

GARIR BONDHU: A Web Application For Online Garage Management & Repair System.

Submitted By

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A project report submitted in partial fulfillment of the requirements for the degree of
Bachelor of Science in Computer Science and Engineering

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Computer Science and Engineering

University of Liberal Arts Bangladesh Bangladesh.

Date,12th june, 2022

DECLARATION

This project report is submitted to the Computer Science and Engineering (CSE), University of Liberal Arts Bangladesh in fulfillment of all the requirements for the degree of Bachelor of Science (BSC). So, I hereby declare that this project report is based on the surveys and research found by me. The materials and references of work found by other researchers are mentioned by reference. This project report, neither in whole, nor in part, has been previously submitted for any degree or any university that I know of.

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CERTIFICATE OF APPROVAL

The project report entitled “Developing a smart garage management system” is Submitted to the Department of Computer Science and Engineering (CSE), University of Liberal Arts Bangladesh in fulfillment of the requirements for the degree (ULAB) of Bachelor of Science (BSC).

Dated: 12th june , 2022

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ACKNOWLEDGEMENT

I would like to express my sincere appreciation to my project supervisor, Dr. Farhana Sarker , for giving me the opportunity to work alongside her in this project. I am highly indebted to her for her guidance and constant supervision as well as for providing necessary intelligence and data regarding the project for the whole Semester.

I would like to thank all of my family members for their kind cooperation, inspiration and encouragement throughout the course of this project and also during the last four years of my undergraduate study. Without their love, care and motivation I would not have been able to complete this venture and for this I am extremely indebted to my parents.

University Of Liberal Arts Bangladesh

Date: 12th June, 2022

Abstract

In this project I wanted to create a web based application that will be related to booking or setting a scheduled appointment with a vehicle repair shop or garage management shop and buy vehicle related products and some other applications. After thinking and analyzing I have developed a web-based application that will work comparable to other applications on the world web. In my web application the user or customer will be able to see different types of services like bike wash, body paint, parts installation, car modify and many more, without going their physically and it will save customer valuable time because people are getting busy with their work and they don't have enough time to wait hours and hours for getting a service. My main motivation behind this project is to make a platform where people can get different types of vehicle services including prices without going physically and can book scheduled appointments through an online payment and making it convenient for all ages of people.

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CHAPTER 1: Introduction

1.1 Introduction

Perusing various sorts of sites is an extremely famous and popular action among the youths in any event or occasions and for the grown-ups who are exceptionally energetic about knowing innovation these days. The purpose for this project is the garage mechanics are right now creating their website or online service responsive which means any age of individuals can peruse their site in any sort of savvy gadget like PC, PC, versatile, tablet and so on. As cell phones are accessible and furthermore sensible in cost, individuals are getting more associated with those electronic gadgets and moreover people are getting online service for everything and in past these corona years, we can see its increasing excessively. So people wish to have various types of web-sites which are extremely useful and make their life more adaptable and agreeable than previously more than ever.

This undertaking additionally plans to make its client's life more agreeable and adaptable in picking a unique service on special events and furthermore giving joy and convenience to its client's festival party or any occasions. This project is essentially on some festival or in a regular day, where clients can get a few easy online service with a customization choice like easy bike wash , car wash or any type of vehicle service or parts installations ,while picking a few classes which are subject to their infrequent necessities like Eid, puja and also in regular days. On busy days or in events where we are busy, we really want to finish or put a bold look to our beloved vehicle so the need might arise to get a few installations or wash for our extraordinary cars or bikes. This responsive site will show a few classifications like bike wash, car wash, parts installation and other quick service and the most important client can easily buy installation items and parts in this site. Here, clients can book their appointment. Additionally, clients can live chat with our customer care service and they can get knowledge about what kind of service they need to get for their vehicle.

1.2 Motivation

In the corona pandemic where my mother fell very sick and we need to go to the hospital very fast and all the Ambulance were unavailable so we took out our car which we didn't service for very long time due to there was no online vehicle service in our county and I also needed some parts but I don't even know which parts I will be needing .At the point when I found out about certain sites which are sharing a few service but they were not that active, so it gave me the thought for this venture.. Some business pages from the Facebook stage are extremely well known now-a-days like the " Car Parts & Garage Bangladesh:" page where we got to see a few extraordinary bundles made by them are truly encouraging [1]. Clients' things are set in an unexpected box because they sell original products. As indicated by my knowledge, this Facebook page is working effectively to astonish individuals for certain unique products from their source alongside decent original products.

There are a few different sites laid out on this idea and that is "BML Car parts & accessories" [2]. From this site, we can see a few things which are very low cost car parts and accessories . This site has an exceptionally straightforward sort of connection point for their clients and different choices like sign up/sign in are additionally accessible there at first. As this is a site in Bangladesh, a few things which are well known in their practice like car lights ,car rims etc are being sold there available to be purchased. Yet, our country doesn't have a good quality service and other vehicle service at fingertips. A few sites like " Daraz " and "Alisha Mart" have a few things yet they are not just zeroing in on those things and furthermore they are not giving vehicle services like we need; they are just simple ecommerce sites. Additionally there is just a client's selection of services yet this isn't tedious for the most active client who has no time in picking things or services. As per this perspective, we followed one more choice of service where we will give some at certain financial plans a vehicle service proportion that begins from 2500/= to 4000/= .

Clients don't have to race to the neighborhood garage and find their precise service or product , we will stack a few services so they can simply snap to them and add them into the cart which is exceptionally tedious for those clients who have time issues. Most of organizations that utilization membership based web based business plans of action sell for the most part excellence items like "Dollar shave" [3]; they don't sell those vehicle parts like rims, inflatables oil, car cards by utilizing this site ,people may effectively buy into a service and accept their items in Bangladesh on their unique date. Clients can keep their memberships without changing if they have any desire to go on with their ordinary car parts.

1.3 Objectives

This online-based site and services is valuable to Bangladeshi peoples who are really occupied in their day to day routine. People who are battling with purchasing car/bike parts and accessories for their vehicle as some have the decision issue, some have financial plan issues and may some have time issues or some have lack of knowledge .They can without much of a stretch get the live chatting options and consult with the service provider while they expect from this site by utilizing this methodology. There is one more choice for the clients so they can keep the site predefined through membership and their decisions by embracing this membership strategy. This strategy is similarly useful to a few low financial plan holders in our country. This strategy is fundamentally useful to Bangladeshi working class families, as working class families furthermore can be consulted by booking an appointment and by their commemoration alongside the service for their bike/car.

1.4 Expected Outcomes

People may easily get many favorite and necessity car parts and accessories they need by using this system, which is based on online-based e-commerce websites that provide easy-to-use user interfaces. People can also acquire particular things for their bike/car and by venturing into our site people can get all the products available at their door steps. They can also get many one tap services like quick wash and parts installation and also they can get free consultancy by chatting with the live chat options. so in this way they not only know which type of parts mechanics are using for their cars/bikes but also they get knowledge about our service and products.

Customers can also save by ordering car/ bike products online and save their time. They can also save their time by just ordering our VIP service taker. So customers can call or book appointments for their vehicle and our service guys will go to their house and pick their vehicle and take it to the service center .

- Customers can see and get details of multiples services including prices
- Customers can Add products to cart
- Customers can payment on Online
- Customers can Booking appointment from the system
- Customers can search different types of service according to their needs
- Customers can send Message and chat to customer care service

1.5 Project Management and Finance

On March 1th, 2022, I began working on this project after learning about the online-based business model and customizing process and I learned about this system, how it works, and different programming languages like java, php, node js for implementation depending on the project. After that, I began looking for materials for related work on it, as well as researching many system's history. From March 7th to March 14th I completed my front-end implementation. And I made my database plan and database designing part. After that, from 24th March to 14th April I completed my Backend implementation. Because of strong planning and parallel work, I was able to complete my assignment in a short amount of time. After that 14th April to 4th May I tested my project and from 4th may to 25 may I completed my project report.

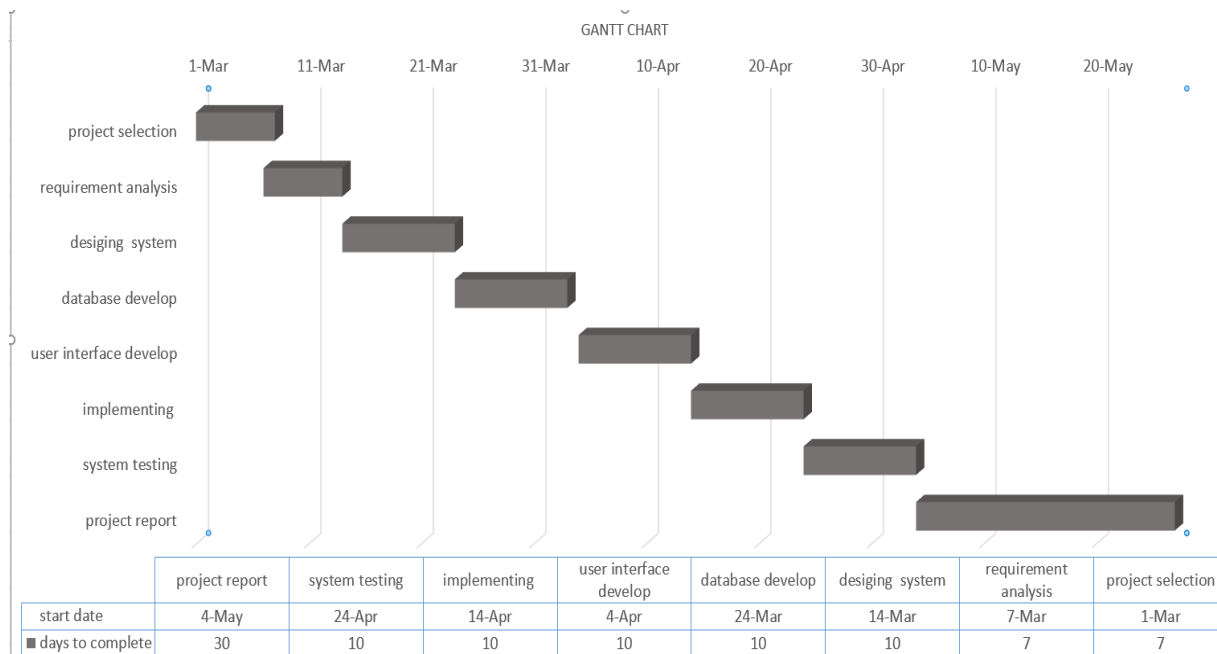


Fig 01: Project Management(GANTT CHART)

1.6 Report Layout

The following is the project layout for this paper:

Chapter 2: In this chapter, I will explain why I chose this kind of project and why I want to create it now, as well as some similar work to my project, and how the project flow represents the mass that already exists in other country, as well as the influence on what will be best in our country.

Chapter 3: In this part of this paper, I will discuss why this online based system is necessary for our country, what people want from it, and what people expect from this system, as well as the project's requirements and what I will be needing.

Chapter 4: In this chapter, I will show the overall design of the system as well as the data flow design how I will be developing .

Chapter 5: In this part, I'll show you how the project I implemented and how it operates.

Chapter 6: In this chapter, I discuss the system's ethical demands, environmental implications, and long-term viability.

Chapter 7: In this chapter, I'll show you how my entire system works and describe some of the plans I have for it and how I have done it.

Chapter 2: Background

2.1 Related Works

When I started planning a web based project I saw lots of websites but I can not see the types of websites where customizing and quick vehicle service can be obtained. That's why I am interested in making this type of online based website. I saw some websites like car parts & garage Bangladesh , BML Car parts & accessories and also found a Facebook group whose name is Dollar Shave Club

Table 01 : Comparison Table

Feature list	Car Parts & Garage Bangladesh	BML Car parts & accessories	opine	Garage door	Automate helping buddy	Dollar Shave Club	Smart workshop	Garir Bondhu	
1.inventory	Y	Y		Y			Y	Y	
2.Messaging	Y	Y			Y	Y	Y	Y	
3.create profile		Y		Y	Y	Y	Y	Y	
4. booking appointment	Y		Y		Y	Y	Y	Y	
5.damage/problem list			Y					y	
6.available parts								Y	
7. set reminder			Y	Y					
8. chatting service			Y			Y		y	
9.online payment	Y	Y		Y	Y	Y		y	
10.cancel appointment	Y	Y			Y		Y	y	
11.Automated email.	Y		Y		Y				
12.automated SMS	Y	Y						Y	
13.discount rate	Y	Y					Y	Y	
14.sales rate.		Y				Y	Y	y	
15.vip cars.						Y	Y	Y	
16. view service				Y	Y		Y	Y	
17.feed back				Y	Y	Y		y	
18 reports				Y	Y			y	

Car Parts & Garage Bangladesh:

Car Parts & Garage Bangladesh sells low-cost bike accessories, parts and crafts, toys directly to customers. It was established in 2020 as one of the first wholesalers in Bangladesh. Car Parts & Garage Bangladesh has been named one of the top 100 online retailers and one of the top 50 catalog bike/car companies in the Bangladesh7.

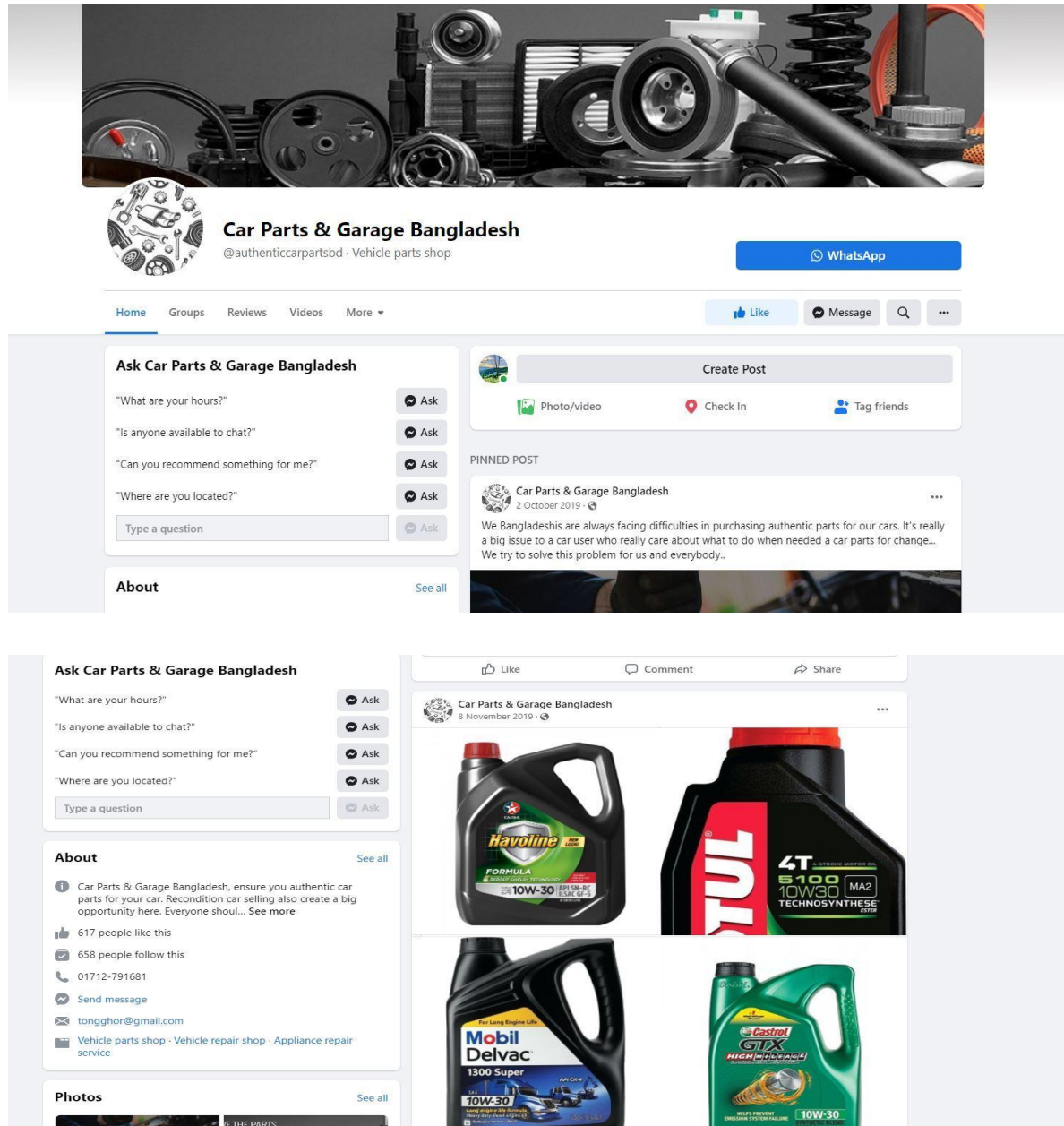


Fig 02: Car Parts & Garage Bangladesh

BML Car parts & accessories:

I found a Facebook page named BML Car parts & accessories which is gaining good market value. This page has some packages categorizing bikes and cars. And people are more interested in those types of pages. But this package does not follow the online based vehicle service system.

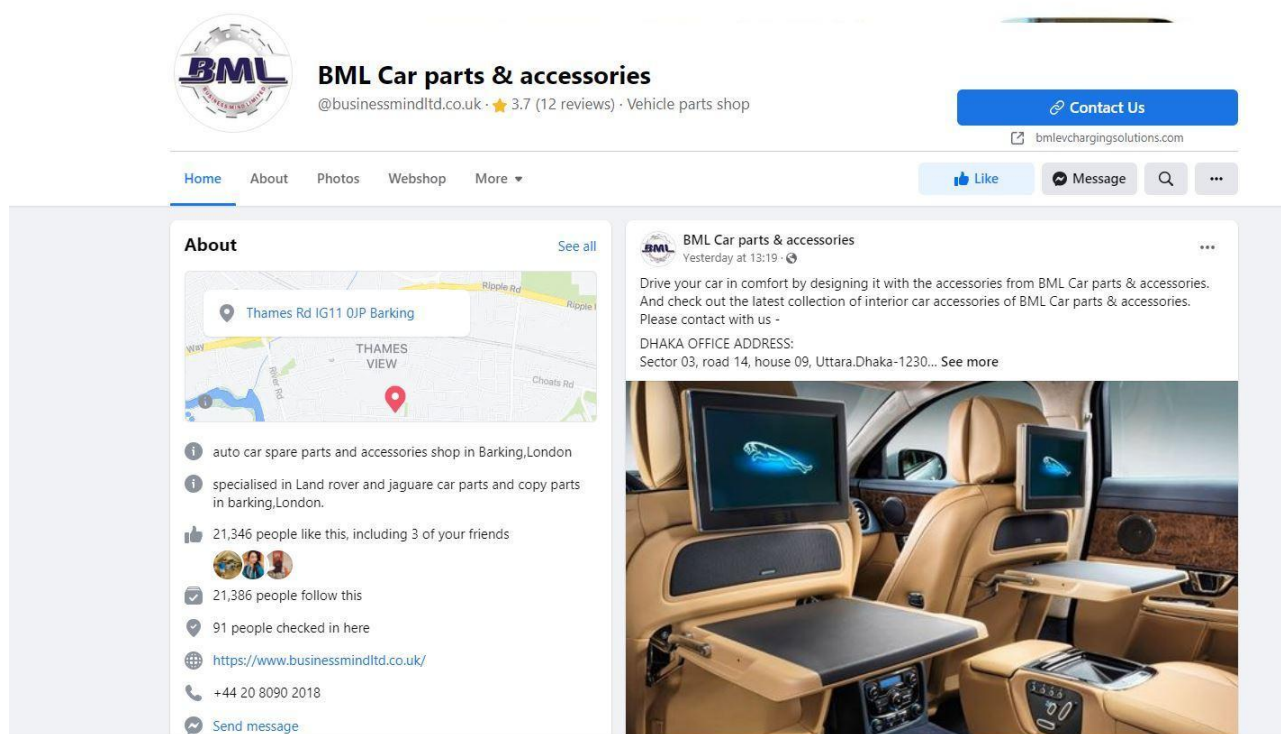


Fig 03: BML Carparts & Accessories

Dollar Shave Club:

In the United States, this is a subscription-based online website. Dollar Shave Club is a mail-order razor and personal health care product company based in Venice, California. It regularly sends out razor blades and also delivers grooming products to your doorstep just by clicking a button. Dollar Shave Club was founded by Mark Levine and Michael Dubin. They met at a party and discussed their dissatisfaction with razor prices. They began operations in January 2011 and launched their website in April 2011 using their own funds and investments from the business incubator Science Inc. The corporation had 4.2 million users in 2017. Despite the fact that the corporation predominantly targets men, women and other gender account for around 20% of its clients

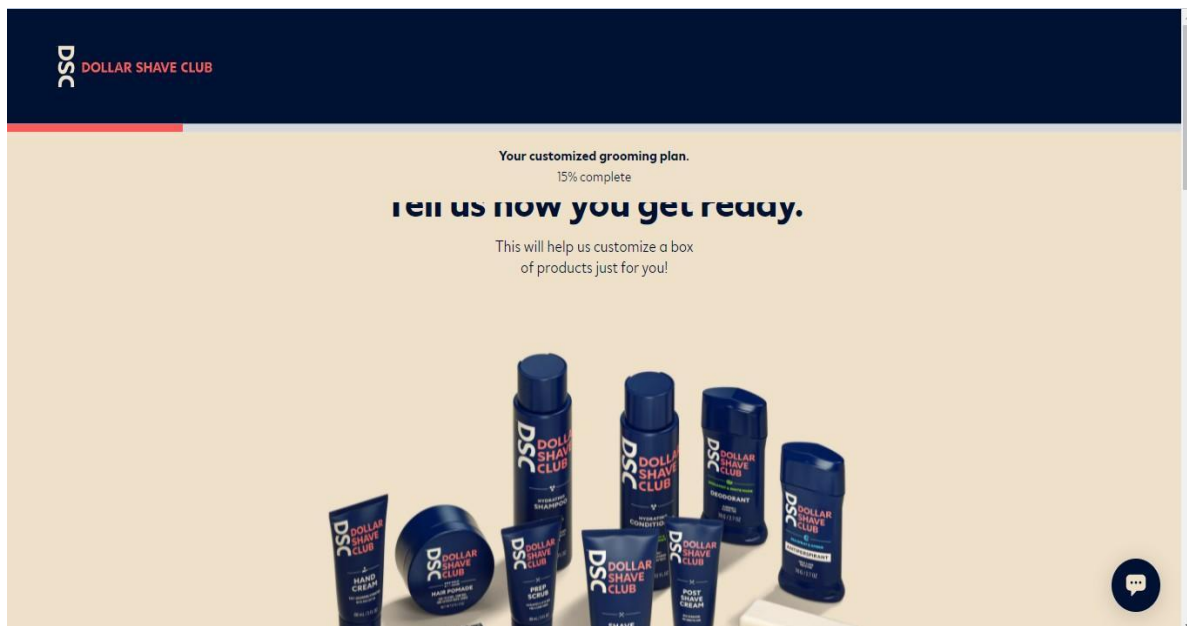


Fig 04:Dollar Shave Club

2.1 Scope of the Problem

Since no online vehicle service accessible in our country people will be less aware of our services and the online practice is still new to some areas of our country specially in market we can see many shady companies and their web sites.so trusting a new online based service system will be a little bit tough but once we get past that there will be no major problem.

2.2 Challenges

The most troublesome part of this drive is familiarizing Bangladeshis with the online based service structure. Most of the people in Bangladesh know nothing about the online based service model, and the compensation first methodology is additionally quite difficult for this framework. Since most Bangladeshis are reluctant to pay for the primary framework, it makes it very difficult.

Keeping up with the online based service .Trusting with their bike/cars and request frameworks is additionally quite difficult for this venture since buyers take the service in once and afterward wish to alter their things. The most troublesome part of this venture is keeping up with the customer's affordable price.

Chapter 3: Requirement Specification

3.1 Business Process Modeling

I've recently characterized an online service business; presently I want to sort out what a "plan of action" is. The monetary model, notwithstanding, will change in price of the service's objective and type of bike/car. To start, I should distinguish myself as a service administration, or content producer, wholesaler of bike/car accessories, or retailer.

3.2 Requirement Collection and Analysis

Register: Users must register before using the service or purchase a product web system.

Login: After registering, users will receive an authenticated user profile of his/her own. This authentication method can be used to access this website as he/she wishes. The user can change password any time.

Categories: Users can choose what types of categories they want to purchase products or get any type of services.

Add to carts: The ability to add items to a shopping cart is necessary when operating an e-commerce or service based website. Because customers want to write down their Opinions Or consult before placing an order. The majority of e-commerce and online service based websites provide this feature.

Order system: This website's ordering system is also vital because customers must order things or services after selecting them from the website pages. If this ordering system fails in any case, the system will not work at all.

Payment system: The payment method for this website is equally important as the order system. Nogod/bikash/uppay as well as cash on delivery or pay first delivery via banking should be available on the internet or in case of offline hand to hand service.

Confirmation: On this website, the confirmation method is very important after the order and payment.

3.3.1 Use Case Modeling and Description:

A utilization case outline, otherwise called a Unified Modeling Language (UML) chart, is a realistic portrayal focused on making this site and client jobs. This is an essential representation of how a framework client or users connects with it. The client or user site permits clients or users to sign in, register, buy in, request, checkout, pay and booking, while the framework administrator site permits clients to sign in, alter items, alter client data, alter orders, alter classifications, and erase client data categories and products.

UC-1 Create profile: Users can create profiles in the application and users can create profiles in the web application using first name, last name, email, username and password.

UC-2 Log in & out: User can log in using email address/username and can log out

UC-3 Book Appointment: Users can book appointments by selecting date & time or ask service provider for date and time for services.

UC-4 Make Payment: Users can use online payment after confirming order or service.

UC-5 View appointment & post review: Users can view appointments after order and post their review.

UC-6 Post Service: Owner of their shop can post different types of service, their price and details

UC-7 Update product & price: Owner of their shop can post different types of product, their price and details.

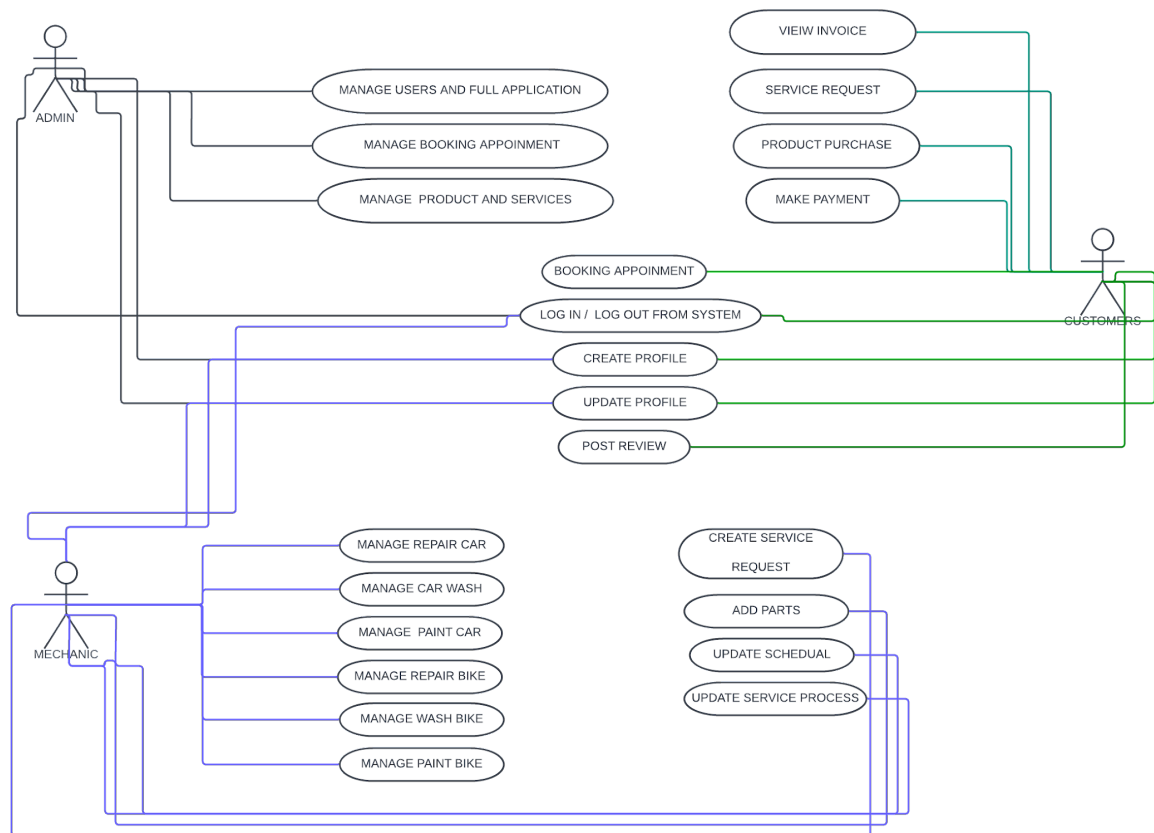


Fig 05: Use Case Modeling

3.3.2 Data Flow Diagram:

A data flow diagram is a diagram that depicts the sequential actions of objects in a complex system that I have used. This is the project's initial dfd chart, in which the rectangles represent the project's characteristics, the circle shape represents the decision phase, and the arrows represent the project's data flow.

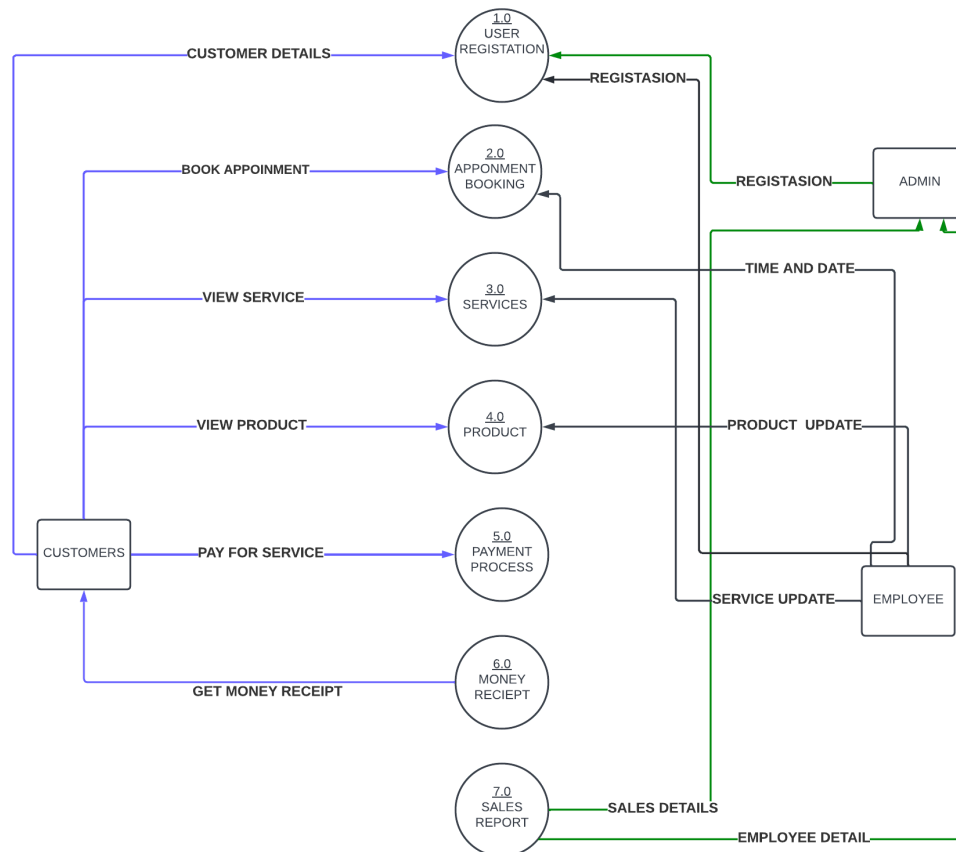


Fig 06: Dfd Diagram

3.3.3 Class diagram :

We all know class diagram is a static diagram so it represents the static view of an application And class diagram is not only used for visualizing, describing but also for constructing executable code of the software application. So in my class diagram it clearly shows and describes the attributes and operations of a class and also the constraints imposed on my system. The purpose of this class diagram is to model a static view of my project. So in this image we can clearly see that there is seven parent classes, they are CarService ,BikeService ,ProductService, OrderClass, PaymentClass, CustomerClass, UserClass.there are also four child class BikeWash,BikePaint and CarWash,CarPaint. In addition, all the classes have additional functions like order_id () , order_descriptio() and many more.

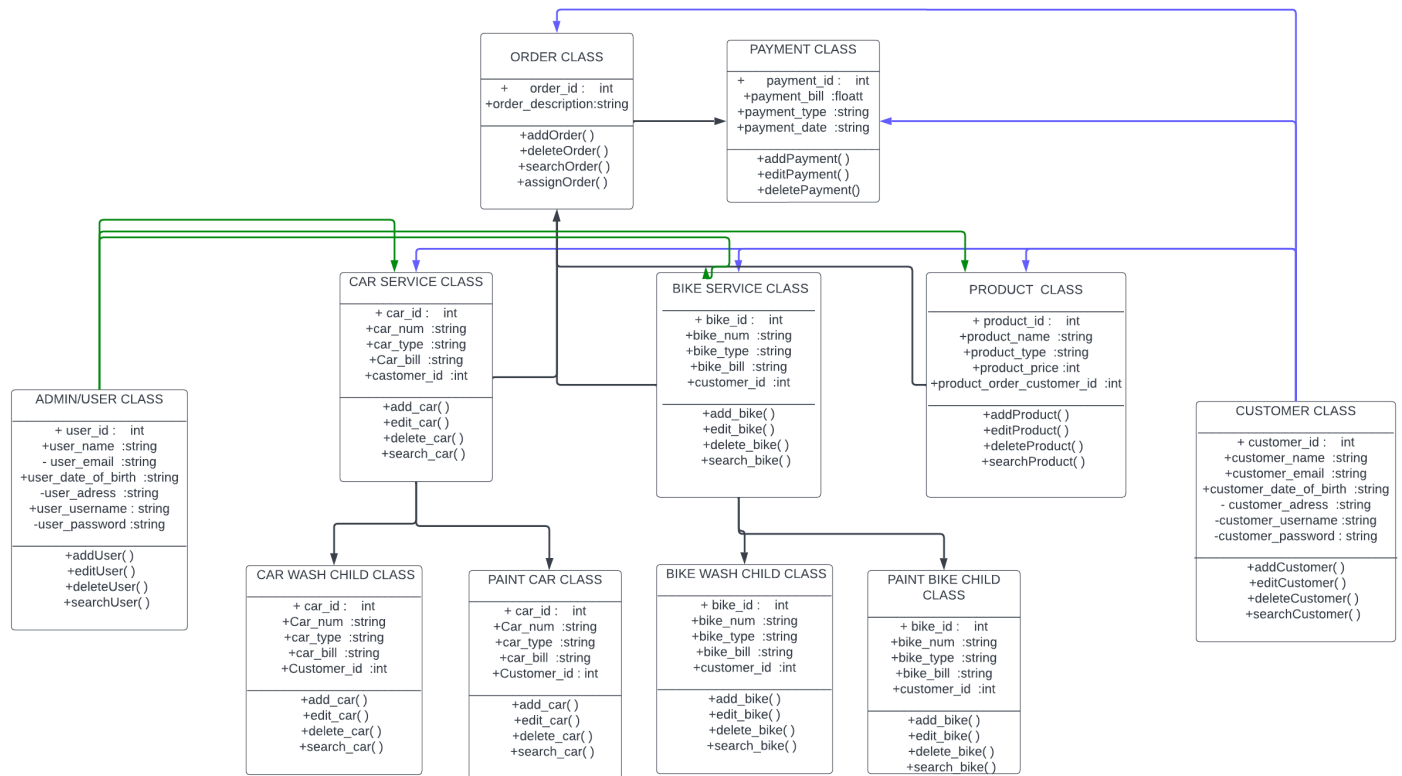


Fig 07 :Class diagram

3.3.4 Activity Diagram:

This is my activity which I will try to implement into my project. So from here, you can see, after registering, they need to log in to this website, then customers will see their profile. They can also edit or update the information that shows in their profile. Then they have to be able to choose the categories like car wash, bike wash car paint bike paint car/bike part installation. If they are entering this website for a car service then they have to get a car service category. After that they will see some items of car wash, car paint and car parts installed. And another option of my system is an appointment system. under the appointment they can book or they message the service provider. If they like any service or special customization then they will go to the message option and then consult about every detail and ask for the best price.

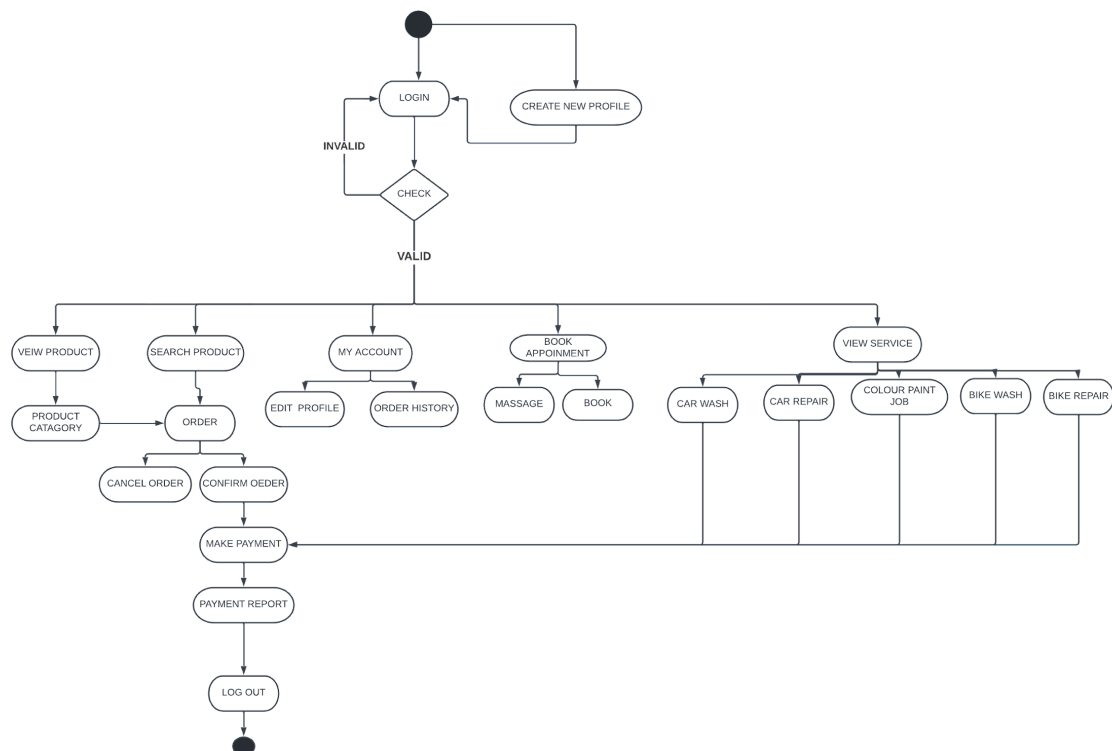


Fig 08: Activity Diagram

3.3.5 Entity Relationship Diagram

Here is the Entity-relationship diagram of my project and you can see there are different databases for users, clients, products, services, orders, payments, and notifications. And they have different kinds of relationships among themselves.

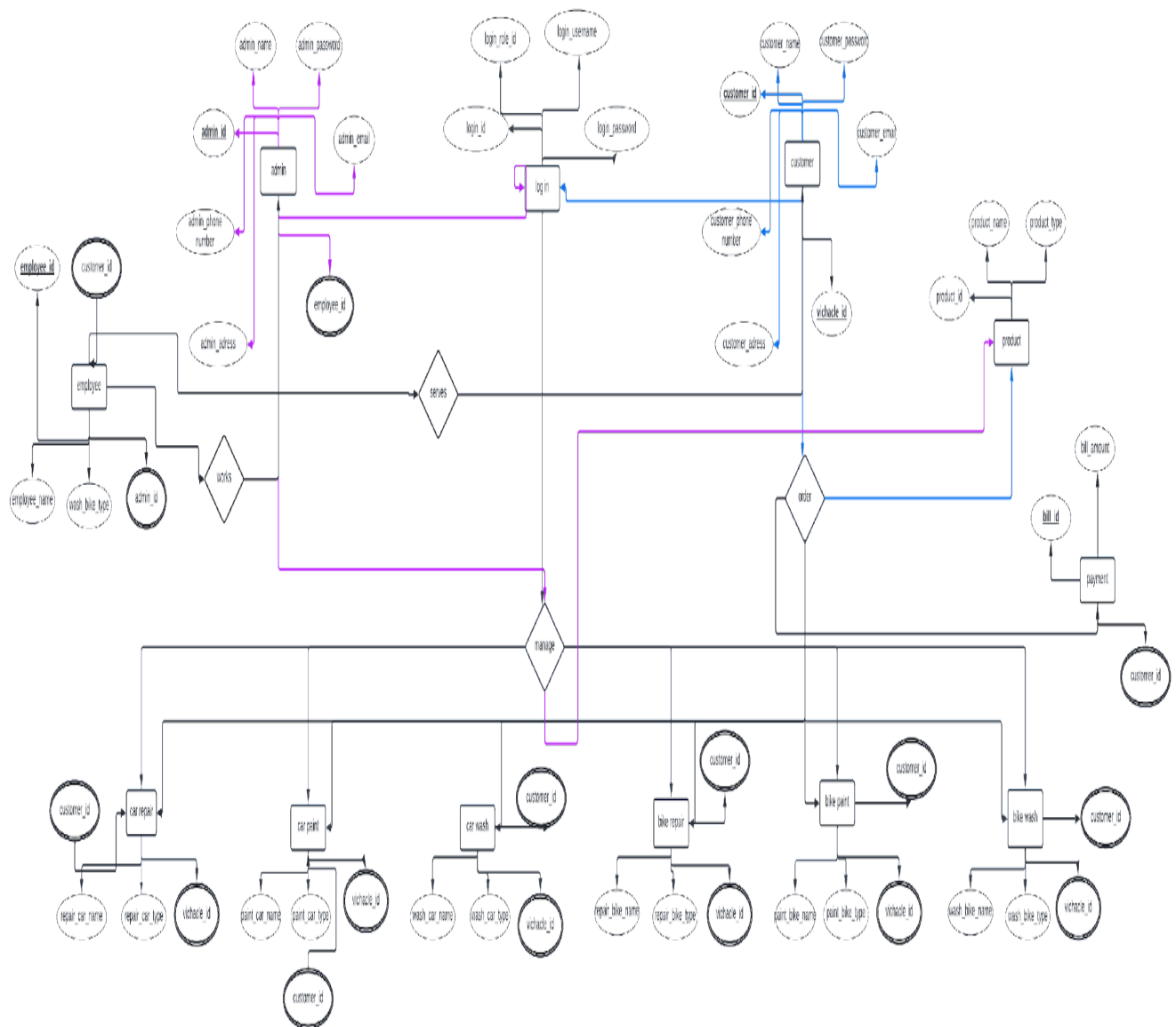


Fig 09: Entity Relationship Diagram

3.5 Design Requirement

This application is designed using Data Flow Diagram (DFD), Use Case, Entity Relationship Diagram (ERD), Activity diagram and with high level programming. Most of the web based applications use the Model, View, Controller (MVC) pattern. There are many different ways to interact with the data and also future activities are unknown. This web based application is designed using three types of logical components like, Model- Manages and associates various operations on Data View- How the data will be shown to the user Controller- Controls user activity such as clicking and passing data to the view and model.

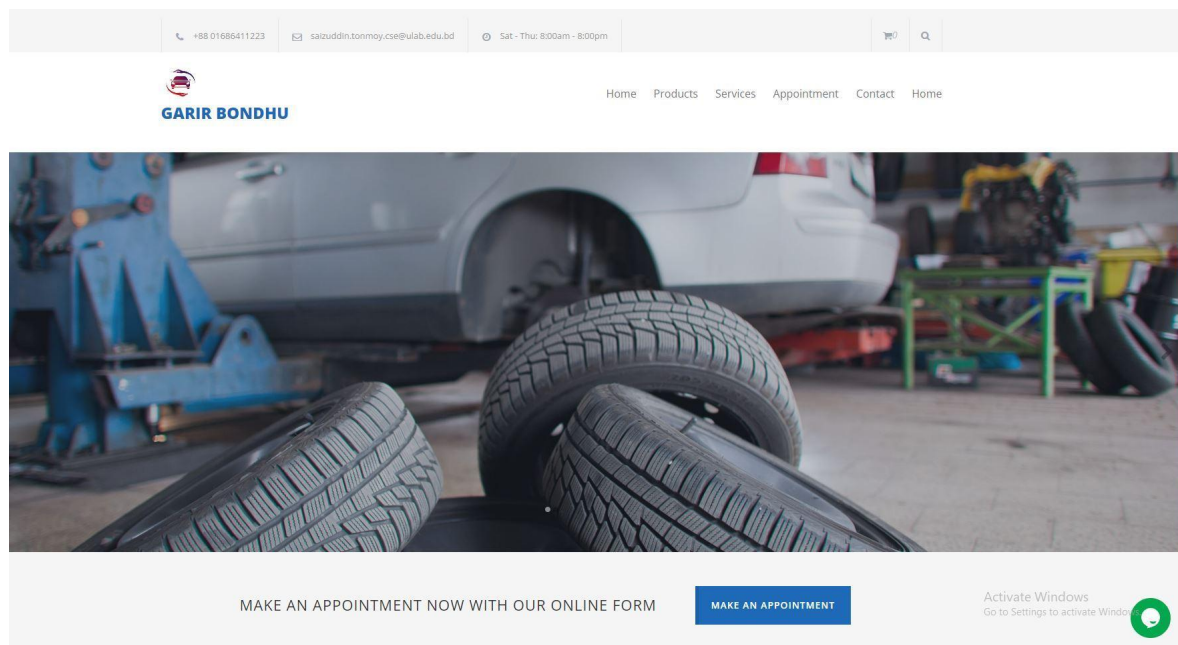
Chapter 4: Design Specification

I followed the Software Development Life Cycle to finish my project (SDLC). The software development life cycle (SDLC) is a method for organizing the design, development, and testing of high-quality software [5]. In this project, I used the software development life cycle (SDLC) to create a plan, then analyze all of the project requirements, and finally design the entire project myself. Then I moved on to the implementation phase, where I tested the entire online based service system website and calculated all the values.

4.1 Front-end Design

Home page:

This is the first page of this website. If the user can enter their website. First, join the website then we can see many things such as some videos of their service so customers can see what kinds of service we are providing and how the work is done so far . we can also see some offer banner or promotional banner.



পেইন্ট করাচ্ছেন?
নাকি ধুলোবালি?

VEHICLES SERVICED

We provide top notch maintenance service for all types of vehicles.
We are certified to service and repair the following makes:

✓ Car:-

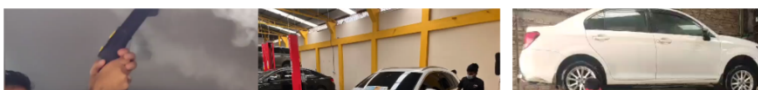
- ✓ General Motors
- ✓ Land Rover
- ✓ Mercedes
- ✓ Nissan
- ✓ Toyota
- ✓ Hybrid

✓ Bike:-

- ✓ Yamaha Motors
- ✓ Suzuki Raver
- ✓ Lifan
- ✓ Pulsar
- ✓ Hero honda
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AUTO REPAIR SERVICES

We offer a full scope of carport administrations to any bike or car proprietors situated in dhaka city(dhaumondi). All repairman administrations are performed by profoundly qualified mechanics. We can deal with any vehicle issue all the time..



WHY CHOOSE US?

We are one of the leading auto repair shops serving customers in all over dhaka city. And most of all mechanic services are performed by highly qualified mechanics.



EVERY JOB IS PERSONAL

If you want the quality you would expect from the dealership, but with a more personal and friendly atmosphere, you have found it.



BEST MATERIALS

We have invested in all the latest specialist tools and diagnostic software that is specifically tailored for the software in your vehicle.



PROFESSIONAL STANDARDS

Our auto repair shop is capable of servicing a variety of models. We only do the work that is needed to fix your problem.

Fig 11: Home page

Header Of The Page:

In the header part we will be able to see the contact number, our email and our business. And in the cart logo we see the how many items are in cart and also we can search for any item if we need anything.

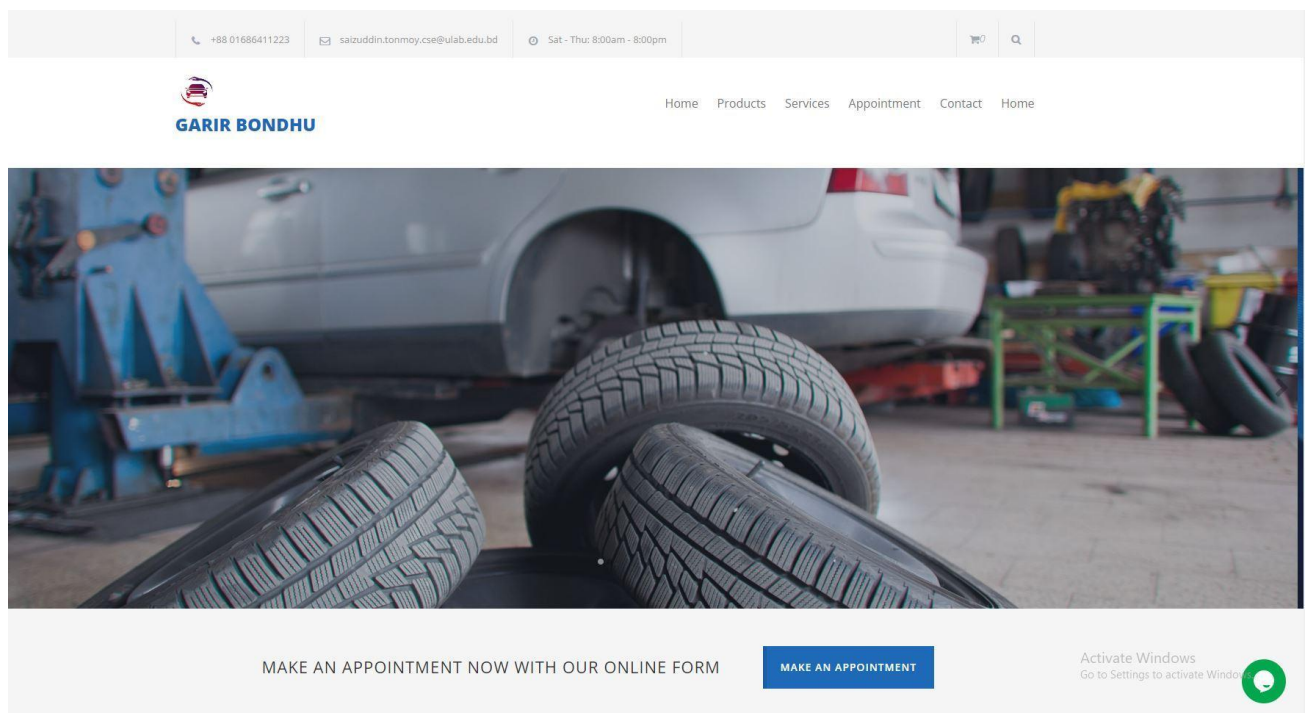


Fig 12: Header Of The Page

Footer Of The Page:

This is the footer for all of the website's pages. People can learn about the companies and acquire some external information in this part. we can see the available days of service. Clients can can Twitter, Facebook , Instagram by clicking those icons also we can see the business hour and week timing.

OUR MISSION

We offer a full scope of carport administrations to any bike or car proprietors situated in dhaka city(dhanmondi). All repairman administrations are performed by profoundly qualified mechanics. We can deal with any vehicle issue all the time.

We offer a full scope of carport administrations to any bike or car proprietors situated in dhaka city(dhanmondi). All repairman administrations are performed by profoundly qualified mechanics. We can deal with any vehicle issue all the time.

POPULAR QUESTIONS

Should I consider using synthetic motor oil?

Synthetic engine oils are produced through a synthesis process that takes very small molecules and assembles them into larger designer molecules with premium lubricating properties.

What parts should be replaced at what intervals?

Synthetic engine oils are produced through a synthesis process that takes very small molecules and assembles them into larger designer molecules with premium lubricating properties.

How do I keep track of routine maintenance?

Synthetic engine oils are produced through a synthesis process that takes very small molecules and assembles them into larger designer molecules with premium lubricating properties.

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Weekdays: +88 01686887649

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- ✓ Lube, Oil and Filters
- ✓ Belts and Hoses
- ✓ Air Conditioning
- ✓ Brake Repair
- ✓ Tire and Wheel Services
- ✓ Other Car Services

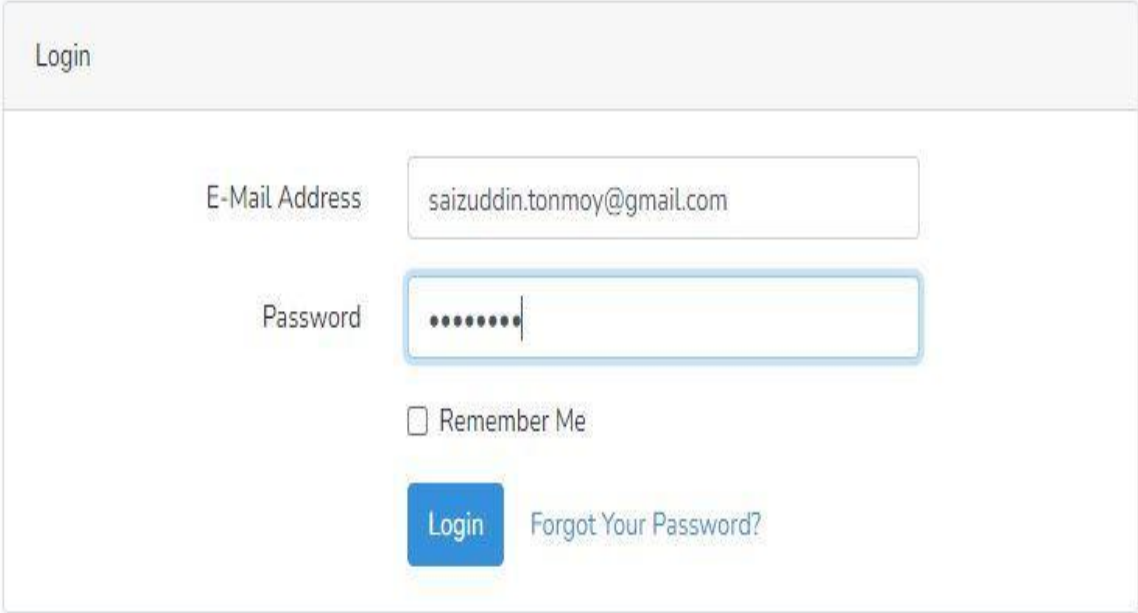
HOURS

Saturday:	8.00 am - 8.00pm
Sunday:	8.00 am - 8.00pm
Monday:	8.00 am - 8.00pm
Tuesday:	8.00 am - 8.00pm
Wednesday:	8.00 am - 8.00pm
Thursday:	8.00 am - 8.00pm
Friday:	Closed

Fig 13: Footer Of The Page

Login Process:

This is the login page on this website. Users can log in to this website from here if they are authenticated users.

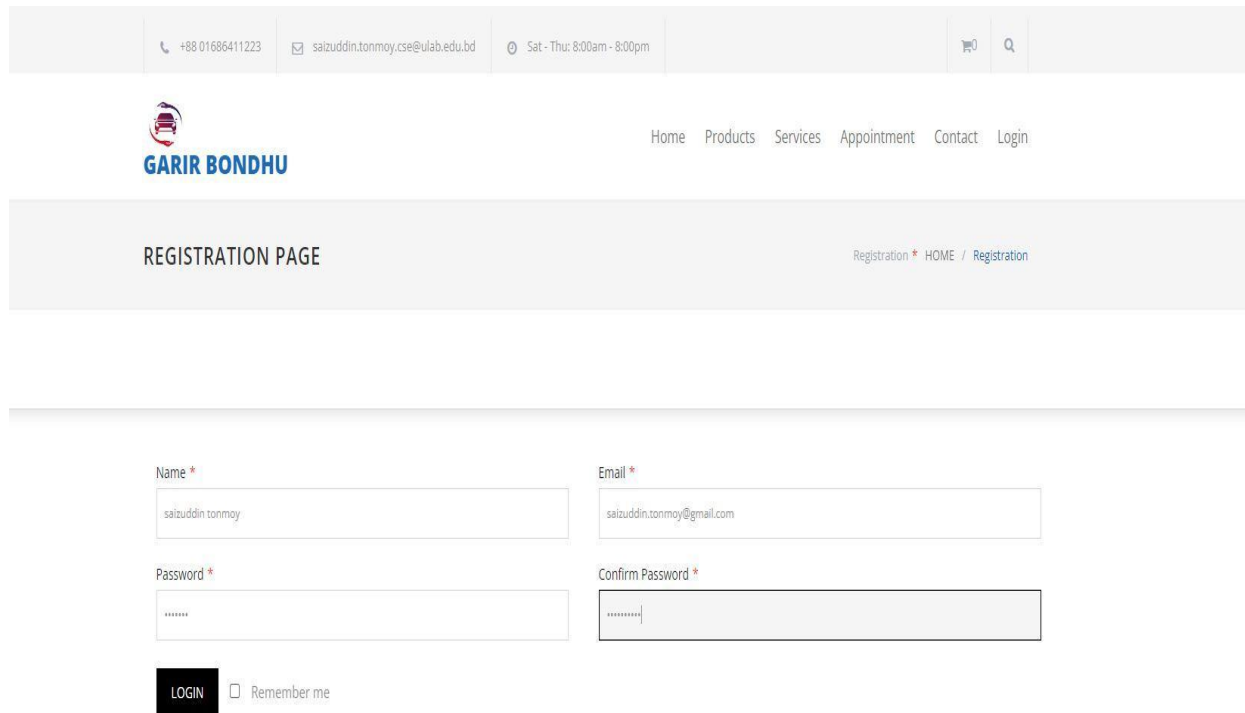


The image shows a login form with a light gray header bar containing the word "Login". Below the header, there are two input fields: "E-Mail Address" with the value "saizuddin.tonmoy@gmail.com" and "Password" with masked characters ".....". A checkbox labeled "Remember Me" is positioned below the password field. At the bottom, there is a blue "Login" button and a link labeled "Forgot Your Password?".

Fig 14: Login Process

Sign Up Process:

This is the signup page of this website. Users must sign up with some valid information if they are not authenticated users or do not have an account with which they will register in database.



The screenshot displays the registration interface of the Garir Bondhu website. At the top, a header bar contains contact information: a phone number (+88 01686411223), an email address (saizuddin.tonmoy.cse@ulab.edu.bd), and operating hours (Sat - Thu: 8:00am - 8:00pm). To the right of this bar are icons for a shopping cart and a search function. Below the header, the Garir Bondhu logo is positioned on the left, and a navigation menu with links for Home, Products, Services, Appointment, Contact, and Login is on the right. A light gray banner below the navigation menu features the text "REGISTRATION PAGE" on the left and a breadcrumb trail "Registration * HOME / Registration" on the right. The main content area contains a registration form with four input fields: "Name *" (containing "saizuddin.tonmoy"), "Email *" (containing "saizuddin.tonmoy@gmail.com"), "Password *" (masked with dots), and "Confirm Password *" (also masked with dots). Below these fields is a black "LOGIN" button and a checkbox labeled "Remember me".

Fig 15: Sign up Process

Live video:

Here is the live video of the service which we can perform. clients can see the video clip and get a idea of what kinds of service are they getting from this web site.

AUTO REPAIR SERVICES

We offer a full scope of carport administrations to any bike or car proprietors situated in dhaka city(dhanmondi). All repairman administrations are performed by profoundly qualified mechanics. We can deal with any vehicle issue all the time..

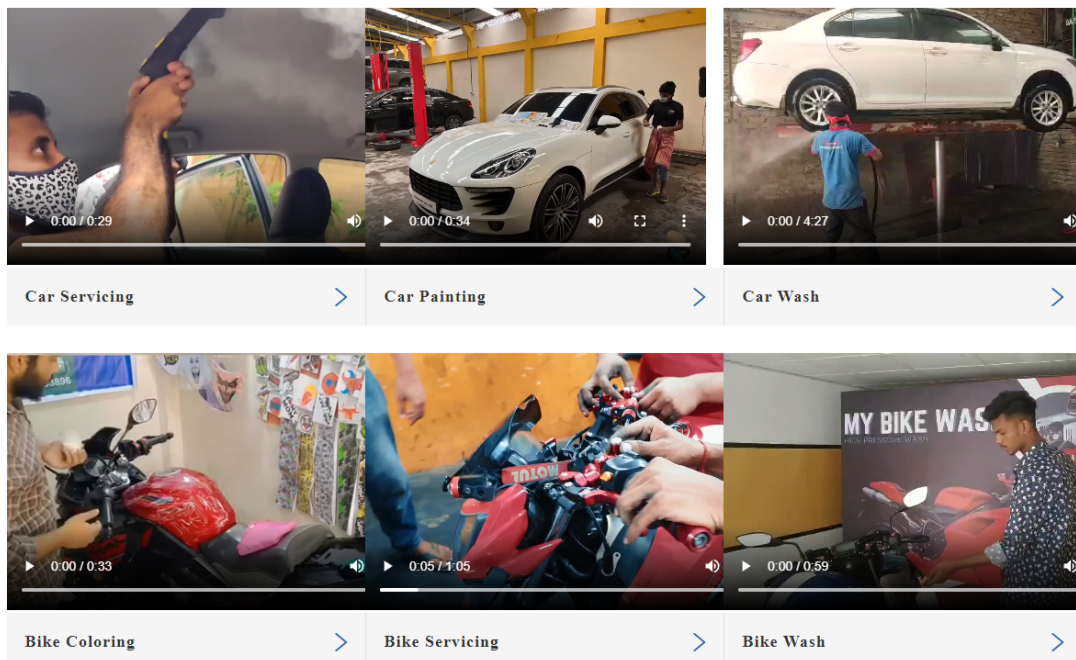


Fig 16: live video

Quick Service Process:

This is our quick service station, just by clicking these images we get some idea about the services and get a quick service from this site just in a couple of minutes depending on service so extra chat no extra hustle.

Quick Bike Service



Quick Car Service



Fig 17: Quick Service Process

Servicing Page :

Here is a main servicing page of our web site. Customers can order services just by clicking a page. here we can see the price list of the service which people can get from our site.

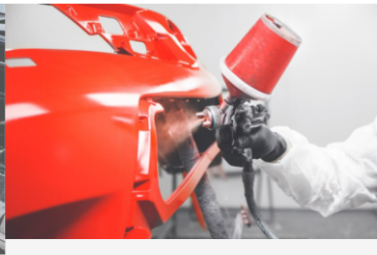
		
Car Wash (300 TK) >	Car Service (300 TK) >	Car Coloring (300 TK) >
Our automated Full Service Wash is a more traditional car wash. Our tunnels are equipped with the industry's latest car wash equipment and use only the finest soaps and wax available. With a full service, your car will receive an interior vacuum; a thorough cleaning of the car's interior and exterior windows; the dash & door jambs; and center console are all wiped down. The entire process only takes 15 minutes or less. (Windows Cleaned, Interior Vacuum, Dash & Door Jambs Wiped, Full Service Wash).	* Administering the mix of colors and ensuring that they match with colors and ensuring that they match with original color * Applying primers and repainting surfaces with the use of spray guns * Polishing the car by wet-sanding and buffing when the paint is dried * Ensuring that certain portions of the vehicle are masked with tape and paper to ensure that each part of the car is painted correctly when using multiple colors. * Properly maintaining paint booth by replacing filters and fan belts when necessary	Our major tasks are : * Using materials such as lacquer, resin, and so on to paint surfaces of vehicle units. * Getting rid of dirt or grease from vehicle surfaces and ensuring that the vehicle is well prepared and ready for painting * Removing old paint with the use of liquid paint remover, scraper, or other effective techniques * Carrying out a proper examination to see if certain parts of the vehicle need to be replaced, protected, or sanded to ensure that painting is properly done * Testing the car's battery condition
		
Bike Wash (300 TK) >	Bike Painting (300 TK) >	Bike Servicing (300 TK) >
* Administering the mix of colors and ensuring that they	Our major tasks are : * Using materials such as lacquer, resin,	Our major tasks are : * Using materials such as lacquer, resin,

Fig 18: Servicing Page

Booking Appointment page :

Here is the appointment booking page where customers can book appointments .customer can write their name and their type vehicle and vehicle name and also write additional info about their servicing.

BOOK AN APPOINTMENT

VEHICLE Category

Choose... ▼

VEHICLE MAKE

Choose... ▼

VEHICLE MILEAGE

Vehicle Mileage

PREFERRED DATE OF APPOINTMENT

Preffered Date of Appointment ▼

PREFERRED TIME FRAME

Choose... ▼

SELECT SERVICES NEEDED

☐ Air Conditioning

☐ Brakes Repair

☐ Engine Diagnostics

☒ Heating&Cooling

☒ Oil, Lube & Filters

☐ Steering&Suspension

☐ Transmission Repair

☐ Wheel Alignment

CONTACT DETAILS

Your Name *

Your Email *

Your Phone

Additional Questions or Comments

SUBMIT NOW

Fig 19: Booking Appointment Page

Product page:

This is the product page of our website .Customers can see the product and their page and also there is a detail about the product when we hover around the product image.

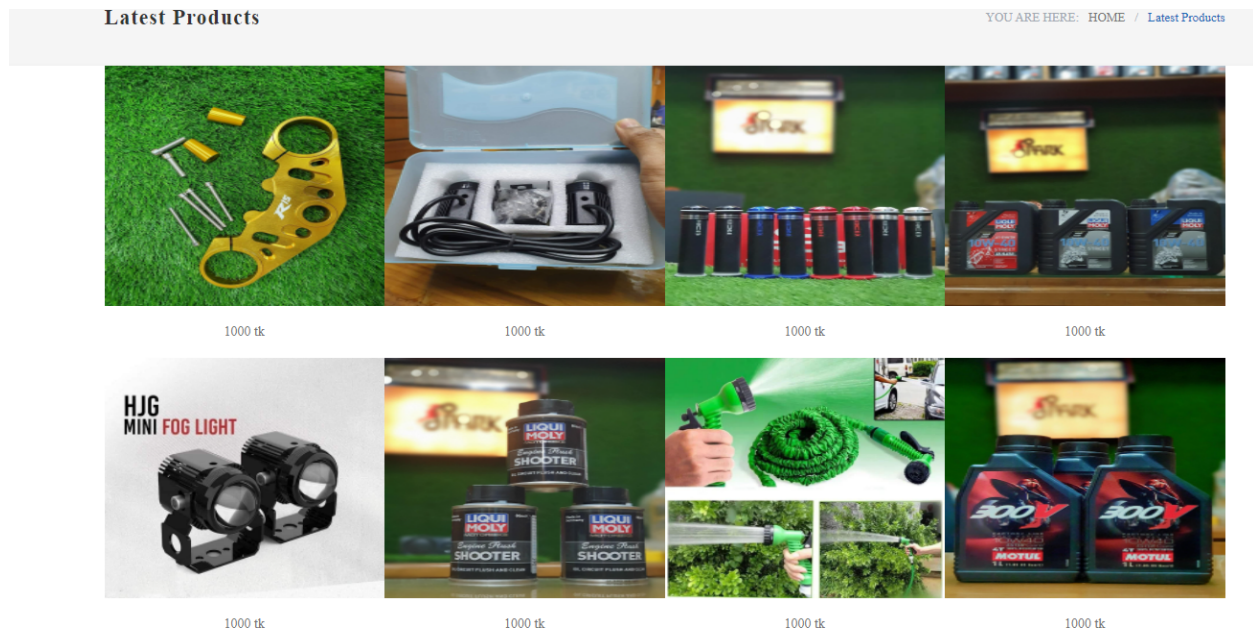


Fig 20 : Product Page

4.2 Back-end Design

Here we can have tables of the data like appointment, carts, order, order_details, products and users table. user can also create new tables from this database according to their needs.

Table	Action	Rows	Type	Collation	Size	Overhead
☐ appointments	★ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
☐ carts	★ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
☐ customerinfos	★ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
☐ failed_jobs	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
☐ migrations	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
☐ orders	★ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
☐ order_details	★ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
☐ password_resets	★ Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
☐ products	★ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
☐ shippings	★ Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	16.0 KiB	-
☐ users	★ Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	32.0 KiB	-
11 tables	Sum	20	InnoDB	utf8mb4_general_ci	224.0 KiB	0 B

☐ Check all

With selected:

Fig 10 : Database Schema

4.3 Interaction Design and User Experience

Subsequent to opening the application, clients can see the landing page and all clients can enroll or sign in to the web application. The client can actually look at the strength of the secret word. Clients can look for vehicle services on the website, buy products, add home data, complete requests, view order history, and view payment history. You can see it, add a photograph of your home, or view a photograph of vehicle service. Check the advantages and book and get messages. Subsequent to finishing every one of the above activities, the client can log out of the framework and return to the landing web page.

4.4 Implementation Requirements

The following are the development requirements:

Requirements for software:

- Operating System: Windows 10
- IDE: repl.it, Notepad++
- Database: MySQL, XAMPP, VS CODE
- Front End: HTML5, CSS3, JavaScript, Bootstrap 5
- Back End: PHP
- Browser: Chrome or Firefox or Microsoft Edge

Hardware Requirements:

- Processor: Intel core i5
- Processor speed: 2.70 GHz
- RAM: 8 GB

Chapter 5: Implementation and Testing

5.1 Database implementation

Names of Schema Tables:

1. user
2. product
3. orders
4. order details
5. payment
6. service

1. User

Table1 is the registration table where user and admin data are kept registered for the additional log authentication and tracking users' payment history, order history and other activity via their email addresses and password. Id is the primary key in my system.

Table 2: User Table In Database

Column	Type	Size
<u>id</u>	int	11
First name	Varchar	255
Last name	varchar	255
email	varchar	255
Home address	varchar	255
Contact no	int	11
password	varchar	255

2. Product

This is the product table for the different categories where all products and different categories of products are stored and the primary key is p_id

Table 3: Product Table Database

Column	Type	Size
<u>p_id</u>	int	11
category	varchar	255
name	varchar	255
price	double	10,2
image	varchar	255

3. Orders

This is the orders table where all the different users and client order histories are stored.

O_id is the primary key and id is the foreign key here.

Table 4: Order

Column	Type	Size
<u>o_id</u>	Int	11
address	Int	11
Phone no	Int	11
id	int	11

4. Orderdetails:

Order details are used to keep track of each user's orders and history, as well as the products

they select. od_id is the primary key, and o_id and id are foreign keys

Table 5: Order Details

Column	Type	Size
<u>od_id</u>	Int	11
p_id	Int	11
quantity	Int	11
id	int	11

5. Payment :

A payment table is used to keep track of users' payment information for various payment methods to store information. The primary key in this schema is pay id, and the foreign keys are o_id and id.

Table 6: Payment

Column	Type	Size
<u>pay id</u>	int	11
o_id	int	11
transaction_id	Int	11
id	int	11

6. Services :

This is the service table that stores all service information. services_id is the primary key in this schema.

Table 7:Services

Column	Type	Size
<u>Service id</u>	Int	11
name	Int	11
price	Int	11

5.2 Implementation of Front-end Design

First an user need to click on login by providing username or email and password, then this will redirect the user to log in page, and then the user can successfully log in but if an user is not registered from before then the user need to do registration by providing username, first name, last name, password, email, phone number. Then the user can login to the web application. and users can search, message, book appointments, can pay online and log out from web apps. All these things I found in my user experience.

5.3 Test Results and Reports

- After analysis I have found that I have successfully developed all the features that I wanted in my project.
- As a web application developer I have learned how to develop a web application using frameworks such as Laravel.
- In my web application I worked with HTML, CSS, PHP, Laravel and The language (php) I used here is one of the most demanding languages used today. I have learned why it is better and easy to implement and also i checked everything and tested that every feature works nicely.
- I found this site is very responsive and also user friendly .

Chapter 6: Impact on Society, Environment and Sustainability

6.1 Impact on Society

A website should be built for the benefit of all stages of social people and also have some impacts on society in any country. Building an online based service website or an e-commerce website with easy UIX protocol where the main motive is to help the customer and relieve their extra hassle of buying the vehicle goods and parts of necessities and vehicle service online will also improve the website quality as it's time-consuming for them. What the customer's want on their busy occasion and what are their necessities to service or improve their vehicle is only our main goal to reach out their satisfaction with our honesty. This website will bring them some options to service their bike and their cars according to their own choice or by help of our expert. Customers also get their notification from the website so they can be reminded about their purchase or special discounts.

As this project is time-consuming for their customers, its customers can relax. This website also brings an option of book appointment to the website where some of the customer service providers will help them to know what they are needing and what kind of service the customer wants. Also there are categories that basically give a way more opportunity to all categories of people in our society who are busy in their daily life, it will reduce their pressure to find and buy their necessity item into the market which may take a longer time to find all on their own. This website gives an opportunity to buy the service at different ranges like -the lowest amount like 250/= BDT and also offers a high ranged service which is at 40000/= and more than that.. This website is available for all kinds of people who are eagerly waiting to upgrade their cars and bikes. All the people from the society can be helpful from this website is our main goal. To serve the society and their people, we support them with every kind of bike and car service.

6.2 Impact on Environment

This online based website always focuses on people's needs and their happiness. Regarding the budget issue, this project has been developed as a budget friendly project. From this perspective, people who are actually struggling in managing their family, it is very hard to manage some extra budget to upgrade or service their vehicle. We, through this website, are offering them some budget friendly packages and services for their car and bikes and other necessities. Some extra functionalities of this project also make this website an user-friendly project to use as this is a responsive website with an easy user interface for all ages of people. This is all about the project purpose .i have found this project has no other issues which could be bad effective to our environment, so we may call this website an environment friendly website as this has no issue regarding the climate and environment regardless it helps the environment cause 2% penny that is comes from this project will be donated to plant tree .

From the previous section where we have discussed the benefits for the society which are being provided by this project(GARIR BONDHU).This project aims to be helpful from every aspect of people's life, like socially, financially and also environmentally in every way. We wish people were more kind financially and socially, but we are currently considering some future changes to our business model that will be beneficial to the environment in my opinion. For example, we will consider minimizing our usage of plastic and increasing our use of jute-based items created by our people. Jute bags are extremely beneficial to the environment And furthermore the wastage coming from every vehicle we will burn it in hidro foblo factory so that minimum carbon footprint can be seen .Following the foundation of our project, we will begin to use jute bags, with the elimination of plastic being our sole environmental goal. This demonstrates that our project is environmentally beneficial, which is a source of pride for both the country and us. During this corona epidemic, we can say every mechanics of our garage will be cover their face with mask, gloves, sanitizer and follow safety protocol

6.3 Ethical Aspect

Each organization that follows the right morals can make their ideal progress. The equivalent might be said for project advancement, which has seen extensive achievement on account of their moral standards. I have planned this project as an easy to understand website that advantages individuals on a social, monetary, and natural level. Additionally, on the grounds that this venture will work in our current circumstance, it will be an ecologically gainful undertaking. We had the option to keep up with the data set secure with the client data when we carried out this web project. To keep client id, name, and certain secret data safe, we utilized some hashing calculations. Our clients will offer this data, and they esteem the security of their own data from us, for example, their telephone number, secret phrase, financial balance, or bkaash repayment gateway). Subsequently, when we save the entirety of the information, we will utilize a technique and a specialized answer to protect them from any sort of hacking. However there are a few techniques for welcoming the server down on our site, we will involve them in case of any type of rowdiness or outer data set hurt.

The methodology of giving excellent and enduring vehicle service and products and conveying it on time will likewise be a moral thought for our undertaking. With our trustworthiness, we guarantee the customers and consumers that they will get dependable, great on time.. We likewise give them the decision to drop their membership if they never again have any desire to purchase any things or any kinds of service from us. We are not constraining people to buy into us for a lengthy time frame without their assent, as seen by their activities. We'll likewise take a gander at their conduct on our web site and check whether we're furnishing them with satisfactory help with our FAQ requests. The solutions to the FAQ questions will be stamped, and we will monitor their choices. The extraordinary boxes are intended for their one of a kind dietary inclinations, permitting them to pick service or book appointments and many products in view of their spending plan and membership. This procedure is fantastic, easy to use and might be utilized to satisfy people from varying backgrounds in our country. We will likewise give extraordinary limits all through the occasion to urge people to purchase many many different kinds of vehicle based products

6.4 Sustainability Plan

The expression "Sustainability plan" alludes to an assertion about how we will keep on serving the local area and our clients over the course of time. We picked a theme in which individuals, everything being equal, can get fulfilled help from us, permitting us to continue on in this undertaking for an extensive stretch. To satisfy their hearts, we intended to keep our service and p[roduct to a quality full and amount total plan. Prior to leaving on this undertaking, we gathered information of more than 100 individuals to find out about their inclinations and understanding about service websites.

We inquired as to whether they knew about this sort of administration, and assuming this is the case, what sort of administration and item they wanted. Then, at that point, in the wake of getting some criticism, we incorporated this task and endeavored to integrate their ideas into our site. Then, at that point, we had the option to disseminate a few FAQ surveys to check whether they were content with our administration and look for new updates to the service. Assuming that they answer emphatically, we will actually want to achieve this; on the off chance that they don't, we will ask them how we might fulfill their hearts. We will ask about their inclinations, as well as their satisfaction with the nature of administration and the conveyance technique.

Chapter 7: Conclusion and Future Scope

7.1 Discussion and Conclusion

This online-based site offers an assortment of online vehicle service and vehicle products that need bundles in different cost levels. This site was made for individuals from varying backgrounds in Bangladesh. This task's plan was finished utilizing HTML and CSS. We utilized a MySQL information base and made the backend with JavaScript and PHP(LARAVEL). Client and administrator are the two clients. Thus, we made a site for them both and entered their data into an information base. We endeavored to address the client's security worries by guaranteeing that they approached all private data, for example, their telephone number, address, bundle subtleties, and password and unique key. This is basic for them to trust in our administration and come out as comfortable with our organization.

We made heaps of certain bundles too. They can redo their groups/bundles from the site in the wake of signing into the site. Accordingly, individuals can acquire assistance with their monetary issues. We likewise need to give the greatest supports conceivable, hence all things will be given adequate tidiness. Individuals expect this fundamental neatness during Corona season and we esteem working with solid help. This venture has an extremely easy to use front end, simplifying it to get a handle on the basics of our site. We will likewise make a FAQ structure to gather input from our clients so we can draw in with them. We will examine the issue and endeavor to determine it. Communicating with clients will help us in continuously developing our site. Individuals will be satisfied with our advancement because of those activities. Ideally, everybody will appreciate cooperating with us, and our online-based help will be productive by its own doing.

7.2 Scope for Future Development

During the implementation phase of the website, there are several obstacles. Following the completion of a website and its publication, we may face a slew of new challenges. We've already constructed a website on which we've implemented practically all of our plans. We intend to create an auto detecting error system for customers to buy in the future. This type of detecting system would be beneficial in informing customers about their vehicle health process and assuring them of the quality of their vehicle. They will also be notified when the vehicle faces a problem and will not have any concerns in due time.. From time to time, they will be in control of everything.

We'll also include some more categories of items that are for very luxurious vehicles and will be available for the higher budget people or people who want to buy them. Because some luxurious items and cars/bikes are not available in our local store, we will continue to stock them. Some people value items that are not available in our nation, such as some luxurious mirrors , some key chains for bikes/cars to reflect each color and some other things. We will ask the customers about their choices and if possible.

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