# AN ONLINE-BASED BUYSELL WEBSITE: E-HAWKER.COM

**BY**

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

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**DAFFODIL INTERNATIONAL UNIVERSITY**

**DHAKA, BANGLADESH**

**JANUARY 2023**

## APPROVAL

This Project/internship titled **"An Online Based Buysell Website: E-Hawker.com"**, submitted by Shayem Hossain, ID No: 183-15-12011 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfilment 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 *date*.

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We hereby declare that, this project has been done by us under the supervision of **Tapasy Rabeya, Lecturer (Senior Scale), Department of CSE,** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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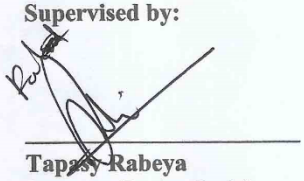

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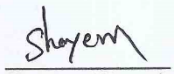

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# ACKNOWLEDGEMENT

To begin with, we express our heartiest much appreciated, and gratefulness to the All-powerful God for His divine blessing that makes it conceivable to total the ultimate year project/internship successfully.

We are truly thankful and wish our significant obligation to **Tapasy Rabeya, Lecturer (Senior Scale)**, Department of CSE, Daffodil International University, Dhaka. Profound Information & keen interest of our boss within the field of "Web Development" to carry out this venture. His endless persistence, insightful direction, ceaseless support, consistent and energetic supervision, helpful feedback, profitable counsel, perusing numerous second-rate drafts, and correcting them at all stages have made it possible to total this project.

We would like to specific our heartiest appreciation to **Shayem Hossain** andHead, Department of CSE, for his kind offer of assistance to wrap up our venture conjointly to otherfaculty members and the staff the of CSE department of Daffodil International University.

We would like to thank our whole course mates at Daffodil International University, who took a portion in this dialog whereas completing the course work.

Finally, we must recognize with due regard the consistent back and patients of our parents.

# ABSTRACT

In our following project, we are creating an online-based used products buy-sell platform, Thisis basically a web-based platform, where we are mainly focused on Back-end. We want to create a smart buy-sell system where people sell their products for a good amount and buyers can buy accepted products at reasonable prices. On our site, we create two different sections called the admin panel and user. Here, users can post their used products or sold items. Afterposting their information, our system will publish it on our platform and then all users can see it. If anyone wants to buy any products then just need to add them by clicking add to cart button. After adding to a cart users can purchase by clicking the checkout button. We think that will help them easily find out the solution and sell their product easily. We will add a section called freedonation. Any user can post their unusual waste. We will check their post, and after successfully completing the checking process, we will contact them. In the present time, the manual buy-sell option is not good and unsafe for people so are creating this platform so that everyone buys all unusual products like our unused furniture, electronics items like computers, laptops, CPUs, monitors, television, wire, etc. In that case, our buy-sell platform system is always ready to help our honorable and beloved customers.

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# CHAPTER 1
# INTRODUCTION

## 1.1 Introduction

In this globalization world, we use lots of different types of products in our day-to-day life. After a few days, you don't want to use it anymore. These products can be sold in different ways like a hand to hand, Facebook, etc. Nowadays online based platforms are essential in the world. we can easily sell and purchase lots of products by using an online platform. In this, we are getting products very easily at home. It reduces the pain a lot and saves our time also. Good products are available for less money and it helps a lot in shopping for those of us who have less purchasing ability. So, we want to create a platform for our society that will be beneficial to managing all used products In a smart way. And also it can benefit our people by selling their used products.

## 1.2 Motivation

Many products can create huge problems in our daily life. They are lying around our house. These look very bad. There is a reason behind it The main reason is a manual management system. So we want to create an online base platform where we can sell products very easily. There are many unused items that we can sell for less money. These items can be bought very easily for a small amount of money. It does not make our surroundings dirty and some money is also available. So we want to make a good platform to sell and buy unused Products. Both the buyer and the seller benefit from this platform.

## 1.3 Objective

The following most important objective is,

- Clean our home and environment and provide a sweet environment.
- We will help to build up internal communication between buyers and sellers.
- It will prevent our wastage and what is unused by one can be used by another.
- It is very easy to use, just you need to take a picture of your products and upload it to our website.

## 1.4 Expected Outcome

- It will save our users valuable time.
- It will create a job place.
- Those who work under our platform they will get a profit.
- There are so many people who want to sell their used products, and by using our website they can sell their products.

## 1.5 Project Management and Finance

At the moment, our project is team-based. Our project has a front end and a back end.

In the future, I have so many plans for this project. When I will need to update our platform,I will develop with the required update. This is a big project, so we will need to maintain proper security. We also plan to take partnership or investment.

## 1.6 Report Layout

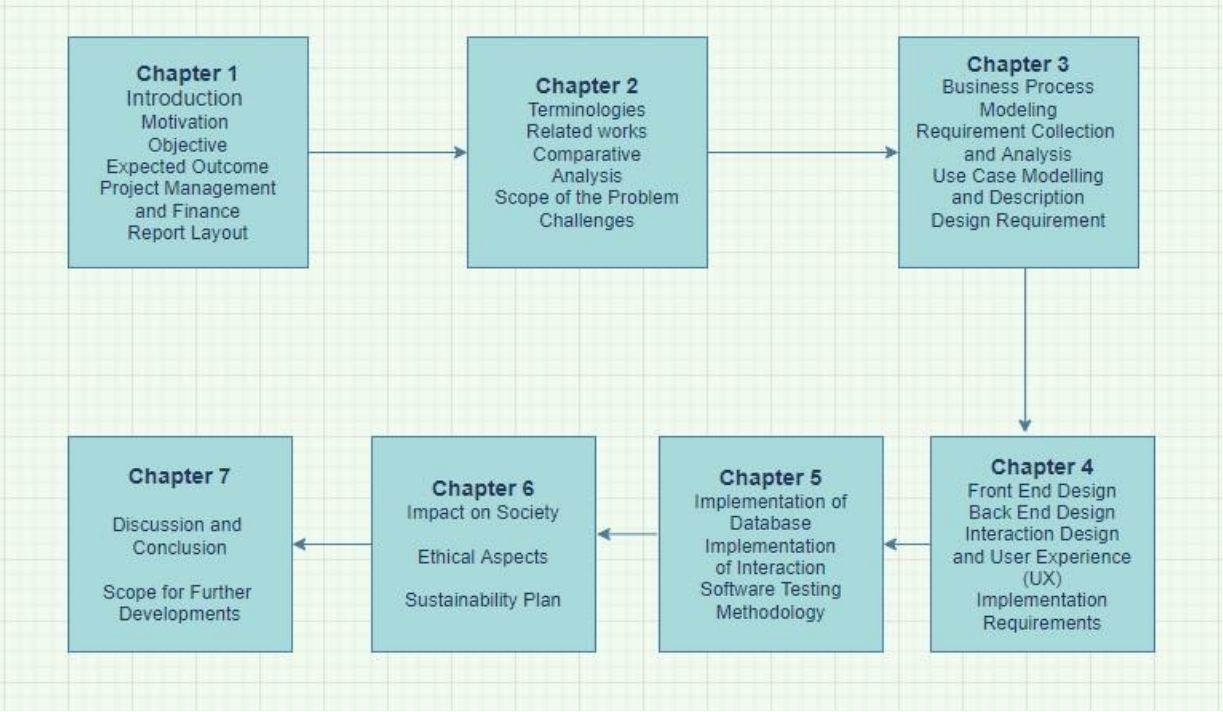


Figure: 2.1.1 Report layout

# CHAPTER 2

# BACKGROUND STUDY

## 2.1 Terminologies

In the present world, the rate of the population increasing every day due to the number of population used products is increasing, along with the scale of garbage stored than before. As a result, our homes and environment are polluted day by day, so ourmain concern is to create a platform where people can buy and sell their used products easily in an advanced and smart way.

## 2.2 Related Work

I am developing an online-based buy-sell platform, there are a few online-based buy-sell websites that are related to our platform. Some of the related garbage collection sitesare:

Bikroy.com has the widest selection of items all over Bangladesh and across more than 50 different categories. Whether you're looking for a car, mobile phone, house, computer, or pet, you will find the best deal on Bikroy.com. Our search and filters make it super easy to find exactly what you're looking for!

You can sell any kind of product by using Bikroy.com and you can also buy products if you want to buy something from here. You can post your used products and then if anyone wants to buy your product then Bikroy.com will help you. If you have a lot of items to sell, consider buying a membership and enjoy additional benefits. We also have some great tools that help make your ad stand out from the rest

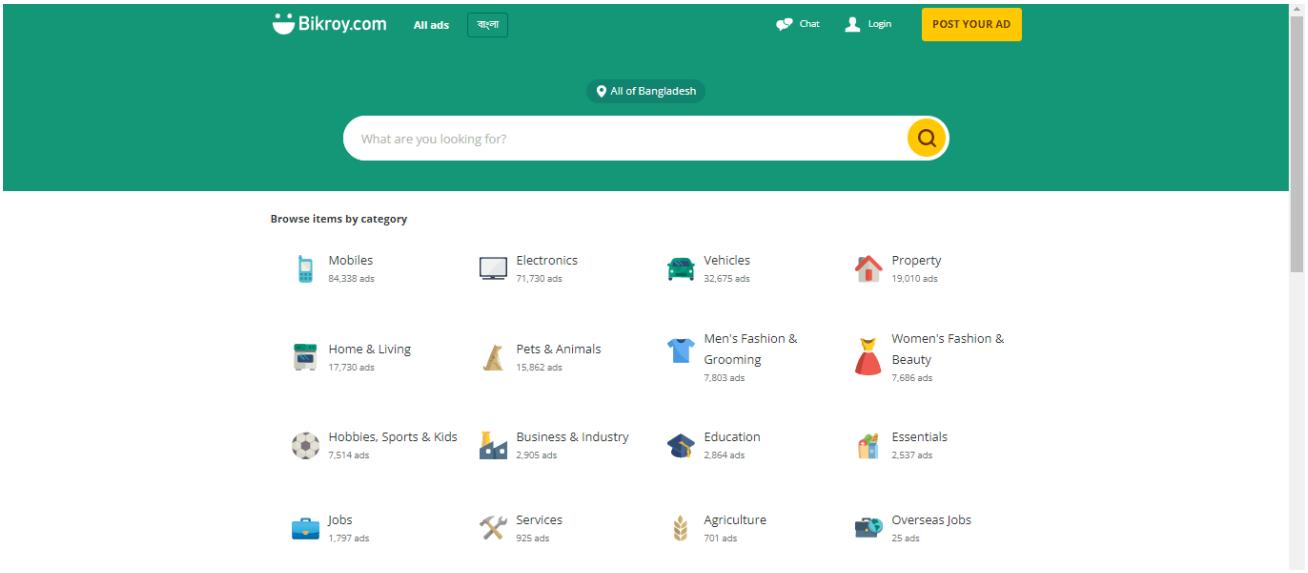


Figure: 2.1.1 Bikroy.com

We also unlock value within our company. We invest in ourselves and each other to reach our full potential. We avoid bureaucracy and empower our teams to innovate. Our commitment to inclusion ensures we listen to a diverse range of voices when making decisions. And, we combine the spirit and agility of a startup with our global scale and the backing of Proses, one of the largest consumer internet groups in the world.

Last but not least, we unlock value for our stakeholders. We are proud of the positive contribution we make to our planet, by enabling more conscious consumption and helping the world make the most of its limited resources through more efficient trade.

We are committed to our cause: shaping the future of trade to unlock the hidden value in everything.

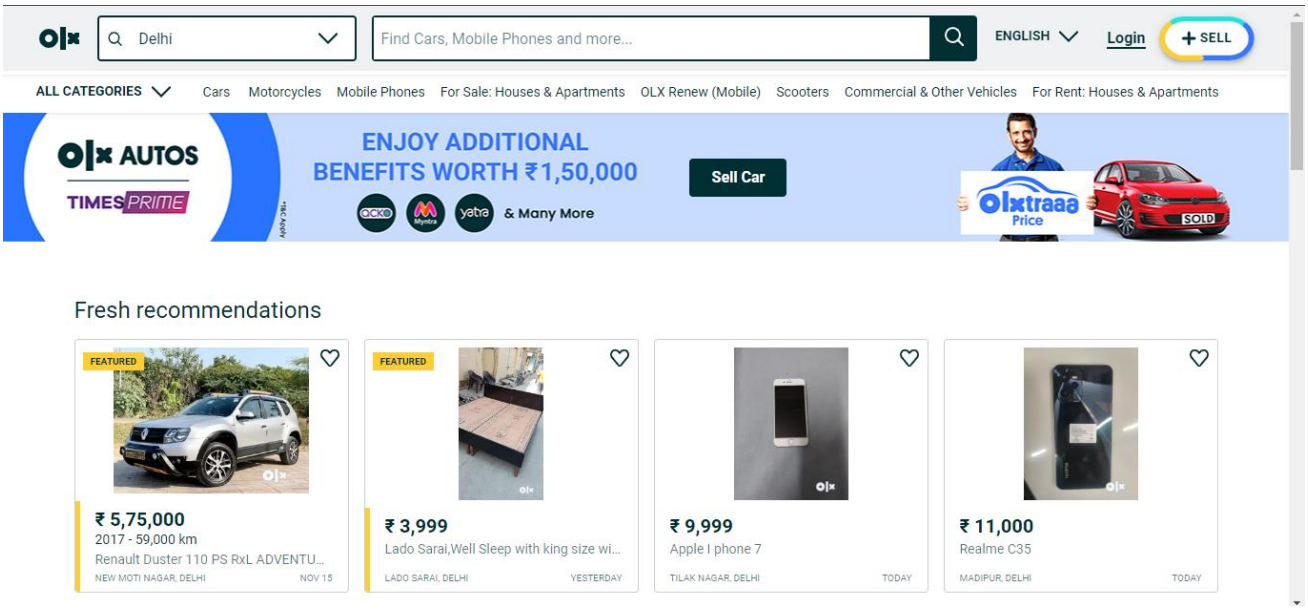


Figure: 2.1.2 olx.com

The largest multi-option online marketplace for buying and selling is Keeno in Bangladesh. It will give its clients a strong platform on which to buy and sell things, both new and used. Customers are able to quickly flip between their alternatives and will do so. The same is true for the vendor. Keeno's ability to provide items to customers based on their location makes it stand out from the competition. Keeno will give them a notification if they are in the closest zone if a buyer or seller wishes to buy or sell certain goods. Keeno will also collect online payments and send the excess to the trader.

Keeno is a business, and our goal is to make money so that we can pay our owners, managers, investors, and employees. Since Keeno is a services provider, it will focus on giving its clients top-notch service. to offer Bangladesh's best online buying experience. to establish Bangladesh as having the largest on-demand internet market to truly benefit clients (both sellers and buyers).

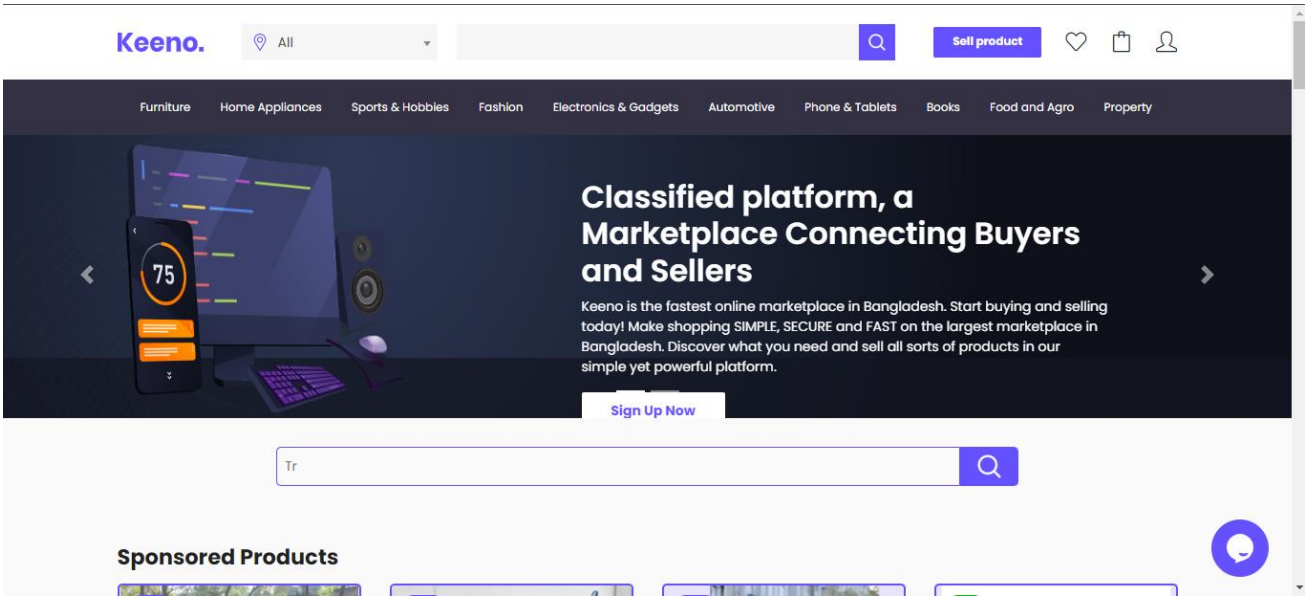

Figure: 2.1.3 keeno.com

## 2.3 Comparative Analysis

In the related work section, we had already overviewed about 3 types of online-based used products buy-sell systems. Each site has its own special feature. Bikroy.com is a Bangladeshi-based platform, that did its work in Bangladesh country. Where they can try to clean up and recycle used products. But they have some limitations like they are solely doing their work but weare working with the hawker that will help us to cover the full area of the country. Also, we talked and analyzed that their delivery charge is high. But talking about some delivery systems owner so that they can deliver our website products on time. Finally, we also focused olx platform which provides business and buy-sell facilities it's their limitation but we will provide all types of facilities and services like bad electronicsitems, used paper and book items, and broken furniture sometimes after seeing the condition ofthe products we provide money to the customer just like how a hawker buy items from the customer.

## 2.4 Scope of the Problem

We aim to create something innovative and distinct since physical labor is too time-consuming and difficult in the current world. We consequently develop this web-based platform. It will include all varieties of used goods so that we may maintain the cleanliness of our homes and

cities while also making some money. It will also free up some space so that those who collect old goods—people we refer to as "hawkers"—can easily acquire expensive items from users and make some money. Our consumers will also benefit in some manner from this. The key issue, however, is maintaining the finest security system for our consumers while also keeping the user's data and financial transaction information secure. Therefore, when resolving this issue, we must protect user data.

### 2.5 Challenges

We must serve our consumers in Bangladesh with the greatest website in order to deliver the best online-based used buy-sell platform. As a result, we occasionally run into issues, but we always do our best to resolve them and these problems are

- The site's usability and smoothness are top priorities for us as we improve it.
- Always be mindful of the most recent, crucial updates, which we are making in a hurry.
- Make sure our users have the greatest security system possible so they never experience any security difficulties.
- Ensure the level of service on our used-products buy-sell website.
- Because our project is still in its early stages, we are putting a lot of emphasis on marketing by running adverts across various platforms.

# CHAPTER 3
# REQUIREMENTS SPECIFICATIONS

## 3.1 Business Process Modeling

Business process modeling, or BPM, is a method for outlining the operational policies and processes of any specific company or website. In essence, it provides a mechanism that shows that the activity is under control. To illustrate how a project would develop in upcoming business models, we employ BPM.

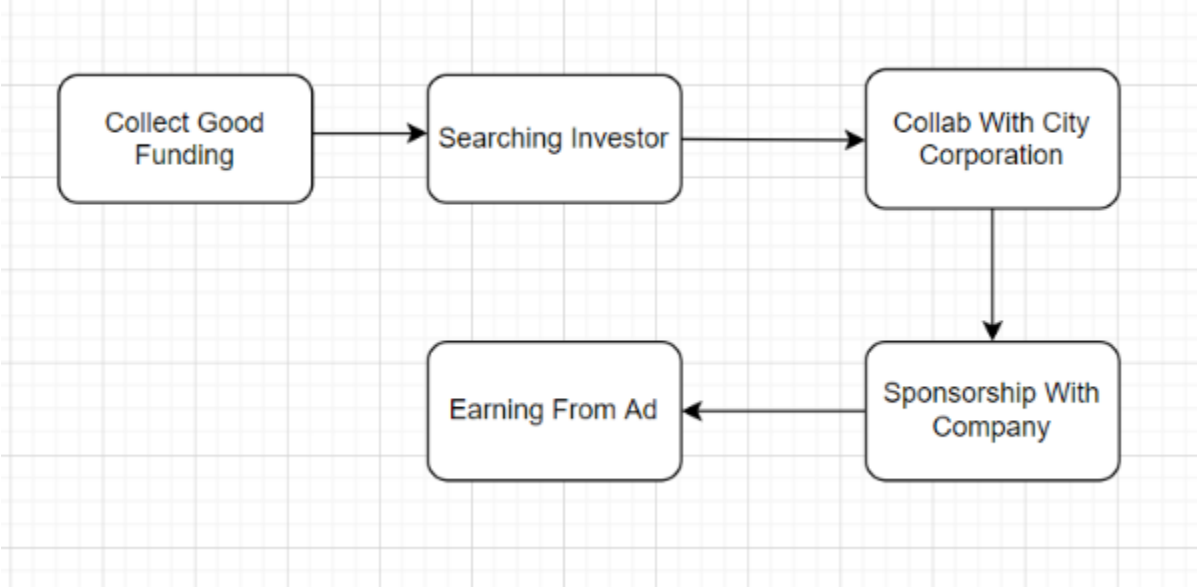


Figure 3.1.1: Business Process Modelling

## 3.2 Requirement Collection and Analysis

To create a platform that is user-friendly, this process comprises assessing, creating, developing, implementing, and evaluating the knowledge of devices.

To complete our website, we need a few essential criteria and collections. The following are examples:

- Real User.

- ❑ Strong Security.
- ❑ Build a Good Profile
- ❑ Always responsive admin panel.
- ❑ Secure and trusted worker.
- ❑ Secure payment option.

### 3.3 Use Case Modeling and Description

Here is the use case modeling and description for our project

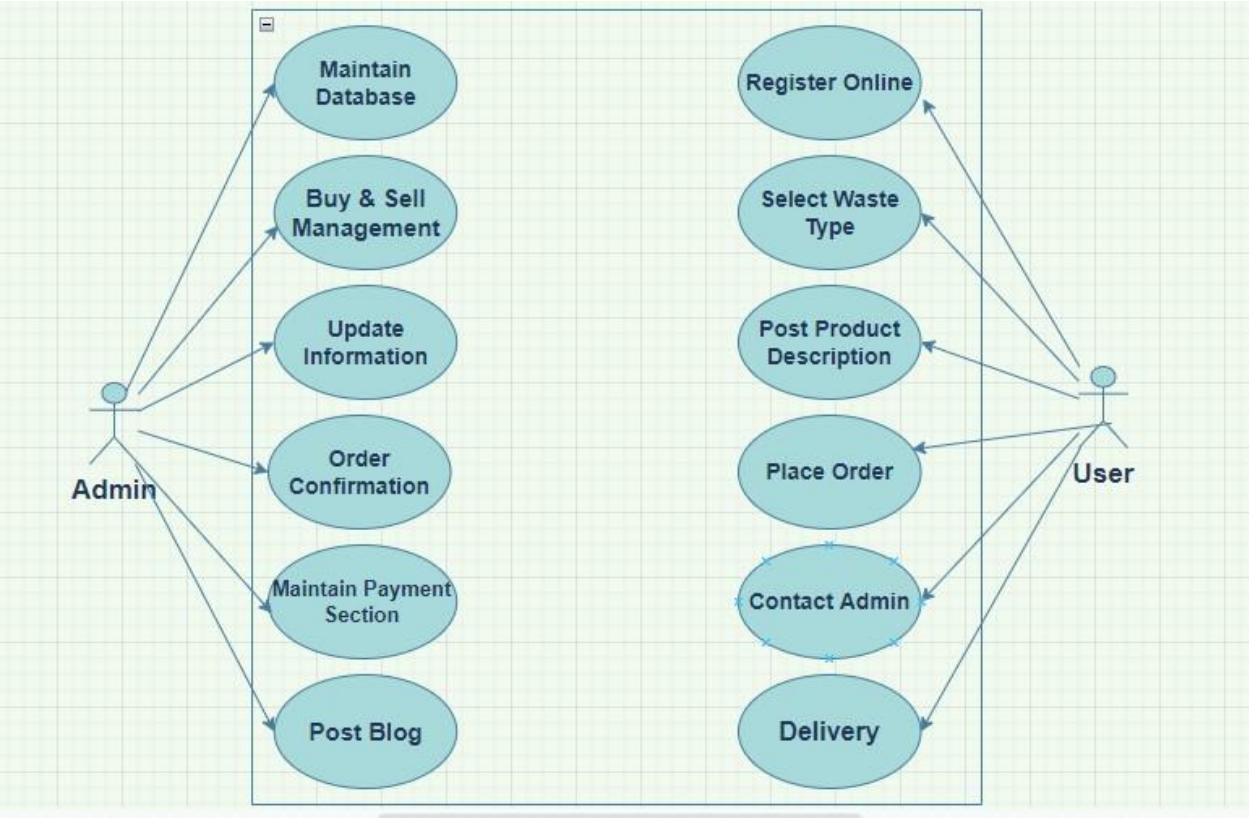


Figure 3.1.2 Use Case Modeling Description

### 3.4 Design Requirement

Project management also requires design requirements. Because if a developer creates a website that isn't user-friendly, that website won't find a market. The person

won't apply it. For it, they will look for duplicate solutions. The usage of case diagrams, flowcharts, and data multidimensional language is all part of architectural design. We employ up-to-date and current tools in our project. So we design our project to be user-friendly. Even though we are currently working on it, there is yet room for improvement. We'll become aware of it later and periodically update our application.

# CHAPTER 4

# DESIGN SPECIFICATION

## 4.1 Front-end Design

HTML, CSS, Tailwind, JavaScript, and React are used in front-end design to construct a user interface that people can view and interact with.
For our project, we used a number of well-known frameworks and modules in order to provide consumers with a slick interface. They are:

- React: React is basically a JavaScript library that is used for creating user interface
- React Bootstrap: A component-based library called React-Bootstrap offers native Bootstrap components that are solely React components. Although CSS is utilized for design, we mostly use react-bootstrap.
- Daisy-Ui: Daisy -UI is a library for tailwind components as well. With react-bootstrap, also utilized it.

**Landing Page:** This also serves as the home page. Every time a person hits our page, they will see this anticipated page.

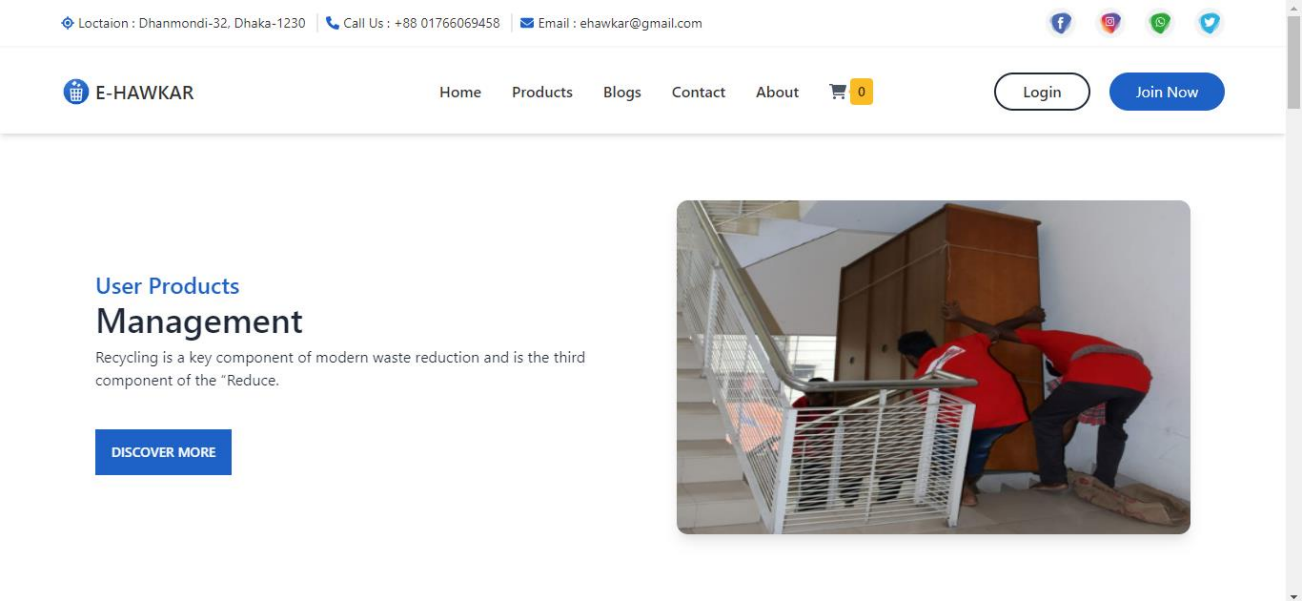


Figure: 4.1.1 Home Page

**Awareness Information:**

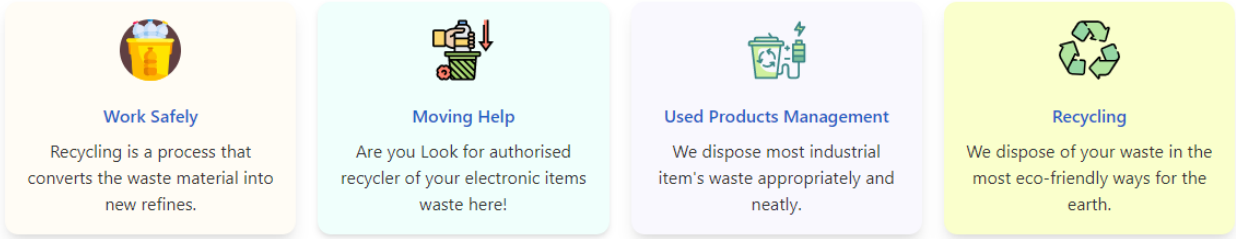


Figure: 4.1.2 Awareness Information

**Sign Up Page:**

Each new user must register on our website by providing the required information, which includes their first and last names, an email address, and a password for security. Any user may easily sign in using their Gmail account by clicking the Proceed with Google button.

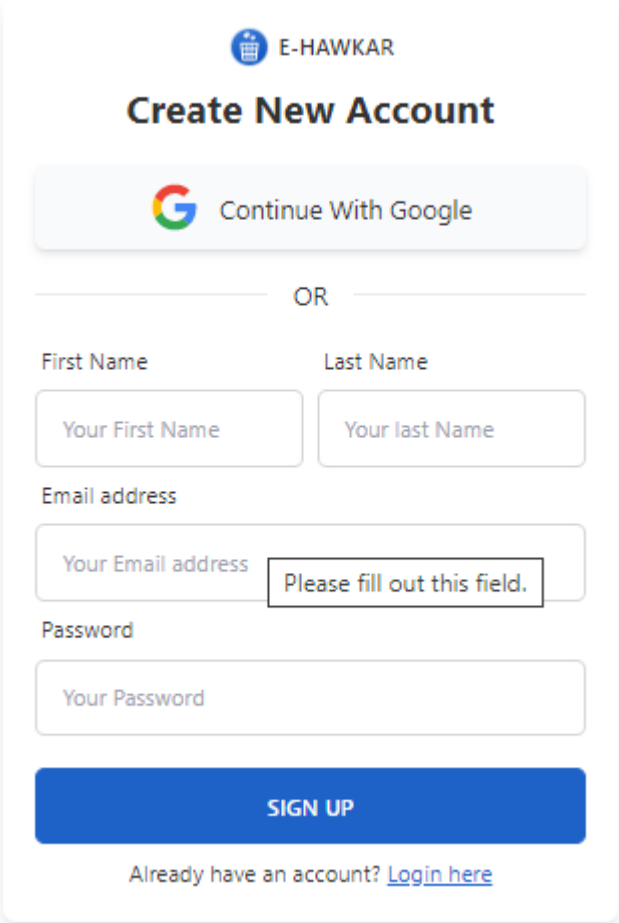


Figure: 4.1.3 Sign Up Page

**Login Page:**

Existing users just need to complete the login process to access our website and use our services if they already have an account on our platform.

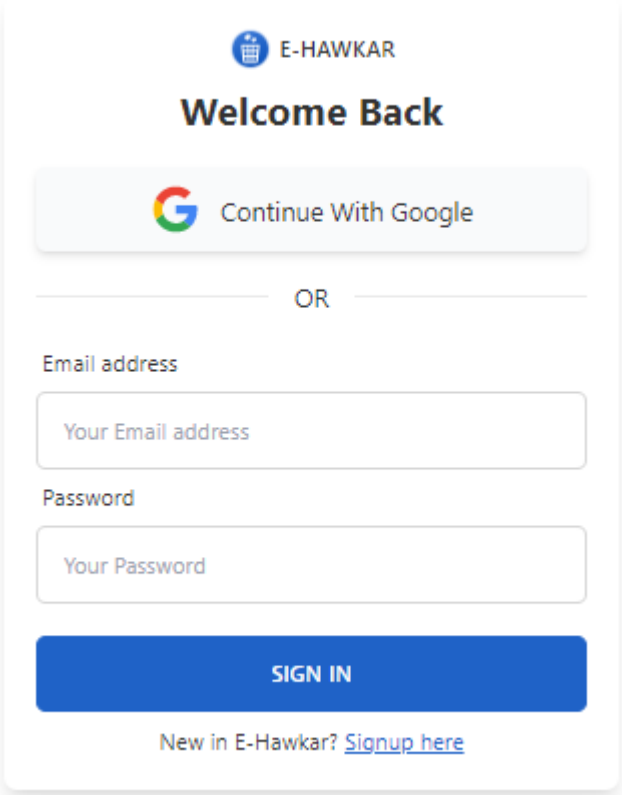


Figure: 4.1.4 Login Page

### Latest Blogs Section:

This section is where we provide recent information that we are aware of. It will alter each time one of our users submits a frequently asked query, and we will edit it accordingly. This part is also updated with the newest technologies related to our services.

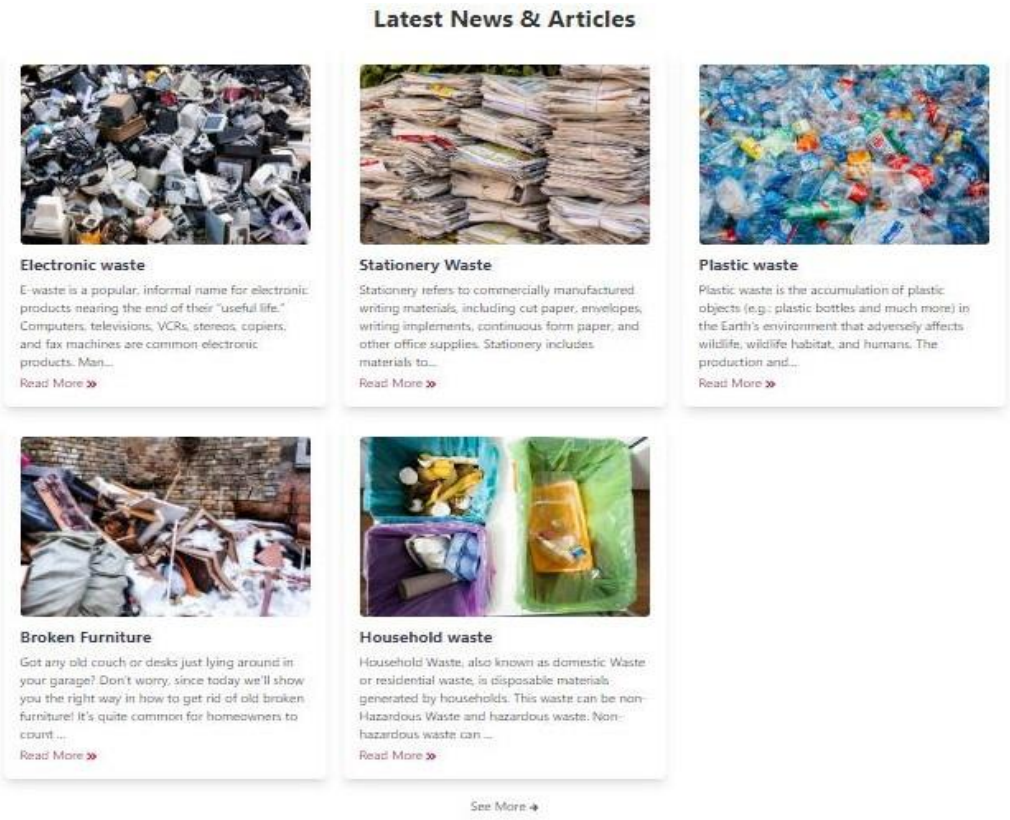


Figure: 4.1.5 Latest Blogs Section

**Blogs Details:**

This is express the details information about blogs, here user can see full descriptions.

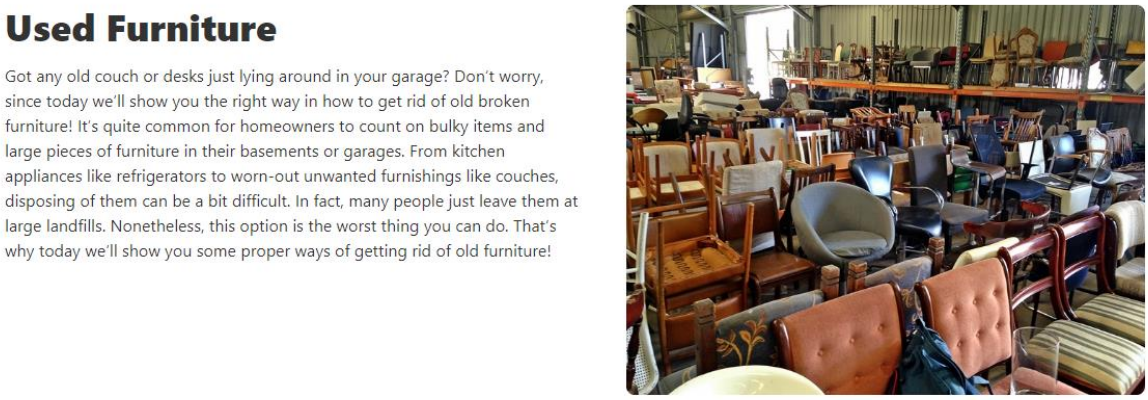


Figure: 4.1.6 Blogs Details

**Contact Information:**

Users can get in touch with us directly if they encounter any problems or have any questions.

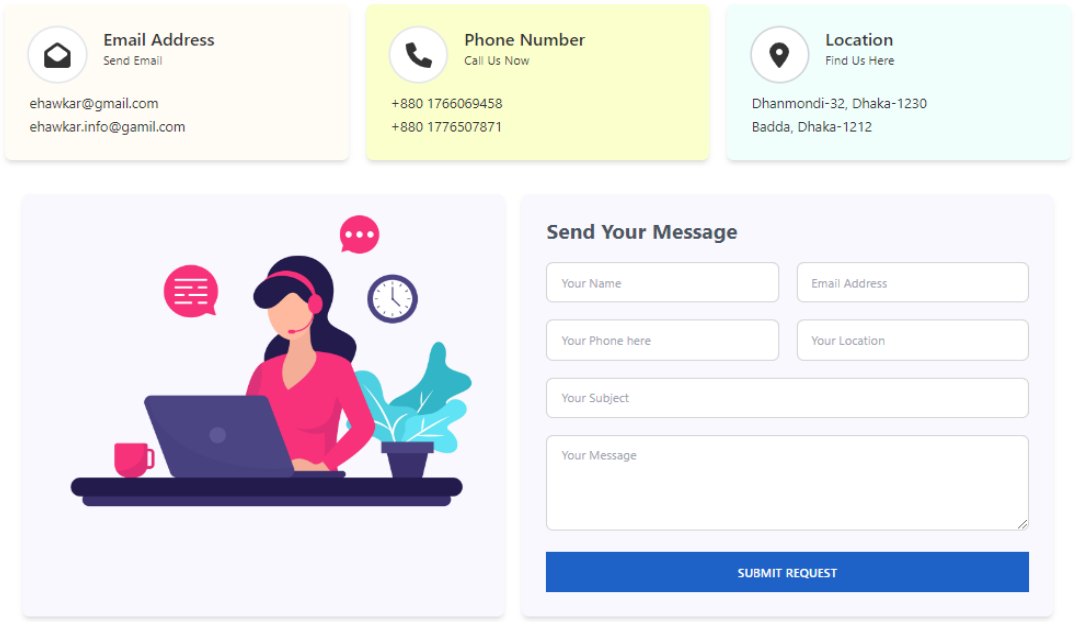


Figure: 4.1.7 Contact Information

**Footer:**

Customers may read our terms and conditions in this area, which also contains a number of useful links.

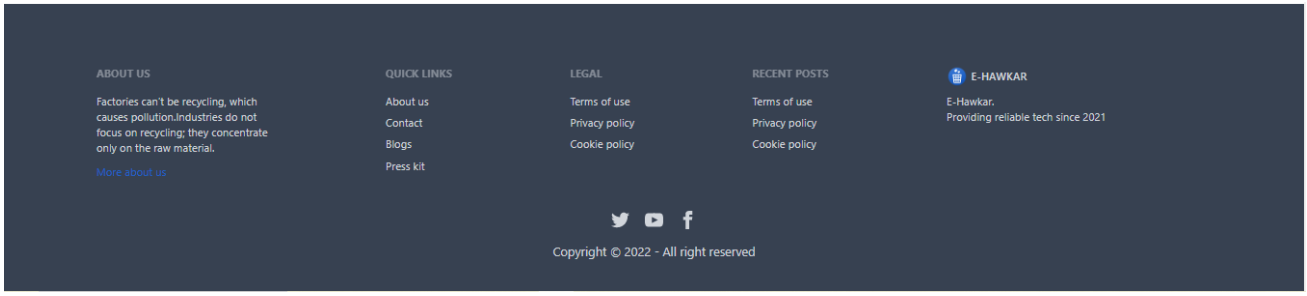


Figure: 4.1.8 Footer

**User Dashboard:**

The user can view an additional route in the navbar area after logging in. When a user clicks on the dashboard in the navbar area, they are taken to their personal dashboard where they may first see information about their profile. The left sidebar offers a wide variety of possibilities. They can choose to choose this way if they desire.

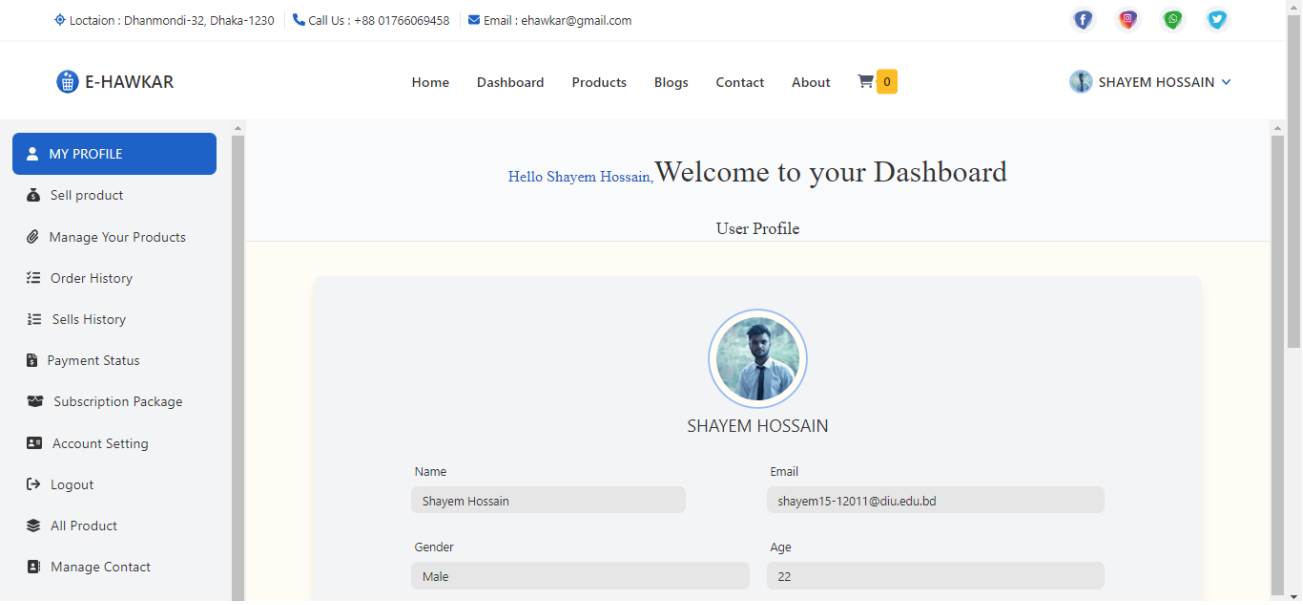


Figure: 4.1.9 User Dashboard

## User Dashboard Accounts Settings:

Here user can update their information.

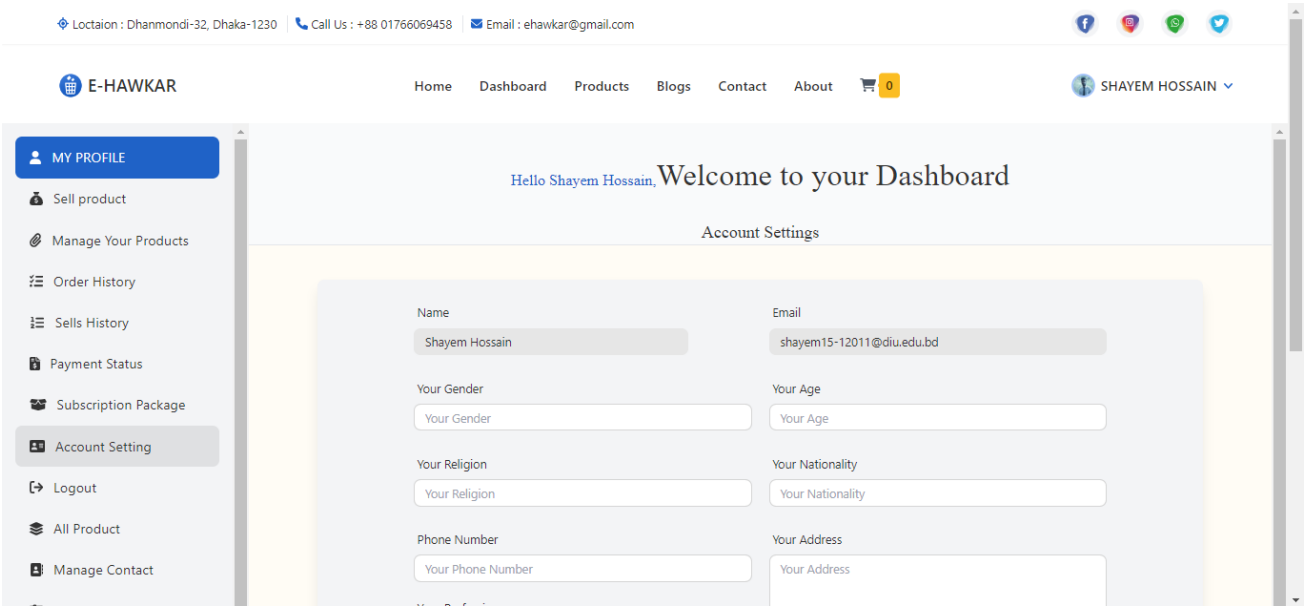


Figure: 4.2.1 User Dashboard Accounts Settings

**Selling Item:**

We have provided some input boxes so that user can post their products for sale.

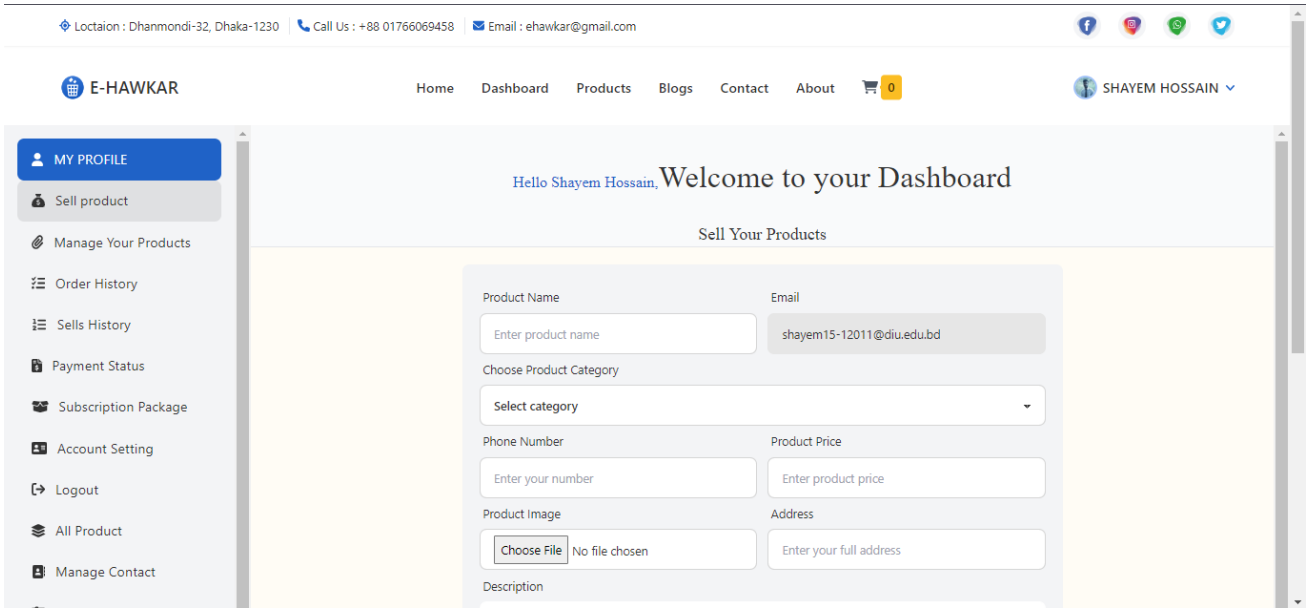


Figure: 4.2.2 Selling Item Information

**Products:**

There are products that users post to sell and our system shows their products very well so other people can buy their products.

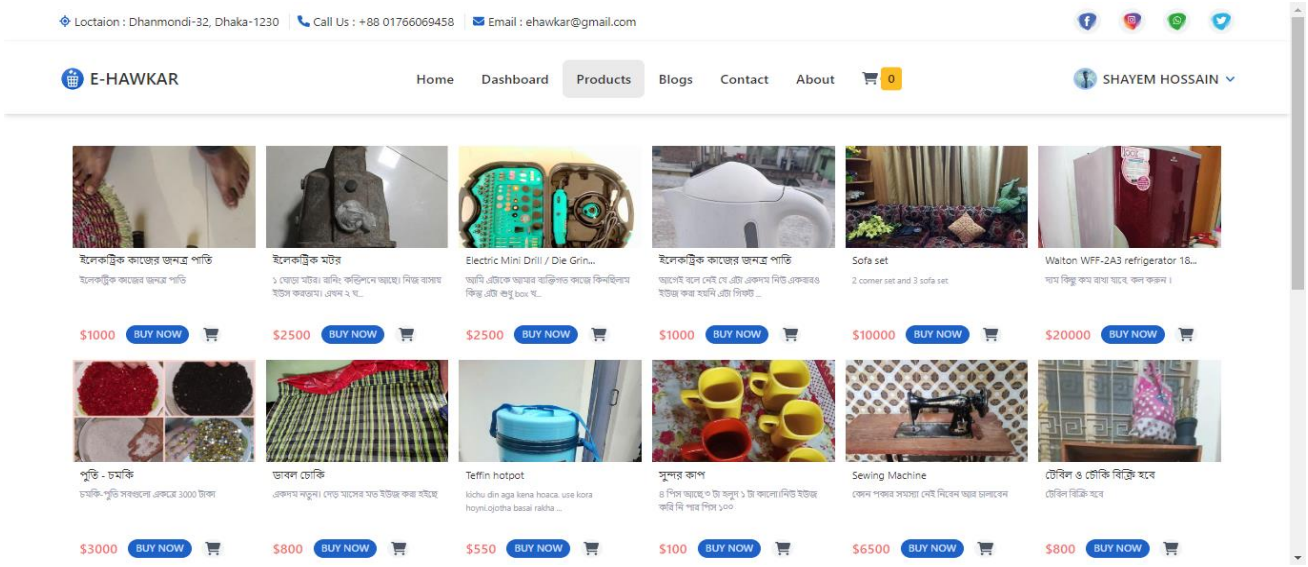


Figure: 4.2.3 Payment Method

### 4.2 Back-end Design

The focus of back-end development is on the portions of a website that users don't see. It is what gives an internet website intelligence. We employ the back end to store data and collect data.

We utilize Node.js for back-end programming to create our website. Because of its single-strung design, NodeJS is well known for its non-blocking servers. Its conventional web pages and backend API administrations are included in this principal usage. In terms of us, our database is a NoSQL database program called MongoDB.

**User Registration:**

In this part, we create two API for user registration and the user information are saved in the Firebase.

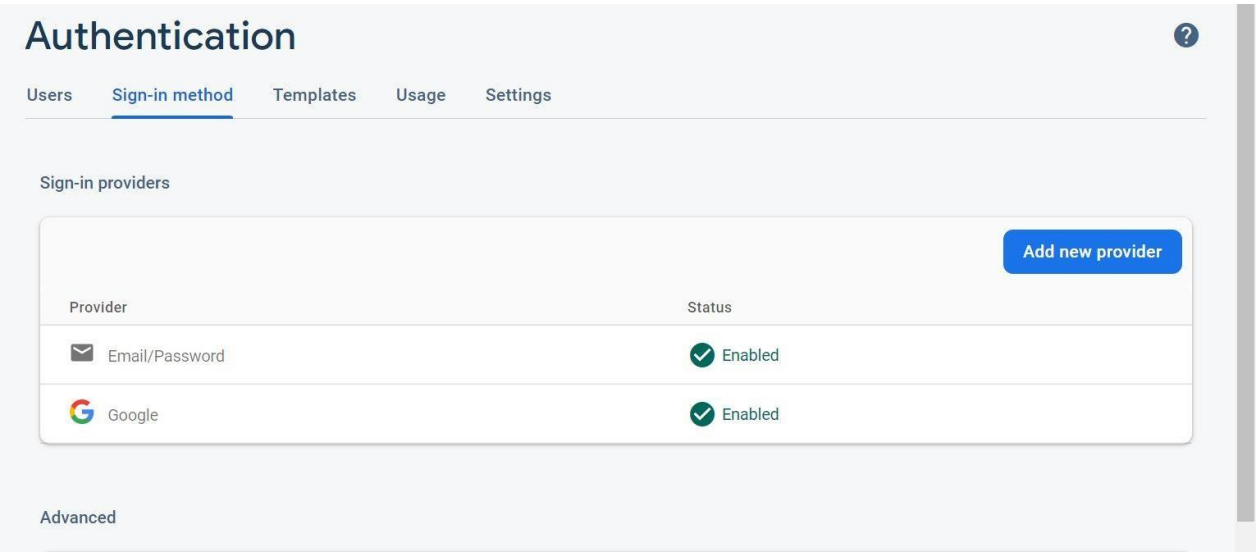


Figure: 4.2.4 User Registration.

**Database:**

There are also two APIs available, the first one is used for getting all the blog from the database and sending it to the front end, and the other one is used for the specific blog details.

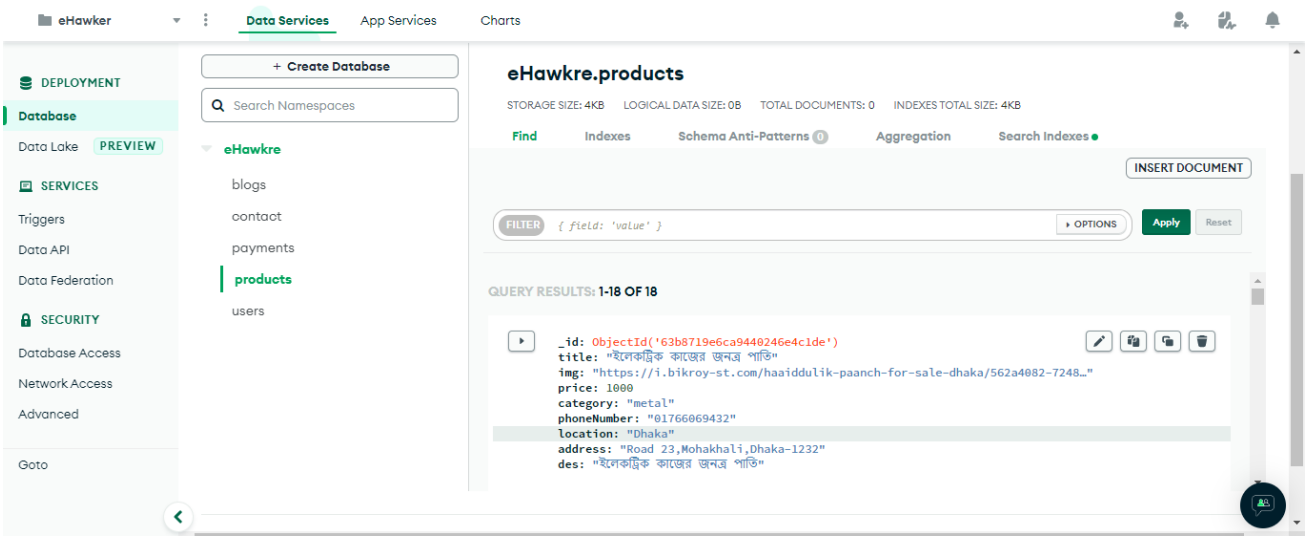


Figure: 4.2.5 Database

### 4.3 Interaction Design and User Experience

A platform is user-friendly if it has a neat appearance, a quick loading time, a pleasing color scheme, a smooth refresh, and a quick loading time. Additionally, if we don't prioritize a positive user experience, consumers won't utilize our site and will instead visit another one. In such a situation, we must make sure that the UX is at its finest, and this will be our first goal.

### 4.4 Implementation Requirements

- ❑ React, React bootstrap, and Daisy UI was used to construct the front-end design. For our website's database, we use MongoDB and for the backend, we utilize Node.js and Express.
- ❑ For the back end of our platform, we are using NodeJS, Express, and Mongo DB for database creation.
- ❑ For user authentication, Firebase is used on our site.
- ❑ Anyone wishing to register for an account on our website must submit all necessary data.

# CHAPTER 5
# IMPLEMENTATION AND TESTING

## 5.1 Implementation of Database

The MongoDB database is mostly utilized in our necessary project to store our data, which is primarily saved in JSON format. MongoDB is also used for communication and search. Using project and device synchronization to quickly reflect any data. We are concentrating on various database architectures, such as initial databases, real-time databases, and firebase certifications.

## 5.2 Implementation of Interaction

In the present world, people are comfortable with digitization, they are easily connected online but this particular part still does not develop well. In that case, it is hard for peopleto manage their used products and it is a time-consuming process. so we are making a platform where people can buy and sell their products easily and provide a good experience to our valuable customers. It is the main reason behind our project to implement goodinteraction with customers.

## 5.3 Software Testing Methodology

The software testing methodology is a crucial component of any web-based project since it is the final testing step before a project is published and made available to the client. It mostly concentrated on the code testing area. Essentially, a project was examined in six separate areas during the complete cycle procedure. You must focus on every little aspect of the code throughout this process since every little detail of the code offers specific information about outcomes. If you miss any little feature of the code, the developer will not be able to deliver correct testing results. It guarantees an accurate testing outcome before to the launch of any website.

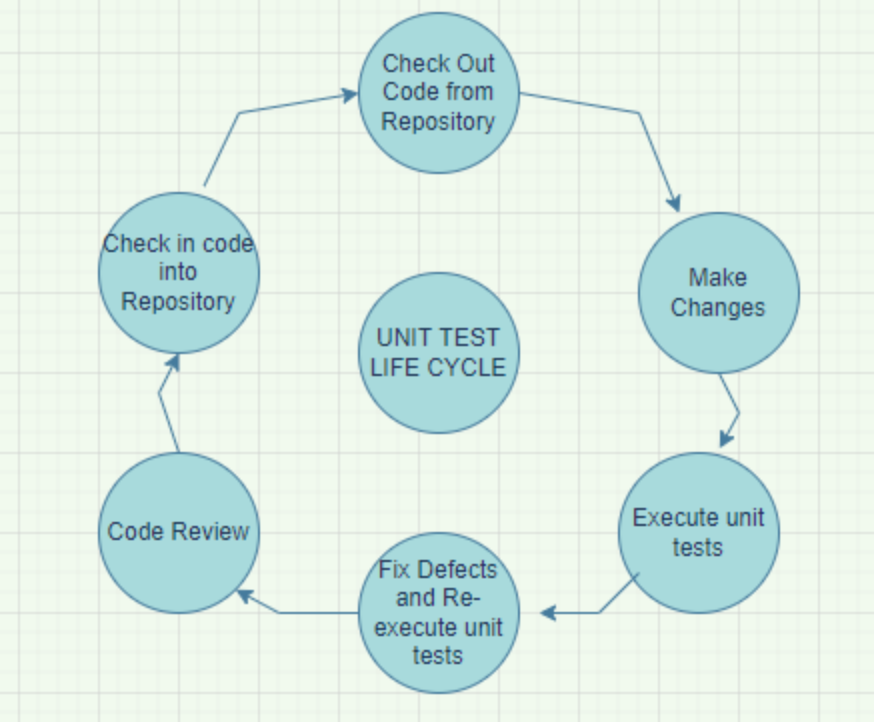


Figure: 5.1.1 Unit Testing Diagram

# CHAPTER 6
# IMPACT ON SOCIETY, ENVIRONMENT, AND SUSTAINABILITY

## 6.1 Impact on Society

Unused goods may be a serious issue for our houses and the environment in today's society. Unused items can pollute the environment throughout the entire world in addition to our nation's ecology. To keep our community and environment clean, we built an online buy-sell platform where consumers could sell and buy their items from the comfort of their own homes. We stand for the single most crucial factor that may influence society:

1. Faster buying/selling procedure, as well as easy-to-find products.
2. Buying/selling 24/7
3. More reach to customers, there are no theoretical geographic limitations
4. Low operational costs and better quality of services.
5. No need for physical company set-ups
6. Easy to buy and sell your products.
7. Customers can easily select products from different providers without moving around physically.
8. Quick delivery and exchange.

## 6.2 Ethical Aspects

The majority of individuals in modern culture feel unmotivated to utilize product management effectively. They scatter so we'll keep updating the information on our block page. We thus believe that it will raise a person's morals.

### 6.3 Sustainability Plan

We are in the process of building a completely dependent platform, but for now, we run it using just a few admin panels. We'll attempt to establish strong relationships with both our workers and our consumers. To guarantee that our customers are satisfied, we make sure that our website is simple to use on any device. We have a strategy to work with any large firm or our local government since we require a lot of financial help.

# CHAPTER 7
# CONCLUSION & FUTURE SCOPE

## 7.1 Discussion and Conclusion

Our project's final guiding principle is to build a sophisticated buy-sell platform. Because the modern world is technologically oriented, we must adopt this trend and create an appropriate sophisticated platform that can improve our quality of life, save us valuable time, keep our houses clean, and lessen the environmental pollution. Additionally, some of the employees that work on our platform are able to find acceptable employment.

## 7.2 Scope for Further Development

We built our project with lots of great potentials, and we need to add a few more features to make it more relevant and efficient, some of which are listed below

1. We have the plan to make a mobile application.
2. In the initial level we are working on the buy and sell options but, we have a plan to spread our project in the hawker community.
3. To provide safe payment and a better user experience for our devoted users, we will integrate an SSL payment gateway.
4. We may have to deal with a lot of issues or inquiries. However, we are unsure about the answer. But when users get together and ask questions and receive answers, many individuals quickly learn the solution.

# REFERENCES


[1] Concept: Use-Case Model, accessed on 1st september 2022; 06:20 pm available at < https://www.utm.mx/-caff/doc/OpenUPWeb/openup/guidances/concepts/use_case_model_CD178 AF9.html>.

[2] Tutorial Based discussion on SDLC and details about waterfall Model, accessed on pt December 2022;07:45 pm, available at< https://www.tutorialspoint.com/sdlc/sdlc_waterfall_model.htm >

[3] Adding a Backend to Your App In vs-code, available at < https://web-developers.googleblog.com/2013/06/adding-backend-to-your-app-in-android.html?m=1 >, accessed on 1st December 2022; 10:23 pm.

[4] Grocer, Stephen (7 May2014). "Alibaba's IPO Filing: Everything You Need to.Know". The Wall Street Journal. Archived from the original on 23 November 2017. accessed on 4th August 2017

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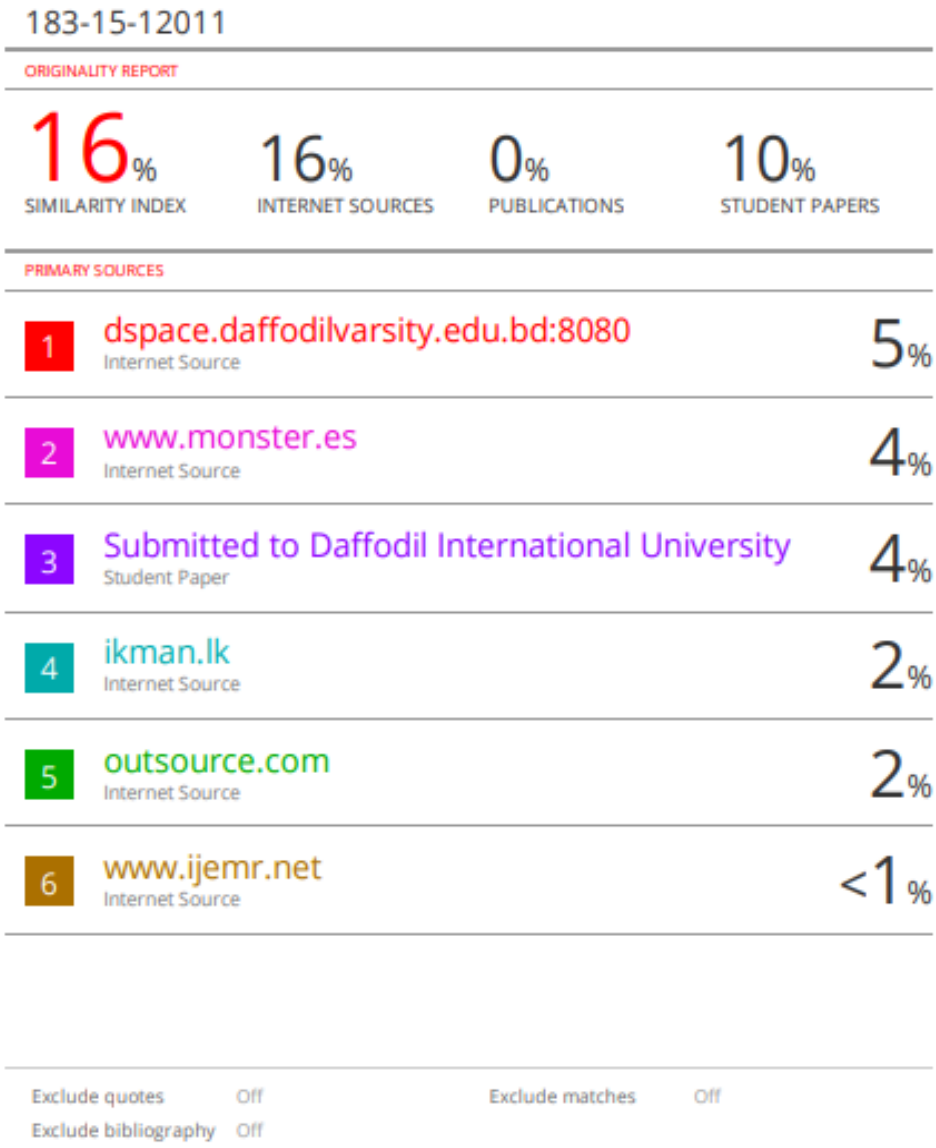

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