VRC - A web solution for Vehicle Repairing Centers

BY

Mahfuzur Rahman
ID: 172-15-10236
and
Monisha Khatun
ID: 172-15-10161

This Report Presented in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science in Computer Science and Engineering

Supervised By
Mr. Ahmed Al Marouf
Senior Lecturer
Department of CSE
Daffodil International University

Co-Supervised By
Shah Md. Tanvir Siddiquee
Assistant Professor
Department of CSE
Daffodil International University

DAFFODIL INTERNATIONAL UNIVERSITY

DHAKA, BANGLADESH

SEPTEMBER 2021

APPROVAL

This Project titled "VRC - A web solution for Vehicle Repairing Centers", submitted by Mahfuzur Rahman, ID: 172-15-10236 and Monisha Khatun, ID: 172-15-10161 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on September 2021.

BOARD OF EXAMINERS

Chairman

Dr. Touhid Bhuiyan
Professor and Head
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

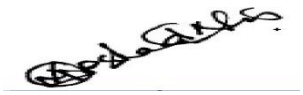
Internal Examiner

Nazmun Nessa Moon
Assistant Professor
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner

Gazi Zahirul Islam
Assistant Professor
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

External Examiner



Dr. Md Arshad Ali
Associate Professor
Department of Computer Science and Engineering
Hajee Mohammad Danesh Science and Technology University

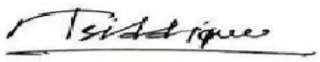
DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Mr. Ahmed Al Marouf, Senior Lecturer, Department of CSE** at Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

Supervised by:

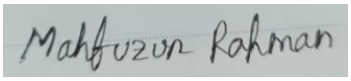
Mr. Ahmed Al Marouf
Senior Lecturer
Department of CSE
Daffodil International University

Co-Supervised by:



Shah Md. Tanvir Siddiquee
Assistant Professor
Department of CSE
Daffodil International University

Submitted by:



Mahfuzur Rahman
ID: 172-15-10236
Department of CSE
Daffodil International University

Monisha Khatun
ID: 172-15-10161
Department of CSE
Daffodil International University

ACKNOWLEDGEMENT

First, we express our heartiest thanks and gratefulness to Almighty God for His divine blessing makes us possible to complete the final year project/internship successfully.

We are really grateful and wish our profound indebtedness to **Mr. Ahmed Al Marouf** Senior Lecturer, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of "VRC - A web solution for Vehicle Repairing Centers" to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior draft, and correcting them at all stage have made it possible to complete this project. We would like to express our heartiest gratitude to Mr. Ahmed Al Marouf, Shah Md. Tanvir Siddiquee, and Head**,** Department of CSE, for his kind help to finish our project and also to other faculty members and the staff of the CSE department of Daffodil International University.

We would like to thank our entire course mate in Daffodil International University, who took part in this discussion while completing the course work.

Finally, we must acknowledge with due respect the constant support and patients of our parents.

ABSTRACT

The report presents the development of Servicing for Vehicle. The primary goal of our vehicle servicing center web application is to provide services for vehicles anytime anywhere. On-demand services for vehicle repairing and connecting car-owners with the service providers. This project deals with the customer to find the mechanics or servicing center nearby the customer. Suppose you are traveling or your car is at your home is not working properly then we are here to solve your problem anywhere. You just do a request with your problem in our website, then our admin will assign a mechanics nearby you, who will solve your problem if needed we bring it our authorized servicing center. After servicing you don't need to take any tension about your vehicles, we provide a standard warranty and transparent cost. We provide service delivery at the doorstep. Also, we recorded your vehicle history with your permission so that you can get an early and better result for next time. We will take care of everything about your vehicle. Drive safe, go anywhere. In case there is stand any problem we are here to help.

TABLE OF CONTENTS

LIST OF TABLES

List of Figure

CHAPTER 1

Introduction

1.1 Introduction:

Technology has changed the world in many ways during the last decade. Using technology we are giving a smart solution for your problem. We are taking your problem. We are creating a connection bridge between Customers and mechanics. So that everyone can get the benefit through our platform. According to research, most of the vehicle owners are not satisfied with their car servicing. They are facing more problem if the vehicle stopped suddenly when he was driving. And he don't know where he can get a mechanics or a servicing center around him. He got an unwanted situation, then we are here to solve your problem. We care our customer. Caring for your car and keeping it in proper running order takes a little bit of effort. You don't need to take tension, we solve your problem by our expert. We care customer satisfaction. When or where you are in trouble just make a request in our website we will send a registered mechanics as soon as possible to your destination. The mechanics will solve the problem if needed mechanics will bring the vehicles to our servicing center for better investigation of your vehicle and after servicing we deliver doorstep service. Also, we are careful about the standard transparent cost.

1.2 Motivation:

One day we are traveling to Dhaka with my uncle and he is driving the car. Suddenly we got a problem, our car has stopped and it was not moving and we don't know what should we do. We don't know any servicing center or anyone who can help us. That's why I got this idea for solve this problem. This is an online platform where people entry their problem we will assign nearest registered mechanics or servicing center. This is an on-demand service anytime anywhere. Anyone can get the service they must be a registered member. Also I think about a skillful unemployed person. We creating some vacancy for mechanics who have no job or he wants more income by registration our platform.

1.3 Objectives:

There have some objects to make something as so we have also some objects to make our project. -

- To make smart or digitalize the whole system for people.
- To maintain and manage the vehicle servicing easily.
- On-demand solves the vehicle problem.
- To avoid the complexity and to reduce time.
- To provide data access of vehicles between customers and mechanics.
- To reduce vehicle material cost and transparent service cost.
- Standard warranty and Customer satisfaction.
- Location based assigned the mechanics or nearest servicing center.
- If the customer entry their problem then we confirm the mechanics.
- For error free, effective and easy for database related works.
- For secure and smooth running of the program.
- To increase the efficiency of mechanics.
- To save time & money.

1.4 Expected Outcome:

- It will track everything.
- Will manage the information of customers and mechanics.
- Shows the information and description of the customer, customer invoice and mechanics, mechanics profile and salary.
- Keeps all the records of customer registration, vehicle info and. mechanics registration
- Editing, adding and updating of records are get improved

1.5 Report Layout:

In this chapter 1, I have discussed about my project introduction. I discussed about my project motivation, objective and fields of my work. In chapter 2, I will discuss about background. In chapter 3 , I will discuss about requirement specification. In chapter 4, I will describe about design specification, chapter 5 contains implementation and testing. In chapter 6, I will describe about impact on society, environment and sustainability and finally conclusion and future scope will be discussed in chapter 7.

CHAPTER 2

BACKGROUND

2.1 Preliminaries/Terminologies

The goal of our project to develop an application for the vehicle owner who has facing problems with their vehicle maintenance and servicing. This project will help every customer and mechanic. This project deals with to find the mechanics or servicing center nearby your vehicle. Recently, it has become a popular trend for an increasing amount of people to find mechanics or servicing centers online. Our application for all of vehicle owners is designed and developed by Implemented with Microsoft Studio. This is a project with the objective to develop a basic web application where a customer can get nearby servicing center in the application and also to know about the technologies used to develop such an application.

2.2 Related works

My intension was to do something for our country and solved our people problem. When I was travelling and face the problem then I thought about our system during my student life. It was very tough to find a mechanics in an unknown place. So, I wanted to make easier by the help of technology. My application is fully vehicle focused. This app I've tried to help our countries vehicle owner to find the mechanics easily.

2.3 Comparative Studies

Before making this application, I was thinking about to do something for those vehicles owner who go outside of his own places and faces a lot of problem for finding a mechanics. So, I thought to help them out through this website. Using this application they can easily find the mechanics or servicing center at anywhere.

2.4 Scope of the Problem

I worked on the web application following the software development process. I went through each part completion the previous one. The web application was planned for more than two week long to collect requirements and gather information extensively. This web application planning and time management schedule given in next page.

2.4.1 Time Scheduling

Gantt Chart:

Task/Date	Start Date	End Date	Status	Feb	March	June	December	April
Proposal	20-02-2020	24-02-2020	Compete					
Requirements	25-02-2020	30-02-2020	Compete					
Design	20-03-2020	19-06-2020	Compete					
Implementation	21-06-2020	29-12-2020	Compete					
Testing	02-02-2021	05-04-2021	Compete					
Documentation	05-04-2021	30-04-2021	Compete					

Table 2.1: Time Scheduling

2.5 Challenges

Knowing the requirements of the customers and mechanics and making it real through an application was the toughest part of my project making period.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Business Process Modeling

Process to develop this application I had to design how I will approach towards my plan. First I have to create a flowchart, use case model, and data flow diagram which will help us to execute the project step by step.

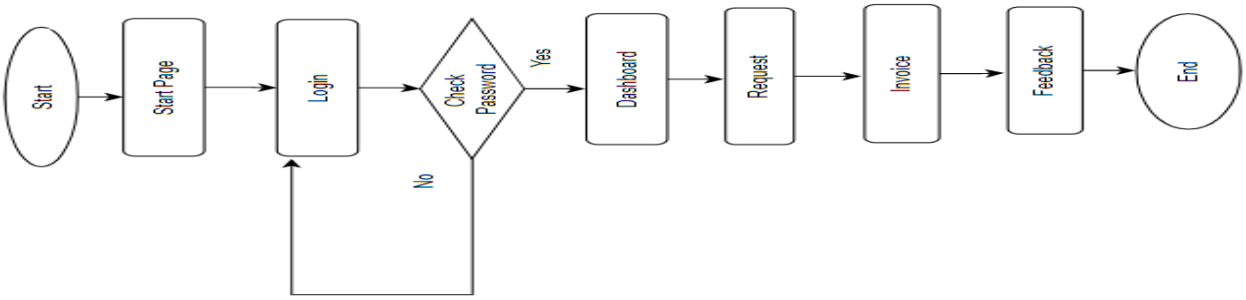


Figure 3.1: Business Process Model

3.2 Requirement Collection and Analysis

3.2.1 Software Requirements

To Develop this application I have used the following Software Requirements:

- Operating System: Windows/ Linux
- System Design: Adobe XD
- Language: HTML, CSS, PYTHON
- Framework: Bootstrap, Django
- Database: SQLite
- Tools: Microsoft Studio
- Server: Local Server

3.2.2 Hardware Requirements

To develop the application, we need to use the following hardware requirements:

- Processor: Core i3
- RAM: 4GB
- Space on disk: minimum 0.1GB

3.2.3 Functional Requirements

- Graphical interface for user.
- Used local or Django default database SQLite as an online database.

3.3 Use Case Modeling and Description

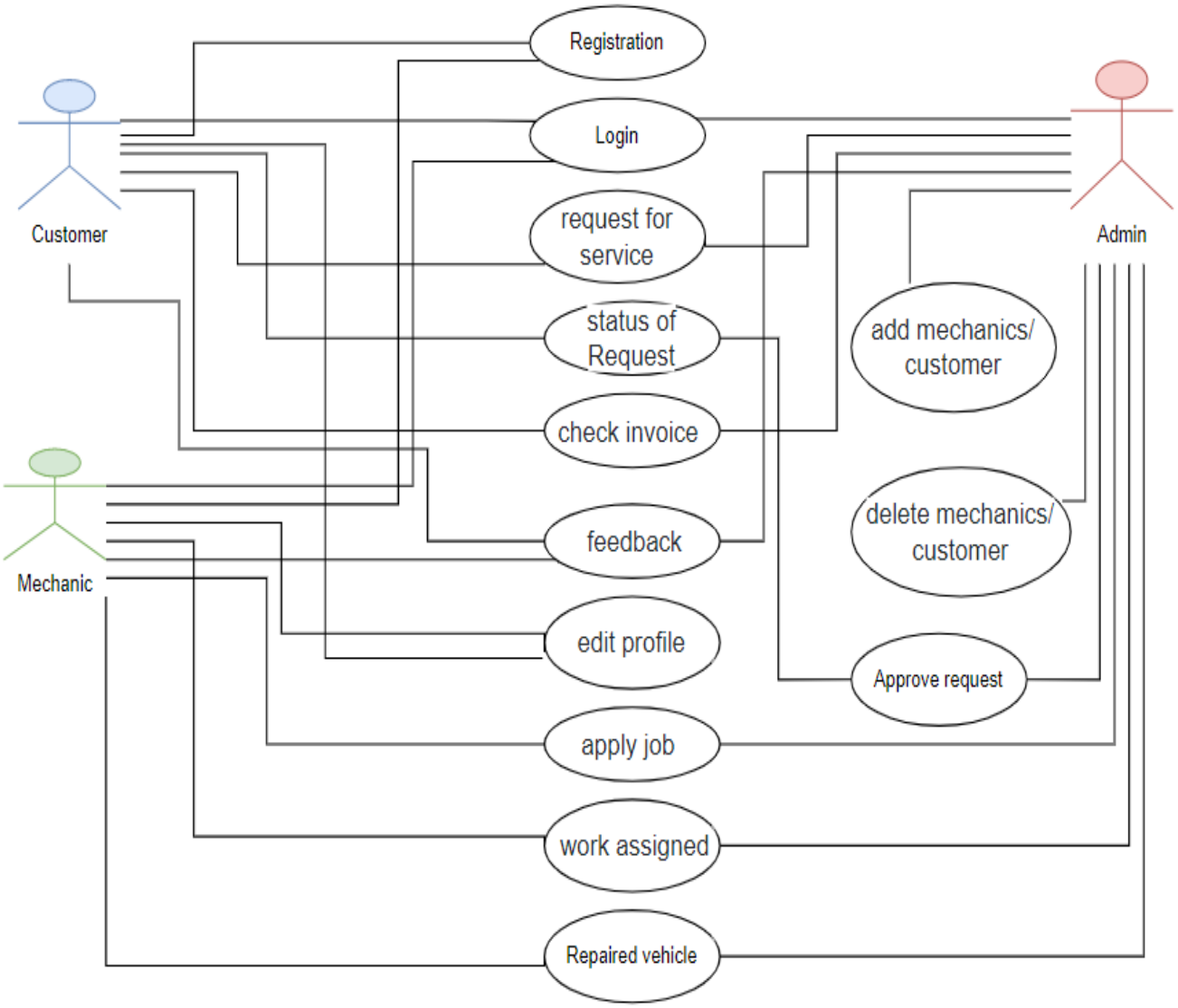


Figure 3.2: Use Case Diagram

Actor Perspective Use Case: Vehicle owner (registration)

Table 01: Use Case of vehicle owner (Registration)

Use Case name:	Registration	
Scenario:	Registration system for Customer.	
Brief Description:	For using this system, a vehicle user has to register with valid username, phone number and other valid information. Without registration user would not be able to use this system.	
Actor:	Vehicle Owner	
Precondition:	Owner must need to registration at first.	
Post Condition:	Owner must be registered.	
Follow of Events	Customer.	System
	Customer must register.	Ensure valid phone number. Ensure valid username. Ensure correct address.
Exception Condition	Without valid username and phone number a person could not register.	

Actor Perspective Use Case: Mechanic (registration)

Table 02: Use Case of Mechanic (Registration)

Use Case name:	Registration	
Scenario:	Registration system for Mechanic.	
Brief Description:	For using this system, a mechanic has to register with valid username, phone number and other valid information. Without registration user would not be able to use this system.	
Actor:	Mechanic	
Precondition:	Mechanic must need to registration at first.	
Post Condition:	Mechanic must be registered.	
Follow of Events	Mechanic	System
	Mechanic must register.	Ensure valid phone number. Ensure valid username. Ensure correct address.
Exception Condition	Without valid username and phone number a person could not register.	

Actor Perspective Use Case: Admin and Customer and Mechanic (Login)

Table 03: Use Case of Admin and Customer and Mechanic user (login)

Use Case Name:	Login	
Scenario:	Admin and Customer and Mechanic login system.	
Brief Description:	Admin and register user can login with valid email and password.	
Actor:	Admin and Customer and Mechanic.	
Precondition:	For using the system Admin and Customer and Mechanic user have to login first.	
Post Condition:	Without login Admin and Customer and Mechanic user would not be able to access the system.	
Flow of Events:	Admin and Customer and Mechanic	System
	To login the system user has to input valid user name and password.	Finalize valid user name. Finalize the valid password.
Exception Condition:	Without valid user name and password admin and user cannot login into the system.	

Actor perspective Use Case: Customer and Admin (Make request)

Table 04: use case of customer and admin (make request)

Use Case Name:	Make a request	
Scenario:	Make a request.	
Brief Description:	Customer and admin can make the request with vehicle description.	
Actor:	Customer and Admin	
Precondition:	Must be logged in	
Post Condition:	Should describe the problem.	
Flow of Events:	Customer and Admin	Process
	1. To post a request both have to add description.	1. Ensure the correction.
Exception Condition:	1. Without adding details user cannot post request.	

Actor perspective Use Case: Customer and mechanic (Feedback)

Table 05: Use Case of register user (feedback)

Use Case Name	Feedback
Scenario	User can communication with admin by message
Actor	Customer and Mechanic
Pre-condition	Without login the system cannot send feedback
Post-condition	For communication with admin
Flow of events	After login user can send feedback
Exception condition	User can send feedback to admin

Actor perspective Use Case: Admin and customer(View Request)

Table 06: Use Case of admin and customer (view request)

Use Case Name:	View request	
Scenario:	Admin and customer can view request	
Brief Description:	When register user and admin make a post each of user can see the post user can view the post	
Actor:	Admin	
Pre-Condition:	Customer make the request	
Flow of Events:	Admin and Customer	System
	Admin and customer can view post	need to login the system to view the post
Exception Condition:	After admin accept request customer can view the request update	

Actor perspective Use Case: Customer(View Invoice)

Table 07: Use Case of customer (view invoice)

Use Case Name:	View invoice	
Scenario:	Customer can view invoice	
Brief Description:	When register user make request and admin approve it and user can see the post with invoice.	
Actor:	Customer and Admin	
Pre-Condition:	Customer make the request	
Flow of Events:	Admin and Customer	System
	Customer make the request and Admin can view the request	need to login the system to view the post
Exception Condition:	After admin accept request customer can view the request update	

Actor perspective Use Case: Mechanic (Apply job)

Table 08: Use Case of Mechanic (apply job)

Use Case Name:	Apply job	
Scenario:	Any mechanic can apply for job	
Brief Description:	Mechanic apply for job and admin will approve it	
Actor:	Mechanic	
Pre-Condition:	Need admin approval	
Flow of Events:	Admin and user	System
	Admin will decide your task	Mechanic can check your task and salary
Exception Condition:	Without correct name would possible to find out rooms	

Actor perspective Use Case: admin (Delete request)

Table 09: Use Case of admin (Delete request)

Use Case Name:	Delete request
Scenario:	Only admin has right to delete request
Actor:	Admin
Pre-Condition:	Without admin cannot delete any post
Post-Condition:	Admin can delete post of request
Flow of events:	Admin can delete everyone or their post
Exception Condition:	User has no permission to delete request

Actor perspective Use Case: Admin (Update request)

Table 10: Use Case of admin (update request)

Use Case Name	Update request
Scenario	admin can update every request
Actor	Admin
Pre-condition	If needed any change in request before approval user can edit
Post-condition	Admin can edit request
Flow of events	admin can edit their own request
Exception condition	Anyone cannot edit other one request

Actor perspective Use Case: Admin and registered user (logout)

Table 11: Use Case of admin and registered user (logout)

Use Case Name	Logout
Scenario	User and admin must logout after finishing their work.
Actor	Admin and registered customer and mechanic
Pre-condition	The user and admin must login.
Post-condition	Admin and registered user must logout at last.
Flow of events	Admin and registered user should not leave the system without logout.
Exception condition	If they do not logout the system, they might face some Technical problems.

3.4 System Sequence Diagram

3.4.1 Actor Perspective Sequence Diagram (admin):

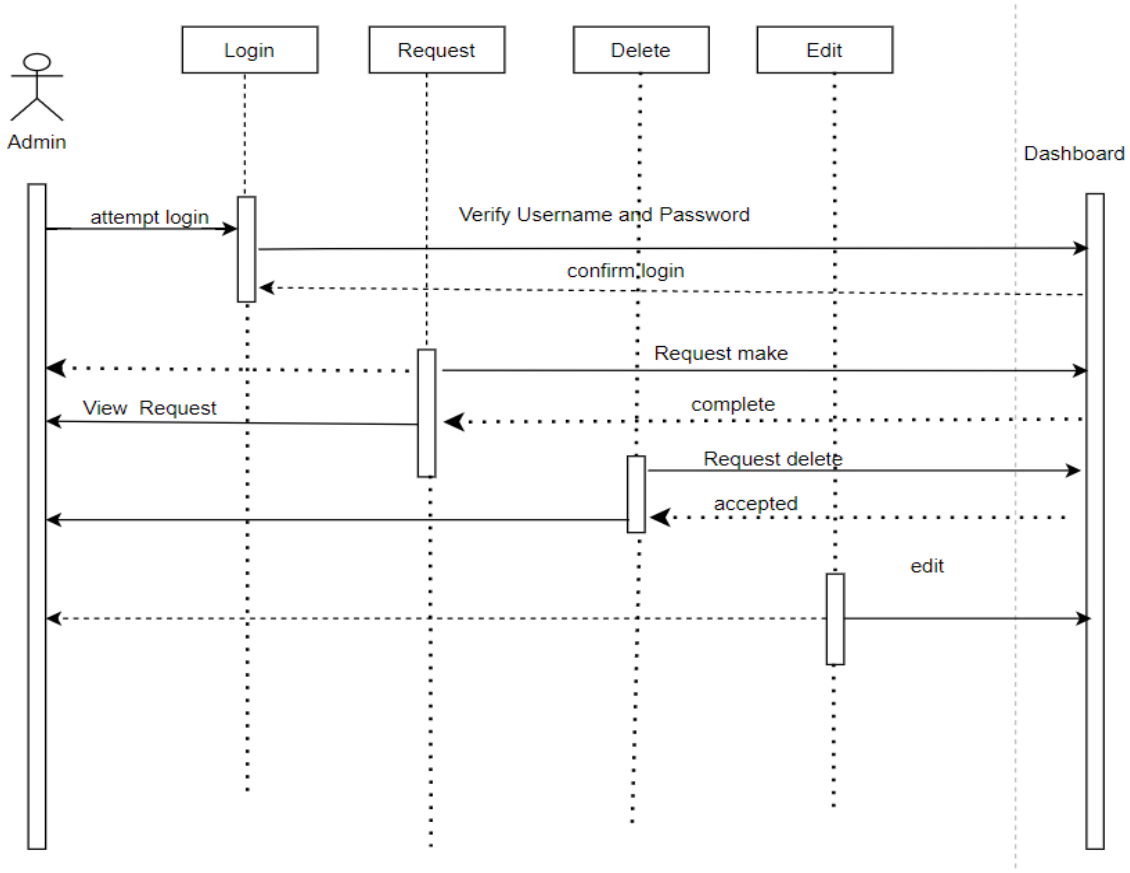


Figure 3.3: Sequence Diagram (Admin)

3.4.2 Actor Perspective Sequence Diagram (Customer):

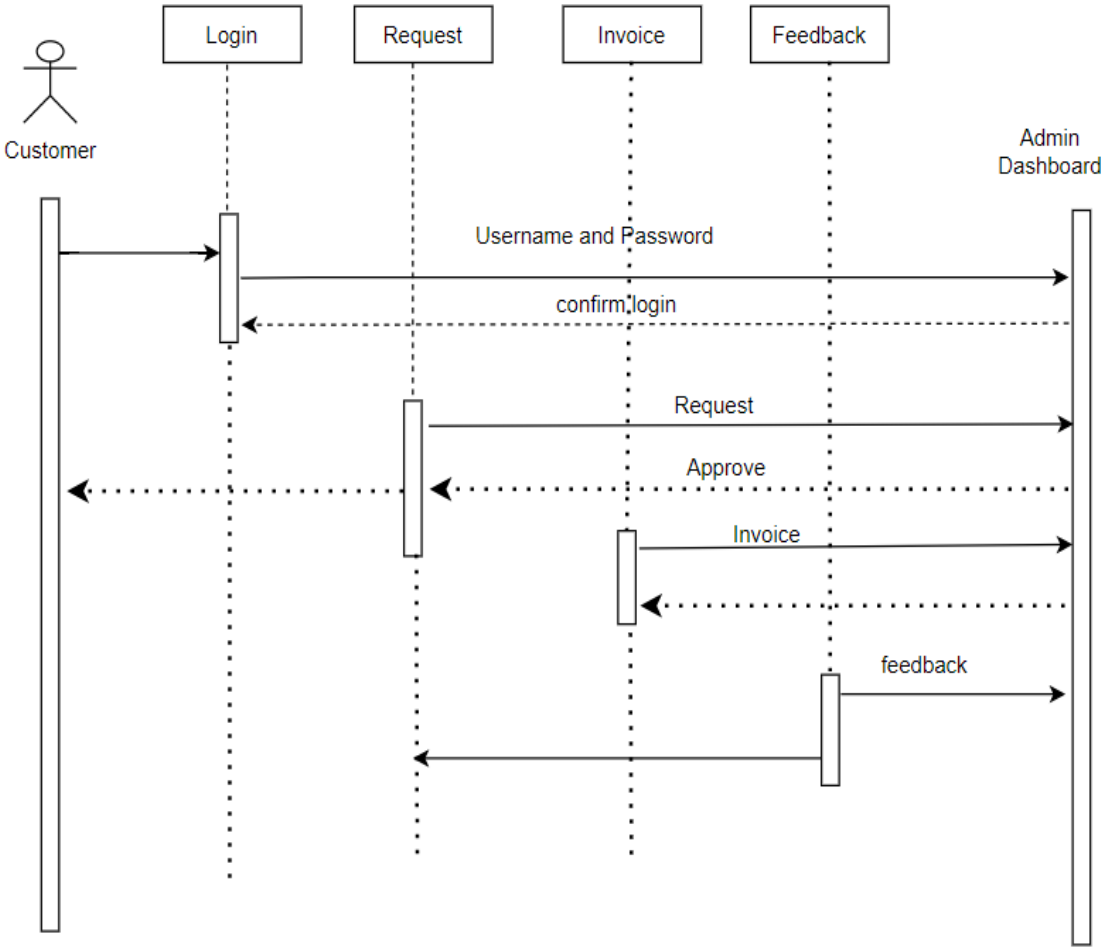


Figure 3.4: Sequence Diagram (Customer)

3.4.3 Actor Perspective Sequence Diagram (Mechanic):

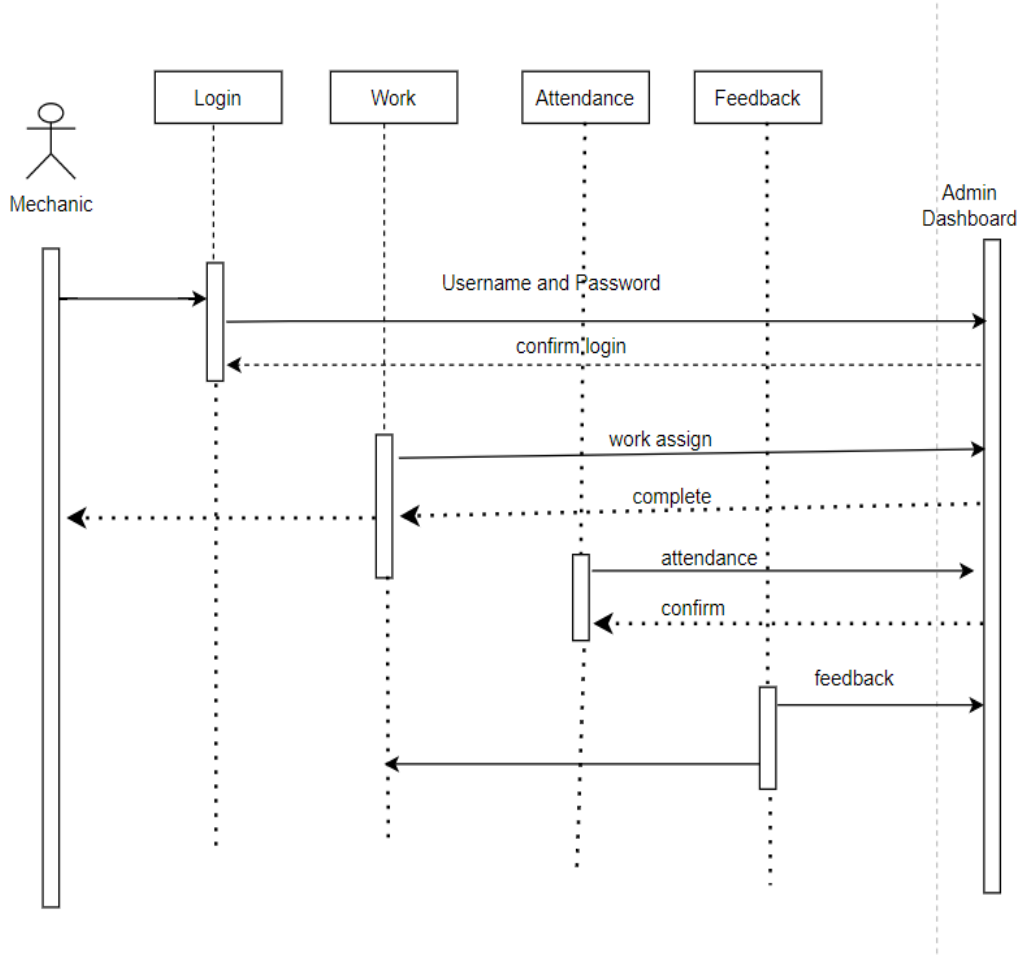


Figure 3.5: Sequence Diagram (mechanic)

3.4.4 Actor Perspective Sequence Diagram: (Normal user)

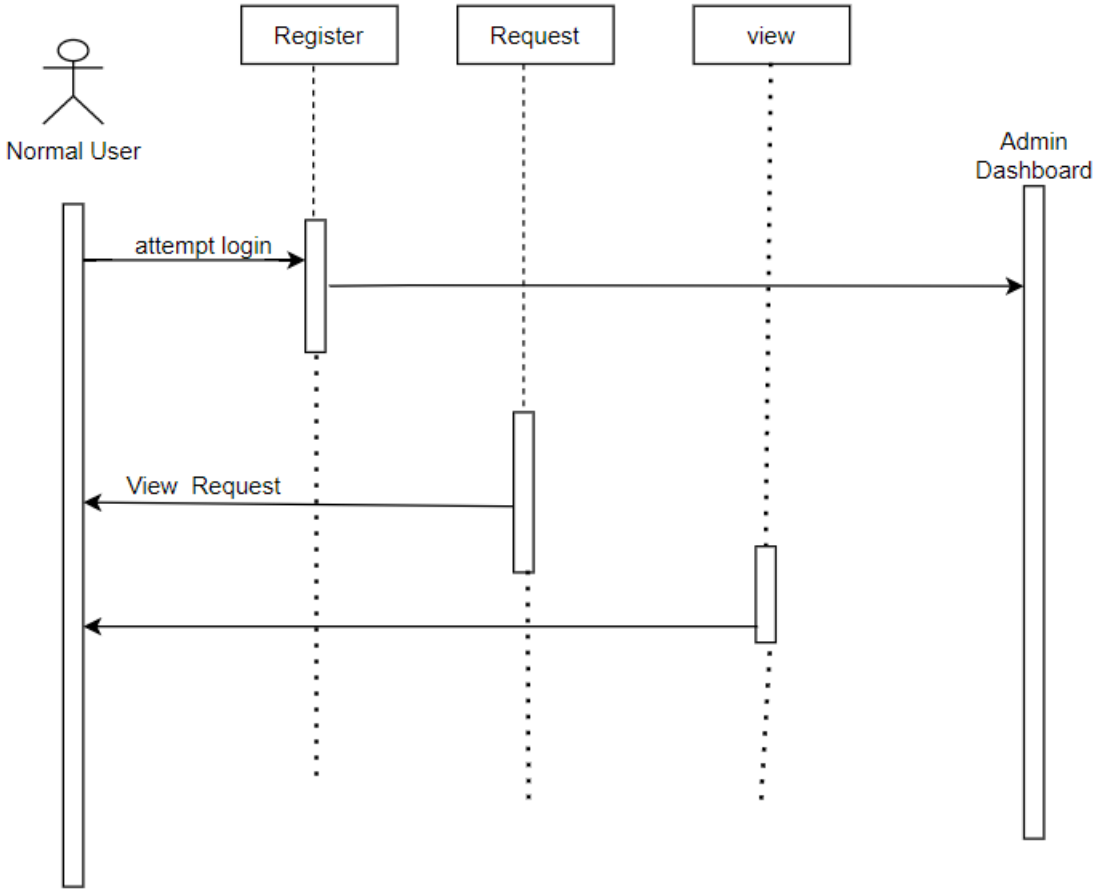


Figure 3.6: Sequence Diagram (Normal user)

3.5 Design Requirements

When designing systems or software, following issues must be considered that reproduce the overall design of the goals that the system expected to achieve. The following goals were kept in mind while designing the system. Make system simple and flexible to users. The system users are able to have a great amount of control over their propose in achieving objectives, Make the system compatible. It should be fit in the total system, future maintenance and enhancement must be less.

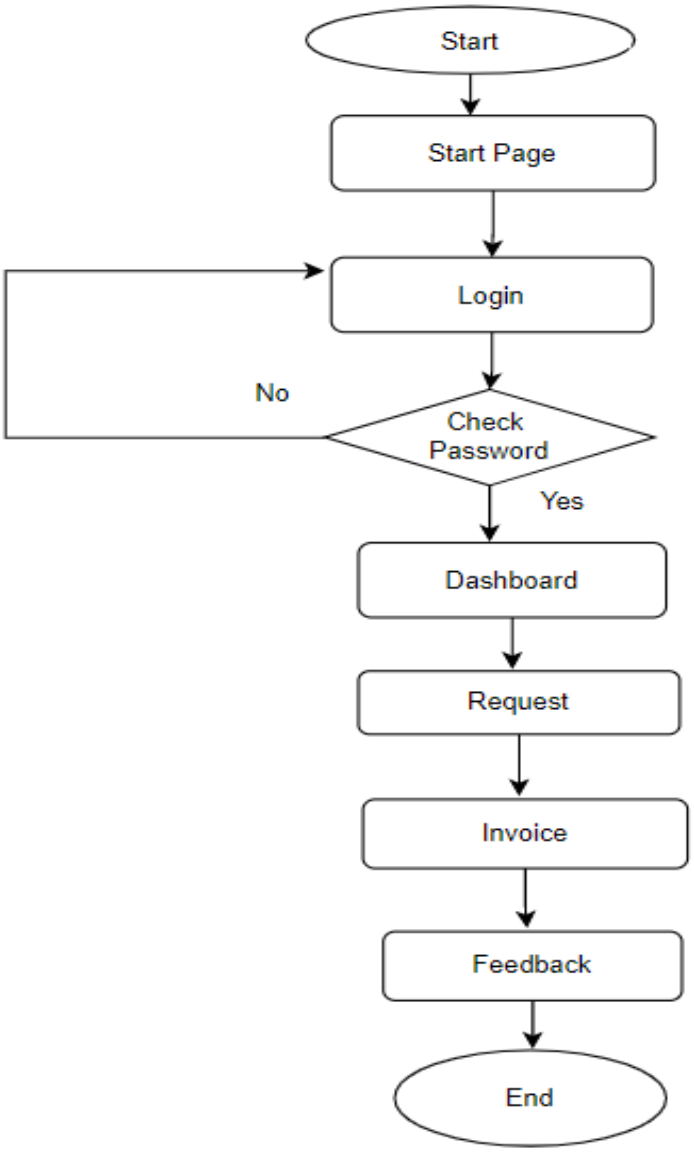


Figure 3.7: Full Process for User

CHAPTER 4
DESIGN SPECIFICATION

4.1 Front-end Design

Front-end Design is the main attraction of an application. It also should be user friendly. Our application we designed a beautiful front end design. We also tried to design user friendly. In front end design, my application belongs with below screens.

- Intro/ splash screen
- Login Screen
- Registration Screen
- Dashboard Screen
- Profile Screen
- Invoice Screen
- Apply for Job Screen
- Notice Board Screen
- Feedback Screen
- Edit Profile Screen

4.2 Interaction Design and User Experience (UX)

Interaction Design is most important part of user Experience design. An application fruition depends on User satisfaction. How an application is more attractive to the user mostly depends on interaction and Design part. In my application, we used the useful model of interactive design.

4.3 Implementation Requirements

Implementation Requirement is given below:
1) Microsoft Studio
2) Python language knowledge
3) Knowledge on Web Ecosystem

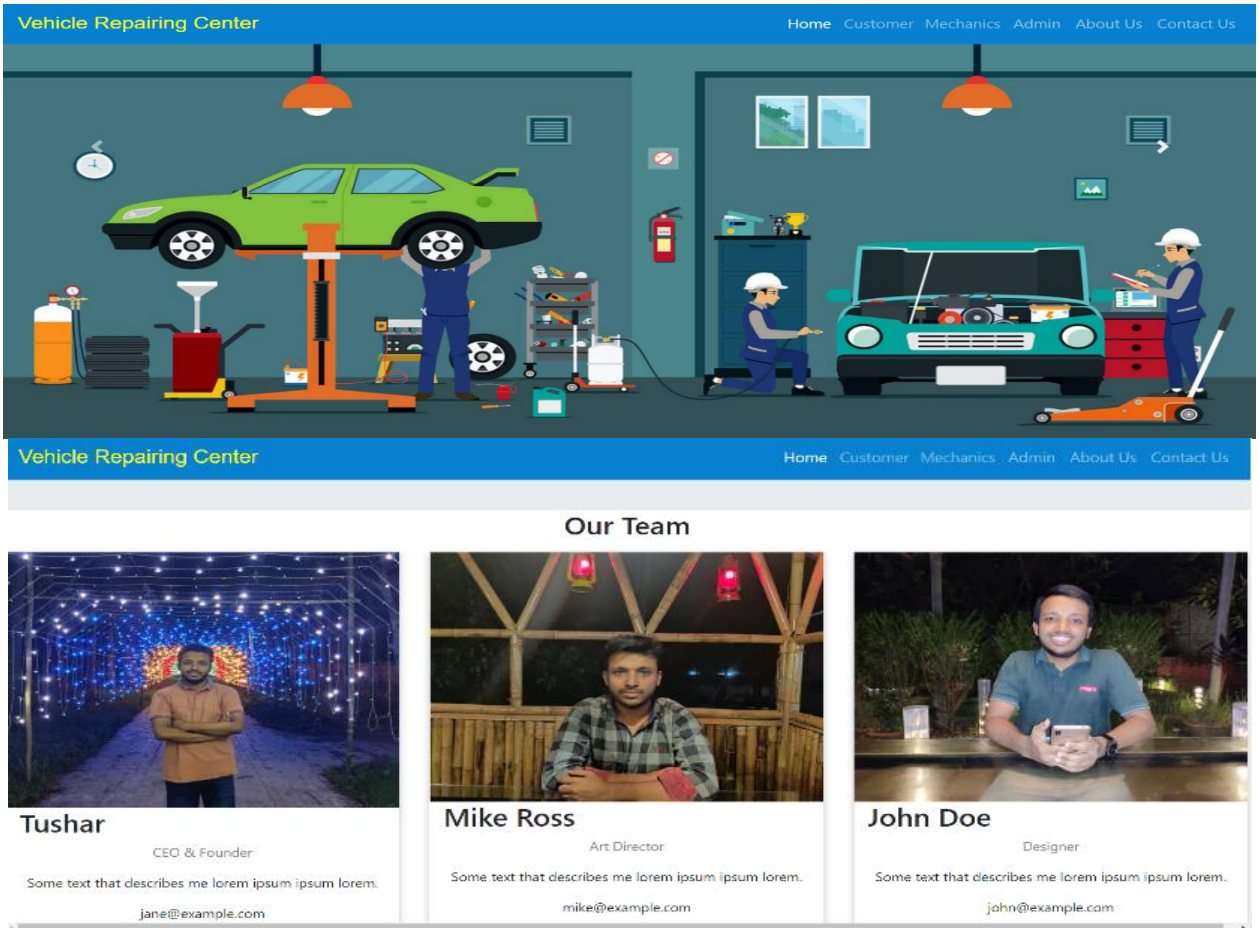
CHAPTER 5
IMPLEMENTATION AND TESTING

5.1 Implementation of Database

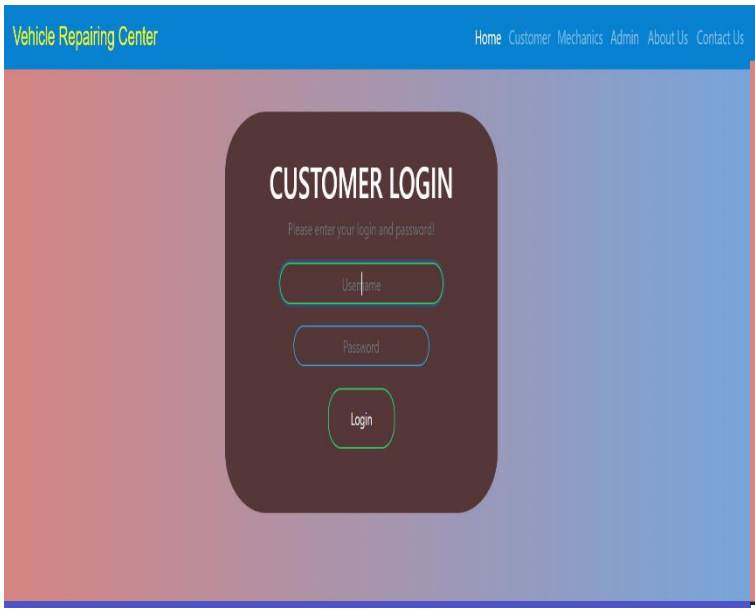
The implementation phase is where developer installs the Database Management System on the required hardware, optimize the database to run best on that hardware and software platform, create database and load data. The initial data could be either new data captured directly or existing data import from DBMS. Developer can establish database security and give access to authorized users. At this moment I used a Firebase database.

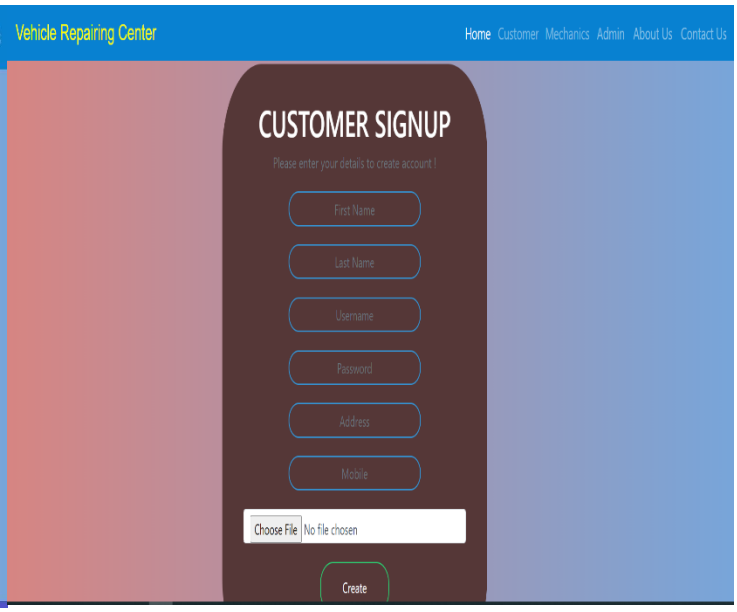
5.2 Implementation of Front-end Design

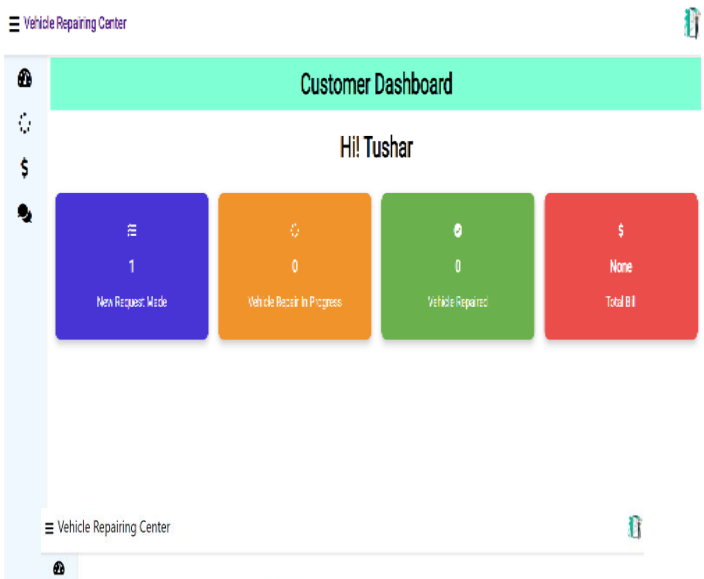
- **Home Screen**

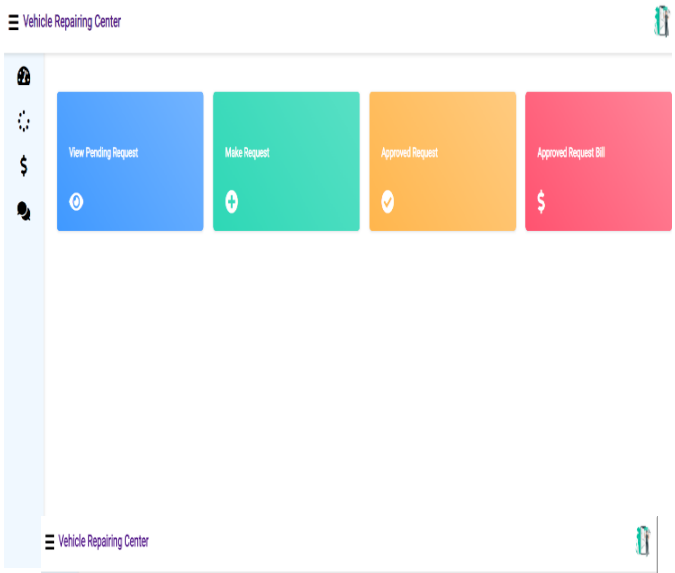


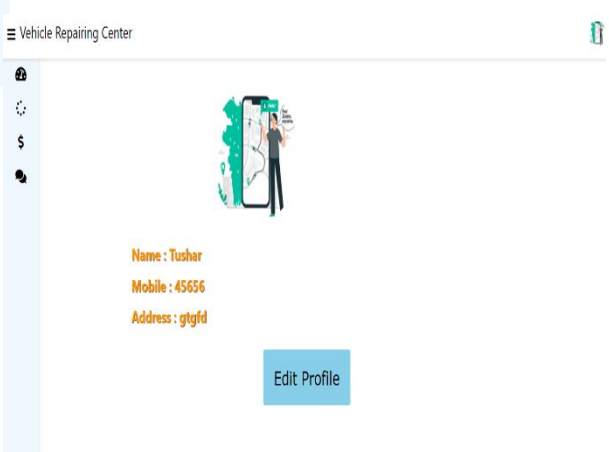
- **Customer Screen**

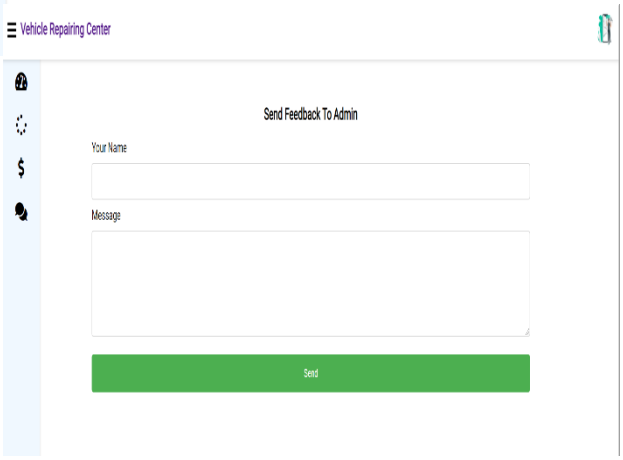




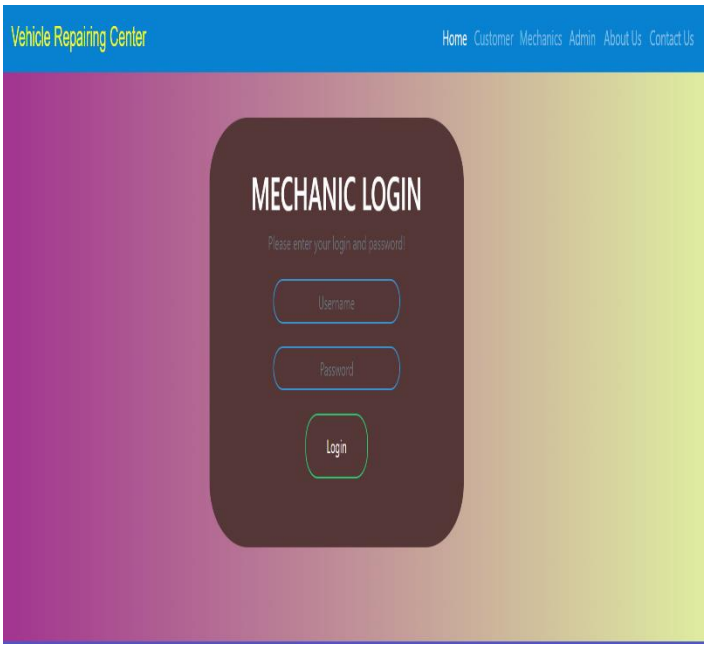


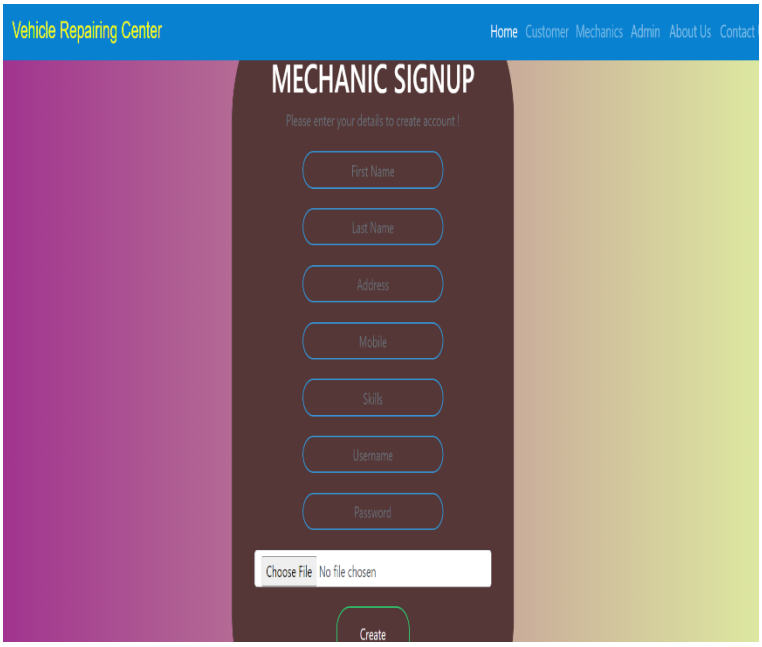


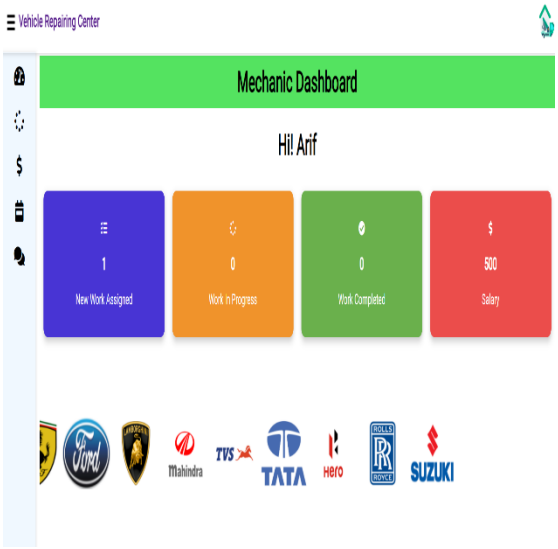


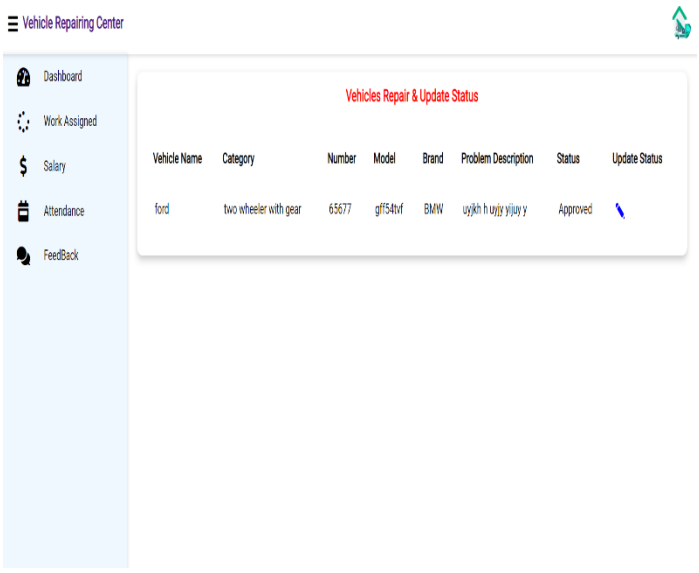


- **Mechanic Screen**

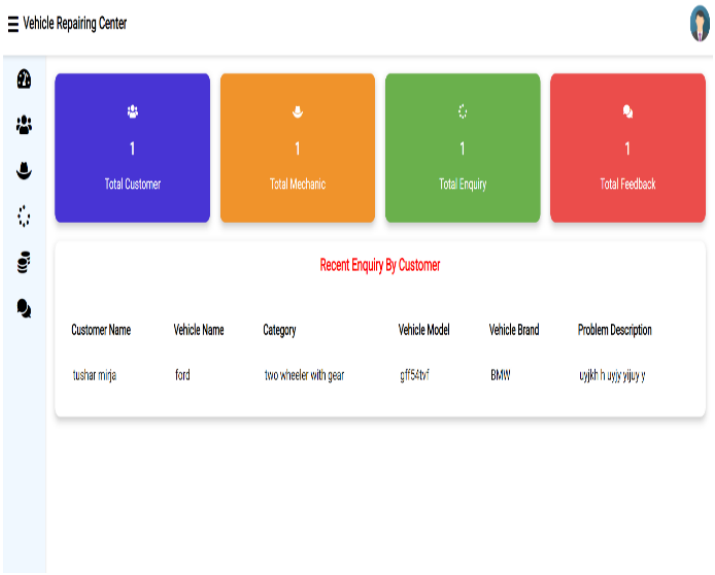


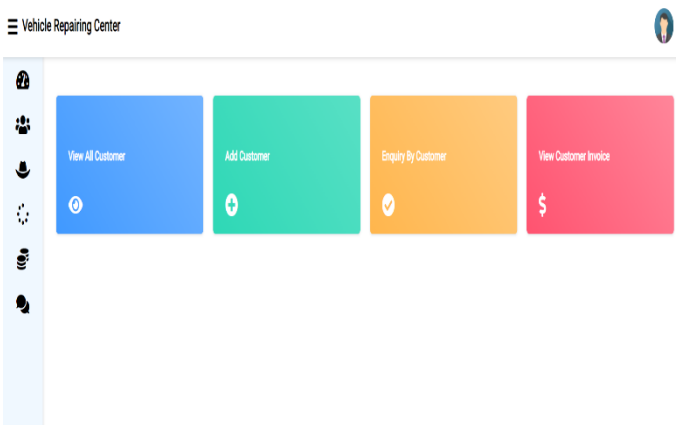


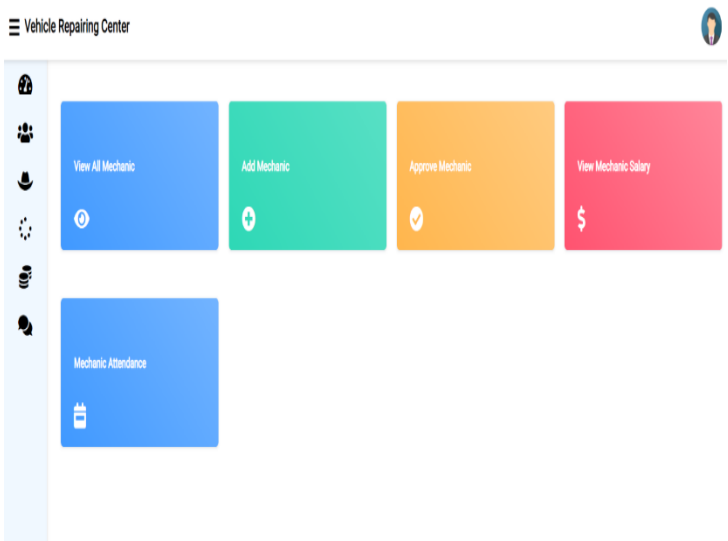


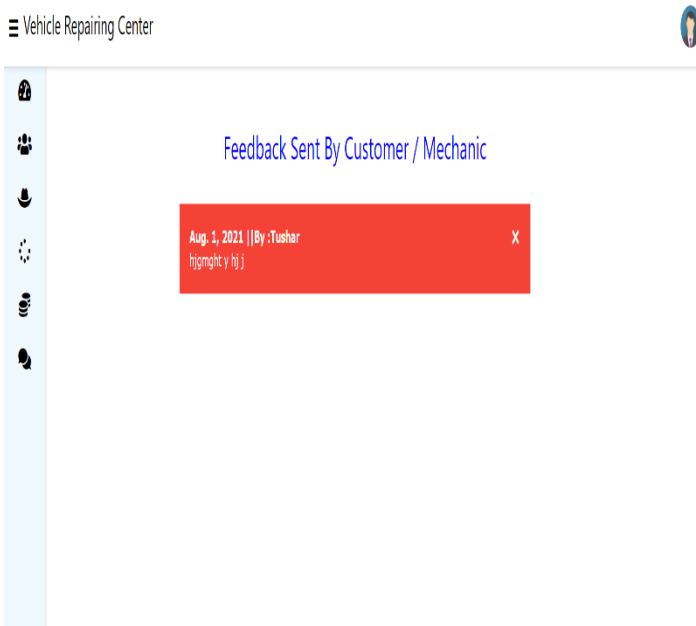


- **Admin Screen**









5.3 Implementation of Interactions

Implementation of interaction is the most important part of a system. Interaction means when users are on a specific module and switch to another module. This application consists of one type of user at this moment so that is no chance to interrupt values. I tried to give users a good UX to make this project successful. An application would be successful when its users will get this useful and will feel a good experience. From that point, my expectation would be high.

5.4 Testing Implementation

When a system is implemented and test some specific method is called test implementation. I have tested system several times. Login, Register, Feedback, Make request for servicing, Assign mechanics tests on several times. I have tested following factors:

- Login System
- Registration system
- Make request for Servicing
- Feedback system

5.5 Test Result and Report

Test Cases
Test Case: 01
Table 12: Test Case-01

Test Case #: 01	Test Case Name: Registration
System: VRC-Vehicle Repairing Center	Subsystem: N/A
Designed By: Mahfuzur Rahman	Design Date: 10-01-21
Executed By: Mahfuzur Rahman	Execution date: 05-02-21

Pre-Condition: The individuals must be registered if they want to use the system.

Step	Action	Expected System Response	Pass/Fail	Comment
1.	If a user does not fill up the form, then the registration process will not be completed.	All requirements should be fulfilled on the field.	Pass	All requirements should be fulfilled on the field.
2.	If the user clicks only the register button without filling the required fields, then the process will not be completed.	All the required fields must be filled up.	Pass	All the required fields must be filled up.

3.	User is expected to enter valid username	The system should be given an error message with type of inputs	Pass	Valid username
4.	The user is expected to enter valid phone number.	This number field must be displayed by the system.	Pass	Phone number field must be a number field.
5.	The user is allowed to combine any kind of password characters.	It is accepted as a valid password by the system.	Pass	The Password is valid
6.	The user must required to fill the field with valid info.	The system will allow as it is registered and show the home page.	Pass	The registration process will be completed.

Test Case: 02

Table 13: Test Case-02

Test Case #: 01	Test Case Name: Login
System: VRC-Vehicle Repairing center.	Subsystem: N/A
Designed By: Mahfuzur Rahman	Design Date: 01-01-21
Executed By: Mahfuzur Rahman	Execution date: 05-02-21

Pre-Condition: Must be signed up for access to his/her account.

Step	Action	Expected System Response	Pass/Fail	Comment
1.	Entering username without password.	A message is displayed by the system as “password is required”	Pass	Password is required.
2.	Entering password without username.	System requires the field of username.	Pass	System requires the field of username.

3.	If sign in button is clicked without filling the username and password field.	The system requires username and password fields.	Pass	The system requires username and password fields.
4.	If a user enters invalid username and password.	"Invalid login attempts" will be displayed.	Pass	Invalid login attempts.
5.	If the user enters valid	The account will be accessed by the system successfully and will be redirected to the login page.	Pass	Successfully redirected to the login page

Test Case: 03

Table 14: Test Case-03

Test Case #: 01	Test Case Name: Make Request
System: VRC-Vehicle Repairing Center	Subsystem: N/A
Designed By: Mahfuzur Rahman	Design Date: 01-01-21
Executed By: MD. Mohiuddin Sosem	Execution date:05-02-21

Pre-Condition: Must be added vehicle name, model number, problem description

Step	Action	Expected System Response	Pass/Fail	Comment
1.	If the customer fills the field without vehicle name.	The field is required	Pass	The field is requiring.
2.	If a user confirms any field without filling any information.	The required field must be filled.	Pass	The required field must be filled.
3.	If the customer make request without vehicle category.	The system will not accept the request.	Pass	The request will be rejected.

4.	If the user make request without valid description of the vehicle.	The admin will not approve the request.	Pass	The request will not be approved.

Test Case: 04

Table 15: Test Case-04

Test Case #: 01	Test Case Name: Feedback
System: VRC-Vehicle Repairing Center	Subsystem: N/A
Designed By: Mahfuzur Rahman	Design Date: 08-01-21
Executed By: Mahfuzur Rahman	Execution date:05-02-21

Pre-Condition: Must be added your name and valuable feedback

Step	Action	Expected System Response	Pass/Fail	Comment
1.	If the user send feedback without name and messages.	The system will not accept.	Pass	The system will not accept.
2.	If the user send feedback with name and message.	The message will be sent to the Admin.	Pass	The feedback will be sent.

CHAPTER 6
Impact on Society, Environment and Sustainability

6.1 Impact on Society

Using this application anyone can easily get their best service. Our application is solving the problem for society. You are suffering with your vehicle then from this time you don't need to take any hassle we are here to solve your problem anytime anywhere. You will be able to find mechanics nearby you. This will save their time and money. They will get the standard warranty and all troubleshooting works in transparent cost. We tried to minimize the social problem. We provide doorstep service delivery for society. It is principally evolved to make more concern the vehicle owner about their vehicle to get rid of accident and unwanted problem. The Web application is user friendly so that anyone can easily operate it.

6.2 Limitations

In most projects a project management methodology is essential however experience shows that it is never enough, that there is always another dimension that means "managing" and thus have some limitations. The limitations of my project are given below.

1. The unregistered customer cannot make request in the system.
2. The registered user cannot delete their account without the permission of Admin.
3. The registered mechanic cannot get the job their account without the assigning of Admin.
4. The registered user can not block each other in the system.

6.3 Obstacles & Achievements

Obstacles is very common thing for us. How we overcome this that is very importat. During this pandemic situation continually keep focused on a project was tough. The faster we will be solving inevitable problems rising during our web apps developing process the more time we will gain for sparking our creativity working on the add specific logic. First gain the knowledge then implemented in a right way is also very challenging for me. Choose the write language for developing the project Python is a object oriented programming language and python have a powerful web framework Django for making dynamic and interactive web application. It is widely used, free and efficient alternative to competitors. However we did it, we completed our project successfully.

CHAPTER 7
CONCLUSION AND FUTURE SCOPE

7.1 Discussion and Conclusion

Since we have dealt with the project for a long time while lastly, the application is prepared to utilize. By the finesse of Almighty God, the task has been effectively finished. Presently, anybody can download and introduce it to appreciate all the highlights features.

For our application, we can solve the issue which is existing in the previous time. By this application, we are going to make or bring different mechanics or servicing center in one place and make the users to share their knowledge to other and know about the nearest servicing center.

7.2 Scope of Further Development

The purpose of my application is connecting people to share their problems and interact with information. As we build this vehicle servicing management system, we will understand the value of the customer's vehicle and the demand of mechanics. The challenge is for us is how much we engage our knowledge what values we consider and the creativities we perform which will put value to this system. The future scope of my project is given below-Customer will get different kinds of services. Admin can reject fake accounts.

- Improve User Interface (UI)
- Bring more features
- Make a Android and iOS version
- Connect with Digital Payment

References

[1] https://online.visual-paradigm.com/
[2] http://guides.lib.berkeley.edu/how-to-write-good-documentation
[3] https://www.huffpost.com/entry/3-ways-to-create-adocume_b_5950804?ec_carp=1214238055060485286
[4] Berndt, A., 2009, "Investigating Service Quality Dimensions in South African Motor Vehicle Servicing," African Journal of Marketing Management, April, vol. 1(1), pp. 001-009
[5] The Influence of Customer-Perceived Service Quality on Customers' Behavioral Intentions. http://www.iimcal.ac.in/programs/ fpm/ThesisAbstracts/koushiki2005.pdf.

Appendices

May include any supporting material which is not essential for the main body of the report

These could be:

- Questionnaire designed for use
- Details of requirements
- User evaluation of the system I developed
- User manual/guide
- Test plans and results
- Project plans
- Tables of contents
- Diagrams

VRC Report

ORIGINALITY REPORT

14%	10%	1%	10%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	dspace.daffodilvarsity.edu.bd:8080 Internet Source	6%
2	Submitted to Daffodil International University Student Paper	2%
3	Submitted to Higher Education Commission Pakistan Student Paper	1%
4	slideplayer.com Internet Source	1%
5	Submitted to Deptford Township High School Student Paper	1%
6	Submitted to General Sir John Kotelawala Defence University Student Paper	1%
7	www.bridgestonetire.com Internet Source	1%
8	Submitted to Ghana Technology University College	<1%
9	Submitted to Arab American University - Jenin Student Paper	<1%
10	Submitted to Icon College of Technology and Management Student Paper	<1%
11	Submitted to University of Bedfordshire Student Paper	<1%