NEXT GEAR - A WEB-BASED APPLICATION TO COMPARE BIKE PRICES ON THE BANGLADESHI E-COMMERCE WEBSITE

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This report is submitted in partial fulfillment of the requirements for the bachelor's degree in Computer Science and Engineering

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APPROVAL

This Project is title: "**Next Gear -** A Web-based Application to Compare Bike Prices Bangladeshi E-commerce Website", submitted by **Proshanta Chandra Roy** ID No: **191-15-12487**, **Mehedi Hasan** ID No: **191-15-12608**, and **Md. Nazmul Hasan** ID No: **191-15-12840** 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 the 25th of January, 2023.

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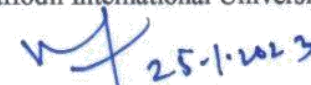Faculty of Science & Information Technology
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We hereby declare that we have carried out this project under the supervision of Fahad Faisal, Assistant Professor, Department of CSE Daffodil International University. We also declare that this project or any part of it has not been submitted elsewhere for the award of any degree or diploma.

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ABSTRACT

Our project title is Next Gear - a web-based application to compare bike prices on the Bangladeshi e-commerce website. It is an online web application where people can easily compare motorcycle prices on various e-commerce websites. We know how important the bicycle is in this period. We cannot think the speedy transportation in city life without a bike. If people want to buy a motorcycle, they go to a motorcycle shop and select a bike for buying. Or, people see any bike on road and select the model for purchasing and finally purchase the bike from any random brand shop. Sometimes, some brand shops give some discount occasionally. Without this case, the price of the same model and configuration bike have a difference in different places. So, the buyer does not get the most less price for the bike. As a result, buyers suffer financially. We know every single piece of money is important for general people and every decision is valuable. Here we are ensuring the best decision and save valuable money for consumers. On our website, people will be able to compare bike prices and configurations at a time on a page. After deciding on the bike, they will be able to take the bike at fewer prices in Bangladesh. As a result, general people will helpful and careful for buying a bike. On the other hand, the dishonest seller will not sell their bike for more prices than the actual price. Sellers will not able to syndicate in a specific area because everyone will know the actual price of a bike by our web website

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Our project is a web-based application to compare bike prices on the Bangladeshi e-commerce website. We know the importance of motorcycles in this modern science. We cannot think of a single day without a motorcycle in city life. The number of registered bikes in Bangladesh is 375,252 till 2021 and the number of bikes in Dhaka city is 57,631 till 2018. It's increasing day by day. We have noticed that buyers of motorcycles are facing some problems to buy a bike like fraudulence, unable to decide on the best bike within their budget. Besides, everyone doesn't know about all the online platforms where bikes sell all over Bangladesh. Buyers get many offers and discounts from this platform because buyers get the bike from the brand shop directly, not from resellers. Here, there is no fraudulence. Every site is genuine and honest, they provide good service. Sometimes, buyers face other problems like not getting their chosen bike color and getting a single-channel or dual-channel dish with ABS or Non-ABS. Through our given sites, buyers will get all categories of their chosen bikes. There are a lot of sites where bikes sell online but they do not give service like our site. We are the first one who gives this kind of different service considering buyer's problem. We develop the web site to reduce these problems. People using our website can decide on the best bike with the lowest price in Bangladesh.

1.2 Motivation

Owning a motorcycle not only gives you the joy of riding in the great outdoors, but also offers other benefits such as affordability, better fuel economy that can save you money on gas, and easier maintenance. The main device of the motorcycle is to reduce the waste of time in a city like Dhaka. So, for this reason, people buy bikes more than other vehicles. Our main motive in this project is:

Save people's time: If people want to compare bikes, they have to go showroom and need to know the price, and configuration from the seller. In this case, consumers can face dishonest sellers or fewer experience sellers. As a result, buyers will not get all-true information about all bikes. In 2nd case, if any people want to know about any bike, he has to visit so many motorcycle websites which is quite impossible for everyone because everyone does not know about all motorcycle web site. All in all, people need a lot of time. On our website, people will find these problems solutions and they will be able to save valuable time.

People should not be deceived: Now-a- days motorcycle buyers facing fraudulence. Some dishonest seller creates syndicate system in a specific area. For this reason, general people are forced to buy their needed motorcycle with extra money which is not fair. In this situation, people will be able to know the all-available bikes in Bangladesh. As a result, sellers will not create any kind of syndicate because of people's awareness. So, by using our website people will not face any kind of fraudulence.

People can check more easily and buy: Everyone wants to buy their bike as the best bike within their budget. We know a proverb that "Act by thinking, do not think by doing." We should research, and know about anything before implementing or buying as if we do not have to regret it. On our website, everything is crystal clear, people will able to compare prices and specifications between two bikes. Finally, people will be able to make the best discussion. So, people can check more and more easily and buy their dream bike in a short time.

1.3 Objectives

People can't compare the various model of motorcycles in one place. On our website, people will be able to compare motorcycle prices, configurations, outlook, brands, etc. in one website easily. General people face fraudulence when sellers create a syndicate. People will able to know about the condition of bike's prices all over the country. At the same time, sellers will aware to do not fraud with people because of people's awareness. Sometimes, all colors do not available in any area. At this time, people will able to search the color all over the country. As a result, the buyer will get his dream bike. These

modern bikes, bikes have single-disk ABS systems and dual-channel ABS systems. People buy these kinds of bikes depending on their budget and desire. If anyone does not get his desired bike in his area, he can search for the bike on our website and can get his desired bike. Besides, some people want to buy an old model or version of a bike or a previous version that is not available in their area. In this situation, he can search our website and he can get the bike if it's available the last piece is in Bangladesh too.

1.4 Expected Result

The expected results of this project are:

Buyers will be able to search for their expected bikes and find their bikes within a short time.

Buyers will be able to compare make, model, configuration, prices, etc. in a short time. Users will be able to see all bike categories without any hassle

Customers will be able to inquire about the current price list of their manufactured products.

People will be able to find any old version or previous version if it's available the last piece all over Bangladesh.

Sometimes, the desired color of a bike can be unavailable in any area. In this situation, people will be able to find out the desired color if it's available in Bangladesh. Some bikes have single-disk ABS systems and dual-channel ABS systems. People buy these kinds of bikes depending on their budget and desire. If anyone does not get his desired bike in his area, he can search for the bike on our website and can get his desired bike.

Some dishonest sellers create a syndicate and increase the price of a bike in an area. In this case, people will be able to search for their desired bike and buy the bike from another area. As a result, the buyer will not face the syndicate.

1.5 Report layout

Chapter 1, We discuss the necessity of our project. Here we are covering the introduction, Motivation to build this project, Objective, and Expected outcome from our project.

In chapter 2, We have covered the background reason to choose this project, relative studies, the scope of the problem- the problem buyers face, and the main challenges to completing this project have described.

In chapter 3, here we have described the raw requirements to build this project. Firstly, we have analyzed the needed requirements, classified functional and non-functional requirements, system interface, user interface, communication interface, requirement hardware and software, design requirement language, and framework.

In chapter 4, we have covered explaining the user interface and admin interface.

In the user interface, there are homepages, product sections, and details of the product, comparison between two bikes have been explained. In the admin panel, there is a login interface and data input form.

In chapter 5, we have explained the implementation of the dataset, integration, and testing.

We have covered chapter 6, the conclusion part, the limitations of our project, and the future scope of what we will do for consumers in the future.

CHAPTER 2

BACKGROUND

2.1 Introduction

Some websites selling bikes online like bike bd, banglamotor.net, bd price.com, motorcycleballey.com, classyprice.com, motorcycle fair.com, deshibiker.com, new-bike-bd.com, and motor-cycle.com.bd. They just sell bikes on their website. Buyers can't compare models and prices like our website. On our website, the buyer will be able to compare models and prices easily which is needed for a buyer. On the other hand, we know that the more sellers a product goes through before reaching the consumer, the higher the price of the product. If we can buy the product directly from the seller, the price of the product will be lower. Similarly, if we buy a bike from a local dealer, the price of the bike will be higher. If we buy the bike directly from a dealer or brand store listed on our site, the price of the bike will be lower. Most people do not follow this strategy. We thought about bridging the gap between entry-level customers and resellers and finally came up with the idea of NEXT GEAR. NEXT GEAR focuses on providing an online platform that enables our customers at the root level to communicate directly with dealers in cities. The importance of motorcycles in this modern science growing rapidly. Will provide vehicles related to bicycles. It will acquaint them with the current price of similar bikes prices in different places, provide them with solutions to their queries, and soon. In addition, people do not focus on the prices or benefits of branded stores that retailers have. People will be able to avail this kind of offer or discount directly from the retailer or brand store. Our website will provide maximum convenience to the consumer. People need to be aware and aware of scams.

2.2 Relevant Studies

There are lots of motorcycle online selling centers in our country. They sell their branded motorcycle. Some online sellers sell various kinds of brands. These selling centers sell

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bikes, helmet, parts, etc. like banglamotor.com, daraz.com.bd, bongshal.com, etc. sells various types of bikes and the price of a similar bike is different on different platforms. So, it's almost impossible for everyone to know about so many online bike sale centers that will provide less prices than other platforms. It contains many categories that are beyond the use of 5 and the understanding of ordinary people. In fact, these sites are not as user-friendly as they might be to compare bike specs. Buyers need a completely user-friendly platform that they can easily use and provide them with an easy surplus to buy at a lower price in Bangladesh and sell their wishes. There is no website which gives facilities like ours. Every selling center shows its own strategy, rules, prices, etc. not give the consumer the best option or service. So, we are ensuring the low prices and best service with our project "NEXT GEAR."

2.3 Scope of the problem

Bangladesh is a developing country. Most people are unable to research anything. They are unable to find the best bike within their budget. Normally they o to the market and look for a few bikes which are available in their area. Sellars help them to know about the specifications of a bike. In this case, some dishonest sellers give wrong information for selling their bikes. Even the dealers charge higher prices for the bike which is not fair. On the other hand, to view modern bikes or newly arrived bikes, the buyer would have to go far which is a waste of time as it is a waste of money. If we have an e-commerce company, people from all over the country can easily buy bicycles at home. In conclusion, we can say that the new e-commerce organization has its advantages and disadvantages. All the developed countries of the world now rely on e-commerce. So, we should forget the difficulty and think about the development of the country and build such a platform.

2.4 Uniqueness from Existing Relevant Websites

The existing e-commerce site of Bangladesh offers its own price on its websites. For this reason, buyers should know the price of a bike by visiting

existing websites individually. From our website, buyers can know the price of a bike for all existing websites at a time easily. As a result, buyers save valuable time, and by comparing buyers could also save money. From figure 2.1, we see Suzuki GSX-R150 sells on classyprice.com at 4,14,950 taka, and bikebd.com sells that bike at 4,29,950 taka. From our site, users can see all prices at a glance.
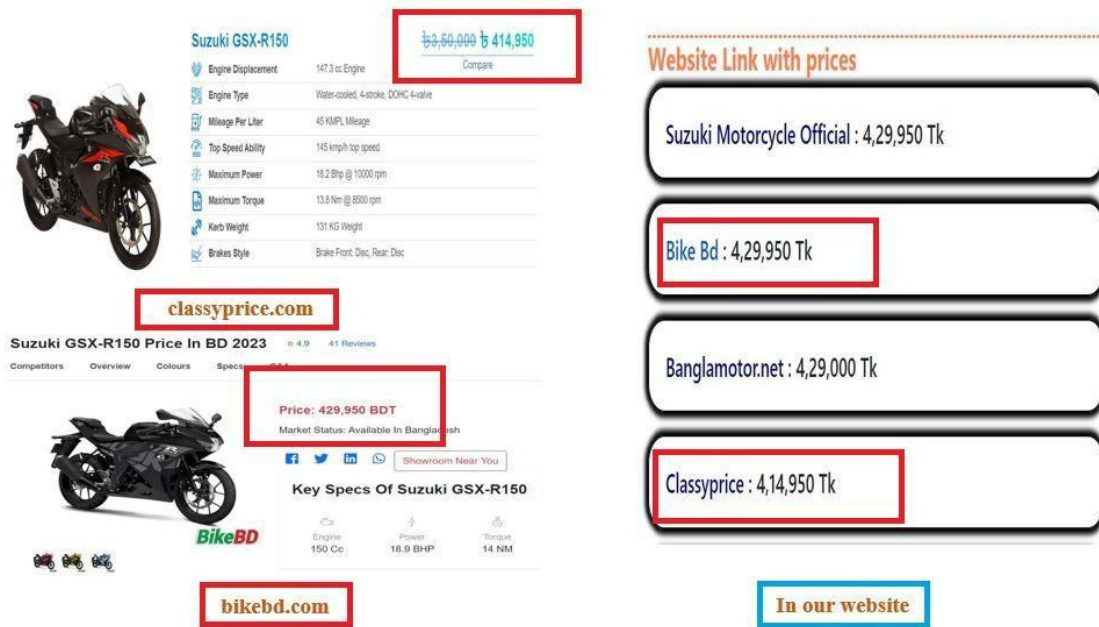

Figure 2.1: Comparison with existing relevant sites in Bangladesh.

2.5 Main challenges

The biggest challenge is enabling our customers to use the website.

Reaching the customers at the root level and getting their information is a big challenge.

Making the website more user-friendly is a big challenge.

Buyers are not able to compare more than 2 bikes at a time. So, we also will build this feature.

There is no way to search for bikes with a budget. We will add a feature where buyers will search bikes by their budget and they will able to see all bikes near their budget in the future. Then they will be able to compare bikes easily.

We will add a feature where all branded upcoming bike's pictures and features will be updated. As a result, the buyer will be able to see upcoming bikes and buy their dream bike.

In the future, buyers will able to pre-order the upcoming bikes for any kind of brand.

Helmets, gadgets, and parts items will be added to our website in the future.

CHAPTER 3

REQUIREMENT SPECIFICATION

3.1 Requirement Collection and Analysis

We followed the agile methodology to implement our site. The significance of Agile is abrupt or flexible. "Agile process model" refers to a spreadsheet growth approach based on repetitive happening. Agile plans break tasks into tinier redundancies, or parts that do not straightforwardly include enduring planning. The project purview and necessities are laid down at first of the happening process. Plans concerning the number of redundancies, the event, and the scope of each redundancy are clear earlier. Each redundancy is deliberate as a brief period "frame" in the Agile process model, which usually ends from one to four weeks. The separation of the complete project into tinier parts helps to underrate the project risk and to defeat the overall project childbirth opportunity necessities. Each iteration includes a crew active through a complete operating system incident biological clock containing preparation, requirements reasoning, design, systematizing, and experiment before an active brand is shown to the customer.
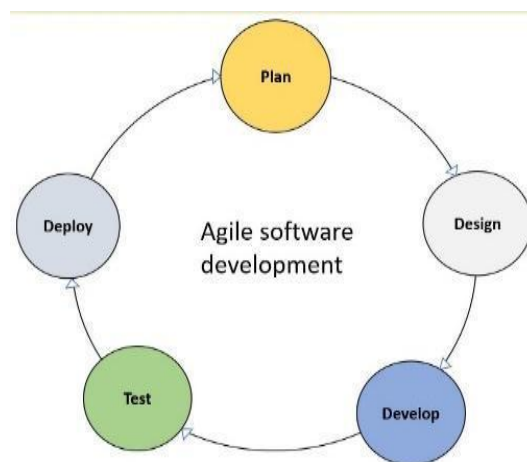

Figure 3.1: Agile methodology

3.2 Functional Requirement

Collect data from existing e-commerce websites.

Show price list based on individual bikes.

Provide valid websites link.

Compare bikes with each other.

Easy to check price.

Can browse specific e-commerce websites as the next gear given.

3.3 Overall Description

In this section here, define the capabilities of this site and the features and disadvantages that would also be displayed by the specialized assumptions of the initiative.

3.3.1 System Interface

The system interface establishes a physical connection between the user and the server. To take inputs to form the user and to provide the output according to the input. The user can find products and can compare which company sells at the lowest price and can visit that website. Users can also compare bikes with features and prices. Admin can add bikes and can customize the database.

3.3.2 User Interface

The indispensable content we have attracted is about the miscellaneous bike sale associations and their bike directory. The makeup is as natural to use as we implement it in the design. Users can visit our site through the site link. The construction of login for admin is natural. When consumers visit our site, they take three links, and from this to show output click on produce alternative and therefore surely check.

3.3.3 Hardware interface

Our project is a netting request. So, skilled is no exceptional instrument connect type wanted for this arrangement. If we increase any part later, we will adjoin it at another time.

3.3.4 Communication Interface

Transmission Control Protocol or Internet Protocol (TCP/IP) is the default habit to transfer dossier betwixt a client and a network PC and can write 'tween the consumer and the attendant.

3.3.5 Memory Constraints

Memory is the process of taking news from the surrounding globe, refining it, hoarding it, and later remembering that information, frequently many ages later.

Our program has no scrupulous memory necessities.

3.4 Analysis and Specification of Requirements

The basic regulation in its production search out kills the necessity and precision of the ideal compute object. While users can concur that they understand what the amount bear does and by what method commotion it with the output, at this stage they will need register abilities and partnerships designed to define splintered, puzzling, and playing needs. Various food websites were haunted and their forms were deliberate. At this level, powers for goods and supplies are still inspected and analyses are examined.

3.4.1 Hardware Requirements

Users need at least some computer hardware to interact with the Internet to operate or visit this site. We are currently working on the need for this website.

Table 3.4.1: Hardware Requirement

Hardware	Hardware specification
Motherboard	Any types
RAM	1GB (Minimum)
Graphics card	Any
Hard-Disk	Not required
Monitor	Any Type of Monitor (digital)
Mouse	Any
Keyboard	Any
Casing	ATX / MICRO ATX

3.4.2 Software Requirement

The expanded site gets different forms of programming. The minimum software

requirements are given below:

Table 3.4.2: Software Requirement

Software	Usage of Software
Windows Operating System	Control all computer hardware and software
Visual Studio Code	One of the best and most popular code

	editors for writing code

3.5 Design Requirement

First, the drawings climax the overall design and actions containing the computerized data in the system plan, prioritize arrangement, calculating designs, and different documents. There are many types of configurations to assemble all acts, in the way that Data Flow Diagram (DFD), Calculation Flowchart, Use Case, and additional belongings. With few elementary designs countenance, we need these belongings to brace the design1. Hyper

1. Hyper Text Mark Up Language (HTML)

2. Cascading Style Sheet (CSS3)

3. JavaScript Language

4. JSX

5. MongoDB

6. React JS Framework

3.6 Data Flow Diagram

A data flow diagram is a short road map that graphically represents how the data moves through the existing system we have used in the design process. The data flow diagram facilitates communication between us and the user. DFD shows what kinds of information will be input to and output from the system, where the data will come from and go to, and where the data will be stored. It does not show information about the timing of processes, or information about whether processes will operate in sequence or in parallel.

3.6.1 Data Flow Diagram for the User

In Figure 3.2 this data flow diagram is used for users. Users can visit our website and when user send query, after processing data will be displayed.
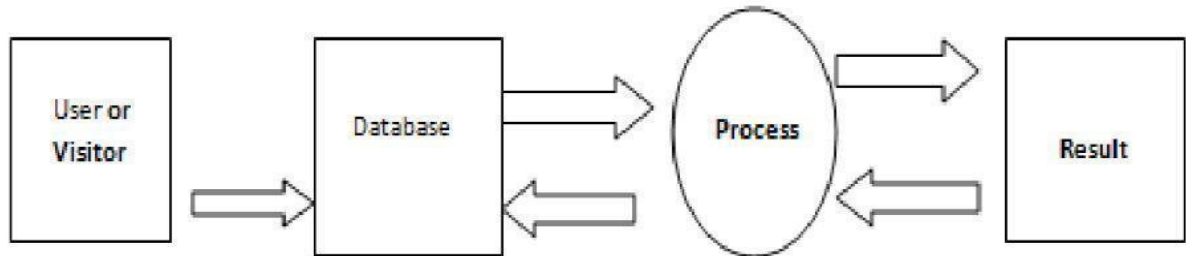
Figure 3.2: User DFD

3.6.2 Data Flow Diagram for the Admin

Admin can access the website and get data after completing the Admin DFD diagram in Figure 3.3. When admin entered input data, after processing data will be stored into database.
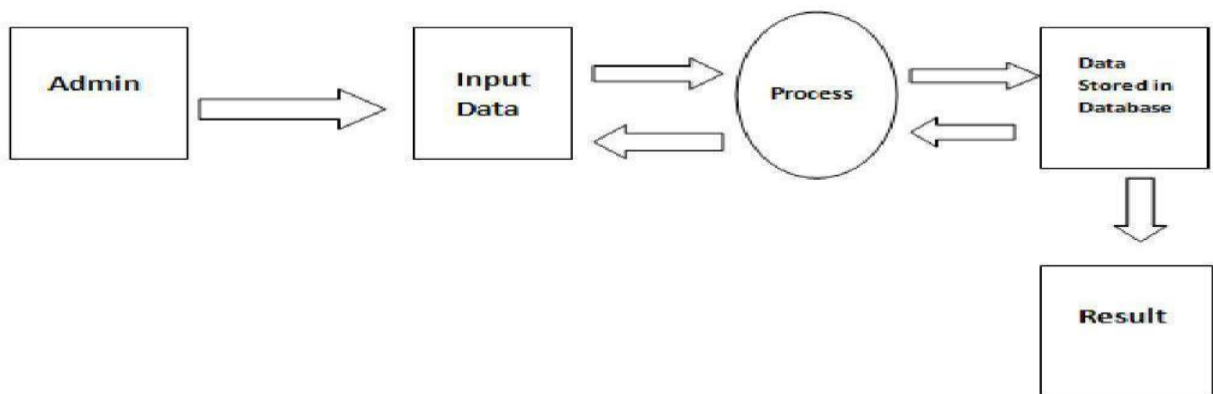
Figure 3.3: Admin DFD

3.7 Admin Case Diagram

Admin case diagram represents all functionalities an admin can do. Here admin can log in, check the dashboard, manage orders, manage admin, etc. shown in figure 3.4.
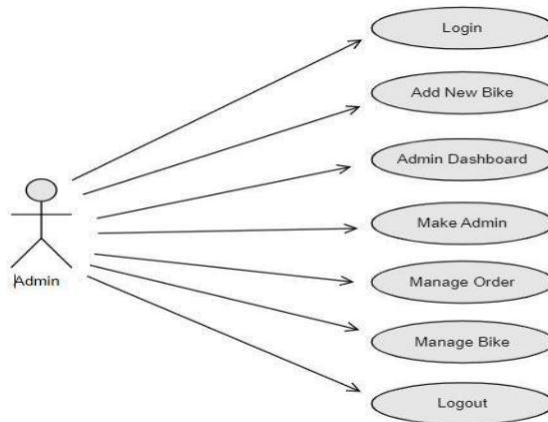
Figure 3.4: Admin case diagram

3.8 User Case Diagram

In Figure 3.5 the user case diagram presents user functionalities. As a user you can perform Login, View places, Add booking, etc. operations.
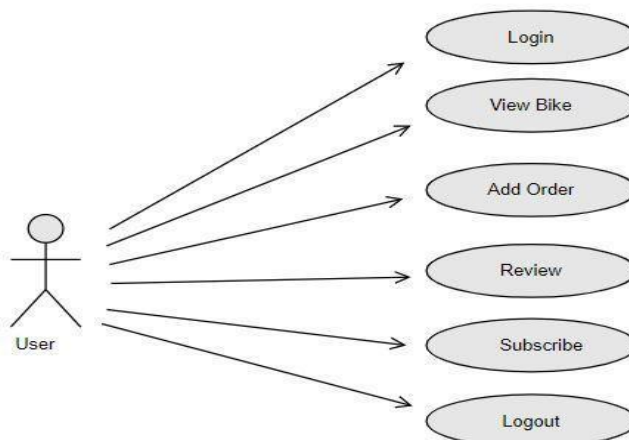
Figure 3.5: User case diagram

3.9 Login Activity Diagram

This is the login activity diagram of the Online News Portal System which shows the flows of Login Activity, where the admin will be able to log in using a username or email and password. After login users can manage all the operations on advertisements, types, contents, news, and latest posts. The diagram below helps demonstrate how the login page works in a news portal system shown in figure 3.6.
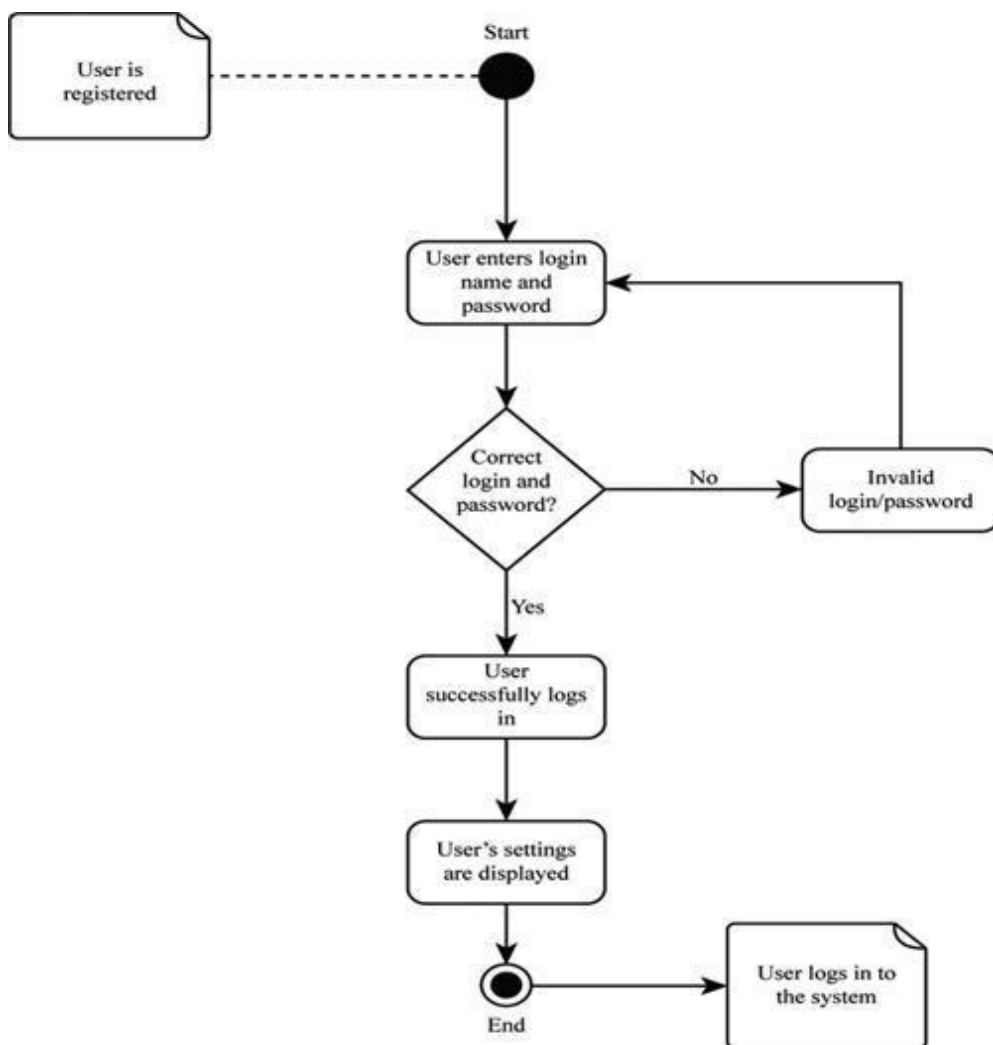
Figure 3.6: Login activity diagram

CHAPTER 4

DESIGN AND SPECIFICATION

4.1: Home Page

The homepage is the website's main page, which is often the first page a user sees when they visit the site. It typically provides an overview of the site's content and purpose. The homepage may also feature important information such as exclusive something, and upcoming events. The design and layout of a homepage can vary widely depending on the purpose and audience of the site.

4.1.1 Top Section of the Home Page

The following figure 4.1 shows the top section of the homepage. Here users can get exclusive products, different types of offers, upcoming products, top selling bikes. From this users can easily popular and best products.
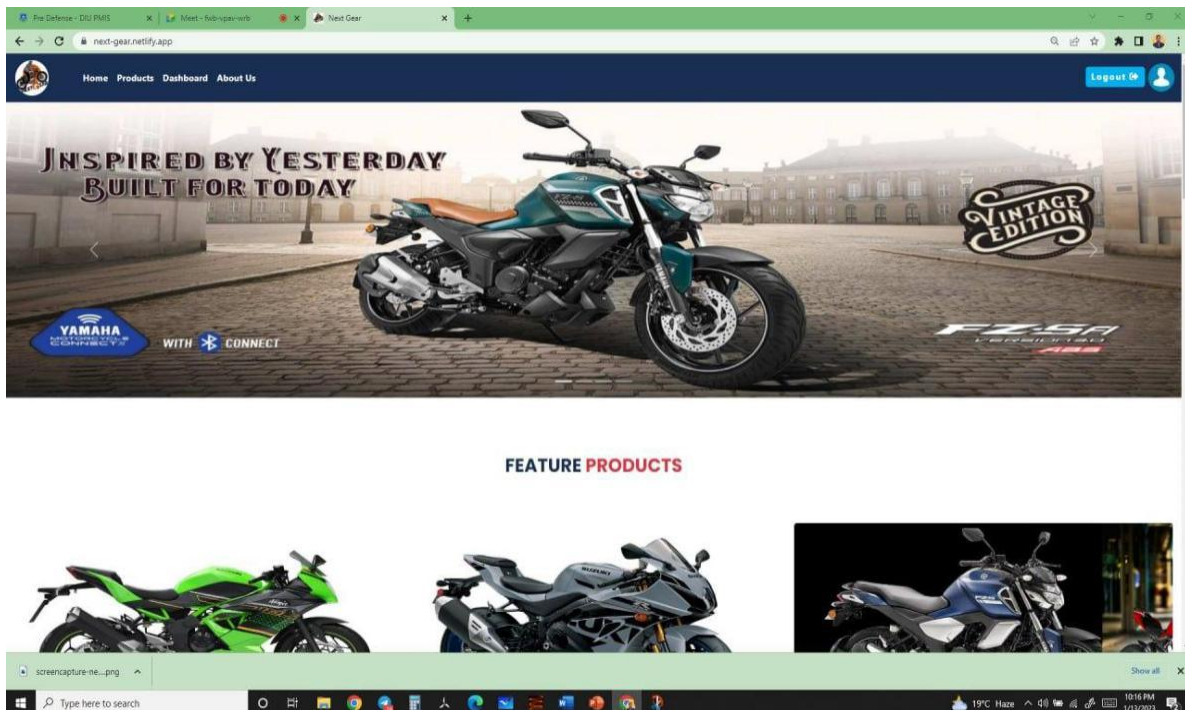
Figure 4.1: Top section of the home page

4.1.2 Bottom Section of the Home Page

The bottom section of our website figure 4.2, shares the company's name from whom we collect bike features, configuration, specifications, price, and others information if needed. Also, explain what we offer from our site.
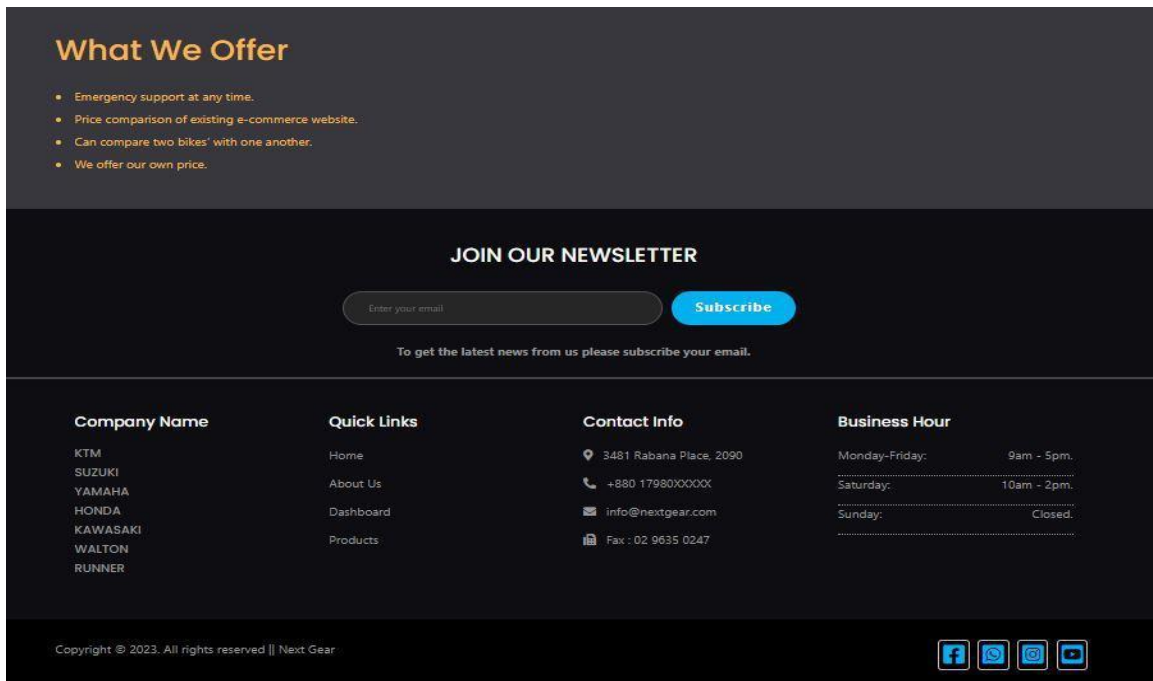
Figure 4.2: Bottom section of the home page

4.2: Products Page

The product section of any site describes the products or services they provide. From this part, the user can easily know which type of products are served.

The purpose of the product section on our website is to share and serves product to our honorable customer. In this section, we added a few numbers of bikes and their details.

From our website figure 4.3 product section, users can find our available bikes and if a user wants, user can check their desired product and can get the feature details of their desired bike.
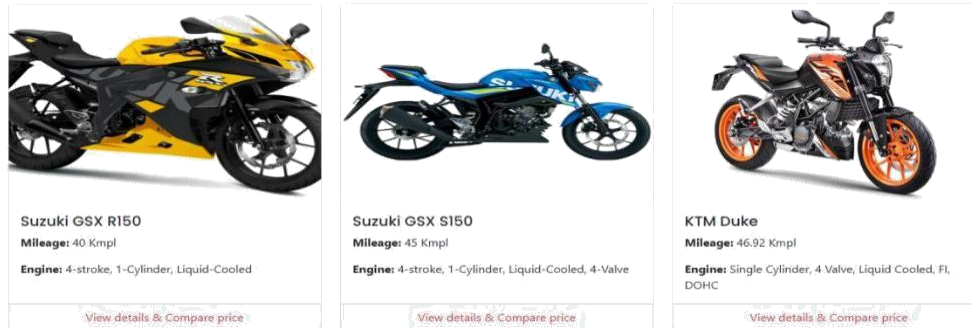
Figure 4.3: Products page

4.3 Product Details

Product details explained product types and detailed about this product like products name, model, and specification. And users can know detail about a product.

In figure 4.4 the product details section of our website, we shared bike tire information, gearbox, starter information, number of cylinders engine information like engine cylinder, stroke type, engine output, torque, etc.
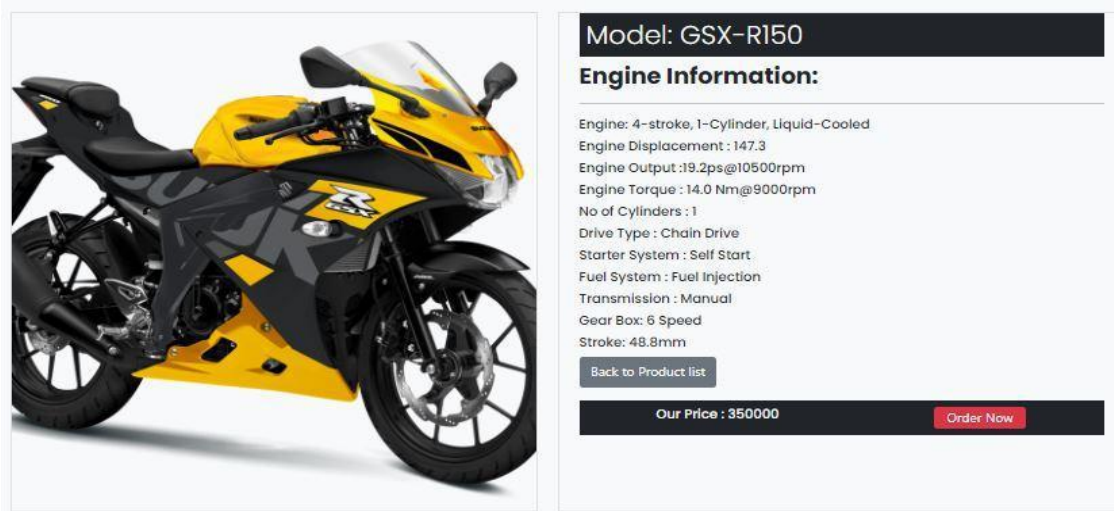

Figure 4.4: Product details and price

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4.4 Product Price List

Figure 4.5 part of the product price section, shares price information of different websites as well as that company's link. So, users can get an overall idea of which company offers the best price and can also visit the existing company's website from our sites.
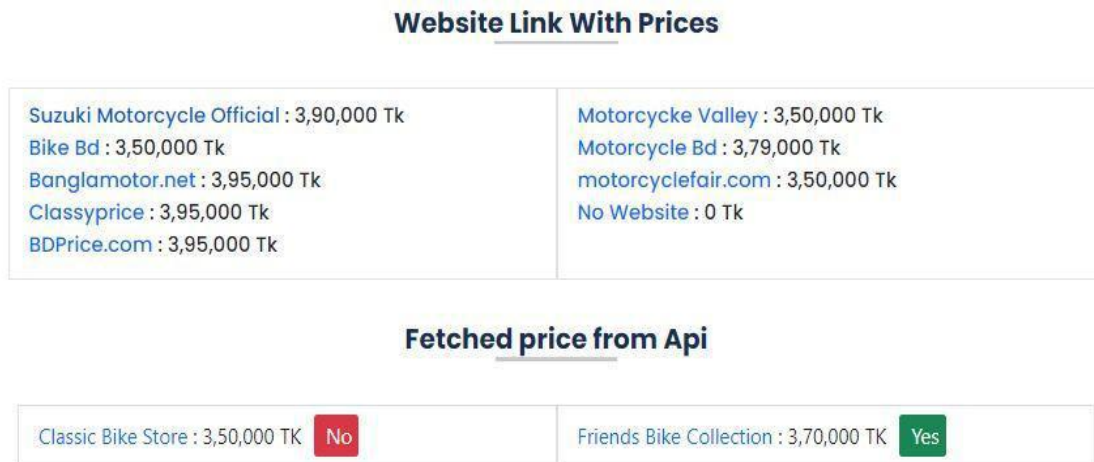
Figure 4.5: Product prices

4.5 Compare with Another Bike

The comparison allows for choosing what will be best. It is the act of evaluating two or more things and then determining which characteristics of each are similar to the other and which are different.

On our website figure 4.6, users can compare two products with each other. To compare products, users need to take some steps. Firstly, the user enters a product. Then if the user wants to compare the current product with another. After that user clicks on compare button then the user gets the option to choose another one and can compare our website's two products.
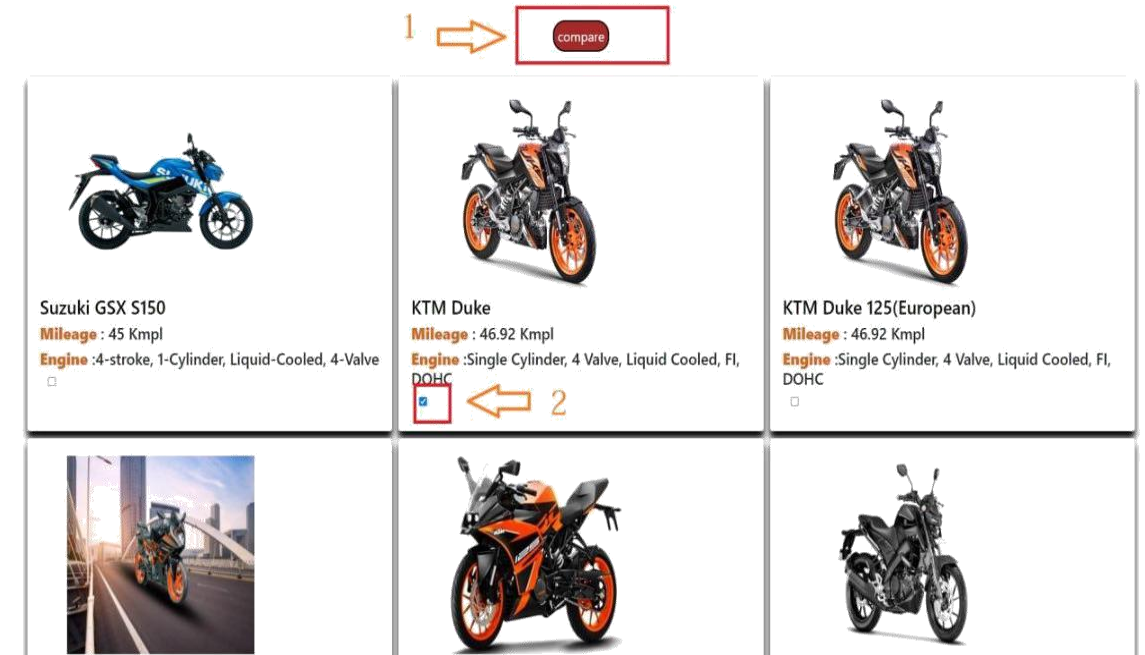
Figure 4.6: Compare with another bike

4.6 Comparison

Comparison represents one thing with another. From our site, when the user clicks on the comparison option user gets the results of a comparison of the bike features and price on another website.

4.6.1 Bike Features Comparison

In figure 4.7, buyers will be able to compare two bikes. The comparisons will be on brand models, engine, engine displacement, engine output, engine torque, number of cylinders, drive type, gearbox, and stroke between two bikes. After that buyers will easily select the best bike from these bikes.

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Figure 4.7: Comparison of bike feature

4.6.2 Bike Price Comparison

In figure 4.8, the buyer will see the prices on different websites which we have provided. Here, the buyers will see two bikes' prices on different sites at a time.

Figure 4.8: Comparison of bike price

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4.7 Finding Products

Our website figure 4.9 gives a search option for users. Users can use the search option if they can't find their desired products. From the search option, user can easily find out their desired product.

The user enters the product's name in the search field. Based on the user's entered name, the user can find products according to their search.

The search functionalities work using the JavaScript Array filter method. It creates a new array filled with elements that the user's given searching name. This method does not execute for an empty search box.
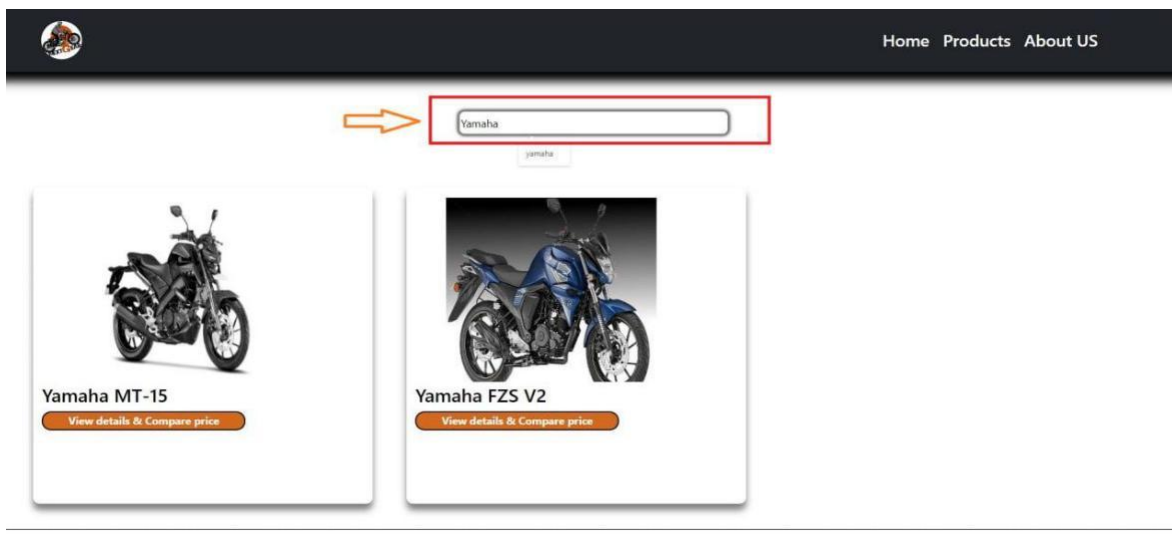

Figure 4.9: Finding bikes according to the search

4.8 Sign-Up Option

In figure 4.10, users can register by providing credentials and getting service from our website. For further and more use of our site, users need to register.
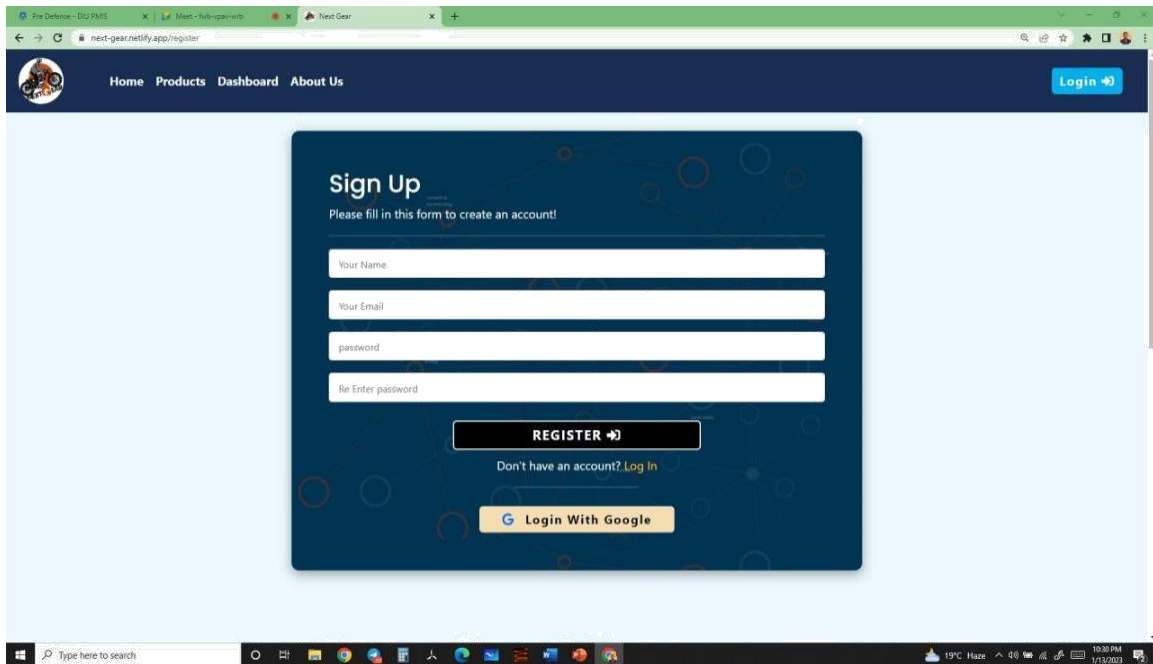
Figure 4.10: Register option

4.9 Log-In Panel

A login page is a page on a website or application which allows users to enter their credentials, such as username and password, to access the secure areas of the site or application. The purpose of a login page on a website or application that authenticate users to an entire website and grant access to the resources which is available for registered users.

In figure 4.11, once a user has entered their credentials and clicks on submit the form, the login page should send the data to a server-side script that verifies the authenticity of the user's credentials. If the credentials are valid, the script should grant the user access to the website's secure areas. If the credentials are invalid, the script displays the wrong credentials and allows the user to try again.
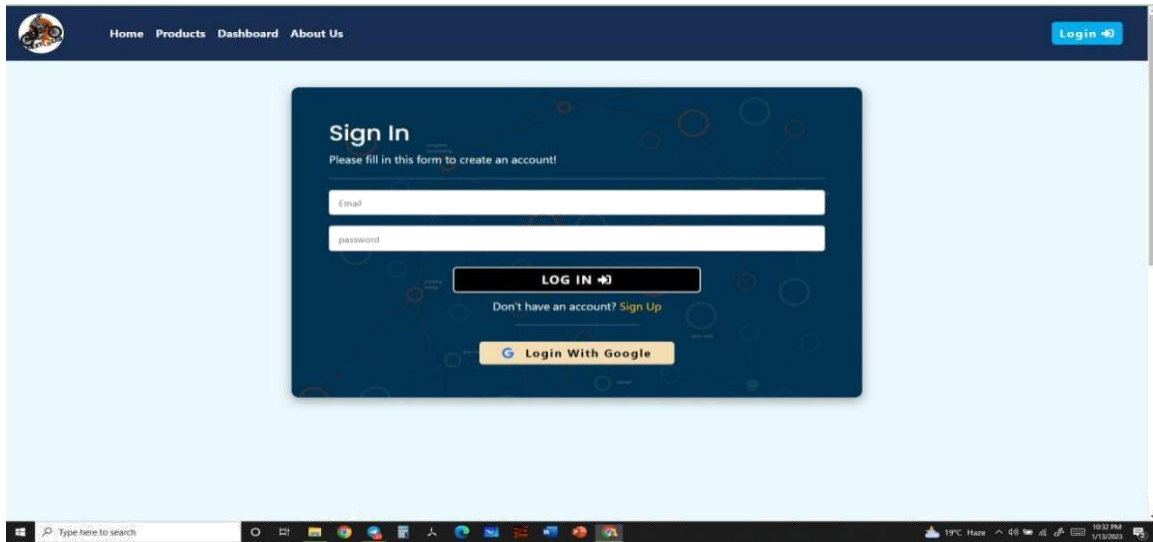
24

Figure 4.11: Login option

4.10 Admin Dashboard

Admin dashboard is important for admin activities. Admin can perform from the admin dashboard. In figure 4.12, the admin can manage the orders and products, make admin, etc.

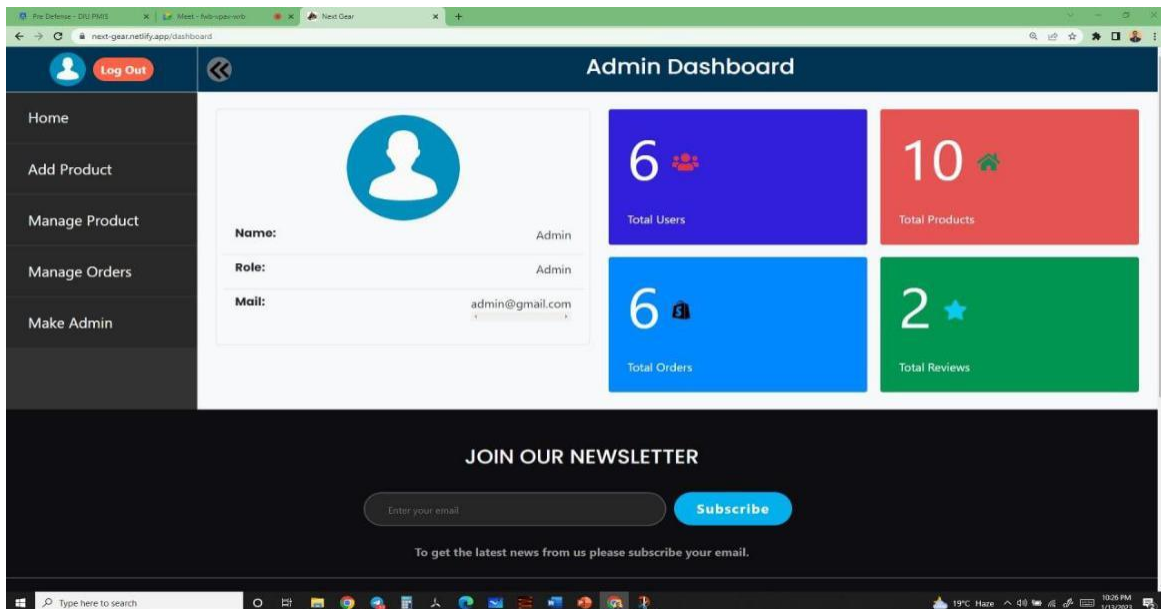Figure 4.12: Admin dashboard

4.11 Make Admin

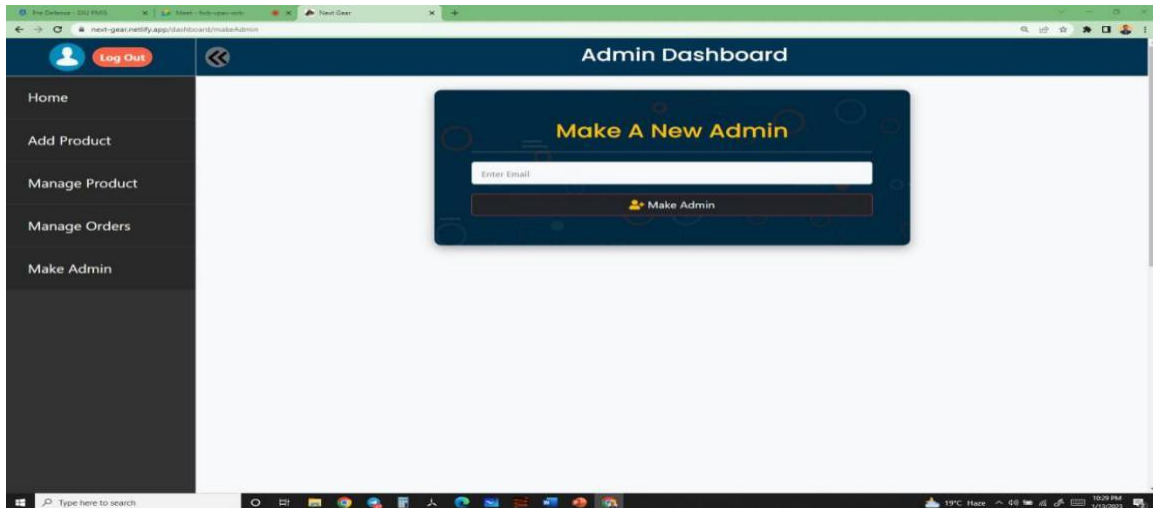From figure 4.13 we see, an admin can make a new admin to perform and distribute work as an admin.

Figure 4.13: Create a new admin

4.12 Manage Product

From our site figure 4.14, an admin can manage products. Admin can add products, edit product information, and also can remove products from the database.
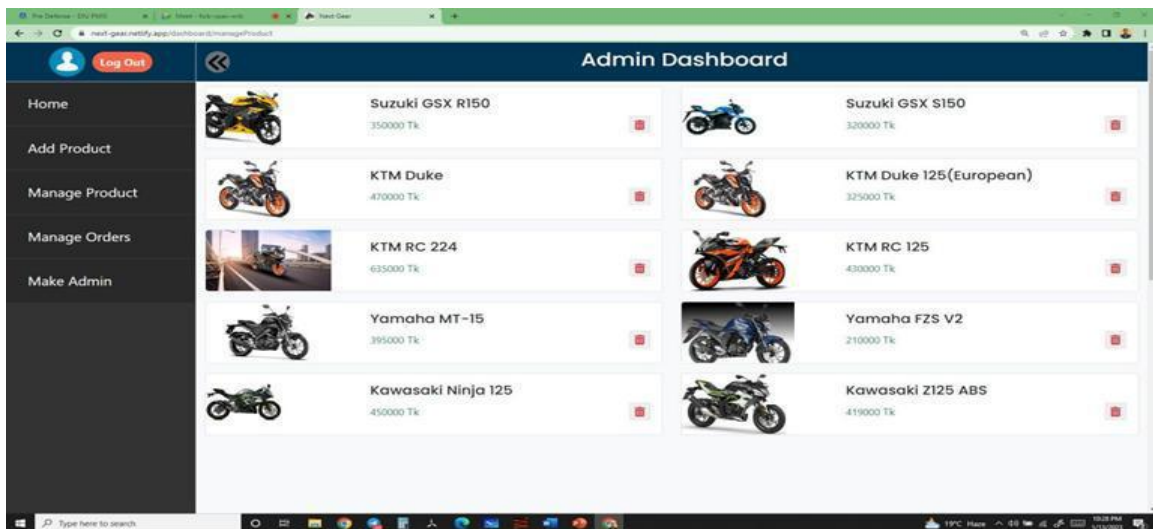
Figure 4.14: Manage product as an admin

4.13 Manage Order

When customers purchase products from our site, the admin can manage those orders' figure 4.15. Customer-purchased products if available admin will approve and deliver products.
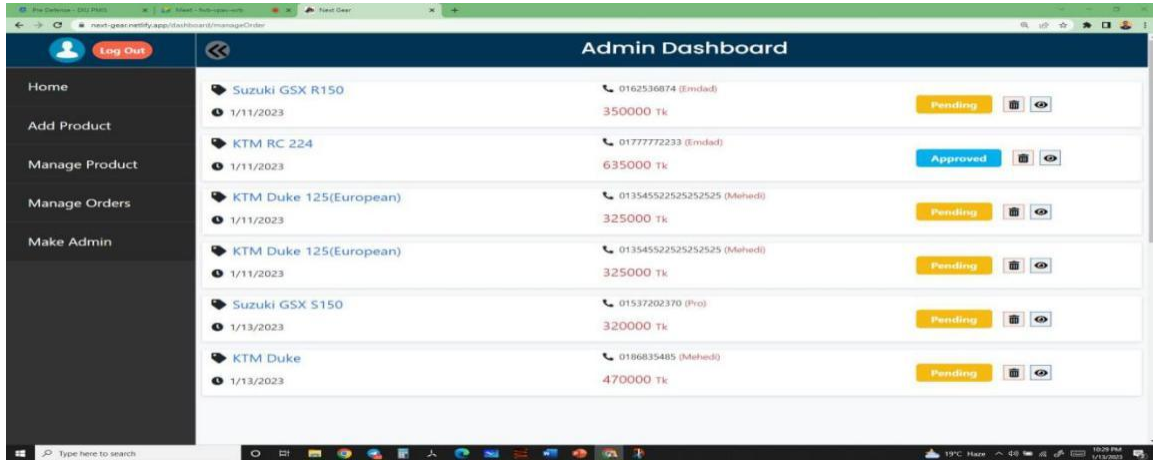
Figure 4.15: Manage order

4.14 Data Input From

Admin should provide valid information about bikes, and its feature. The information on the existing website link with the price. In figure 4.16, the data input form allows adding bikes to the existing data set.

Figure 4.16: Data input from

4.15 Add Product Details

This is the admin panel part. In figure 4.17, we will add a new product. We will use a unique key for identifying a bike uniquely. After that, we will add product details like the mode name, image URL, brand name, model, mileage, engine type, engine displacement, engine output, engine torque, number of cylinders, drive type, starter type, fuel system, transmission, gearbox, bore, and stroke. After completing this information, the details of the new bike will show in the user interface and they will be able to see the information.

Figure 4.17: Product details

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4.16 User Orders History

In figure 4.18, users can see all product purchase lists and also can remove orders until the admin can approve the order.
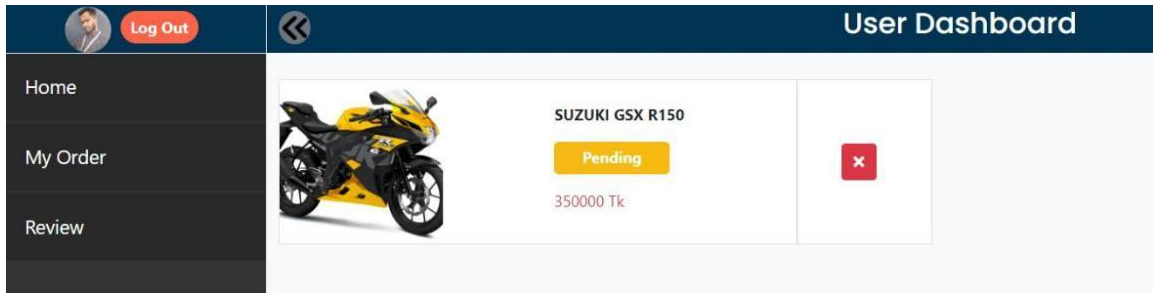

Figure 4.18: User orders history

4.17 User Review System

For further updates and bringing new things, user review is more important. Figure 4.19, user or customer can give their valuable comments and can help us for further increment.
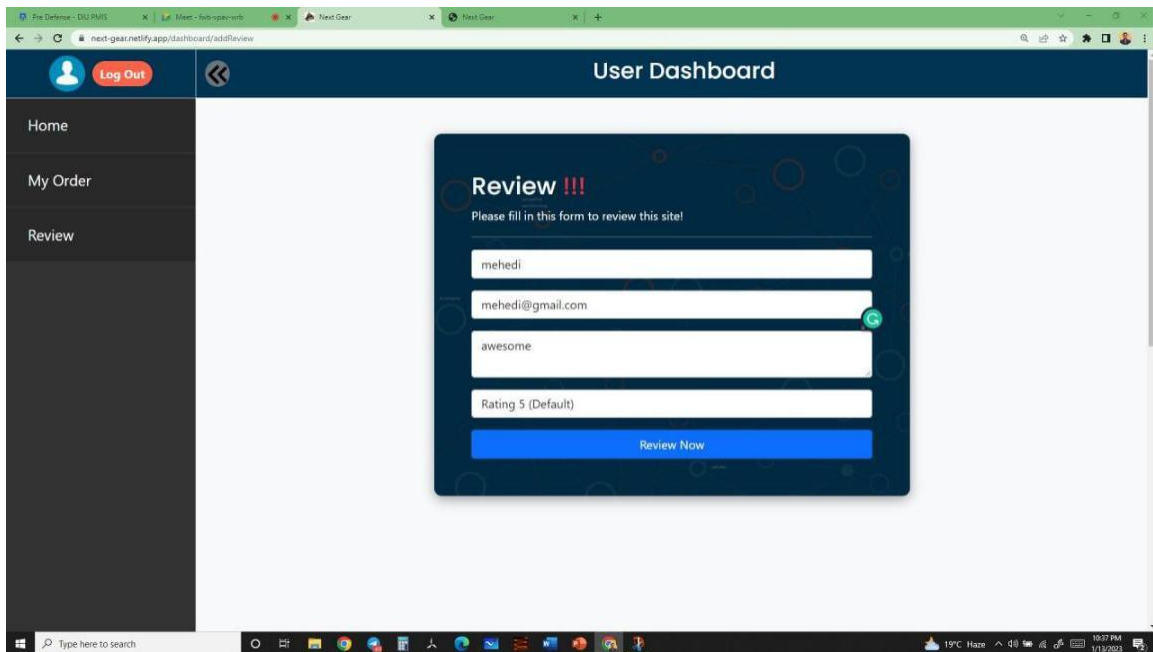

Figure 4.19: User review option

CHAPTER 5

IMPLEMENTATION & TESTING

5.1 Implementation of the Database:

To communicate with users with a server and to store data in a database we have used JSON database. It is a non-relational type database that is designed to store data and query data as a JSON document. The JSON file can contain multiple levels of objects, arrays, and multiple fields of data. In our project, we use an array of objects. The array variable name is products, inside this array we added multiple objects and each object contains a single bike. After that we stringy the JSON data and store it in our API

We use the JSON database for our project. A JSON document database is a non-relational database that is designed to store and query data as JSON documents, rather than normalizing data across multiple tables, each with a unique and fixed structure, as in a relational database. We are trying to collect database knowledge for database preparation within a simple division in our company.

5.2 Implementation:

For implementing the JSON database, we used JavaScript as a backend programming language. At first, we made our data then we post it on a server and get our API to work with. For server storage, we used the app.jsonstorage.net application. When our API is ready, we implement it in our project. At first, we use the fetch method to get the data from our API. Our JSON data was containing an array of objects. A single array was containing multiple objects and each object was containing the details of each bike/product. To use this JSON data, we used each loop to get each element of the array, and after that, we display this information on our website with HTML and CSS. We used different custom-

made functions to display the information properly. We also use a JSON storage application to store our data and get the API. We can communicate with our data using this API. This application gives an API, and this user can communicate with the server.

5.3 Integration and Testing:

The integration and Testing part explained bugs, errors, and interoperability of code. From this phase, we can test our project's working capacity. Like Bug, testing finds out the bug of our code. Load testing explains the user load capacity. Image with information, correct user response, data information, and functional work check in this testing part.

We add different buttons with different functionalities in our project to integrate with users properly and make it easy to use users.

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CHAPTER 6

Conclusion & Future Scope

5.1 Conclusion

This project offers some kinds of services to the customer with whom he wants to be satisfied with the bike. Through this project, people will get information about bikes and its price on all available e-commerce websites for bike sales in Bangladesh. This website is unique as it gives real-time information to the customer. We gather existing bike-selling e-commerce companies' databases and make comparisons with each other similar bike prices. This will be beneficial for the customer who wants to buy a bike at the lowest price. And customer can save their time without wasting their time by visiting too many different websites.

5.2 Limitation

The constraint of a project is called project limitation. Our project has also some constraints, like.

Security: Our project didn't build securely. We didn't implement any security protocol in our project. So, the hacker can find out any vulnerability easily and can attack.

Load balancing: Our project is a lightweight website. We didn't check its load-balancing power. The website can crash when many users use it at a time. It's a great limitation in our project.

Liability: We just providing the information, not selling bikes. So, if people face any problem with buying a bike, we will not take liability. It's a limitation of our project.

Server: We don't have our own server for our project. We have used a third-party server for our project. It's a limitation of our project.

Communication: Buyers will buy their bikes based on our information. If buyers want to talk about our site to the selling center, they will not know me because we didn't communicate with our given sites. It's a limitation of our project.

Customer Login: We don't add customer login and functionalities

Database: Wouldn't add a Realtime website database.

Customer Functionalities: Customers can't directly purchase a product from our website.

5.3 Future Scope

This limitation is for the current system to which solutions can be provided us as future development. We will develop our project continuously considering our growing business.

1. We will add customer login and functionalities. Our project has no login option for the consumer. For this reason, we will not know about our user information. We will add a login phase to our website in the future.

2. We will add a real-time website database. Our project has no own server, here third-party server has been used. So, the database is not in our hands properly, we cannot handle it by our own desire.

3. Add more functionality to the admin panel. In the admin panel, we will add real-time servers and functionality.

4. Build our project more user-friendly. Our main focus is on comforting and helping the consumer. So, our will always user friendly.

5. Based on customer reviews we will add more features. Customers will be able to give feedback and review and customer feedback and review will our inspiration. We will add more features based on customers' reviews and feedback.

6. We will strengthen the security system of our website so that hackers cannot hack the website.

7. We will increase the load balancing power. Buyers will able to hit one thousand times per day only which is not good. So, we will make it strong as if huge people can hit at a time in a day.

8. We will communicate with the given site's owner and get the API. We will develop a system as if we can communicate with them. Buyers will be able to buy bikes from us directly.

9. We will create a real-time database.

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