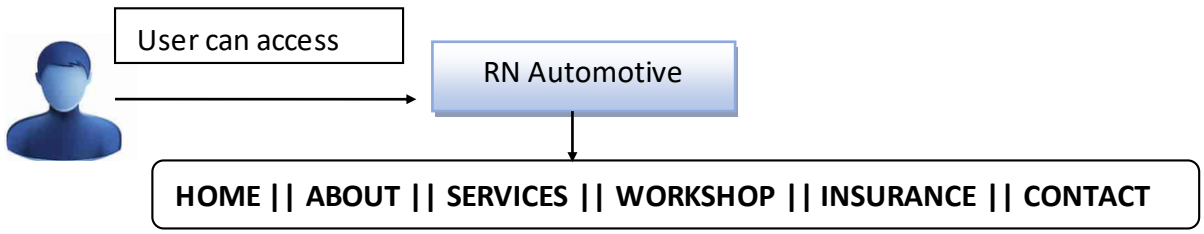
Hardware Requirements

Name of Components	Specification
Processor	10^{TH} Gen CORE i7 Processor
RAM	8GB
Hard Disk	512 GB SSD

2. SYSTEM DESIGN

2.1. CURRENT DESIGN

The current module was having static data and minimal operations made available to the client for visual and read the information about the services and its information offered at Automotive company. It had various information like about the company, Services. Insurance and Contact details rendered in the single web page of the application.



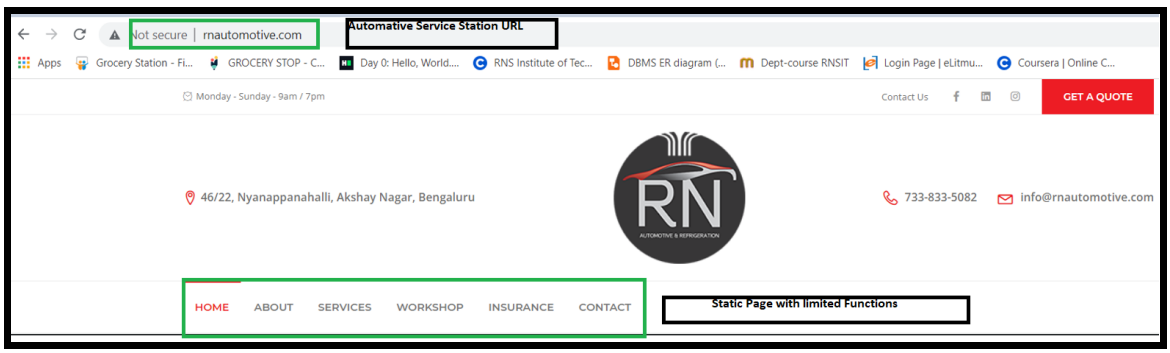


Figure 2.1: Existing Automotive Service Station Design

2.2. PROPOSED DESIGN

The existing web application has been enhanced to make the application more interactive and make user friendly with add-on functionalities. The features like user login and registration have been made available along with Home, About, Services, Contact and Payment options for the client. The Payment module has been incorporated to make the payment service easy. As the client selects the services to be opted the cumulative charges are displayed, and user can make the payment without any hassle. The registered users are granted an access to the Payment module. The Home, About, Services and Contact sections are enhanced with dynamic data to provide better details of each service and its offerings.

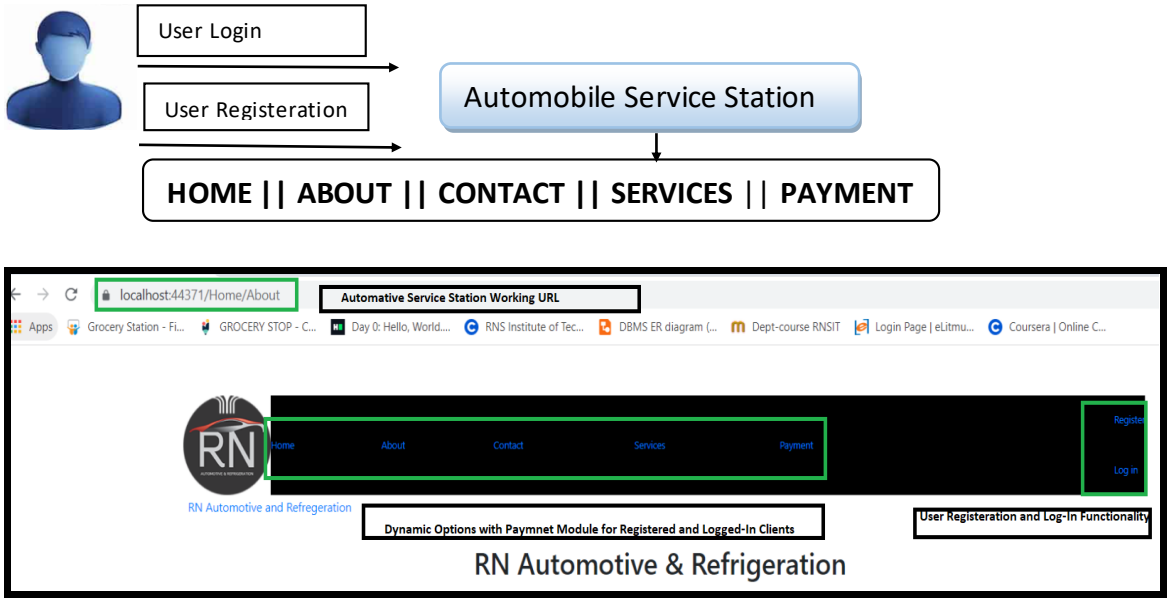


Figure 2.2: Proposed Automotive Service Station Design

3. SYSTEM DESIGN

3.1. DATABASE CHANGES

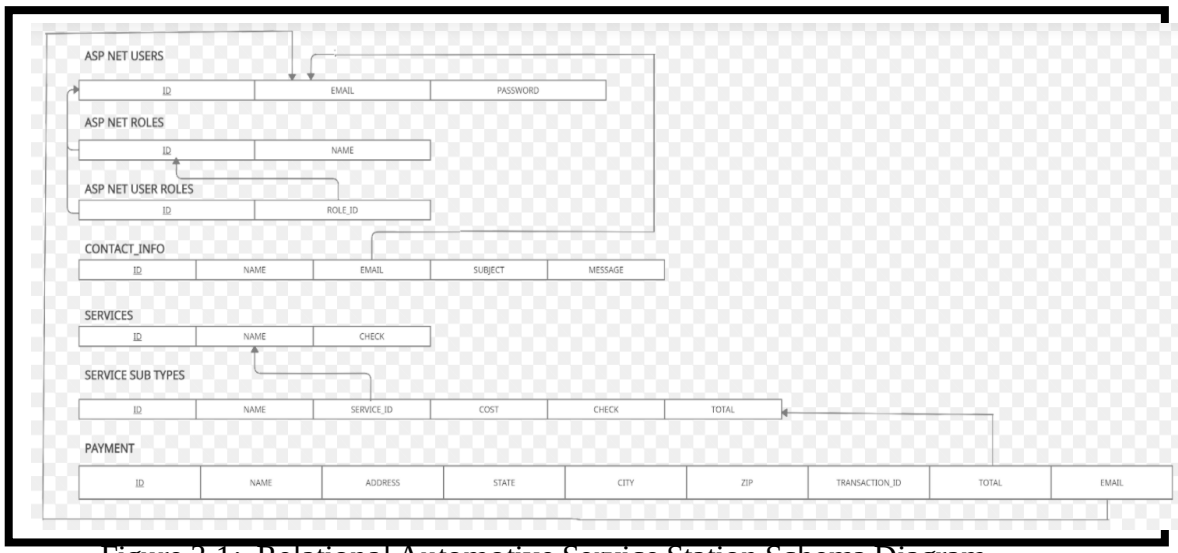


Figure 3.1: Relational Automotive Service Station Schema Diagram

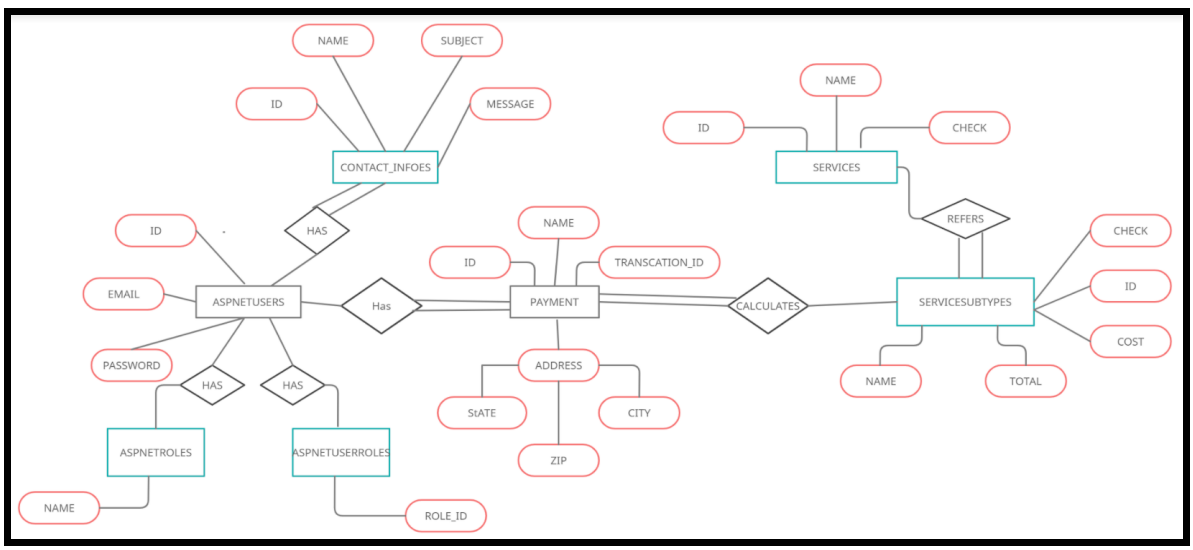


Figure 3.2: ER Diagram for Automotive Service Station

3.2. TABLE DESCRIPTION

1. Migration History:

Table Schema: The Schema generated in Microsoft SQL Server Management Studio

Table 3.2.1 Migration History

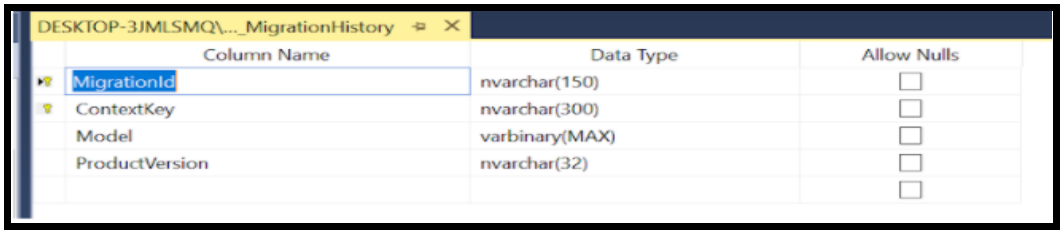
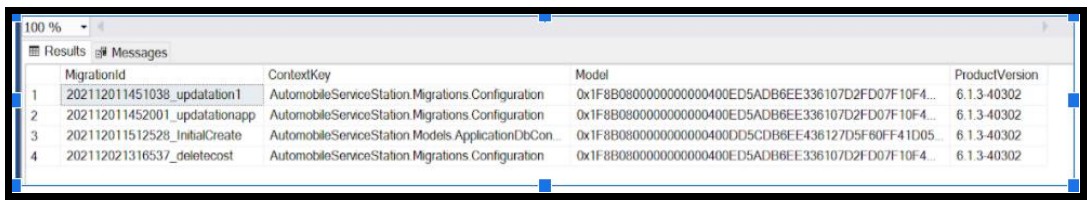


Table Structure: The data population with sample data in Microsoft SQL Server Management Studio is as below

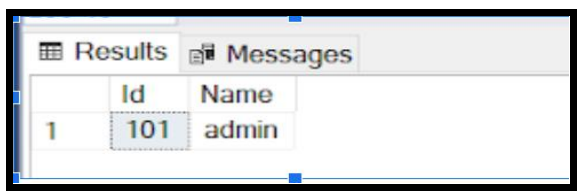


2. ASP Net Roles:

Table Schema: The Schema generated in Microsoft SQL Server Management Studio

Table 3.2.2 ASP Net Roles

Table Structure: The data population with sample data in Microsoft SQL Server Management Studio is as below



3. ASP Net User Roles:

Table Schema: The Schema generated in Microsoft SQL Server Management Studio

Table 3.2.3 ASP Net User Roles

Column Name	Data Type	Allow Nulls
UserId	nvarchar(128)	☐
RoleId	nvarchar(128)	☐
		☐

Table Structure: The data population with sample data in Microsoft SQL Server Management Studio is as below

100 %

Results Messages

	UserId	RoleId
1	1397e55e-7d1d-4e5a-ab95-7387ed30e824	101

4. ASP Net Users:

Table Schema: The Schema generated in Microsoft SQL Server Management Studio

Table 3.2.4 ASP Net Users

Column Name	Data Type	Allow Nulls
Id	nvarchar(128)	☐
Email	nvarchar(256)	☑
EmailConfirmed	bit	☐
PasswordHash	nvarchar(MAX)	☑
SecurityStamp	nvarchar(MAX)	☑
PhoneNumber	nvarchar(MAX)	☑
PhoneNumberConfirmed	bit	☐
TwoFactorEnabled	bit	☐
LockoutEndDateUtc	datetime	☑
LockoutEnabled	bit	☐
AccessFailedCount	int	☐
UserName	nvarchar(256)	☐
		☐

Table Structure: The data population with sample data in Microsoft SQL Server Management Studio is as below

100 %

Results Messages

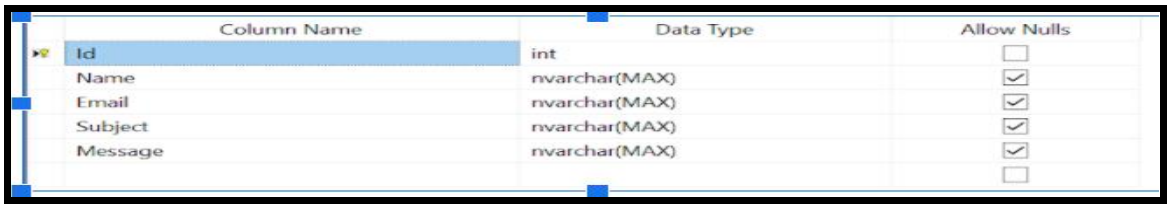
Id	Email	EmailConfirmed	PasswordHash	SecurityStamp	PhoneNumber	PhoneNumber
1	1397e55e-7d1d-4e5a-ab95-7387ed30e824	sinchanashettyc@gmail.com	0	AEm9zk/J+/FA/yzH8CGdjMra7VNHo+oZ3yKvELI2MyMZpqSqw9z...	11edeff7-f274-48ee-ad53-ec3fe5c62388	NULL	0
2	1ded3b00-1328-438a-b447-86173be9070f	nidhi@gmail.com	0	ALPd6YHKc7BBa1mn6V83PO66WA7dQ6UXgSg7XVmNj88X8J4X0...	b286df0c-32c2-463f-8b1c-2f0aed6a20e6	NULL	0
3	d816fbde-524c-4d41-ac3a-a91bece41ae5	piya@gmail.com	0	ANhTJ920jP3rN2tpeUamgVbAiBNH7+1qCXH8/Lw2/ITkAmEINOJJ...	59c8a1d0-b15d-47cd-80c2-6b5b4ab73538	NULL	0

TwoFactorEnabled	LockoutEndDateUtc	LockoutEnabled	AccessFailedCount	UserName
0	NULL	1	0	sinchanashettyc@gmail.com
0	NULL	1	0	nidhi@gmail.com
0	NULL	1	0	piya@gmail.com

5. Contact Info:

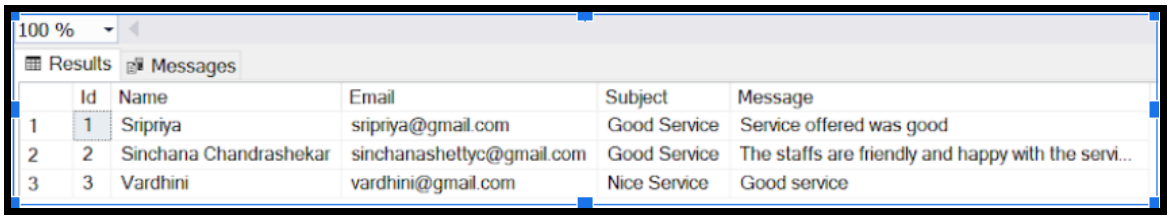
Table Schema: The Schema generated in Microsoft SQL Server Management Studio

Table 3.2.5 Contact Info



Column Name	Data Type	Allow Nulls
Id	int	☐
Name	nvarchar(MAX)	☑
Email	nvarchar(MAX)	☑
Subject	nvarchar(MAX)	☑
Message	nvarchar(MAX)	☑
		☐

Table Structure: The data population with sample data in Microsoft SQL Server Management Studio is as below



100 %

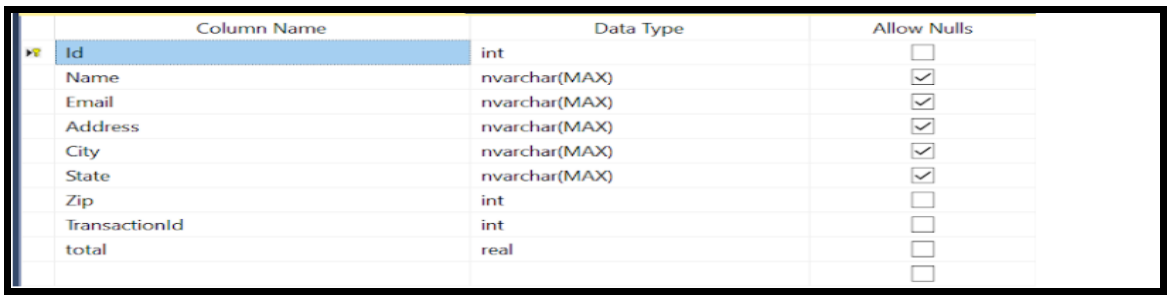
Results | Messages

	Id	Name	Email	Subject	Message
1	1	Sripriya	sripriya@gmail.com	Good Service	Service offered was good
2	2	Sinchana Chandrashekar	sinchanashettyc@gmail.com	Good Service	The staffs are friendly and happy with the servi...
3	3	Vardhini	vardhini@gmail.com	Nice Service	Good service

6. PaymentInfoes:

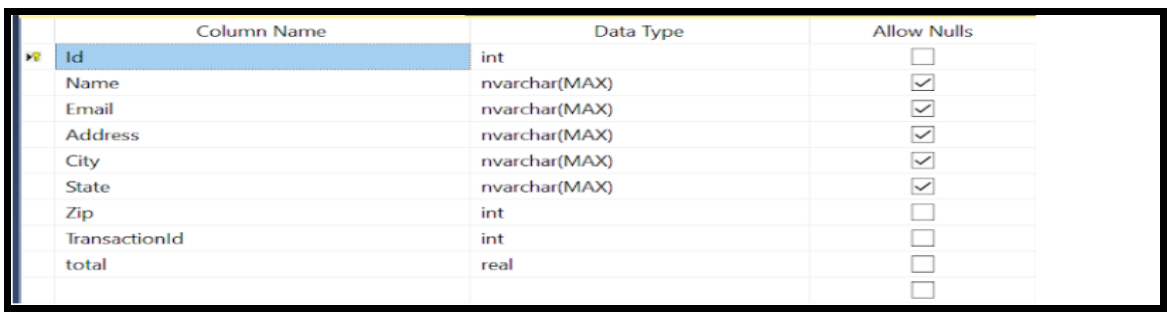
Table Schema: The Schema generated in Microsoft SQL Server Management Studio

Table 3.2.6 PaymentInfoes



Column Name	Data Type	Allow Nulls
Id	int	☐
Name	nvarchar(MAX)	☑
Email	nvarchar(MAX)	☑
Address	nvarchar(MAX)	☑
City	nvarchar(MAX)	☑
State	nvarchar(MAX)	☑
Zip	int	☐
TransactionId	int	☐
total	real	☐
		☐

Table Structure: The data population with sample data in Microsoft SQL Server Management Studio is as below

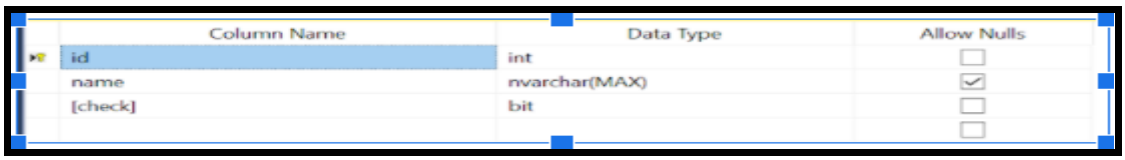


Column Name	Data Type	Allow Nulls
Id	int	☐
Name	nvarchar(MAX)	☑
Email	nvarchar(MAX)	☑
Address	nvarchar(MAX)	☑
City	nvarchar(MAX)	☑
State	nvarchar(MAX)	☑
Zip	int	☐
TransactionId	int	☐
total	real	☐
		☐

7. Services:

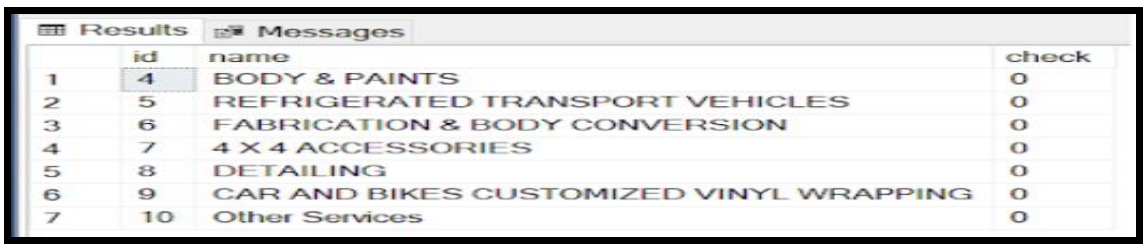
Table Schema: The Schema generated in Microsoft SQL Server Management Studio

Table 3.2.7 Services



Column Name	Data Type	Allow Nulls
id	int	☐
name	nvarchar(MAX)	☑
[check]	bit	☐
		☐

Table Structure: The data population with sample data in Microsoft SQL Server Management Studio is as below



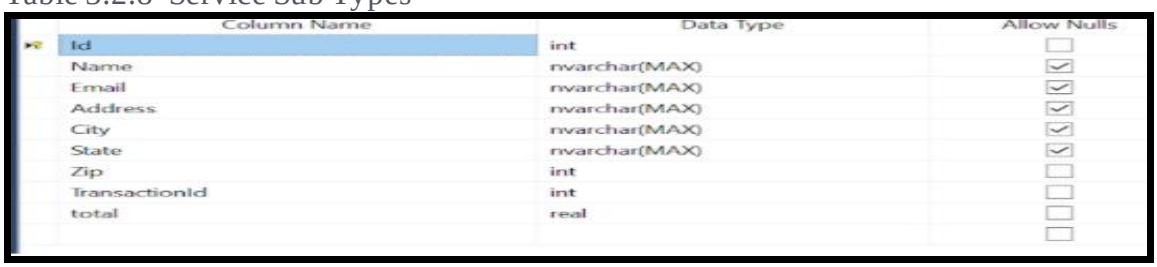
Results Messages

	id	name	check
1	4	BODY & PAINTS	0
2	5	REFRIGERATED TRANSPORT VEHICLES	0
3	6	FABRICATION & BODY CONVERSION	0
4	7	4 X 4 ACCESSORIES	0
5	8	DETAILING	0
6	9	CAR AND BIKES CUSTOMIZED VINYL WRAPPING	0
7	10	Other Services	0

8. Service Sub Types:

Table Schema: The Schema generated in Microsoft SQL Server Management Studio

Table 3.2.8 Service Sub Types



Column Name	Data Type	Allow Nulls
Id	int	☐
Name	nvarchar(MAX)	☑
Email	nvarchar(MAX)	☑
Address	nvarchar(MAX)	☑
City	nvarchar(MAX)	☑
State	nvarchar(MAX)	☑
Zip	int	☐
TransactionId	int	☐
total	real	☐
		☐

Table Structure: The data population with sample data in Microsoft SQL Server Management Studio is as below.

100 %

Results Messages

	id	name	serviceID	cost	check
1	1	To repair car dents	4	200	0
2	2	Vehicle Painting	4	3000	0
3	3	Complete mobile cold storage solution	5	100000	0
4	4	Insulated cabins	5	50000	0
5	5	Springs	7	1000	0
6	6	Shock absorber (Nitrogen & Foam)	7	3500	0
7	7	Bull bars	7	10000	0
8	8	Suspension Kits	7	1700	0
9	9	Snorkels	7	2000	0
10	10	Winches	7	2000	0

4. IMPLEMENTATION

4.1. USER INTERFACE IMPLEMENTATION

The front-end is built using a combination of technologies such as Hypertext Markup Language (HTML), JavaScript, Boot strap and Cascading Style Sheets (CSS). Front-end developers design and construct the user experience elements on the web page or app including buttons, menus, pages, links, graphics and more.

4.1.1. Hypertext Markup Language

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript it forms a triad of cornerstone technologies for the World Wide Web. Web browsers receive HTML documents from a web server or from local storage and render them into multimedia web pages, HTML, describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images, and other objects, such as interactive forms, may be embedded into the rendered page. It provides a directly. means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as <img> and <input/> introduce content into the page Others such as ... surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags but use them to interpret the content of the page. HTML can embed programs written in a scripting language such as JavaScript which affect the behavior and content of web pages. Inclusion of CSS defines the look and layout of content.

4.1.2. Cascading Style Sheets

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language. Although most often used to

set the visual style of web pages and user interfaces written in HTML and XHTML, the language can be applied to any XML. document, including plain XML, SVG and XUL, and is applicable to rendering in speech, or on other media. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging web pages, user interfaces for web applications, and user interfaces for many mobile applications.

CSS is designed primarily to enable the separation of presentation and content, including aspects such as the layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple HTML pages to share formatting by specifying the relevant CSS in a separate css file, and reduce complexity and repetition in the structural content.

4.1.3. JavaScript

JavaScript is the Programming Language for the Web. It can update and change both HTML and CSS. JavaScript can calculate, manipulate, and validate data.

JavaScript is a dynamic computer programming language. It is lightweight and most used as a part of web pages, whose implementations allow client-side script to interact with the user and make dynamic pages. It is an interpreted programming language with object-oriented capabilities.

JavaScript was first known as LiveScript, but Netscape changed its name to JavaScript, possibly because of the excitement being generated by Java. JavaScript made its first appearance in Netscape 2.0 in 1995 with the name LiveScript. The general-purpose core of the language has been embedded in Netscape, Internet Explorer, and other web browsers.

4.1.4. Bootstrap

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.

- Bootstrap is the most popular HTML, CSS, and JavaScript framework for developing a responsive and mobile friendly website.

- It is free to download and use.
- It is a front-end framework used for easier and faster web development.
- It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many others.
- It can also use JavaScript plug-ins.
- It facilitates you to create responsive designs.

4.2 BUSINESS LOGIC IMPLEMENTATION

In the module to implement the middle layer and the scenario logic and the method calls between the user interface and database. The major functionality of the project has been taken care.

4.2.1. C#

C# is a programming language developed by Microsoft that runs on the .NET Framework.

.NET is a free, cross-platform, open-source developer platform for building many different types of applications. With .NET, you can use multiple languages, editors, and libraries to build for web, mobile, desktop, games, and IoT..NET is a software framework that is designed and developed by Microsoft. The first version of the .Net framework was 1.0 which came in the year 2002. In easy words, it is a virtual machine for compiling and executing programs written in different languages like C#, VB.Net, etc.

- The language is intended to be a simple, modern, general-purpose, object-oriented programming language.
- The language, and implementations thereof, should provide support for software engineering principles such as strong type checking, array bounds checking, detection of attempts to use uninitialized variables, and automatic garbage collection. Software robustness, durability, and programmer productivity are important.
- The language is intended for use in developing software components suitable for deployment in distributed environments.

- Portability is very important for source code and programmers, especially those already familiar with C and C++.
- Support for internationalization is very important.
- C# is intended to be suitable for writing applications for both hosted and embedded systems, ranging from the very large that use sophisticated operating systems, down to the very small having dedicated functions.
- Although C# applications are intended to be economical with regard to memory and processing power requirements, the language was not intended to compete directly on performance and size with C or assembly language.

4.3. DATABASE IMPLEMENTATION

The data store has been designed and developed by creating the entity relation diagram and schema design. The table structure and its underlying backend layer has been implemented using Structured Query Language using MSSQL Server.

4.3.1. MSSQL Server

Microsoft SQL Server is a relational database management system developed by Microsoft. As a database server, it is a software product with the primary function of storing and retrieving data as requested by other software applications—which may run either on the same computer or on another computer across a network (including the Internet). Microsoft markets at least a dozen different editions of Microsoft SQL Server, aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users.

4.3.2. SQL

SQL is a short-form of the structured query language, and it is pronounced as S-Q-L or sometimes as See-Quell. This database language is mainly designed for maintaining the data in relational database management systems. It is a special tool used by data professionals for handling structured data (data which is stored in the form of tables). It is also designed for stream processing in RDSMS.

You can easily create and manipulate the database, access, and modify the table rows and columns, etc. This query language became the standard of ANSI in the year of 1986 and ISO in the year of 1987.If you want to get a job in the field of data science, then it is

the most important query language to learn. Big enterprises like Facebook, Instagram, and LinkedIn, use SQL for storing the data in the back end.

- The basic use of SQL for data professionals and SQL users is to insert, update, and delete the data from the relational database.
- SQL allows the data professionals and users to retrieve the data from the relational database management systems.
- It also helps them to describe the structured data.
- It allows SQL users to create, drop, and manipulate the database and its tables.
- It also helps in creating the view, stored procedure, and functions in the relational database.
- It allows you to define the data and modify that stored data in the relational database.
- It also allows SQL users to set the permissions or constraints on table columns, views, and stored procedures.

SQL architecture that is used to depict the query execution by the SQL engine.

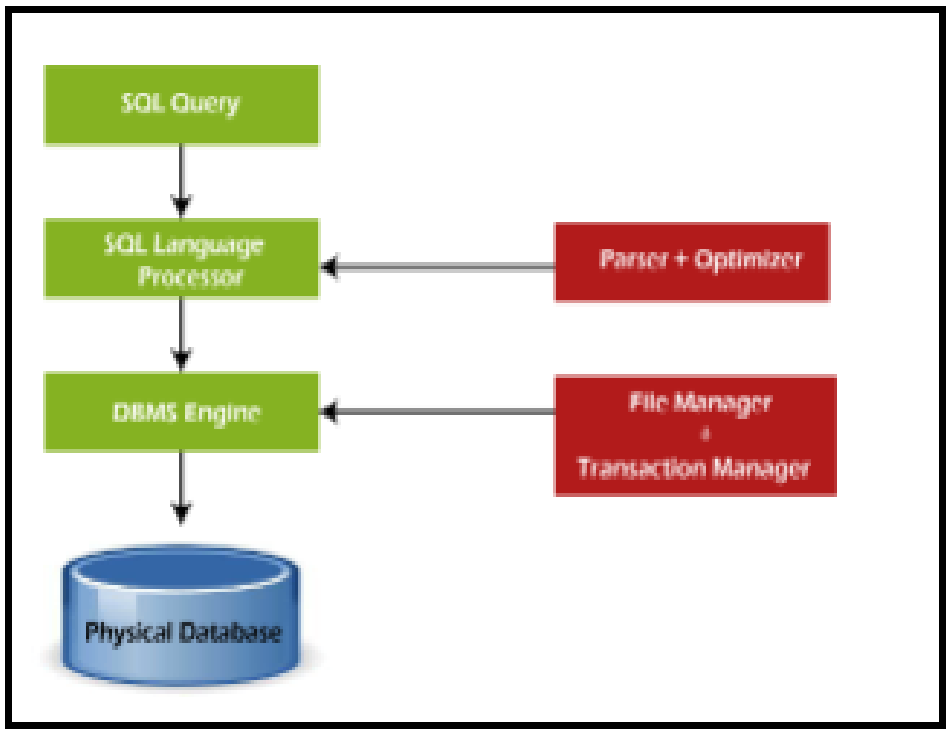


Figure 4.3.2: SQL Process Architecture Diagram

4.4. CODE SEGMENT

4.4.1. Web Config: The below code defines the database connection string configuration.

```
<connectionStrings>
<add name="DefaultConnection" connectionString="Data Source=DESKTOP-
3JMLSMQ\SQLEXPRESS;Initial Catalog=ServiceDB;Integrated Security=True"
providerName="System.Data.SqlClient"/>
    <add name="ServiceContext" connectionString="Data Source=DESKTOP-
3JMLSMQ\SQLEXPRESS;Initial Catalog=ServiceDB;Integrated Security=True"
providerName="System.Data.SqlClient"/>
  </connectionStrings>
```

4.4.2. Service Context : The defined methods fetch the data from the database for each type.

```
using System;
using System.Collections.Generic;
using System.Data.Entity;
using System.Linq;
using System.Web;

namespace AutomobileServiceStation.Models
{
    public class ServiceContext:DbContext
    {
        public DbSet<Service> services {get; set;}
        public DbSet<ServiceSubType> serviceSubType {get; set;}
        public DbSet<ContactInfo> contact {get; set;}
        public DbSet<PaymentInfo> payment {get; set;}
    }
```

4.4.3. Views: ServiceSubType: This snippet shows the service sub list.

```
using System;
using System.Collections.Generic;
using System.Data;
using System.Data.Entity;
using System.Linq;
using System.Net;
using System.Web;
using System.Web.Mvc;
using AutomobileServiceStation.Models;

namespace AutomobileServiceStation.Controllers
{
    public class ServiceSubTypesController : Controller
    {
        private ServiceContext db = new ServiceContext();

        // GET: ServiceSubTypes
        [Authorize(Roles = "admin")]
        public ActionResult Index()
        {
            var serviceSubType = db.serviceSubType.Include(s => s.service);
            return View(serviceSubType.ToList());
        }

        // GET: ServiceSubTypes/Details/5
        [Authorize(Roles = "admin")]
        public ActionResult Details(int? id)
        {
            if (id == null)
            {
```

1. **ServiceList.cshtml**: It calls EditorFor Template to display the services from the database.

```
@model IEnumerable<AutomobileServiceStation.Models.Service>

@{
    ViewBag.Title = "ServiceList";
}

<h2>ServiceList</h2>
@*<p>
        @html.actionlink("create new", "create")
    </p>*@
@using (Html.BeginForm())
{

    @Html.EditorForModel();
    <input type="submit" class="btn btn-success" />
}
```

2. **Sublist.cshtml**:It calls EditorFor Template to display service sublist of selected services from the database.

```
@model IEnumerable<AutomobileServiceStation.Models.ServiceSubType>

@{
    ViewBag.Title = "ServSubType";

}
@using (Html.BeginForm())
{

    <div class="col-md-6">

@Html.EditorForModel()
        <input type="submit" class="btn btn-primary" value="Calculate" /><br />

        <br /><a href="~/Payment/Payment">Click Here for payment<br />
Total:</a>
        @ViewBag.tcost
    </div>

}
```

3. EditorForTemplate

1. Service.cshtml:It fetches the services from the Service Table and display it to the user.

```
@model AutomobileServiceStation.Models.Service
@{
    ViewBag.Title = "Service";
}

@Html.HiddenFor(x => x.id)
@Html.HiddenFor(x => x.name)

<style>
    #Services {
        font-family: Arial, Helvetica, sans-serif;
        border-collapse: collapse;
        width: 100%;
    }
        #Services td {
            padding: 8px;
        }


        #Services tr:nth-child(even) {
            background-color: #f2f2f2;
        }

        #Services tr:hover {
            background-color: #ddd;
        }
</style>
<table id="Services">
    <tr>

        <td>
            @Html.DisplayFor(x => x.name)
         @Html.CheckBoxFor(x => x.check)</td>
```

5. TESTING

5.1.1. REGISTER PAGE: The error message when the email is not in correct format at client end.

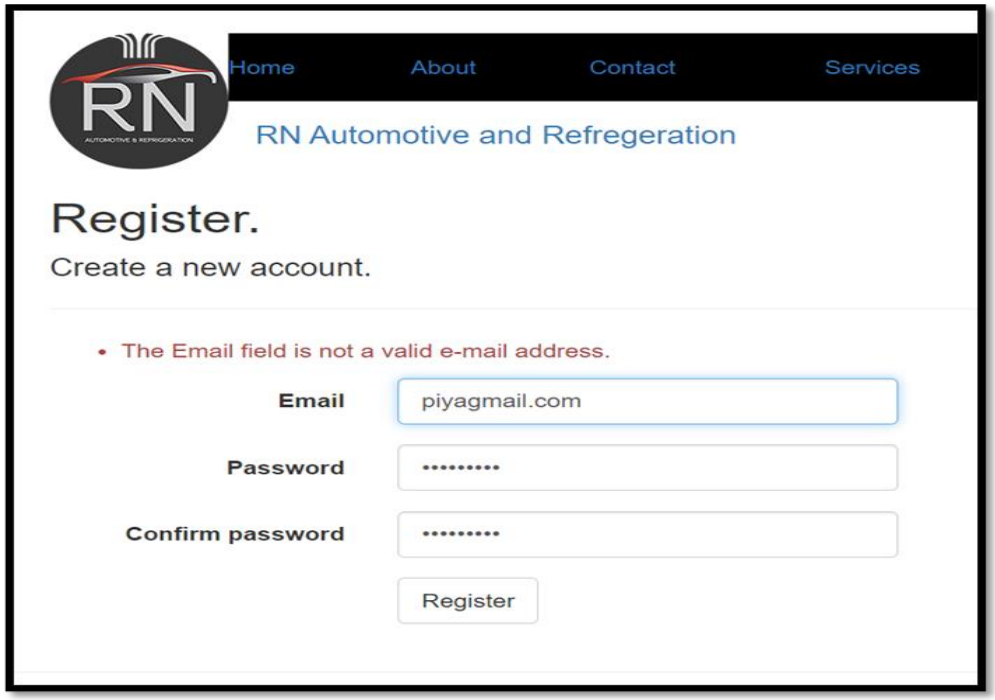


Fig 5.1.1: Client Page

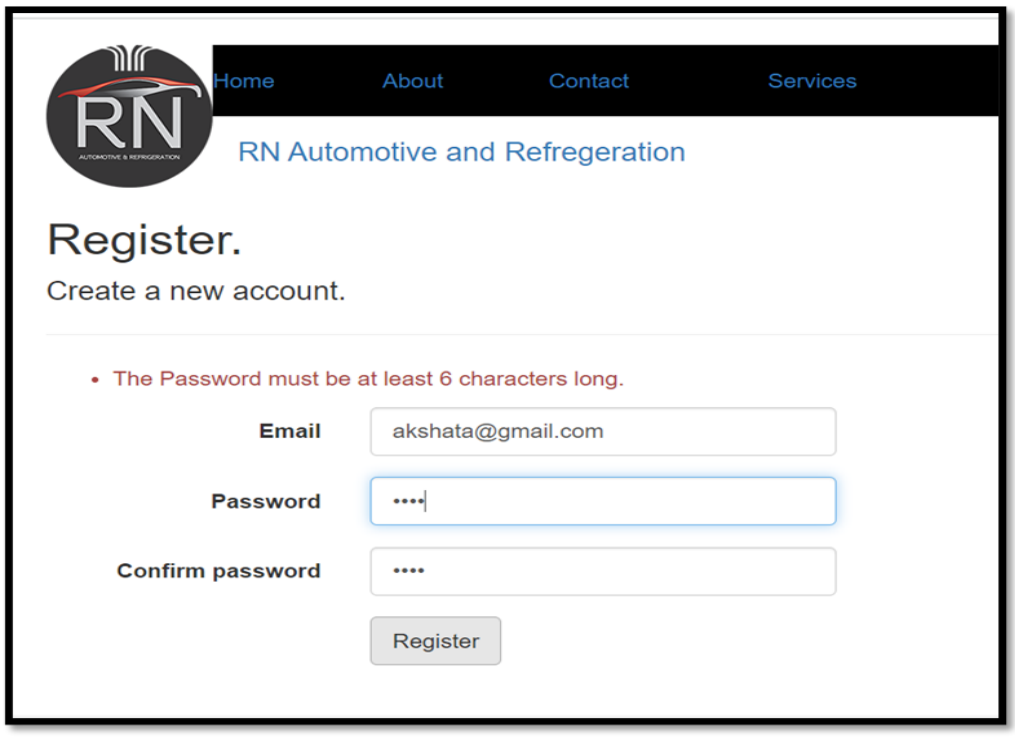


Fig5.1.2: Admin Page

5.2.1. LOGIN PAGE: the error message when the password is incorrect at client end.

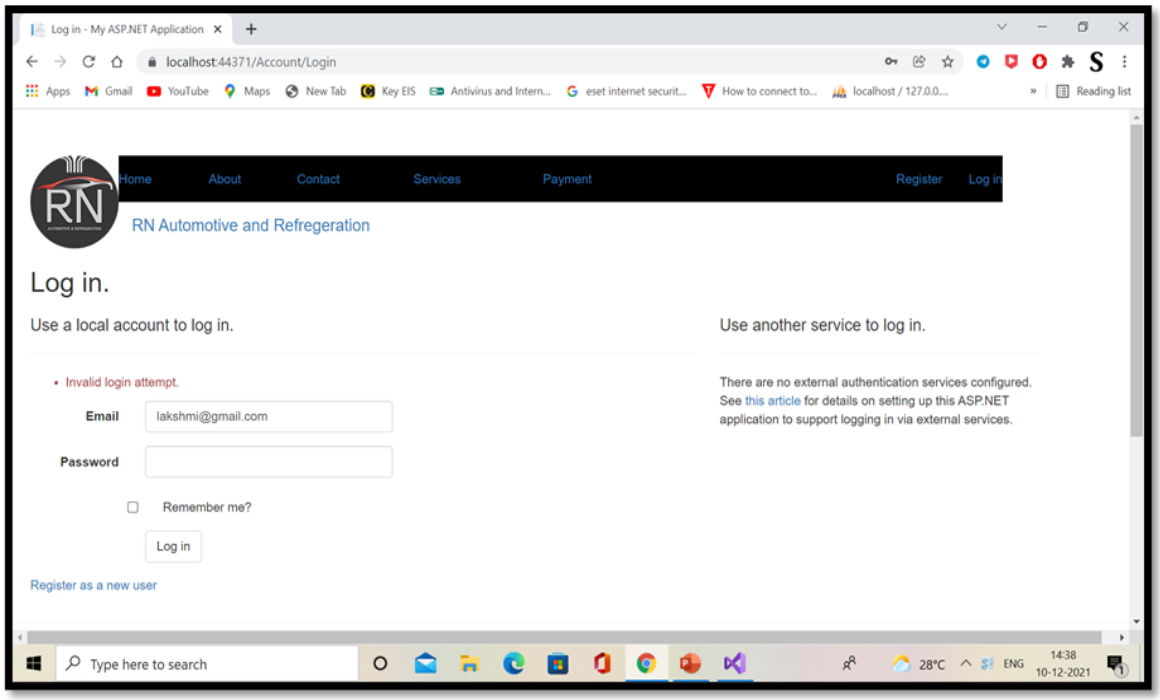


Fig 5.2.1: Client Page

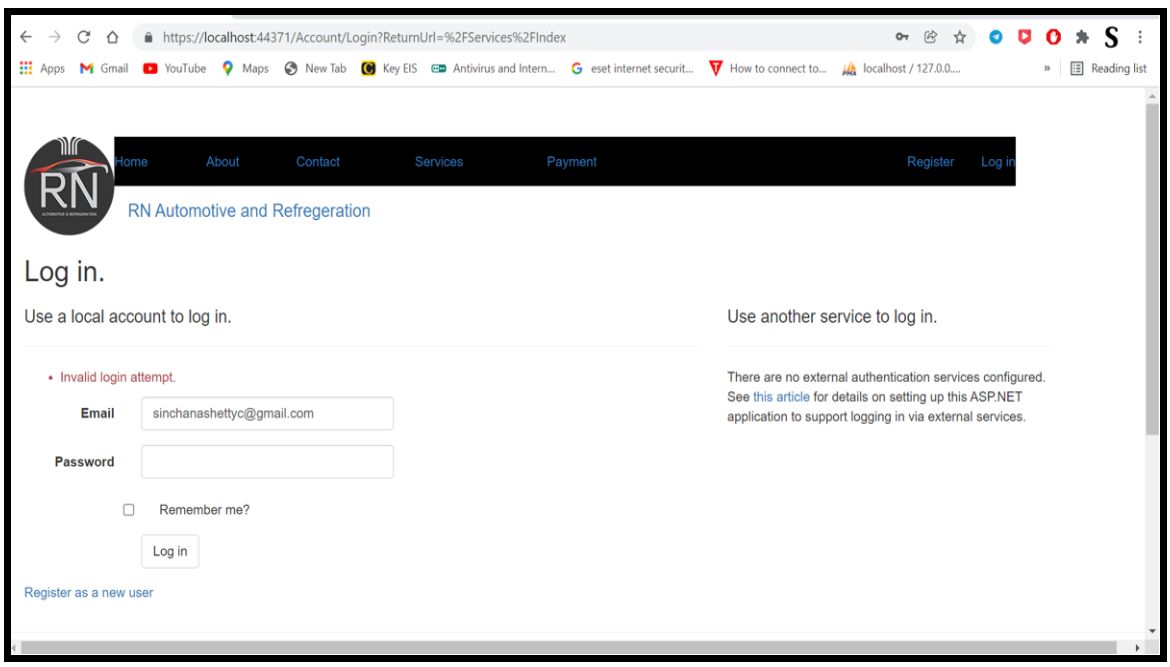


Fig 5.2.2: Admin Page

6. RESULTS

6.1. HOME PAGE: The home page where both client and the admin can use them Login credential or if it is a new user, they can register themselves first.

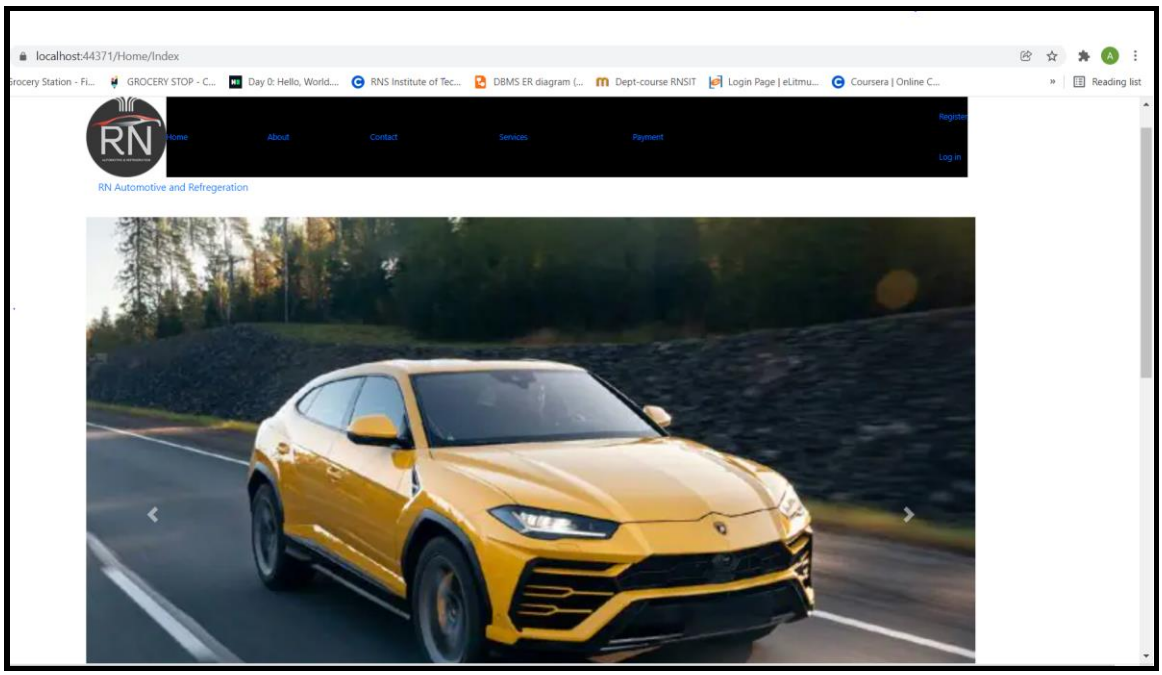


Fig 6.1: Home Page

6.2. ABOUT US: The user/client can access the website without registering themselves and go through the services that the company is providing to the customers.

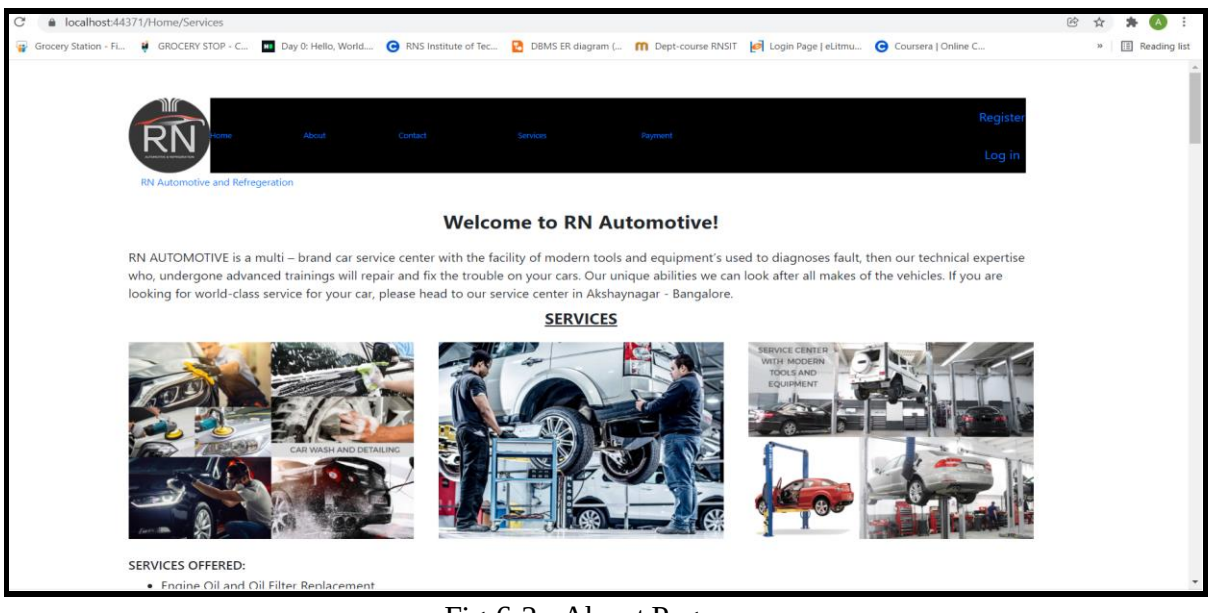


Fig 6.2: About Page

6.3. CONTACT US: In this page the user/client can find the route map and can send the feedback to the company.

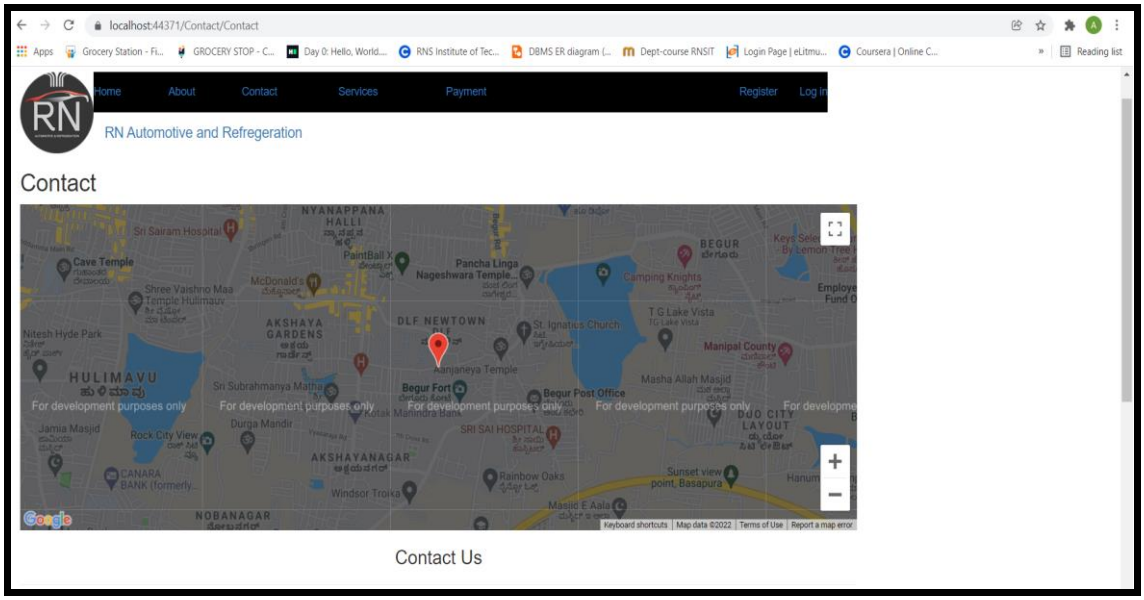


Fig 6.3: Contact

6.4. SERVICES: The user/client can view all the details about the services that the company is offering accordingly they can book their service.

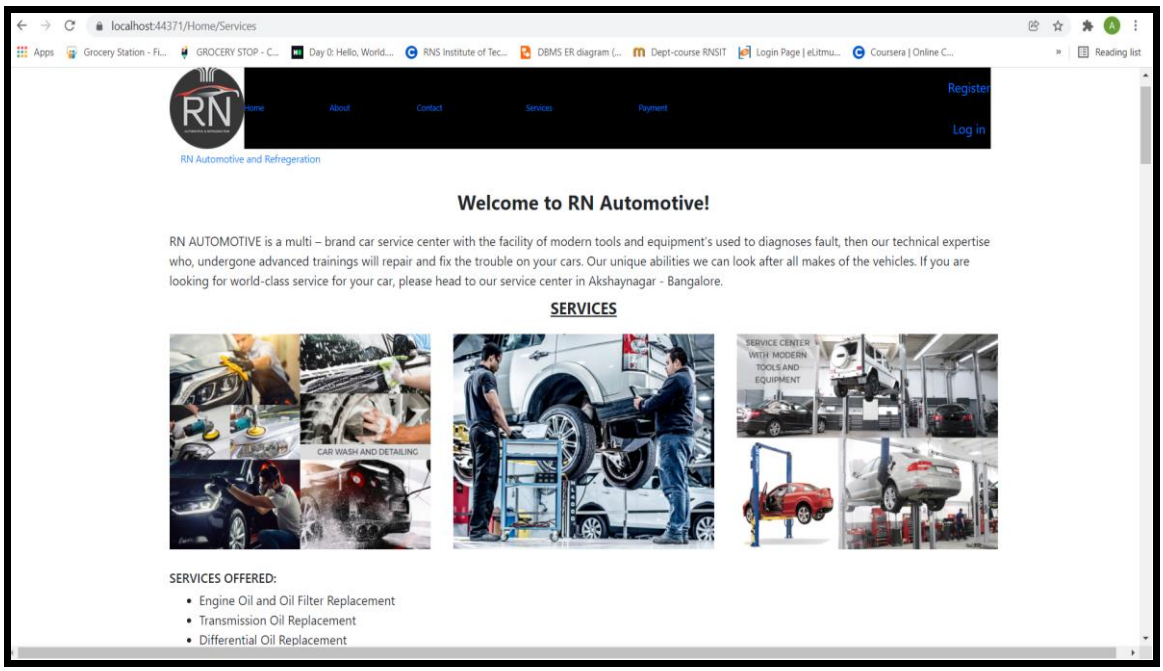


Fig 6.4: Services

6.5.1. SERVICES LIST: Once's the services are viewed by the customer they can select the service they want and click on submit button.

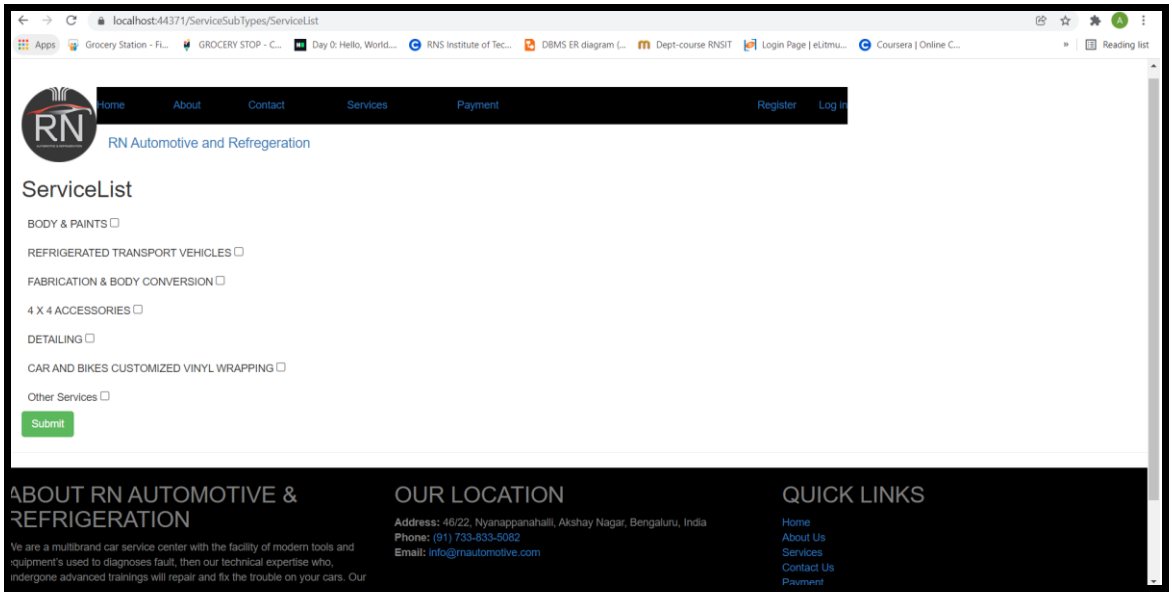


Fig 6.5.1: Payment

6.5.2. SERVICES SUB LIST: In this some services have sub list which company is offering and providing the cost of each service and summing up and gives the total amount that the customer has to pay.

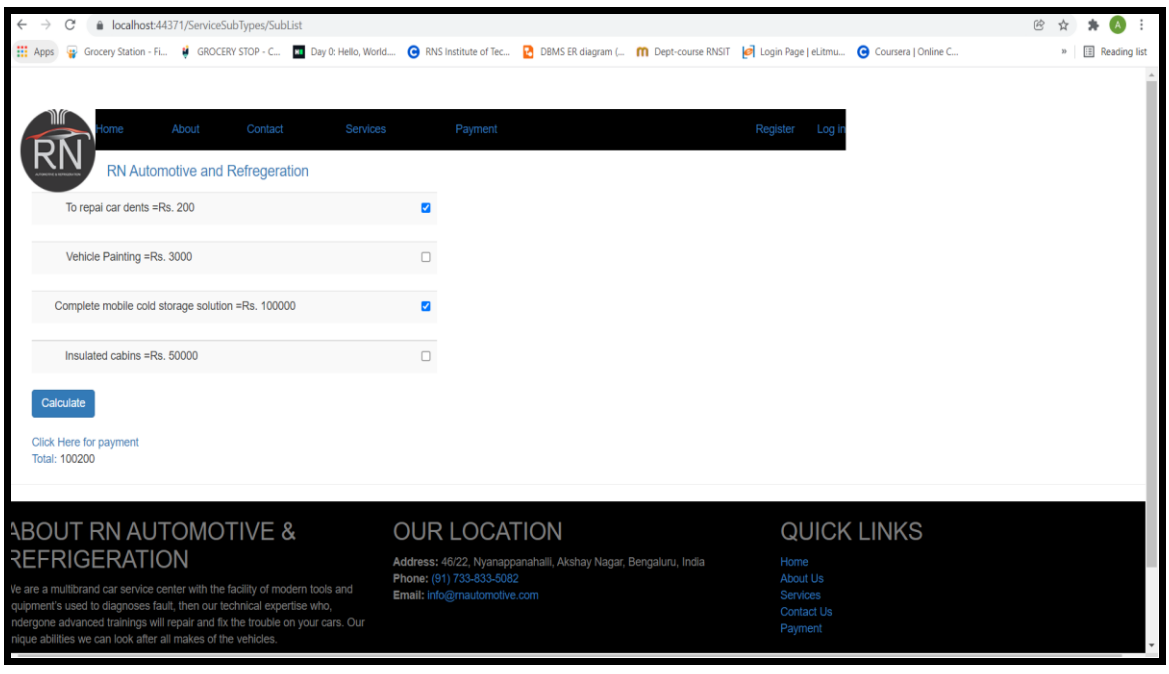


Fig 6.5.2: Services Sub List

6.5.3. Payment: Ones everything is done customer has to login with his credentials the **QR Code** has to screen and the total amount is displayed and all other details has to be filled by the customer payment with transaction id and click on submit.

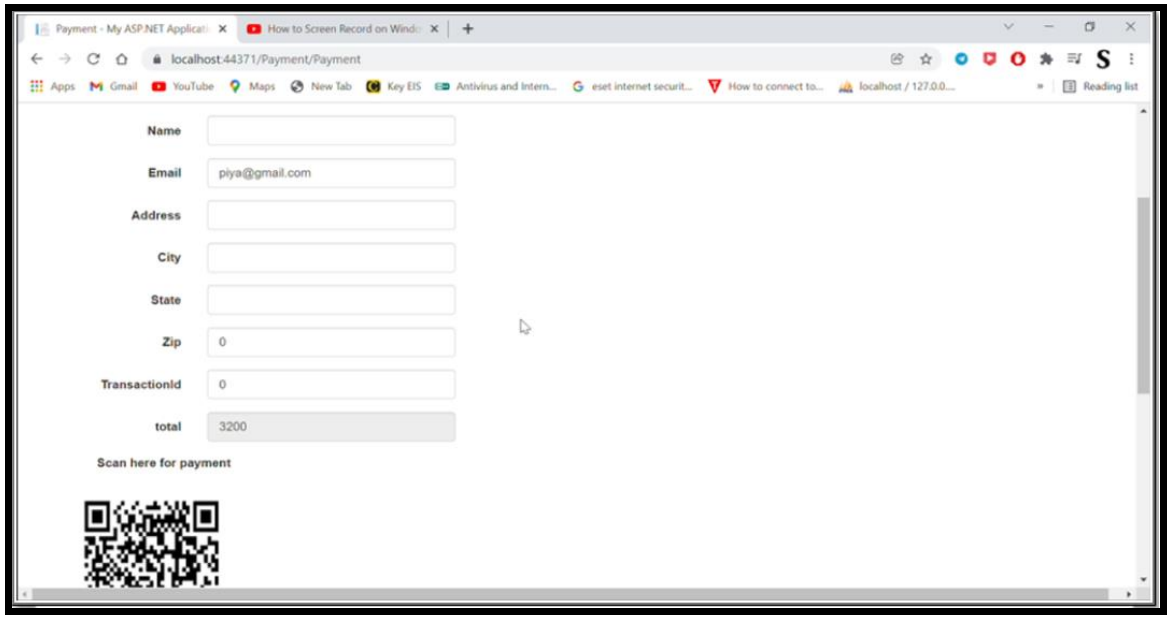


Fig 6.5.3: Payment

6.6. Admin Service Page: In this page the admin can Edit, Delete or Details can be added.

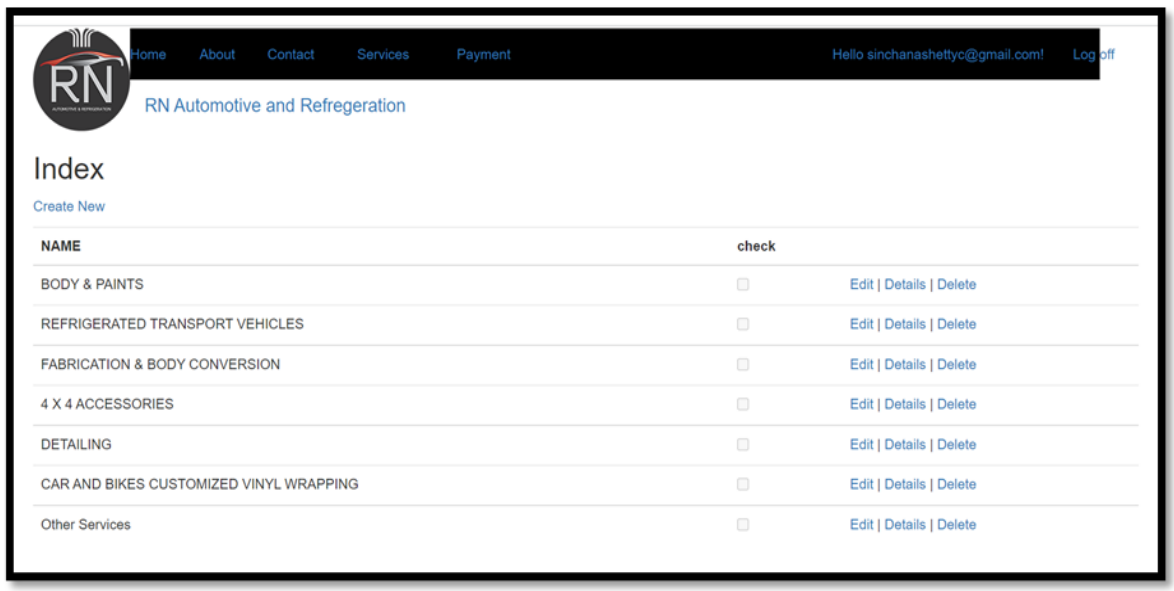


Fig 6.6: Admin Page

7. CONCLUSION AND FUTURE ENHANCEMENT

Automobile Service Station is real time application which is currently in use by the end-users to view and get the automobile services offered at service station. This application is used by the administrators of the company as well.

The module can be enhanced to cover below business scenarios

- To integrate the payment gateway to facilitate users for easy payment using Razor pay payment mechanism.
- The history of user services can be included in the module.
- The user testimonial and videos can be included for better marketing strategies,

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