

Old Bike-Selling Website

BY

SUMAIYA PIAS TRISHA

ID: 201-15-14058

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

Supervised By

MD. SADEKUR RAHMAN

Assistant Professor

Department of CSE

Daffodil International University



DAFFODIL INTERNATIONAL UNIVERSITY

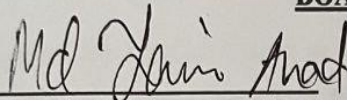
DHAKA, BANGLADESH

JANUARY 2024

APPROVAL

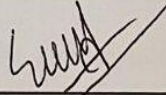
This Project/internship titled “**Old Bike Selling website**”, submitted by Sumaiya Pias Trisha, ID No: 201-15-14058 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 21.12.2023.

BOARD OF EXAMINERS



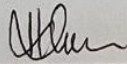
Dr. Md. Taimur Ahad (MTA)
Associate Professor & Associate Head
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Chairman



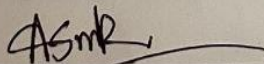
Md. Sazzadur Ahamed (SZ)
Assistant Professor
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner



Most. Hasna Hena (HH)
Assistant Professor
Department of Computer Science and Engineering
Faculty of Science & Information Technology
Daffodil International University

Internal Examiner



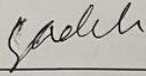
Dr. Abu Sayed Md. Mostafizur Rahaman (ASMR)
Professor
Department of Computer Science and Engineering
Jahangirnagar University

External Examiner

DECLARATION

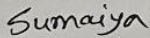
I hereby declare that this project has been done by me under the supervision of **Md. Sadekur Rahman, Assistant Professor , Department of CSE Daffodil International University**. I also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

Supervised by:



Md. Sadekur Rahman
Assistant Professor
Department of CSE
Daffodil International University

Submitted by:



Sumaiya Pias Trisha
ID: 201-15-14058
Department of CSE
Daffodil International University

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to **Mr. Md. Sadekur Rahman, Assistant Professor, Department of CSE Daffodil International University, Dhaka** my supervisor, for his invaluable guidance, unwavering support, and insightful feedback throughout the development of this web application. His expertise and encouragement have been instrumental in shaping the project.

I extend my heartfelt thanks to the esteemed Department Head **Dr. Sheak Rashed Haider Noori, Professor and Head**, of the Department of Computer Science and Engineering for providing a conducive learning environment at Daffodil International University. Your vision and leadership have played a crucial role in fostering an atmosphere of innovation and excellence.

I am deeply appreciative of Daffodil International University for providing the resources and opportunities that allowed me to undertake this project. The institution's commitment to academic excellence has been a constant source of inspiration.

Special thanks go to my seniors and juniors who have been a source of motivation and collaboration. Your willingness to share knowledge, offer assistance, and provide constructive feedback has enriched the development process.

This project would not have been possible without the collective support of these individuals and the broader academic community. I am grateful for the learning experiences and the sense of camaraderie that have defined my journey at Daffodil International University.

Thank you all for being an integral part of this endeavor.

ABSTRACT

“Old Bike-Selling Website” is a dedicated online platform designed for enthusiasts, collectors, and riders passionate about classic motorbikes. Our web application provides a user-friendly and secure marketplace for buying and selling vintage motorcycles, creating a vibrant community that shares a deep appreciation for the timeless allure of these iconic machines. The platform showcases a diverse array of carefully curated classic motorbikes, spanning various makes, models, and eras. Sellers can present their bikes with comprehensive details, high-resolution images, and historical context, ensuring potential buyers gain a full understanding of each unique machine's character and history. Key features of Drive-Time include a streamlined user interface, and a robust rating system to establish trust and transparency within the community. The application also serves as a knowledge hub, offering articles, restoration guides, and a forum for enthusiasts to exchange insights and experiences.

TABLE OF CONTENTS

CONTENTS	PAGE
Approval	ii
Declaration	iii
Acknowledgments	iv
Abstract	v
CHAPTER 1: INTRODUCTION	01-04
1.1 Introduction	01
1.2 Objective	01
1.3 Motivation	02
1.4 Expected Outcome	02
1.5 Report Layout	03
CHAPTER 2: BACKGROUND	05-08
2.1 Introduction	05
2.2 Related Works	05
2.3 Comparative Studies	05
2.4 Scope of the Problems	06
2.5 Challenges	07
CHAPTER 3: SOFTWARE REQUIREMENT SPECIFICATION	09-17
3.1 Introduction	09
3.2 Business Process Model	09
3.3 Hardware & Software Requirements for System	10
3.4 Use Case Model	12
3.5 Data flow diagram	14
	vi

3.7 Implementation Requirements	15
CHAPTER 4: DESIGN SPECIFICATION	18-31
4.1 User App Design	18
4.2 Admin App Design	26
4.3 Database Design	28
CHAPTER 5: IMPLEMENTATION AND TESTING	32-33
5.1 Implementation of Database	32
5.2 Implementation of Interaction	32
5.3 Testing Implementation	32
5.4 Test Results & Reports	33
Chapter 6: Impact on Society, Environment and Sustainability	34-36
6.1 Impact on Society	34
6.2 Impact on Environment	34
6.3 Ethical Aspects	35
6.4 Sustainability Plan	36
CHAPTER 7: CONCLUSION & FUTURE SCOPE	37-38
6.1 Conclusion	37
6.2 Future Scope	38
REFERENCES	39

LIST OF FIGURES

FIGURES	PAGE-NO
Figure 3.1 System Use Case for User	13
Figure 3.2 System Use Case for Admin	14
Figure 3.3 Data Flow Diagram	15
Figure 4.1 Banner	18
Figure 4.2 Home Page	19
Figure 4.3 Review Screen	19
Figure 4.4 Bikes Photos	20
Figure 4.5 Footer	20
Figure 4.6 All Bikes Page	21
Figure 4.7 Login Page	21
Figure 4.8 Register Page	22
Figure 4.9 Google Sign-in Page	22
Figure 4.10 My Orders	23
Figure 4.11 Give feedback	23
Figure 4.12 My order Screen	24
Figure 4.13 Give Review Screen	24
Figure 4.14 Blog Screen	25
Figure 4.15 Post your blog page	25
Figure 4.17 Add product page	26
Figure 4.18 Manage all orders	26
Figure 4.19 Manage all products	27
Figure 4.20 Make admin	27
Figure 4.21 MongoDB database	28
Figure 4.22 User Details	29
Figure 4.23 Anonymous Complaint Details	29
Figure 4.24 Reviews	30
Figure 4.25 Bike details	30
Figure 4.23 Oreder item details	31

CHAPTER 1

INTRODUCTION

1.1 Introduction

Drive Time is not just an online platform; it's an exhilarating journey into the world of vintage and classic bikes. Our web application is thoughtfully designed to be the ultimate hub for enthusiasts, where the spirit of the open road meets the charm of old-school rides. Explore a diverse range of pre-owned motorcycles, including classic cruisers, sport bikes, and vintage gems, presented in detailed listings. Enjoy an intuitive and user-friendly interface designed for seamless navigation, making your browsing and buying experience enjoyable. Build trust within the community by accessing detailed user profiles and ratings, allowing buyers and sellers to make informed decisions. Experience the Drive Time platform seamlessly across various devices, including desktops, tablets, and smartphones, ensuring accessibility anytime, anywhere. Connect with a vibrant community of bike enthusiasts. Share experiences, recommendations, and tips, fostering a sense of camaraderie within the Drive Time community.

1.2 Objectives

The objectives of an old bike-selling web application, such as "Drive Time," are multifaceted and aim to create a comprehensive and user-friendly platform for both buyers and sellers. The primary objectives include:

Here are our application goals:

- Assemble a diverse and extensive collection of classic motorbikes from various eras, styles, and manufacturers to cater to a broad range of enthusiasts and collectors.
- Facilitate user engagement by providing an intuitive and visually appealing interface that encourages exploration and interaction with the vintage bike listings.
- Implement a secure and user-friendly registration and authentication process, allowing users to create accounts, log in, and manage their profiles effectively.

- Enable sellers to create comprehensive listings with high-quality images, detailed descriptions, and historical context, providing buyers with a complete understanding of each bike's unique features..
- Facilitate a seamless booking and transaction process, allowing users to express their interest in a bike, provide necessary details, and complete secure transactions.

1.3 Motivation

The motivation behind operating an old bike-selling website in Bangladesh involves a combination of addressing market demand, economic considerations, environmental awareness, and convenience, recognizing market gaps, job creation, appealing to a tech-savvy population, entrepreneurial opportunities, promoting the local economy, and ensuring regulatory compliance: There is likely a demand for used bikes in Bangladesh, driven by individuals seeking affordable transportation options. A website dedicated to selling old bikes provides a platform to connect buyers and sellers, helping to fulfill this demand. Many people are cost-conscious and may prefer purchasing a used bike over a new one to save money. A dedicated platform for selling old bikes can cater to this market segment, promoting economic transactions. With increasing awareness of environmental issues, promoting the reuse of products such as old bikes aligns with sustainability goals. Encouraging the sale and purchase of pre-owned bikes contributes to reducing the overall environmental impact associated with manufacturing new vehicles. An online platform makes the process of buying and selling old bikes more convenient. It allows sellers to reach a broader audience and buyers to explore a variety of options from the comfort of their homes. Recognizing a gap in the market for a specialized platform focusing on old bikes, entrepreneurs may see an opportunity to establish themselves in a niche market and create a unique selling proposition. Operating an online marketplace involves various roles such as website development, customer support, marketing, and logistics. Establishing and running a website contributes to job creation within the technology and e-commerce sectors.

1.4 Expected Outcome

The expected outcomes of a "Drive Time" old bike-selling website can be influenced by various factors, including the specific features, marketing strategies, and user experience provided by the platform. Here are some potential outcomes: The emphasis on "Drive Time" suggests a focus on local or regional markets. The website may lead to increased accessibility to used bikes for individuals within a specific geographical area, providing a convenient platform for local transactions. The platform can foster a sense of community by connecting local buyers and sellers. This community-oriented approach may enhance trust and engagement among users, leading to a positive online marketplace experience. Success in the local market can lead to strong brand recognition within Bangladesh, positioning the "Drive Time" website as a reliable and convenient platform for buying and selling used bikes. The platform can contribute to promoting affordability and sustainability by encouraging the reuse of old bikes. This aligns with the economic conditions and environmental consciousness in Bangladesh. The "Old Bike-Selling Website" website needs to adapt its features and strategies to suit the specific needs and characteristics of the Bangladeshi market. Regular feedback from users, staying informed about local trends, and addressing any challenges promptly will be key to achieving success in the region.

1.5 Report Layout

This report consists of 6 chapters. These are: Introduction

- Introduction
- Objectives
- Motivation
- Expected Outcome
- Report Layout

Background

- Introduction
- Related Works
- Comparative Studies

- Scope of the Problem
- Challenges

Software Requirement Specification

- Introduction
- Business Process Model
- Hardware & Software Requirements for the System
- Use Case Model
- Logic Diagram
- Data Flow Diagram
- Implementation Requirements

Design Specification

- User Application Design
- Admin App Design
- Database Design

Implementation and Testing

- Implementation of Database
- Implementation of Interaction
- Testing Implementation
- Test Results and Reports

Conclusion and Future Scope

- Conclusion
- Future Scope

CHAPTER: 2

BACKGROUND

2.1 Introduction

Are you in search of a reliable and convenient platform to buy or sell second-hand bikes in Bangladesh? Look no further - welcome to Drive Time, your go-to local old bike marketplace.

At DriveTime, we understand the importance of finding the perfect set of wheels that aligns with your lifestyle and budget. Our platform is designed with a focus on the local community, ensuring that your bike buying or selling experience is not only seamless but also within a convenient driving distance.

2.2 Related Works

Websites like Bikroy.com, ClickBD, and Daraz often have sections dedicated to buying and selling used bikes. Users can browse listings, communicate with sellers, and arrange transactions. Facebook Groups and other social media platforms sometimes host communities dedicated to buying and selling used items, including bikes. These groups can be location-specific and allow direct interaction between buyers and sellers. Websites that host classified advertisements, such as OLX Bangladesh, have sections for second-hand vehicles, including bikes. Users can create listings with details about the bike they are selling. Online auction platforms may occasionally feature used bikes for bidding. Users can participate in auctions to secure a bike at a potentially competitive price.

2.3 Comparative Studies

Feature	Daraz	Bikroy.com	ClickBD	CarMaudi	DriveTime
Specialized in Old Bikes	No	No	No	No	Yes
user-friendly interface	yes	yes	yes	yes	yes
Educational resources	No	No	No	No	Yes
User-Authenti	Yes	Yes	Yes	Yes	Yes
User-Reviews	Yes	Yes	Yes	Yes	Yes
Community Engagement	Limited	Limited	Limited	Limited	Broad

Responsive design	Yes	Yes	Yes	Yes	Yes
Anonymys Complain or feedback form	No	No	No	No	Yes
Product Range	limited bike focus	limited bike focus	limited bike focus	limited bike focus	Only Bikes

2.4 Scope of the Problems

While a "Drive Time" old bike-selling website can offer numerous benefits, there are also potential challenges and scope for problems that should be considered and addressed. Here are some common challenges associated with such platforms:

- 1) Implementing effective user verification processes is essential for preventing fraudulent activities. This includes verifying the identity of sellers and ensuring the authenticity of the listed bikes.
- 2) Understanding and adapting to the local market dynamics in Bangladesh is crucial. Factors such as regional preferences, economic conditions, and cultural considerations can impact the success of the platform.
- 3) Coordinating logistics, especially for local transactions, can pose challenges. Ensuring a smooth process for bike inspections, test rides, and deliveries requires efficient planning and communication.
- 4) Overcoming competition with traditional offline markets for used bikes may be challenging. Building a value proposition that attracts users away from conventional methods is key.
- 5) The demand for effective customer service can be high. Addressing user queries, resolving disputes, and providing assistance throughout the buying and selling process is essential for user satisfaction.
- 6) Overcoming technical issues, such as website downtime, glitches, or slow performance, is essential for maintaining a positive user experience.

- 7) Balancing the supply of bikes listed on the platform with the demand from potential buyers is critical. An imbalance can lead to dissatisfaction among users.

By acknowledging and proactively addressing these challenges, the "Drive Time" old bike-selling website can enhance its chances of success and create a positive and trustworthy environment for both buyers and sellers in Bangladesh. Regular feedback from users and continuous improvement based on user experiences will be key to overcoming these challenges.

2.5 Challenges Illiteracy

Illiteracy can indeed present significant challenges for any online platform, including a website like "Drive Time" focused on old bike selling. Here are some specific challenges associated with illiteracy and potential strategies to address them: Illiterate users may have limited experience with digital platforms. Providing a user-friendly interface with clear and intuitive navigation can help overcome this challenge. Include visual cues, simple instructions, and straightforward icons. Illiterate users may struggle with written descriptions and instructions. Use visual elements such as icons, images, and videos to convey information. Implementing a voice-based interface or incorporating audio descriptions can also enhance accessibility. Illiterate users may face challenges in reading and understanding written content, especially if the platform uses complex language or multiple languages. Offer content in local languages, use simple language, and consider incorporating translation features. Illiterate users may find it challenging to fill out forms or complete transactions online. Simplify the process by minimizing the amount of required information and providing step-by-step guidance. Visual prompts and voice-based instructions can assist in form completion.

Lack of Medium

"lack of medium" refers to a situation where users have limited access to communication or transaction channels, such as internet connectivity or smartphones, this can indeed present challenges for an online platform like "Drive Time" focused on old bike selling. Here are some considerations and strategies to address the lack of medium: Conduct offline awareness campaigns in communities where internet access is limited. Use

traditional mediums such as posters, flyers, and community events to inform potential users about the platform. Provide a helpline or customer support service accessible through phone calls. Users with limited internet access can seek assistance or information over the phone, making the platform more user-friendly. Optimize the platform to be compatible with feature phones (basic mobile phones). This might involve creating a simplified mobile website or even developing a text-based interface for users with limited smartphone capabilities.

Publicity

Publicity challenges can be significant for any online platform, including an old bike-selling website like "Drive Time." Successfully addressing these challenges requires strategic planning and a comprehensive approach to marketing and promotion. Here are some common publicity challenges and potential strategies to overcome them: Invest in a multi-channel marketing strategy that includes online and offline channels. Utilize social media advertising, search engine optimization (SEO), and traditional advertising methods to increase brand visibility. Differentiate "Drive Time" by highlighting unique features, such as a local focus, community engagement, or user-friendly interface. Emphasize the platform's benefits over competitors to attract users. Prioritize cost-effective marketing channels. Utilize social media platforms, content marketing, and community outreach to build awareness without significant financial investments. Leverage word-of-mouth and user referrals. Establish trust by implementing user verification processes, securing transactions, and displaying user testimonials. Communicate transparently about the platform's commitment to user safety and satisfaction.

CHAPTER 3

SOFTWARE REQUIREMENT SPECIFICATION

3.1 Introduction

A Software Requirements Specification (SRS) is a comprehensive document that outlines the functional and non-functional requirements of a software system. The introduction section of an SRS serves as a high-level overview, providing context, purpose, and a brief description of the software to be developed.

I will use Use Case Diagrams, Logic Diagrams, and Data Flow diagrams to illustrate the required definition for our proposed system in this chapter.

3.2 Business Process Model

Creating a business process model for the "Drive Time" old bike-selling web application involves mapping out the key processes and interactions involved in the buying and selling of used bikes on the platform. Below is a simplified example of a business process model for such an application. This model focuses on the major steps involved in listing a bike for sale and the process of purchasing a bike through the platform.

1. Process: Listing a Bike for Sale

Description:

- 1.1. User Registration: The process begins with the user registering.
- 1.2. Login: After registration, the user logs into the platform using their credentials.
- 1.3. Create Listing: The user creates a new listing for the bike they want to sell. This involves providing details such as the bike's make, model, year, condition, and price.
- 1.4. Upload Images: The user uploads images of the bike to accompany the listing.
- 1.5. Submit Listing: The user submits the completed listing for review.
- 1.6. Review and Approval: The "Drive Time" platform reviews the listing to ensure it meets the platform's guidelines. If approved, the bike becomes visible in the marketplace.

2. Process: Purchasing a Bike

Description:

2.1. Browsing Listings: A buyer logs into the platform and browses available bike listings.

2.2. Filter and Search: The buyer uses filters and search functionality to narrow down the options based on preferences such as location, price range, and bike specifications.

2.3. Selecting a Bike: The buyer selects a bike listing and reviews the details provided by the seller.

2.4. Contacting the Seller: The buyer can initiate contact with the seller for additional information or to schedule a viewing/test ride.

2.5. Negotiation and Agreement: The buyer and seller negotiate the terms, including the price and any other relevant details.

2.6. Transaction Initiation: Once an agreement is reached, the buyer initiates the transaction through the platform.

2.7. Payment: The buyer makes a payment through the secure payment system provided by "Drive Time."

2.8. Delivery/Collection: The buyer and seller arrange for the delivery or collection of the bike.

2.9. Confirmation: After the bike is delivered or collected, the buyer confirms the successful transaction on the platform.

3.3 Hardware & Software Requirements for System

The hardware and software requirements for the "Drive Time" old bike-selling web application can vary based on factors such as the scale of the platform, expected user traffic, and specific features implemented. Below is a generalized list of hardware and software requirements for a standard web application. It's important to consult with developers and system architects to tailor these requirements to the specific needs of the project:

Hardware Requirements:

1. Web Server:

- Multi-core processor (e.g., Quad-core or higher)

- Sufficient RAM (e.g., 8 GB or more)
 - Adequate storage with SSD for improved performance
 - Reliable internet connection
2. Database Server:
- Multi-core processor
 - Sufficient RAM (e.g., 8 GB or more)
 - Adequate storage with SSD for database storage
 - Database management system (e.g.,MongoDB)
3. Networking:
- High-speed internet connection
 - Adequate bandwidth to handle expected user traffic.
4. Backup and Recovery System:
- Regularly backup storage solutions
 - Implement a disaster recovery plan.
5. Firewall and Security Systems:
- Hardware firewalls to protect against unauthorized access.
 - Intrusion detection and prevention systems

Software Requirements:

1. Operating System:
- Web Server: Linux-based operating system (e.g., Ubuntu, CentOS)
 - Database Server: Compatible with the chosen Database Management System
 - Configuration for handling HTTP and HTTPS requests
2. Database Management System:
- MongoDB database

- Optimize database configurations for performance.
3. Server-Side Scripting Language:
 - Node.js, language for server-side logic
 4. Framework:
 - Utilize a web application framework (e.g., React for javascript; Express for Node.js)
 5. Client-Side Scripting:
 - HTML, CSS, JavaScript
 - Frameworks or libraries such as React for enhanced user interfaces.
 6. Version Control:
 - Git for version control

It's important to note that the specific requirements may evolve based on the development stack, technology trends, and project specifications. Regularly updating and maintaining the technology stack is essential for ensuring optimal performance, security, and scalability of the "Drive Time" old bike-selling web application.

3.4 Use Case Model

A use case model is a representation of a software system's functionalities and interactions with external entities, known as actors. It is a visual tool that helps define, clarify, and organize the various ways a system can be used and how it will interact with its users or other systems. Use cases are scenarios or sequences of interactions that describe how a system responds to a specific user request. In this chapter, I will use the Use Case Diagram to illustrate this. In other words, it is a Unified Modelling Language (UML) that generally represents the group of tasks that a system or systems should or should not complete in conjunction with one or more external users of the system.

System Use Case:

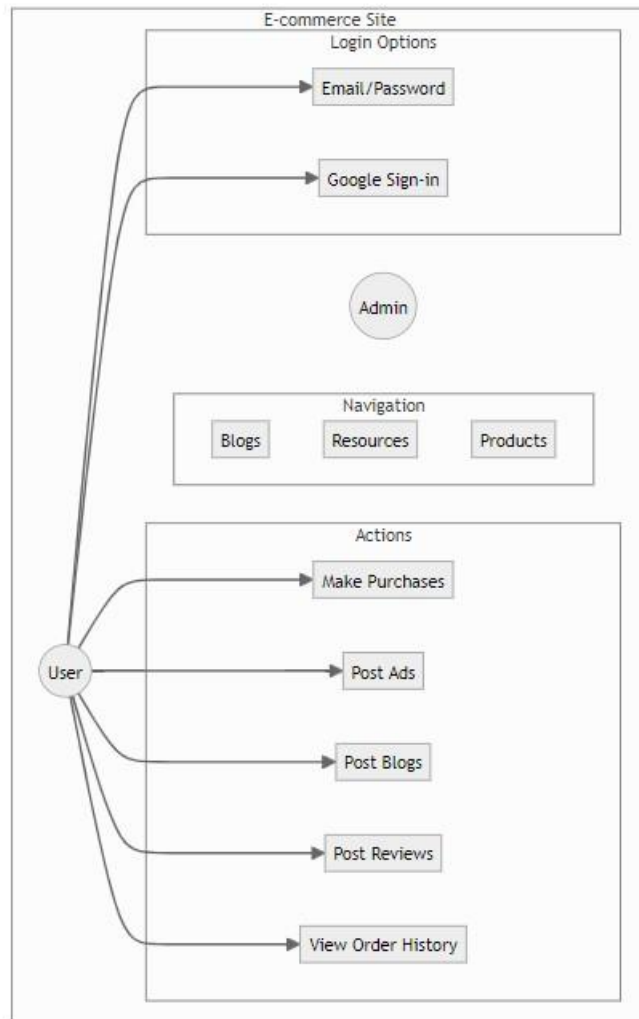


Figure: 3.1 System Use Case for User

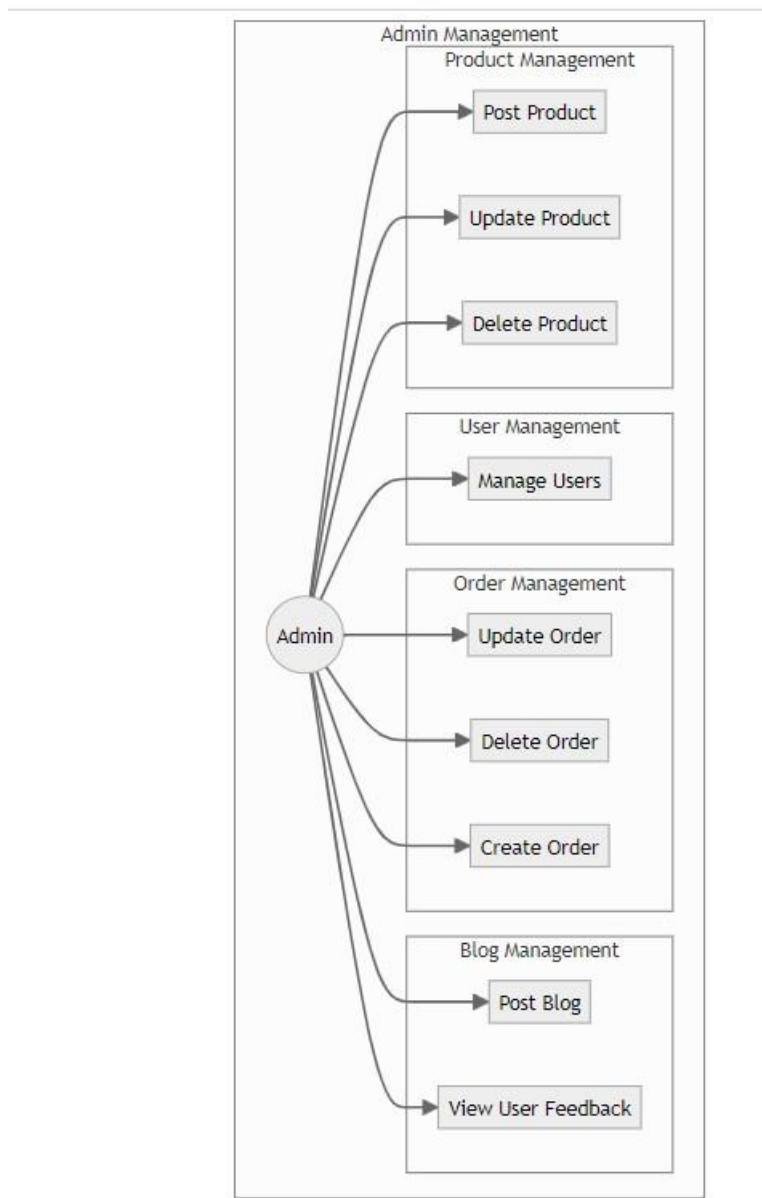


Figure: 3.2 System Use Case for Admin

3.6 Data Flow Diagram

Here are our data flow diagram user requests from the device to the database and the user gets the result.

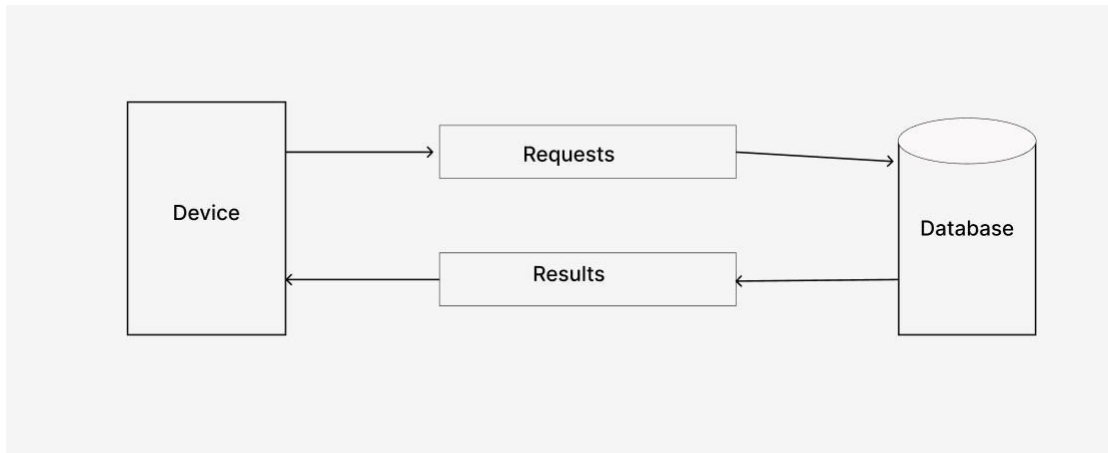


Figure: 3.3 Data Flow Diagram

3.7 Implementation Requirements

Implementation requirements refer to the specifications and details necessary for the actual development and coding of a software system. These requirements are derived from the higher-level system requirements and design specifications. Choose a server-side programming language (e.g., Node.js) based on project requirements and developer expertise. Select a web framework Express for Node.js to streamline development and ensure best practices. Choose a suitable database language MongoDB. Specify the preferred IDE for coding and development (e.g., Visual Studio Code). Utilize a version control system (e.g., Git) to manage code changes, collaboration, and version history.

JavaScript:

JavaScript [1] is a versatile and widely used programming language primarily known for its ability to create dynamic and interactive content on the web. Developed by Netscape, it has become a fundamental technology for building modern web applications. Below are key characteristics and aspects of JavaScript. JavaScript is mainly used for client-side scripting, allowing developers to enhance user interfaces, manipulate the Document Object Model (DOM), and handle user interactions within web browsers. JavaScript syntax is like other C-based programming languages, making it relatively easy for developers to learn and understand.

Visual Studio:

Visual Studio [2] is an integrated development environment (IDE) developed by Microsoft. It provides a comprehensive set of tools and services for software development, making it a popular choice among developers for building a wide range of applications, including desktop, web, mobile, cloud, and more.[3] Here are key aspects of Visual Studio: A powerful code editor with features like syntax highlighting, code completion, and IntelliSense for a wide range of programming languages. Robust debugging tools to help developers identify and fix issues in their code. Visual Studio supports multiple programming languages, including C#, C++, F#, Visual Basic, Python, JavaScript, TypeScript, and more. Supports development for Windows applications, including desktop, UWP (Universal Windows Platform), and Windows Services. Offers tools for building web applications using ASP.NET, HTML, CSS, and JavaScript/TypeScript. Visual Studio has a rich ecosystem of extensions and add-ons available through the Visual Studio Marketplace. Developers can enhance their IDE with additional tools, templates, and integrations.

MongoDB:

MongoDB [3] is a widely used NoSQL database management system that provides a flexible and scalable approach to storing and managing data. Developed by MongoDB Inc., it falls under the category of document-oriented databases, meaning it stores data in flexible, JSON-like BSON (Binary JSON) documents instead of traditional rows and columns.[4] Here are the key features and characteristics of MongoDB: MongoDB stores data in flexible, schema-less documents. Each document can have a different structure, allowing for the storage of complex and nested data. Data in MongoDB is represented in BSON, a binary-encoded serialization of JSON-like documents. BSON supports various data types, including strings, numbers, arrays, and embedded documents. Data is organized into collections, which are analogous to tables in relational databases. Each collection contains multiple documents, which are individual records.

Firebase:

Firebase Authentication simplifies the process of implementing user authentication in applications. It supports various authentication providers, including email/password, Google, Facebook, Twitter, and more.

Libraries:

Express.js: Express.js is a minimalist and flexible web application framework for Node.js. It simplifies the creation of web applications and APIs with features like routing, middleware support, and templating. [4]

React: React is a declarative library for building user interfaces. It allows developers to create reusable UI components and efficiently manage the state of applications.[5]

Bootstrap: Bootstrap is a widely used CSS framework that provides a responsive grid system, pre-styled components, and a variety of utility classes. It simplifies the process of creating responsive and visually appealing websites. [6]

Font Awesome: is a popular icon library that provides scalable vector icons that can be customized with CSS. It is widely used for adding icons to web projects.[7]

Chapter 4

DESIGN SPECIFICATION

4.1 User Application Design

In my project, two distinct applications cater to different roles and functionalities: the User Application and the Admin Application. The User Application serves as the interface through which users engage with the system, obtaining the desired outputs based on their interactions.

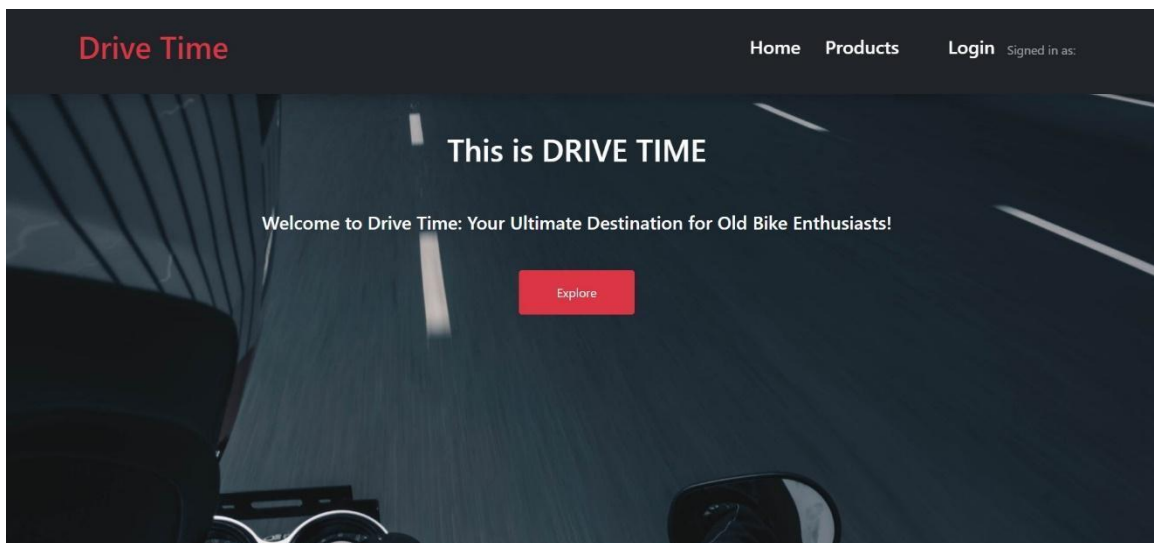


Figure 4.1: Banner

Top Bikes




 <p>BMW Price : 500000 ★★★★★ Fantastic Floatables Levitating Motocross Race Bike Blue 36 inch Flying Floating Anti-Gravity Toy HOVERS in MID-AIR - Interactive Purchase now</p>	 <p>Yamaha Price : 100000 ★★★★★ Yamaha Motor Company was formed in 1955 as an associate company of Yamaha Corporation, which still holds the majority voting stake in the company. Much of the development of their motorcycles is derived from motorsports. Purchase now</p>	 <p>Indian Motorcycle Price : 200000 ★★★★★ Figure Out Your Bike Type Road Bikes. Road bikes are good for fitness riding, commuting, event rides, touring and racing. Most have a drop-bar... .. Hybrid/Fitness Bikes. Author Purchase now</p>
---	---	--

Figure 4.2: Home page

All Reviews

<p>Sumaiya Pias ★★★★★ I am very happy with their e services .their products are too good .</p>
<p>Sumaiya Pias Trisha 201-15-14058 ★★★★☆ Dual-sport bikes make good commuter bikes, and are also good for touring on unpaved trails. Cruiser Bicycles are similar to hybrid bikes, in that they are designed for casual riding, and have a very comfortable, upright riding position, and a large, comfortable seat.</p>
<p>Sumaiya Pias Trisha 201-15-14058 ★★★★★ Very fast services.</p>
<p>Sourav Halder ★★★★★ It wasn't bad</p>

Figure 4.3: Review screen

Our gallery



Figure 4.4: bikes photos



Figure 4.5: footer

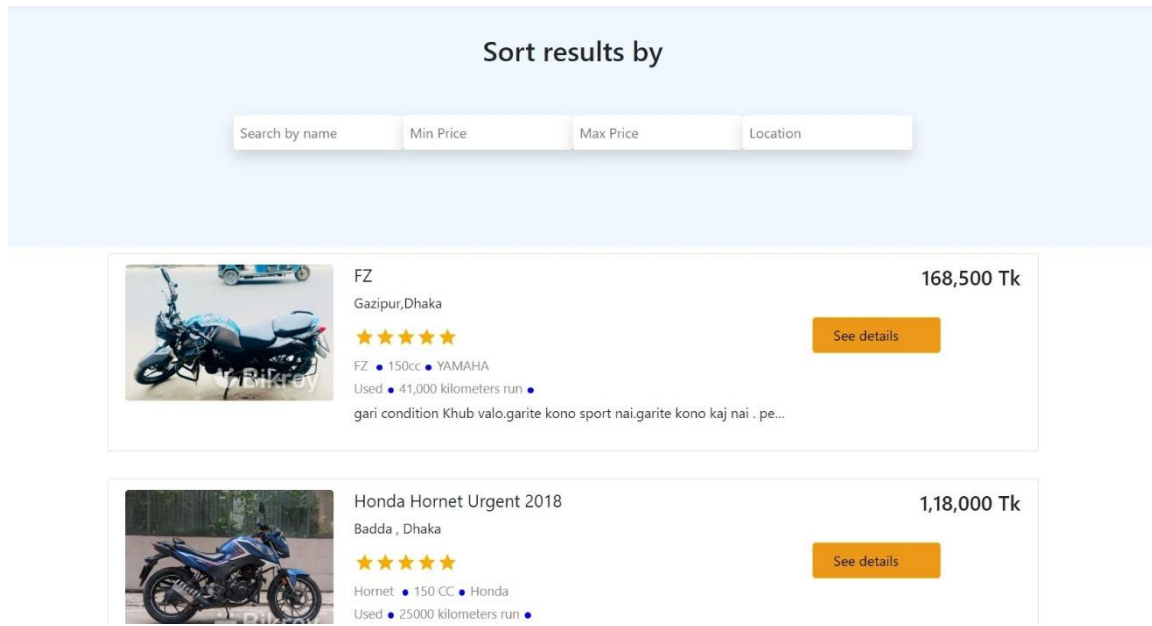


Figure 4.7: All Bikes Page

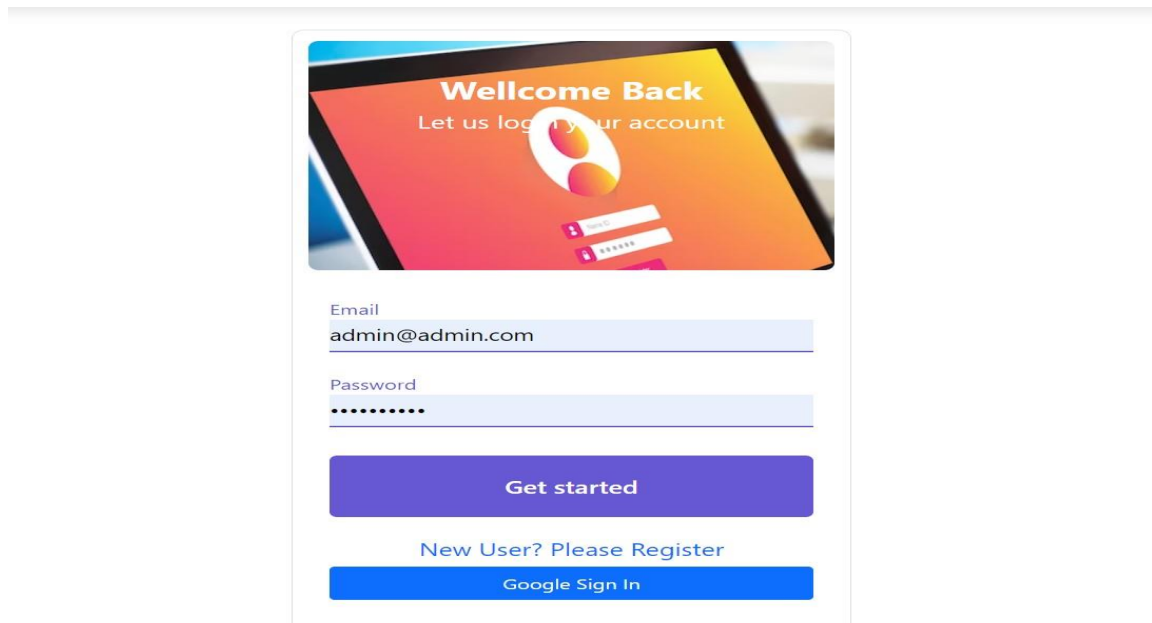


Figure 4.8: Login page

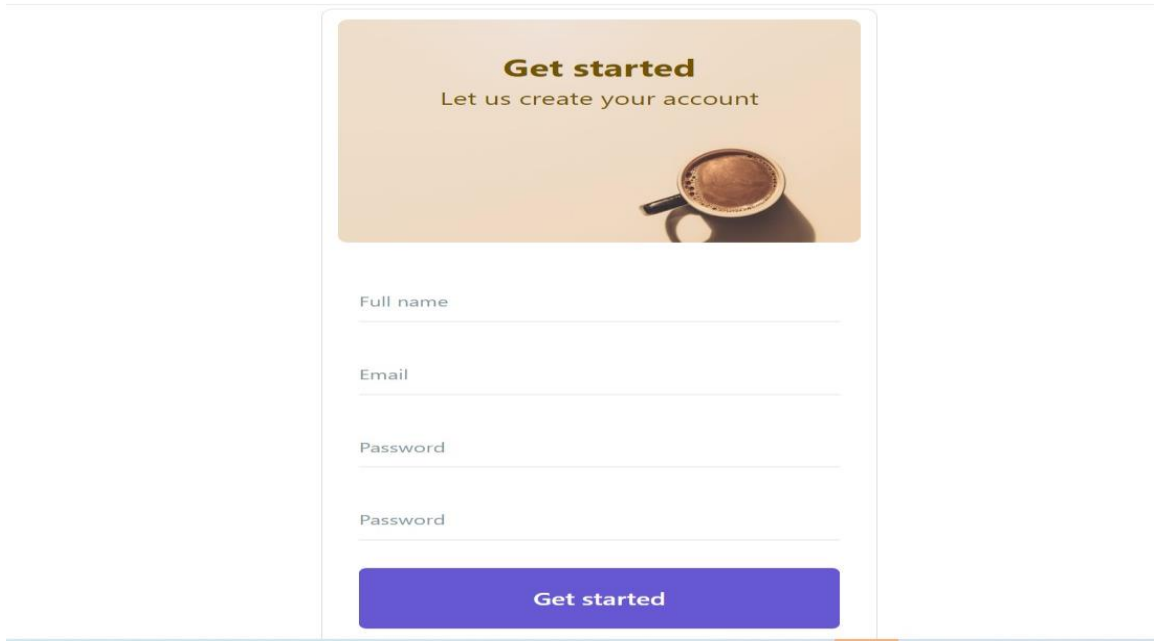


Figure 4.9: Register page

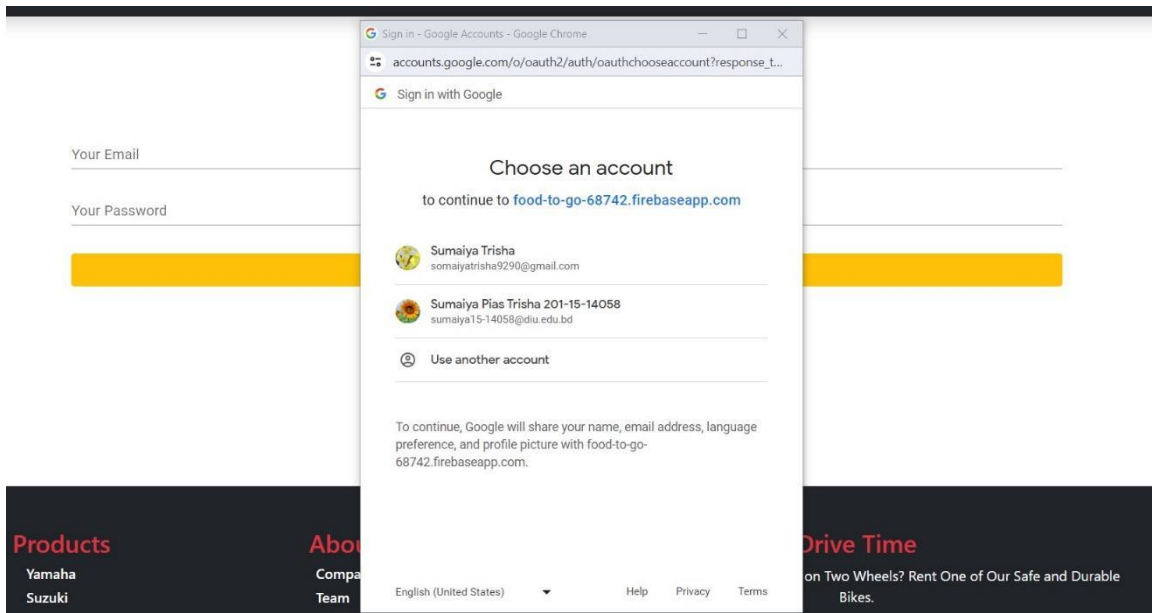


Figure 4.10: google sign in page

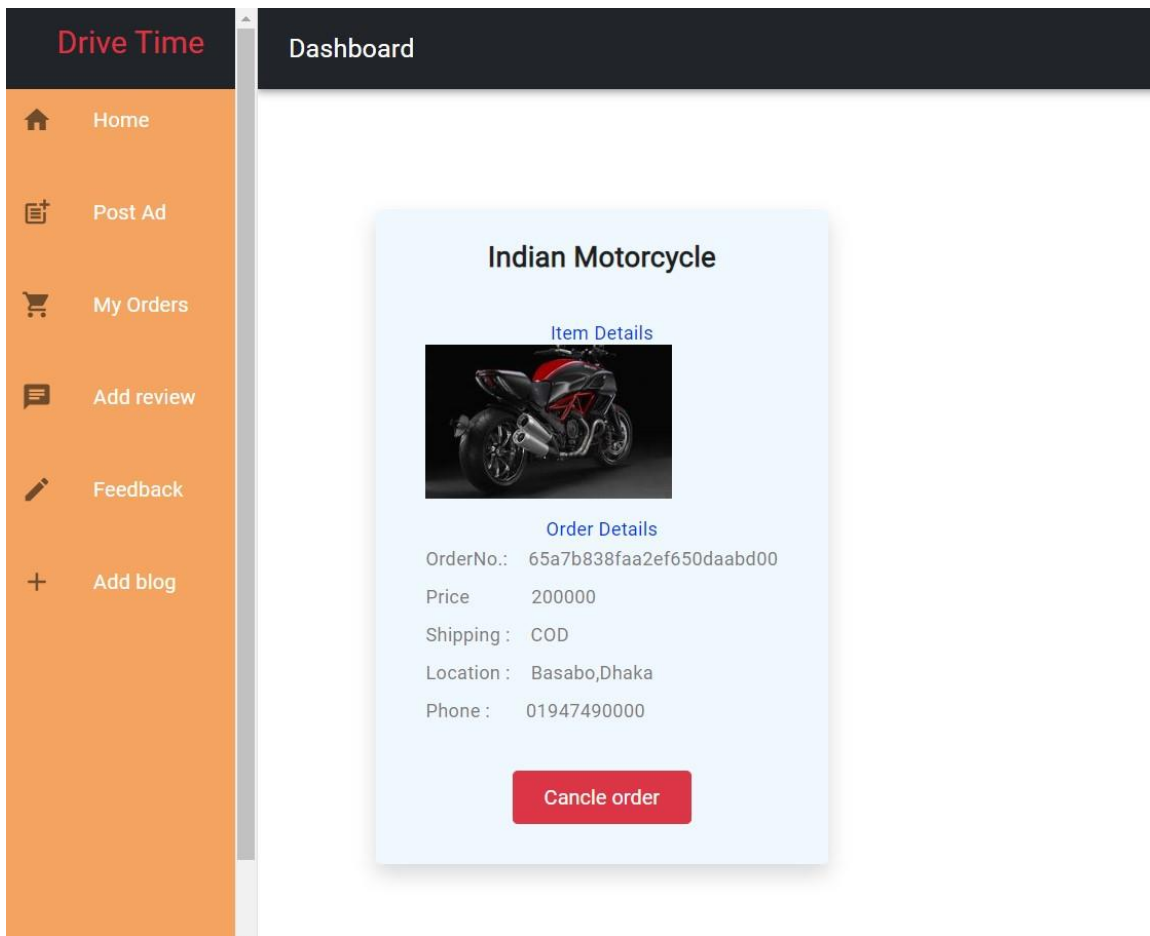


Figure 4.11: My Orders

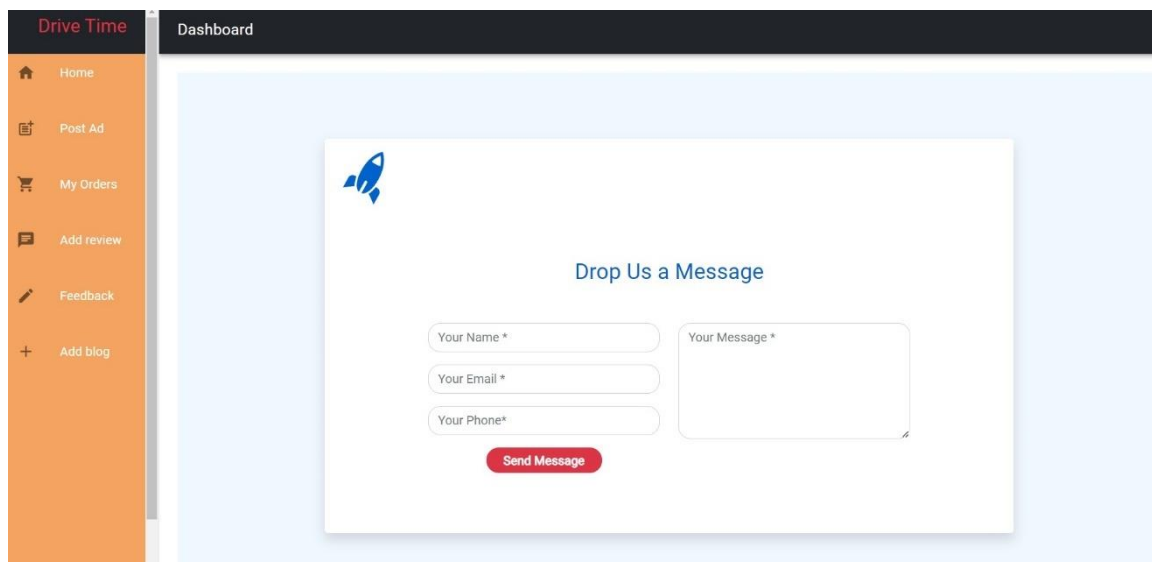


Figure 4.12: Give Feedback page.

Please Add New Review

Sumaiya Pias Trisha 201-15-14058

sumaiya15-14058@diu.edu.bd

Service Description...


Controlled
★ ★ ☆ ☆ ☆

Add Review

Figure 4.13: Give review page

Drive Time Home Information Products Blogs Dashboard Logout [Sumaiya Trisha](#)

Complete your purchase



Honda Hornet Urgent 2018 Tk 1,18,000

★★★★★

Hornet • 150 CC • Honda

Used • 25000 kilometers run •

Honda Hornet Model 17, Reg 18 10 years ppaers 2018 - 2028 Porjonto Smart card 1st party malik address: Notun bazar 100 feet road, vatara, dhaka

Address

Phone number

Confirm Order

Figure 4.14: confirm order screen.

REDLEG'S RIDES



Created by Charlie, this simple blog has been awarded one of the Top 100 Best Motorcycle Blogs out there today. With a passion for motorcycles and motorciding, Charlie talks about his many experiences through different states from the eyes of him and his motorcycle. Writing numerous blogs weekly, you can keep track of his motorcycle journey. Nicknamed Redleg for his services in in the Field Artillery, Charlie even has a Countrie tracker on his website. Trekking through the cold winter months of New Mexico and Arizona to adventuring in Canada, Charlie walks you through his journey as a motorcyclist exploring parts of the world.

[Check Out Redleg's Rides -->](#)

Figure 4.15: Blog Page

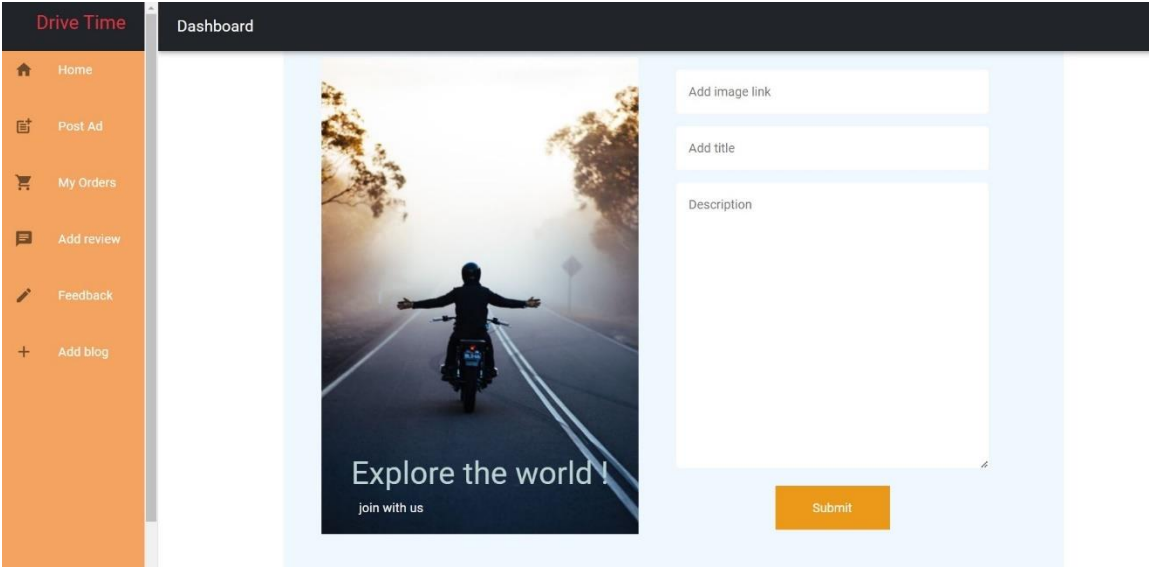


Figure 4.16: Post your Blog.

4.2 Admin App Design

Drive Time Dashboard

Please Add New Product

Sumaiya Trisha

somaiyatrishsha9290@gmail.com

Service Description..

title (uppercase)

Enter price

Insert image link

Bike Type

Brand

Figure 4.17: Add product.

Drive Time Dashboard

MANAGE ALL ORDERS




 <p>Suzuki Client name : Sumaiya Trisha client address : dhaka client phone number : 0106899 Price : 250000 Status : pending</p>	 <p>Harley-Davidson Client name : Sumaiya Trisha client address : razabazar client phone number : 0198888 Price : 550000 Status : pending</p>	 <p>Honda Client name : Sumaiya Pias client address : Mogbajar,Dhaka client phone number : 0171300000 Price : 300000 Status : pending</p>
--	--	---

Figure 4.18: Manage all orders.

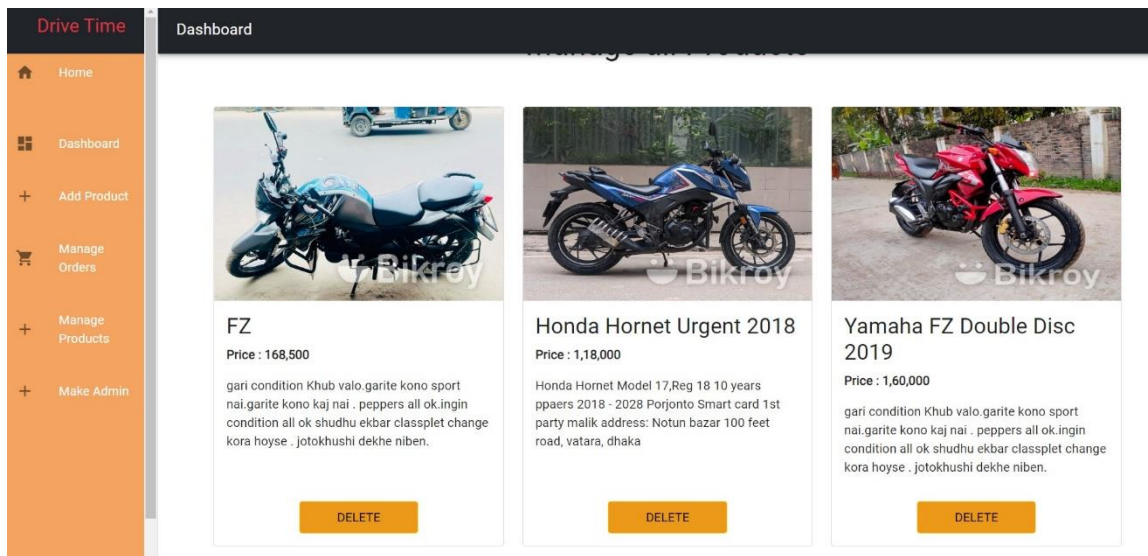


Figure 4.19: Manage all Products.

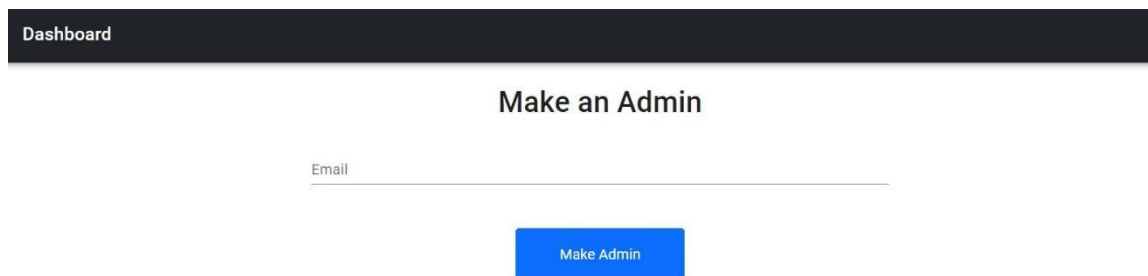


Figure 4.20: Make Admin

4.3 Database Design

For the database, I use MongoDB Database. Here are some samples of Database Structure:

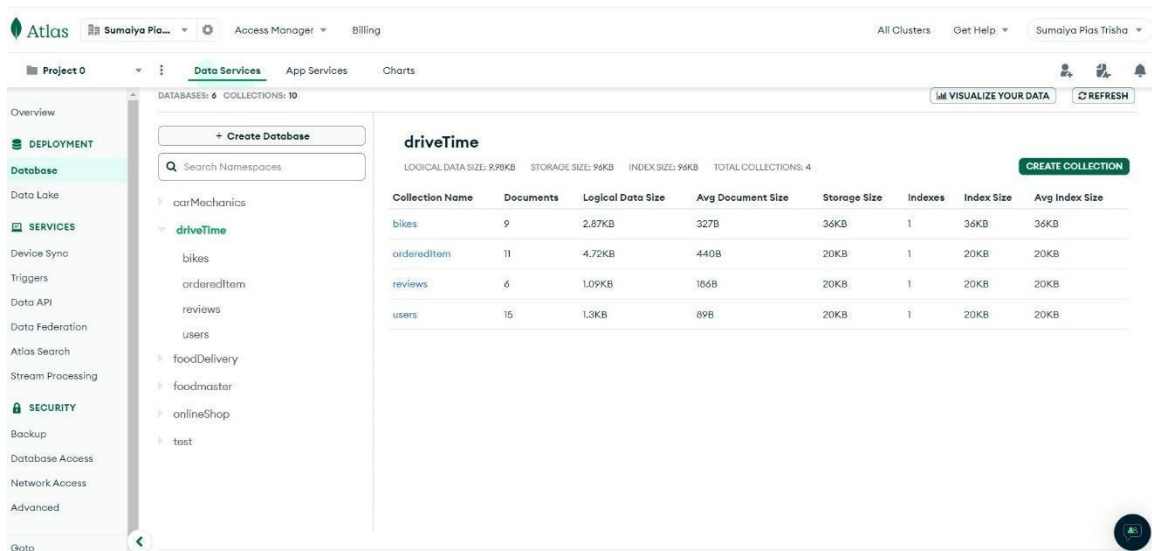


Figure 4.21: MongoDB Database

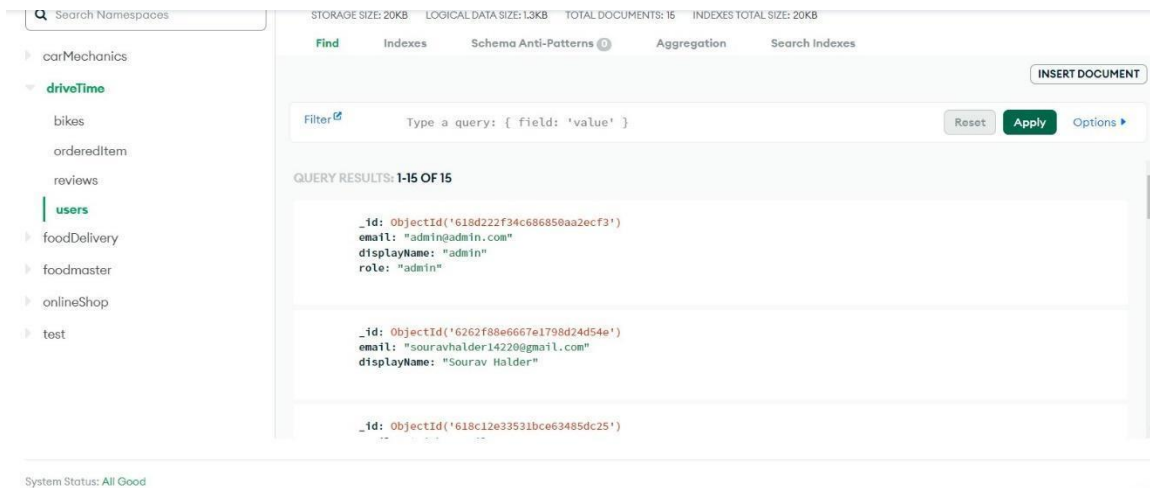


Figure 4.22: User Details

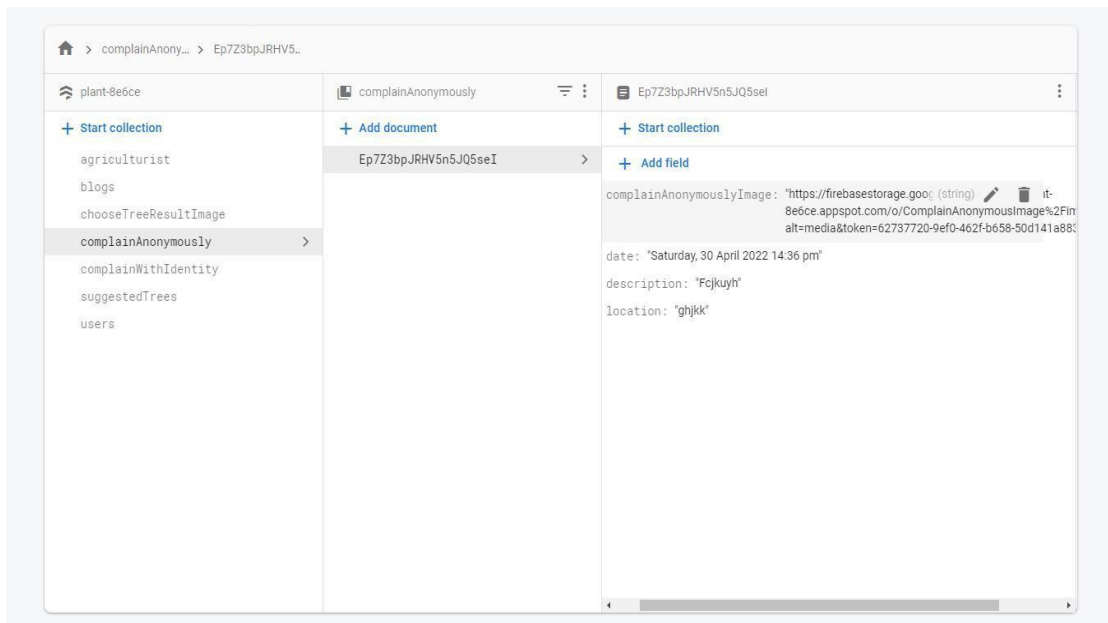


Figure 4.23: Anonymous Complaint Details

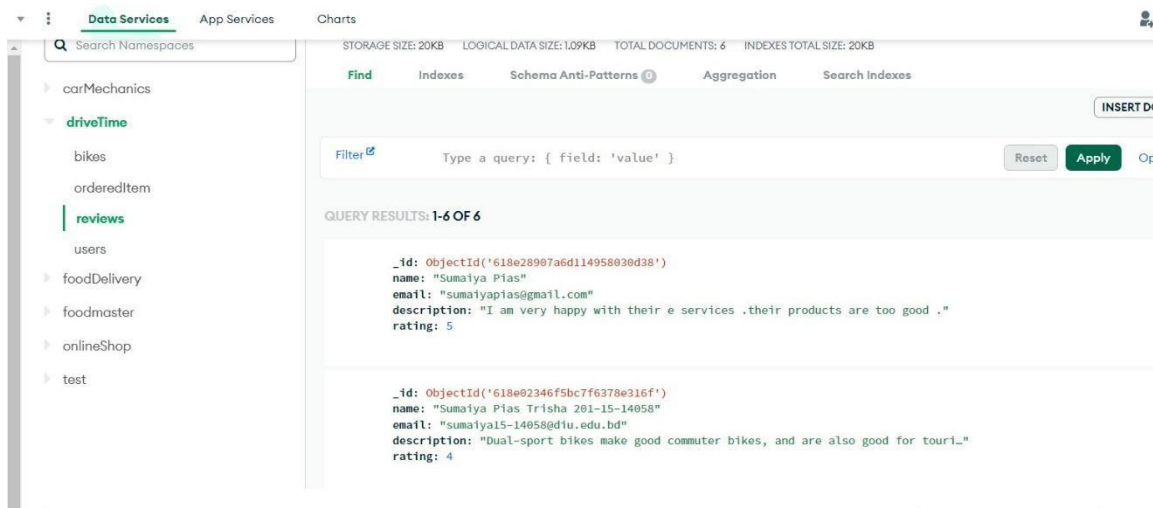


Figure 4.24: Reviews

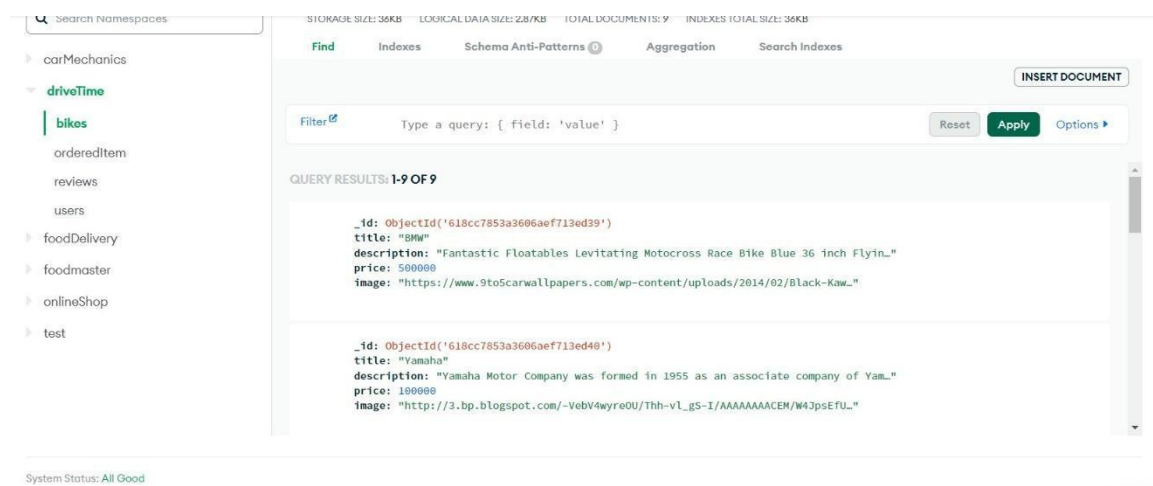


Figure 4.25: Bikes details

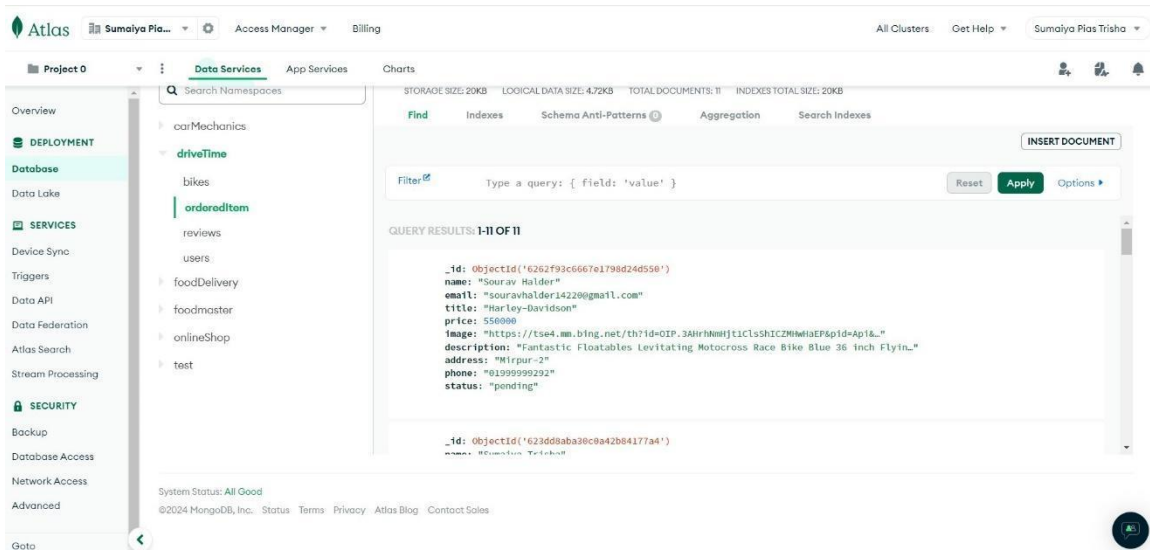


Figure 4.26: Order Item details

Chapter: 5

Implementation and Testing

5.1 Implementation of Database:

In this project, I have used MongoDB Database to control and store data. Mainly I have applied two systems in the database.

MongoDB Database

MongoDB is a NoSQL database system that is commonly used to store information for websites due to its flexibility, scalability, and ability to handle large amounts of unstructured or semi-structured data. In the context of a website, MongoDB is utilized to store information about users, products, and order history.

5.2 Implementation of Interaction

The term "implementation of interaction" can refer to various aspects depending on the context, such as web development, user interface design, or software development in general. I'll provide a general overview and examples of how interaction can be implemented in the context of web development. Create the structure of my webpage using HTML. Use CSS to style the webpage, including layout, colors, and fonts. Implement client-side interaction using JavaScript.

5.3 Testing Implementation

Testing is a crucial part of the software development life cycle, ensuring that the implemented features work as intended and identifying potential issues early in the process. There are different types of testing, including unit testing, integration testing, and end-to-end testing.

Testing Approaches:

Testing approaches refer to the strategies and methods employed to ensure the quality and reliability of software. There are several testing approaches, each serving specific

purposes and stages in the software development life cycle. Here are some common testing approaches:

Unit testing

Unit testing is a software testing methodology where individual units or components of a software application are tested in isolation. A "unit" typically refers to the smallest testable part of an application, such as a function, method, or class. The primary goal of unit testing is to validate that each unit of the software performs as designed. Test each unit in isolation from the rest of the system, often using mock objects or stubs to isolate dependencies. Unit testing is a foundational practice in software development that focuses on verifying the correctness of individual units. When implemented effectively, it contributes to higher code quality, early bug detection, and overall software reliability.

5.4 Test Results and Reports

In the real-time software development life cycle, I employed two crucial testing methodologies to evaluate our system—namely, unit testing and integration testing. The initial phase involved unit testing, implemented during the coding process. I systematically tested diverse modules individually at their creation points. Once the coding and unit testing phase concluded, I proceeded to assess the overall system through integration testing. During both testing phases, various issues were encountered, each of which was meticulously addressed and resolved. This iterative testing and issue resolution cycle continued until all components functioned seamlessly together. Subsequently, with the completion of testing and issue resolution, the proposed system reached its final state.

Chapter 6

Impact on Society, Environment and Sustainability

6.1 Impact on Society

The impact of an old bike-selling website on society can be multifaceted, influencing various aspects ranging from economic and environmental factors to social and lifestyle considerations. Here are some potential impacts: The growth of online platforms for selling old bikes can contribute to job creation, including roles in website maintenance, customer support, logistics, and more. Enabling individuals to buy and sell old bikes can stimulate local economies as transactions occur within the community. Encouraging the reuse of old bikes promotes sustainable practices by extending the lifespan of products, reducing the demand for new manufacturing, and minimizing waste. Offering pre-owned bikes at lower prices makes transportation more accessible to a broader population, contributing to increased mobility and improved access to opportunities. Old bike-selling websites provide a convenient platform for buyers and sellers to connect, browse listings, and make transactions without the need for physical presence. Consumers have a broader range of options when looking for specific models, brands, or features, contributing to a more diverse and tailored market.

6.2 Impact on Environment

The impact of old bike selling websites on the environment can be positive in several ways, primarily associated with sustainability and resource conservation. Here are some potential environmental impacts: By promoting the sale of pre-owned bikes, these platforms contribute to a reduction in the demand for new bike manufacturing. This, in turn, helps conserve raw materials and energy used in the production process. Selling old bikes encourages the reuse and recycling of existing resources. Extending the lifespan of bikes through second-hand sales reduces the need for disposal and minimizes the environmental impact associated with waste. The manufacturing of new bikes involves significant energy consumption and emissions. Purchasing pre-owned bikes reduces the carbon footprint associated with the production and transportation of new vehicles. Old bike selling

platforms contribute to the promotion of cycling as a sustainable mode of transportation. Biking is an eco-friendly alternative to motorized transportation, reducing the reliance on fossil fuels. By facilitating the resale of old bikes, these platforms help minimize the amount of bike-related waste ending up in landfills. This aligns with principles of waste reduction and environmental conservation.

6.3 Ethical Aspects

The operation of old bike-selling websites involves various ethical considerations that impact both the platform operators and users. Here are some ethical aspects to consider: Ethical platforms should ensure transparency in all aspects, including product conditions, pricing, fees, and transaction details. This transparency builds trust among users. Platforms must prioritize the protection of user data, ensuring that personal information is handled securely and ethically. Clear privacy policies and consent mechanisms should be in place. Implementing user verification measures ensures that users are who they claim to be. This helps prevent fraud and unethical practices on the platform. Ensuring the accuracy of product listings and verifying the authenticity of the items being sold is crucial. Misrepresentation can lead to unethical transactions. Ethical platforms prioritize responsive customer support to address user queries, concerns, and complaints promptly. This ensures a positive user experience and resolves issues fairly. The platform should treat all users fairly, without discrimination based on race, gender, ethnicity, or other protected characteristics. Policies against discrimination contribute to an inclusive and ethical environment. Ethical platforms may actively promote sustainability by encouraging the purchase and sale of used items, contributing to environmental conservation efforts. Implementing measures to prevent fraudulent activities, scams, or unethical practices is essential to protect both buyers and sellers. Ethical platforms may engage in educational initiatives to inform users about best practices, safety measures, and ethical considerations when buying and selling on the platform.

6.4 Sustainability Plan

A sustainability plan for an old bike-selling website involves outlining strategies and practices to ensure the platform's long-term viability, environmental responsibility, and positive social impact. Here is a template for a sustainability plan: Encourage the use of bikes as a sustainable mode of transportation. Highlight the environmental benefits of choosing pre-owned bikes over new ones. Explore eco-friendly shipping options. Optimize transportation routes to minimize carbon emissions. Encourage sellers and buyers to embrace the principles of reducing, reusing, and recycling. Provide information on responsible bike disposal and recycling options. Foster a sense of community among bike enthusiasts. Facilitate forums, discussions, and events that promote a positive community spirit. Ensure that the platform remains accessible to a diverse range of users. Promote the affordability of pre-owned bikes to enhance accessibility.

Chapter 7

CONCLUSION & FUTURE SCOPE

7.1 Conclusion

Selecting and completing this project as my final year project holds significant value for me. It has been a pivotal experience that greatly influenced my development journey. This project, being the first comprehensive one I've undertaken, significantly bolstered my confidence to tackle more substantial endeavors. Throughout the process, I acquired a wealth of new knowledge, particularly in transitioning from UI design to the coding phase. Delving into coding based on the established UI design required learning numerous new concepts and techniques that were previously unfamiliar to me.

The journey was not without its challenges, but I managed to overcome them, and I attribute this achievement to the guidance and blessings of the Almighty Allah. I express my gratitude to my project supervisor, Mr. Md. Sadekur Rahman sir, whose consistent guidance steered me in the right direction. Without his supervision, completing this project would have been a more arduous task.

This project has not only enhanced my technical skills but has also imparted valuable lessons in ethics and professionalism. Over the six months devoted to this project, I addressed knowledge gaps and acquired insights that have contributed to my personal and professional growth.

While acknowledging the limitations of my application, I am confident that it incorporates efficient features that can provide a sense of satisfaction to its users. Although this marks the completion of my final year project, it signifies the beginning of a continuous journey. I envision making ongoing improvements, adding features, and providing updates to enhance the project further. In essence, this project serves as the initial step toward realizing my broader vision and aspirations.

7.2 Future Scope:

The future scope of the Drive Time Old Bike Selling web application presents opportunities for growth, enhancement, and adaptation to meet evolving user needs and market trends. Here are potential areas for future development and expansion:

- **Integrated Payment Options:** Implement secure and convenient payment options, possibly integrating with popular online payment gateways, to facilitate seamless transactions. Direct Contact with Agriculturists through the app
- **Mobile App:** Develop a dedicated mobile application for iOS and Android platforms to reach a broader audience. Mobile apps can provide users with on-the-go access, push notifications, and a more immersive experience. Dark theme
- **Predictive Analytics:** Implement AI-driven algorithms to provide predictive analytics, helping users make informed decisions based on market trends, pricing history, and demand patterns. More Customization.

Reference:

- [1] JavaScript (programming language), available at << <https://en.wikipedia.org/wiki/JavaScript>>> last accessed on 2 December 2024 on 9.00 PM.
- [2] Visual Studio, available at << https://en.wikipedia.org/wiki/Visual_Studio >> last accessed on 2 December 2024 at 9.05 PM
- [3] MongoDB, available at << <https://en.wikipedia.org/wiki/MongoDB>>> last accessed on 2 December 2024
- [4] Firebase, available at <<<https://en.wikipedia.org/wiki/Firebase> >> last accessed on 2 December 2024 at 9.10 PM
- [5] Express.js, available at <<<https://en.wikipedia.org/wiki/Express.js>>> last accessed on 2 December 2024 at 9.10 PM
- [6] Bootstrap, available at <<[https://en.wikipedia.org/wiki/Bootstrap_\(front-end_framework\)](https://en.wikipedia.org/wiki/Bootstrap_(front-end_framework))>> last accessed on 26 July 2022 at 9.15 PM
- [7] Unit Testing, available at <<<https://www.guru99.com/unit-testing-guide.html> >> last accessed on 26 July 2022 at 9.15 PM

Turnitin Originality

Old Bike selling Website

ORIGINALITY REPORT

19% SIMILARITY INDEX	16% INTERNET SOURCES	1% PUBLICATIONS	17% STUDENT PAPERS
--------------------------------	--------------------------------	---------------------------	------------------------------

PRIMARY SOURCES

1	Submitted to Daffodil International University Student Paper	8%
2	dspace.daffodilvarsity.edu.bd:8080 Internet Source	4%
3	Submitted to CSU Northridge Student Paper	3%
4	www.bis.com.au Internet Source	1%
5	Submitted to Asia Pacific University College of Technology and Innovation (UCTI) Student Paper	1%
6	Submitted to Alliance University Student Paper	1%
7	Submitted to KYUNG HEE UNIVERSITY Student Paper	1%
8	www.ijraset.com Internet Source	1%
9	Submitted to Brigham Young University Student Paper	1%
10	dokumen.pub Internet Source	1%

Exclude quotes On
Exclude bibliography Off

Exclude matches < 1%