

**DIU ONLINE COURIER & HOME DELIVERY SERVICE**

**By**

**Md. Atik Shahriar**  
**ID: 172-15-9990**

**Md Yusuf Rabbi**  
**ID: 172-15-9577**

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

Supervised By

**Md Jueal Mia**  
Senior Lecturer  
Department of CSE  
Daffodil International University



**DAFFODIL INTERNATIONAL UNIVERSITY**

**DHAKA, BANGLADESH**

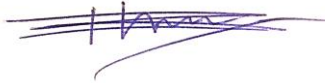
**APRIL 2021**

## APPROVAL

This project titled “**Diu Online Courier And Home Delivery Service**”, submitted by **Md Atik Shahriar**, ID No: **172-15-9990**, **Md Yusuf Rabbi**, ID No: **172-15-9577** 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 **02-06-2021**.

## BOARD OF EXAMINERS

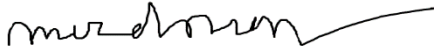
**Chairman**



---

**Dr. Touhid Bhuiyan**  
**Professor and Head**

Department of Computer Science and Engineering  
Faculty of Science & Information Technology  
Daffodil International University



**Internal Examiner**

---

**Md. Riazur Rahman**  
**Assistant Professor**

Department of Computer Science and Engineering  
Faculty of Science & Information Technology  
Daffodil International University



**Internal Examiner**

---

**Nusrat Jahan**  
**Senior Lecturer**

Department of Computer Science and Engineering  
Faculty of Science & Information Technology  
Daffodil International University



**External Examiner**

---

**Dr. Mohammad Shorif Uddin**

**Professor**

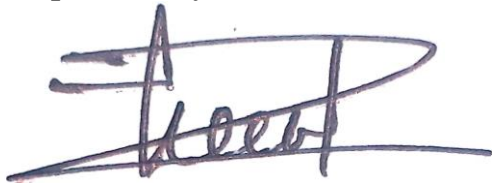
Department of Computer Science and Engineering

Jahangirnagar University

## DECLARATION

We hereby declare that this project has been done by us under the supervision of **Md Jueal Mia**, **Senior Lecturer, Department of CSE** Daffodil International University. We 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 Jueal Mia**  
Senior Lecturer  
Department of CSE  
Daffodil International University

**Co-Supervised by:**



---

**Mr. Dewan  
Mamun Raza**  
Lecturer  
Department of CSE  
Daffodil International University

**Submitted by:**



---

**Md Atik Shahriar**  
ID: 172-15-9990  
Department of CSE  
Daffodil International University



---

**Md Yusuf Rabbi**  
ID: 172-15-9577  
Department of CSE  
Daffodil International University

## ACKNOWLEDGEMENT

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

We really grateful and wish our profound indebtedness to **Md Jueal Mia, Senior Lecturer**, Department of CSE Daffodil International University, Dhaka. Deep Knowledge & keen interest of our supervisor in the field of “*Web Development*” to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts, and correcting them at all stages have made it possible to complete this project.

We would like to express our heartiest gratitude to **Prof. Dr. Touhid Bhuiyan** Head of Department of CSE, for his kind help to finish our project and also to other faculty members and the staff of the CSE department of Daffodil International University.

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

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

## **ABSTRACT**

Nowadays technology is everywhere. All of our manual works are getting advanced day by day for technology. So, for the better use of technology, our teams are interested to develop a web-based courier management system that will help our students who want to buy or courier products from different places at a low cost & within a very short time. In this way, students do not have to go to the branches of any courier services to courier their products. They can do it online from home. Usually, the courier services takes a long time for the goods to arrive. But, through this website, the customer will send or get his product in a very short time. And customers can track their courier's current status via website. Customers can also order various items of their daily life on this website. Normally after ordering their products on various online shopping sites, customers face many problems getting those products. Now they do not have to face that problem. After login customer will create their product demand on the website. And the admin panel of our website will confirm their order. Information about employers, customers, products, courier types is available for the Admin panel. And this paper discusses the proposed system, an overview of the design and its implementation.

# TABLE OF CONTENTS

<b>CONTENTS</b>	<b>PAGE</b>
Board of examiners	ii- iii
Declaration	iv- v
Acknowledgments	vi
Abstract	vii
<b>CHAPTER</b>	
<b>CHAPTER 1: INTRODUCTION</b>	<b>1-3</b>
1.1 Introduction	1
1.2 Motivation	2
1.3 Objectives	2
1.4 Expected Outcomes	2-3
1.5 Project Management and Finance	3
1.6 Report Layout	3
<b>CHAPTER 2: BACKGROUND</b>	<b>4-7</b>
2.1 Preliminaries/Terminologies	4
2.2 Related Works	4-6
2.3 Comparative Analysis	6-7
2.4 Scope of the Problem	7
2.5 Challenges	7
<b>CHAPTER 3: REQUIREMENT SPECIFICATION</b>	<b>8-11</b>

---



3.1 Business Process Modeling	8-9
3.2 Requirement Collection and Analysis	9
3.3 Use Case Modeling and Description	10
3.4 Design Requirement	11
<b>CHAPTER 4: DESIGN SPECIFICATION</b>	<b>12-17</b>
4.1 Front-end Design	12-15
4.2 Back-end Design	15-17
4.3 Implementation Requirements	17
<b>CHAPTER 5: IMPLEMENTATION &amp; TESTING</b>	<b>18-23</b>
5.1 Implementation of Database	18-21
5.2 Test Results and Reports	22-23
<b>CHAPTER 6: CONCLUSION AND FUTURE SCOPE</b>	<b>23</b>
6.1 Discussion and Conclusion	23
6.2 Future Work and Further Development	23
<b>REFERENCES</b>	<b>24</b>

---

## LIST OF FIGURES

<b>FIGURES</b>	<b>PAGE NO</b>
Figure 2.2.1: Parcel express BD	4
Figure 2.2.2: Foodpanda shop	5
Figure 2.2.3 : Chaldal BD	6
Figure 3.1.1: Business Process Model	8
Figure 3.3.1: Use case diagram	10
Figure 3.4.1: Flow Chart	11
Figure 4.1.1: Front-end design	12
Figure 4.1.2: Login page	13
Figure 4.1.3: Signup page	14
Figure 4.1.4: User panel	15
Figure 4.2.1: Admin panel user list	15
Figure 4.2.2: Admin Panel area	16
Figure 4.2.3: Admin Panel parcel track	17
Figure 5.1.1 Diu Courier database	18
Figure 5.1.2 Make parcels database	19
Figure 5.1.3 Track parcel database	19
Figure 5.1.4 Users database	20
Figure 5.2.1 Create parcel testing	21
Figure 5.2.2 Parcel tracking testing	21
Figure 5.3.1 Testing Table	22-23

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

This website is specially developed for university students & teachers. In such a day of technology, we have to do a lot of work manually. But through the internet, we can solve those issues very easily. For example, to courier a product, we have to go to different courier services or to get the product we have to go by our own. It wastes our precious time and money. But with our website, we will be able to courier my product online from home. If I want to send a product then the delivery man will collect the courier from me and will send it to the specified address. And if I have to receive a product then he will collect it from the sender and then he will deliver it to me. And this will be only inside Dhaka city. The admin panel will send details about the order to the delivery man. There is also another feature in our website. And that is, online home delivery service. If anyone wants to order something, like daily needs. Like they want to order 1 kg rice, 1kg oil then they can order through the website. Delivery man will deliver within 1 hour. Also, some of our daily necessities are not commonly available in online shops. And sometimes we can't go to the market by ourselves. But through this website, customers can easily order their daily necessities which are not always available in various online stores. So through this website customers can order products and courier at the same time online from home. For the time being, the activities of the website will be conducted only among DIU university students. Everyone including students, teachers, and university authorities will get benefit from this service.

## 1.2 Motivation

- We have to go to ourselves different courier services to courier products.
- If we want to deliver the product in Dhaka by ourselves, we have to face traffic.[10]
- After a busy day, we do not have much time to buy the necessities of daily life.
- Better Use of Technology.
- Easy Management.
- Live tracking
- Save valuable time.
- Save money.

## 1.3 Objective

- Developed a web-based online courier system is our main goal.
- By this system, manual courier service processes are converted from manual to automate.
- This system is a totally online-based management system.
- This web-based online service system can accessed by any Diu student who has an internet connection. He doesn't need any requirements in his devices such as memory or operating system.
- Modernize courier & delivery system.

## 1.4 Expected Outcome

- We do not have to go to the courier services to courier the product.
- Reduced wasting valuable time & money.
- Increased good customer service.
- Improved customer satisfaction and quality.
- Students can use the resources for the new system.

- Students will be able to do this kind of activity digitally.

## **1.5 Project Management and Finance**

There will be an admin who will manage the whole system. And there will be a few employers who will do home delivery and courier delivery. Our project is a profitable system. Cash on delivery facility has been kept here. If an entrepreneur wants, he can make a good financial profit from here. Admin will be able to manage all the activities of this project very easily

## **1.6 Report Layout**

**Chapter 2:** In this chapter, we are going to give an overall idea of our project along with a discussion about the current situation of this kind of service.

**Chapter 3:** Here, we provide diagrams based on the project.

**Chapter 4:** Here, we present our Front-end Design and Back-end Design. And details about implementation requirements.

**Chapter 5:** Here, we discuss the database implementation of our project. And also this project test result.

**Chapter 6:** Provide a future plan for this project. And discuss the update of our developments.

## CHAPTER 2

### BACKGROUND

#### 2.1 Preliminaries/Terminologies

Technology is in our hands nowadays. Almost everyone owns a smartphone or computer and they also have an email address. Besides, educational institutes provide a unique email address for their students. Students will log in through their Diu email address so that we can detect the user is not outside of Diu. It will be very difficult for us if random people register to our system. In this chapter, we are going to give an overall idea of our project along with a discussion about the current situation of this kind of service.

#### 2.2 Related Works

Some examples of the courier service and home delivery services related to our project are given below:

#### Parcel Express BD:



Figure 2.2.1: Parcel Express BD

As we all know that parcel express BD provides courier facilities all over the country.[1] That's why the difference between our courier service and other courier service. Our courier service is only for DIU students inside Dhaka city and we have more features like home delivery service and cash on delivery service. That's why we developed this project so that Diu student can courier their products or things inside Dhaka city.

## Foodpanda shop:

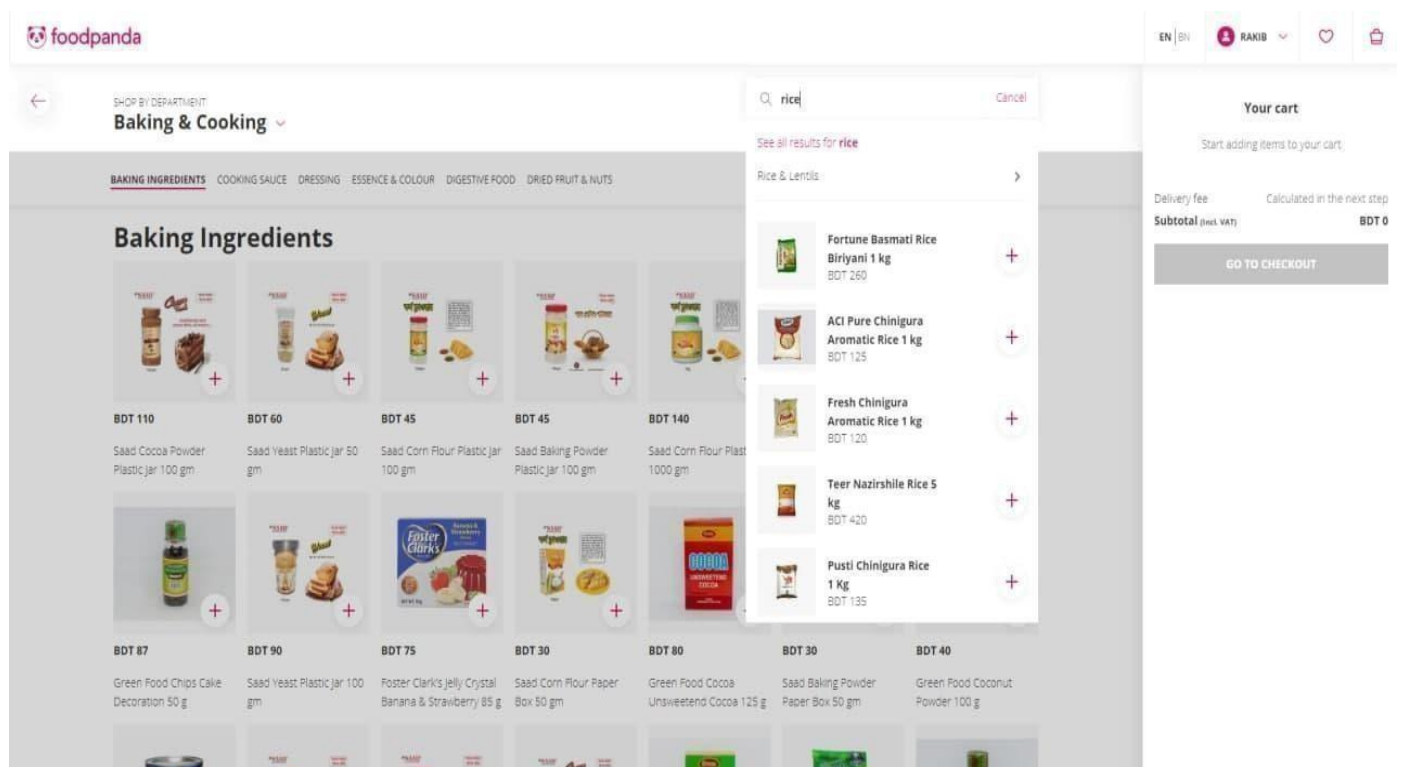


Figure 2.2.2: Foodpanda shop

This is a random shop from Foodpanda. [4] Here we can see that, if we have to order rice then we must have to buy a minimum of 1kg. If I need 0.5 kg of rice then I can't buy from them. If we need atta then we must buy a minimum of 1kg. But this is a problem. In our system, customers can order any amount of products or things. And we will provide the home delivery within 1 hour inside the Dhanmondi area.

## Chaldal BD:

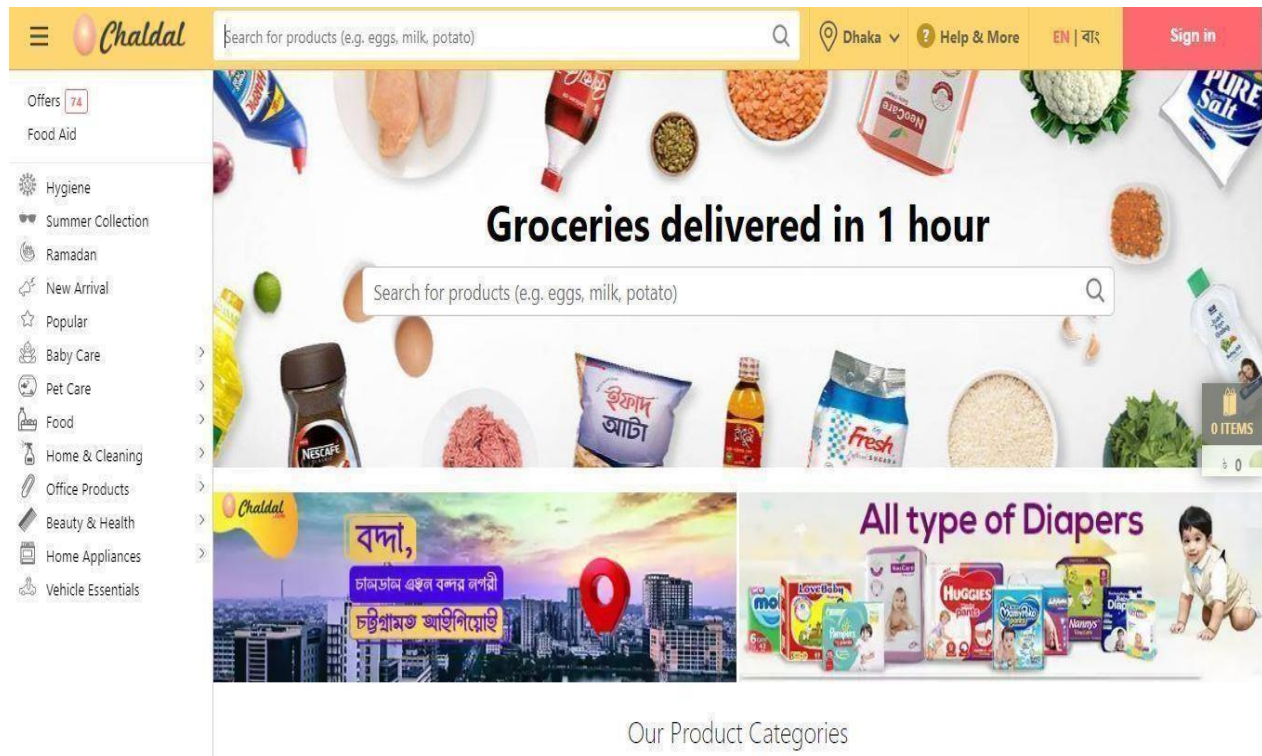


Figure: 2.2.3 Chaldal.com

Here in Chaldal BD we can see that, if we have to order rice then we must have to buy a minimum of 1kg.[2] If I need 0.5 kg of rice then I can't buy from them. If we need atta then we must buy a minimum of 1kg. But this is a problem. In our system, customers can order any amount of products or things. And we will provide the home delivery within 1 hour inside the Dhanmondi area.

### 2.3 Comparative Analysis

Our service will be a bicycle-based courier service in the Dhanmondi area. And only Daffodil students will get this service. Other services are only courier-based. We provide courier and also product home delivery service. Users can deliver documents or files and small-sized and also they can take advantage of home delivery by ordering any product sitting at home. In other home



delivery services, you have to order a fixed amount of products but in our service, you can order any product with your chosen amount of products.

## **2.4 Scope of the problem**

The scope of the problem is given below:

- Other services can't deliver orders in time.
- Most of the services can't make any improvement
- And these services can't find a way to deliver in the shortest time.
- No other courier or home delivery service is work for any particular institute.

## **2.5 Challenges**

One has to face many challenges to develop any project. Similarly, we have had to face various challenges to create the project. We have tried to develop a user-friendly system. The challenges we have faced are discussed below:

- We don't know how our system gonna react with a lot of users.
- Highly Competitive Industry - There are a lot of courier or delivery services around us. As our system is only for DIU students and we are hopeful that we can overcome this challenge.
- Responding to their needs - responding to customer's needs is essential to survive in the business.
- Keeping Customers Updated - Customers like to update their products or parcel from time to time. We will try our best to make them realize that we have respect for their trust.
- At the very beginning, it will be a web-based project. And there is no Android application.

# CHAPTER 3

## REQUIREMENT SPECIFICATION

### 3.1 Business Process Modeling

Figure 3.1 is known as the BPMN model diagram. This model provides several notations to describe the business process in more detail. By this business processing model, the organizer & admin panel can maintain and easily understood the overall strategy of this system. Organizers can improve process communication. Increased their control & consistency. And also operational efficiency. Here in this model, there is 3 actor. Admin, customer, and employer. [6]

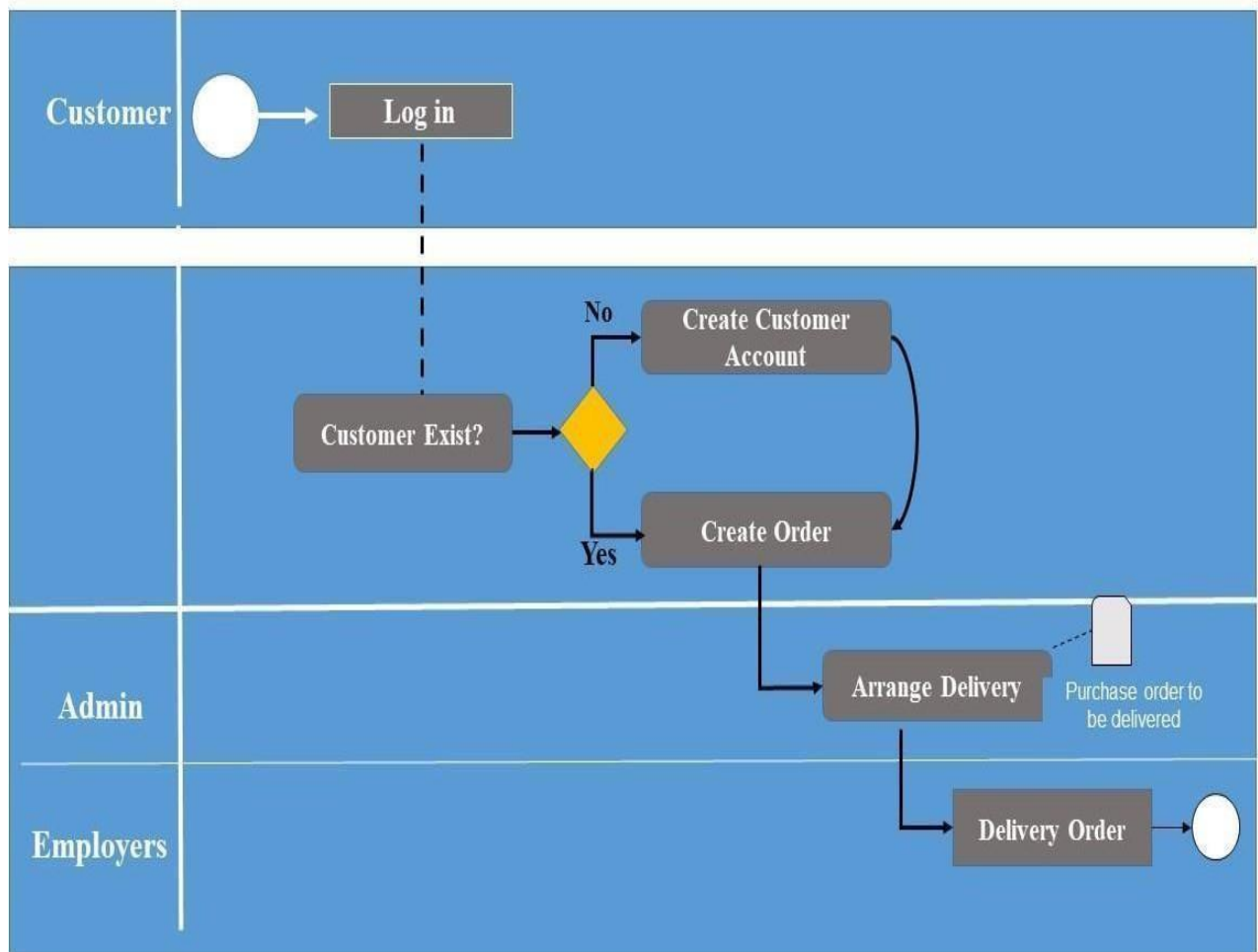


Figure 3.1.1: Business Process Mode

The customer must have an account to use this website. If the customer has no account then he needs to Create a new customer account. And then the customer can log in to this website and can place an order. After place the order Admin arrange the delivery. And then employees going to deliver the order.

### **3.2 Requirement Collection and Analysis**

There are two parts to our project. Server End and Client End.

#### **Clients End:**

- Any Web Browser (Chrome/Firefox Considered Best)
- Operating System: Android or Windows
- Internet connection
- Client email address
- Client phone number

#### **Server End:**

- Operating System: Windows
- IDE : Vs Code

### 3.3 Use Case Modeling and Description

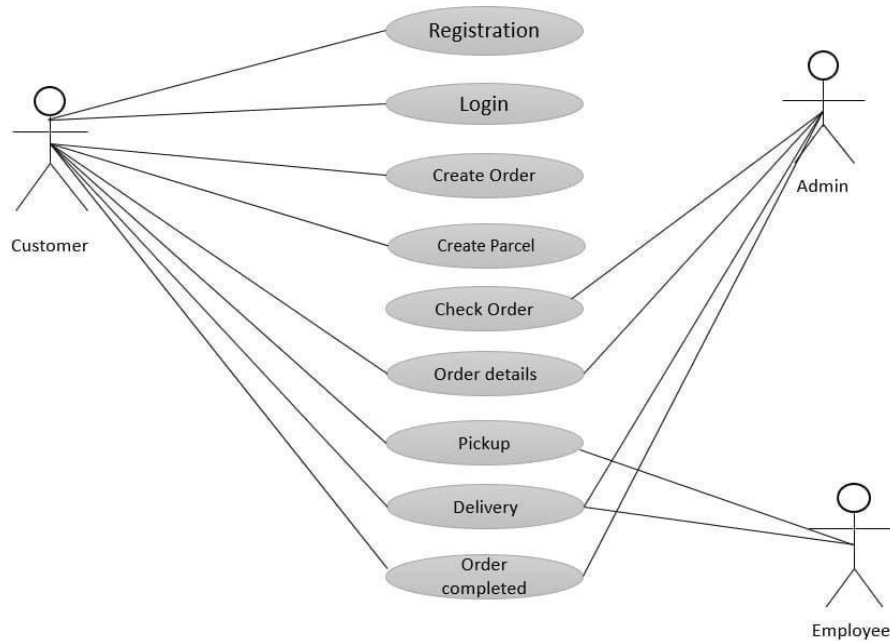


Figure: 3.3.1: Use case diagram

Here is the use case model of our system. In this diagram, we have shown the working process. At first, the customer will register to the website. If they are already registered then they will login to the website. After successfully logged in then can create a parcel or create an order. After placing the parcel order or normal order then they will receive a notification about the estimated delivery time of their order. Admin will receive a notification of their orders. Employees also can see those orders. After that employees will do their job. They will collect the parcel then deliver it or they will deliver the customer's normal order. After completing the delivery customer will receive a notification of their orders and admin too. [3]

### 3.4 Design Requirement

- User Friendly: Everyone can use this website so easily. Because this website's interface is so user friendly & smooth.
- Interface: This website should run on any version of the Android operating system.
- Efficient
- Responsiveness

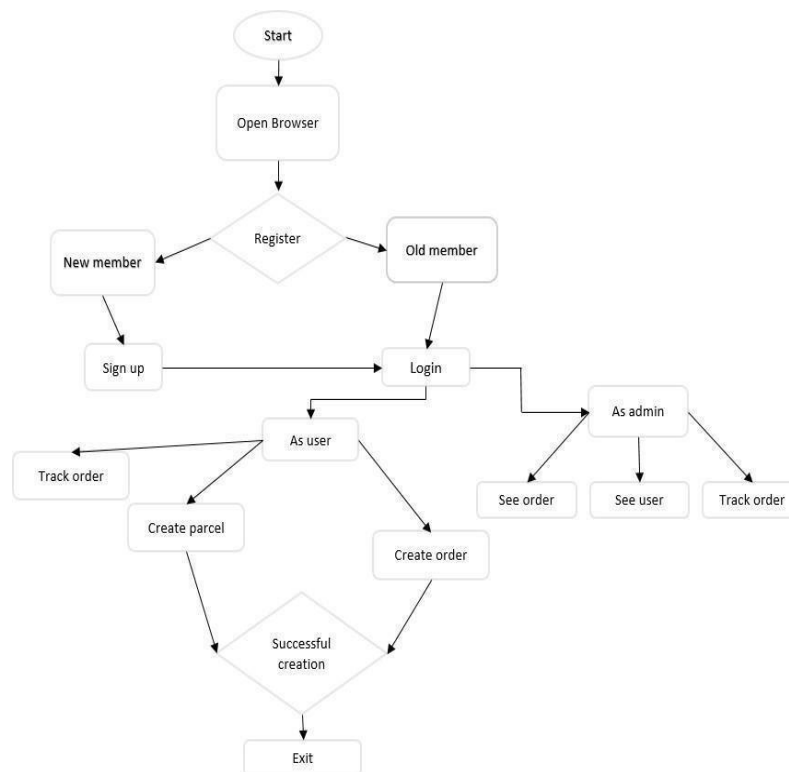


Figure 3.4.1: Flow Chart

# CHAPTER 4

## DESIGN SPECIFICATION

### 4.1 Front-end Design

#### Front-end of Diu Courier:

This is our Diu Courier website. This is a responsive website. We tried to make it simple and user-friendly. We use HTML, CSS, bootstrap, and java script for the front-end.[11] [12]

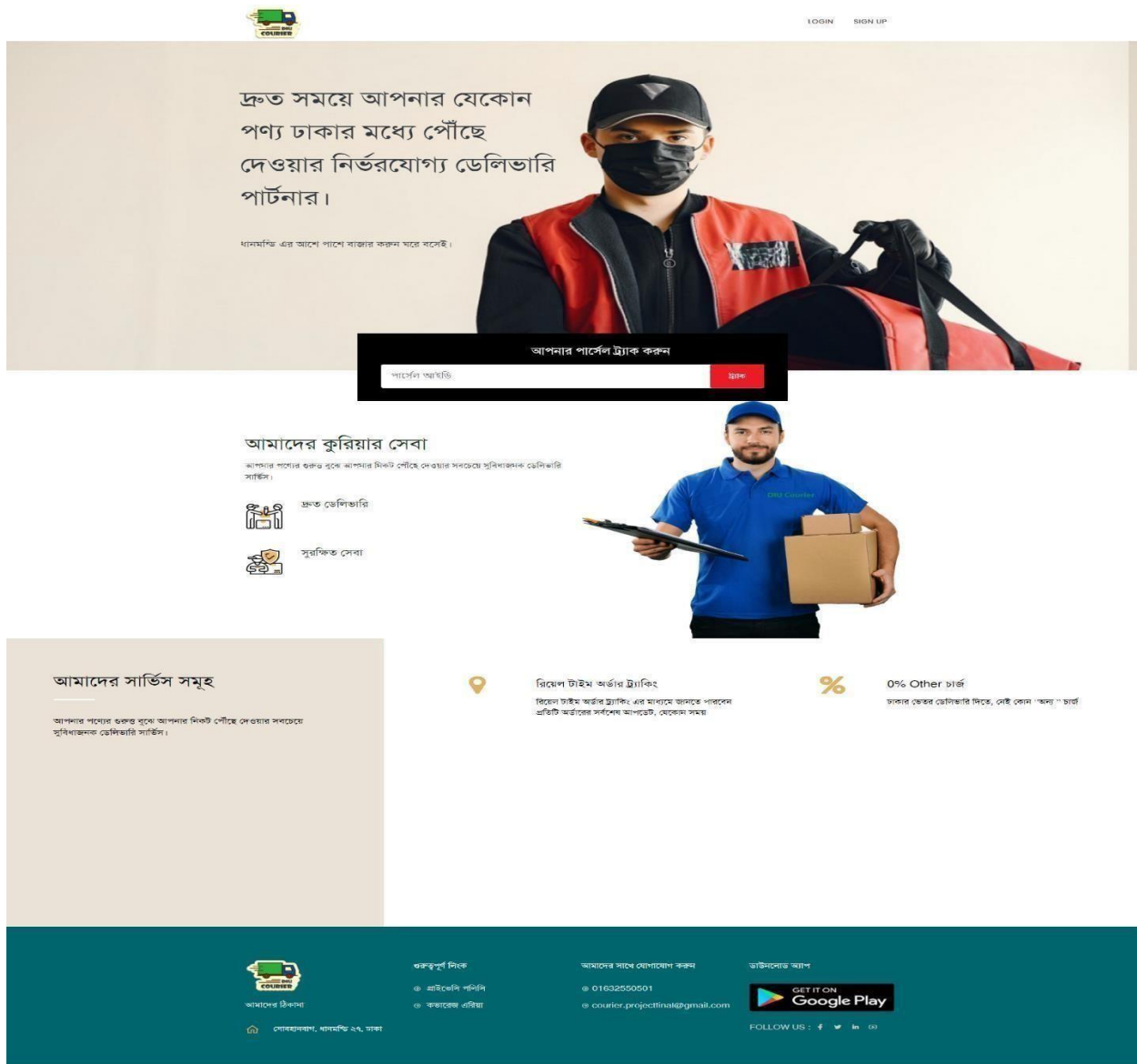


Figure 4.1.1 Front-end design

## Login Page:

If you are an old user then you will login to the website. Then the website will take them to the user panel. Where they can create a parcel and can create normal orders. They also can see the order list and parcel list there.

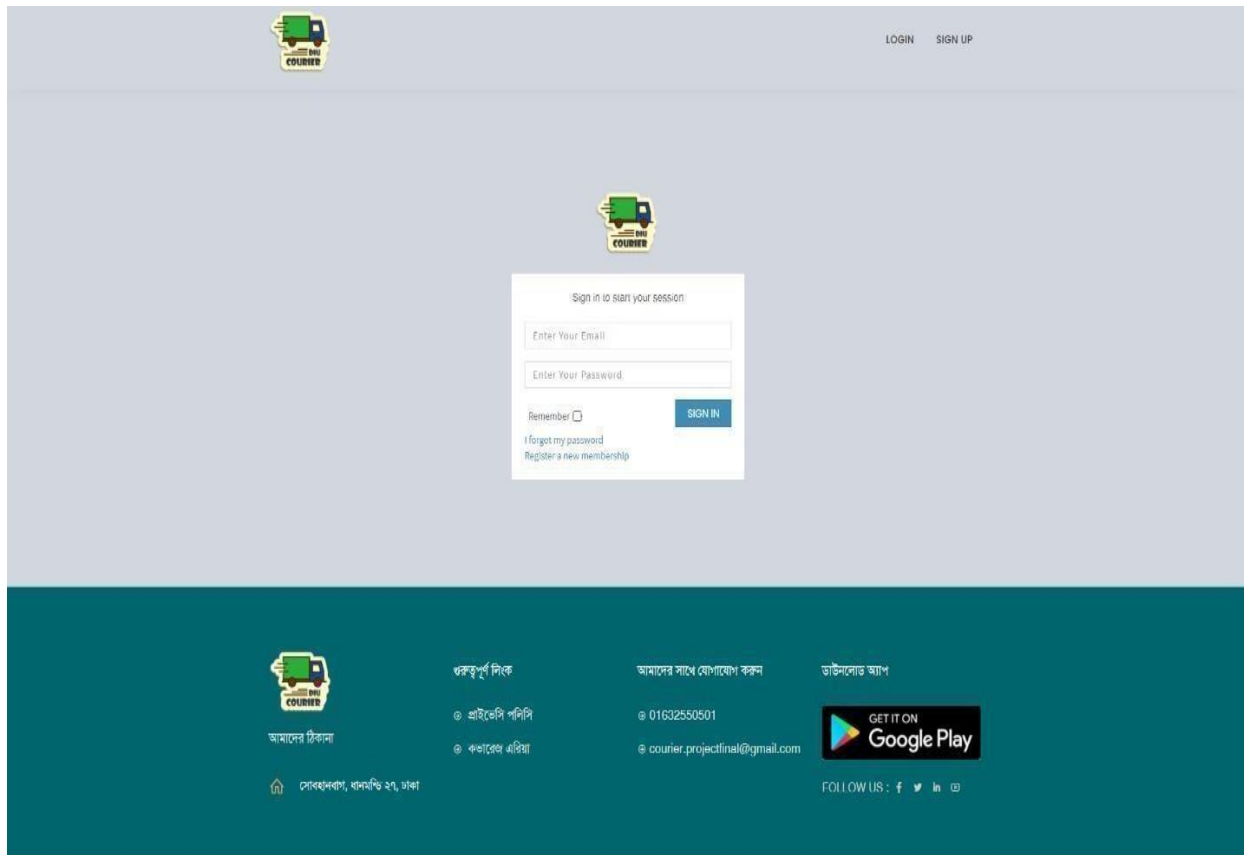


Figure 4.1.2 Login page

## Signup Page:

This is our signup page. If you are a new user then you have to sign up. After successfully signed in an email address will be sent to users given email address. User will verify their email address then they will log in. After login website will take them to the user panel.

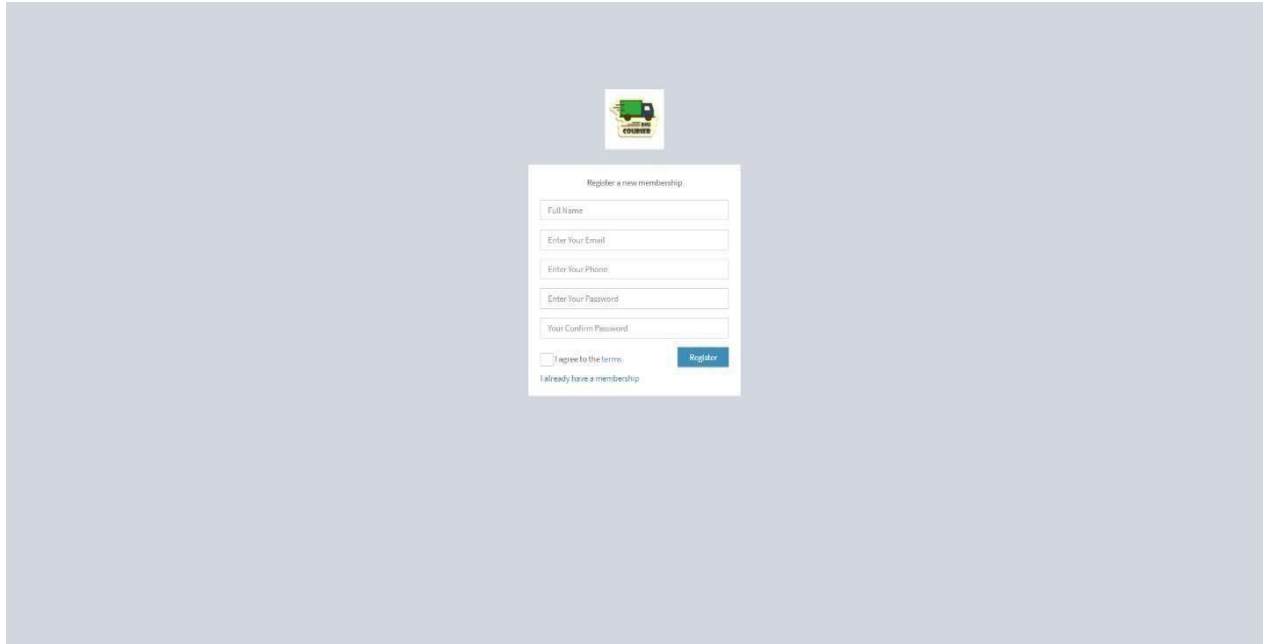


Figure 4.1.3 Signup page

There, they will receive a welcome message that they have to wait until the admin approve them. Because when a new user requests for membership an email will be sent to admin's email as well. If admin approve the user only then the user will have the full access of the user panel.

### **User panel:**

Users will see this page after being approved. Here, we can see there are many options. They can create parcel and they can create normal orders. For parcel creation they have to give sender and receivers detail information. After successfully creating a parcel they can see their parcel list. They also can create normal orders. If they want some medicine to be delivered, they will give the medicine details and delivery address. They will get the delivery. If they want rice, oil or fish or anything they want to be delivered, they will get the delivery. In a word they can ask for anything in the create order section. After successfully creating an order they also can see the order list. They also can track their orders. They will be charged 30 taka per order. They can see the charge list in the area charge list area for parcel.



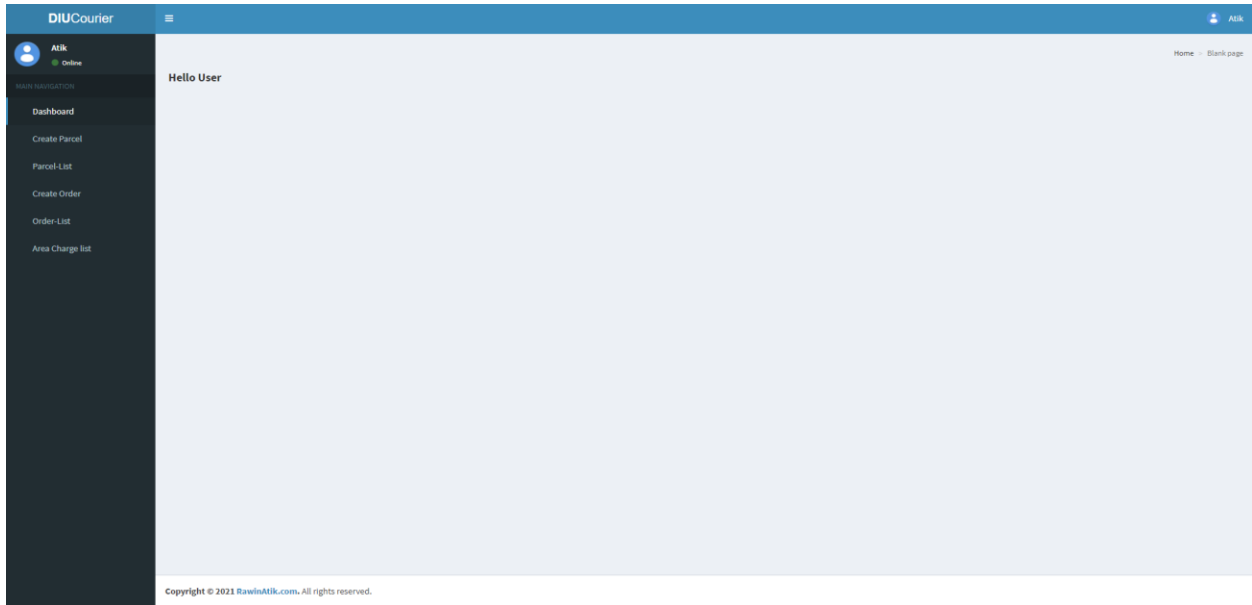


Figure 4.1.4 User panel

## 4.2 Back-end Design

### Admin panel:

This is the admin panel of our website. As we can see there is many option.

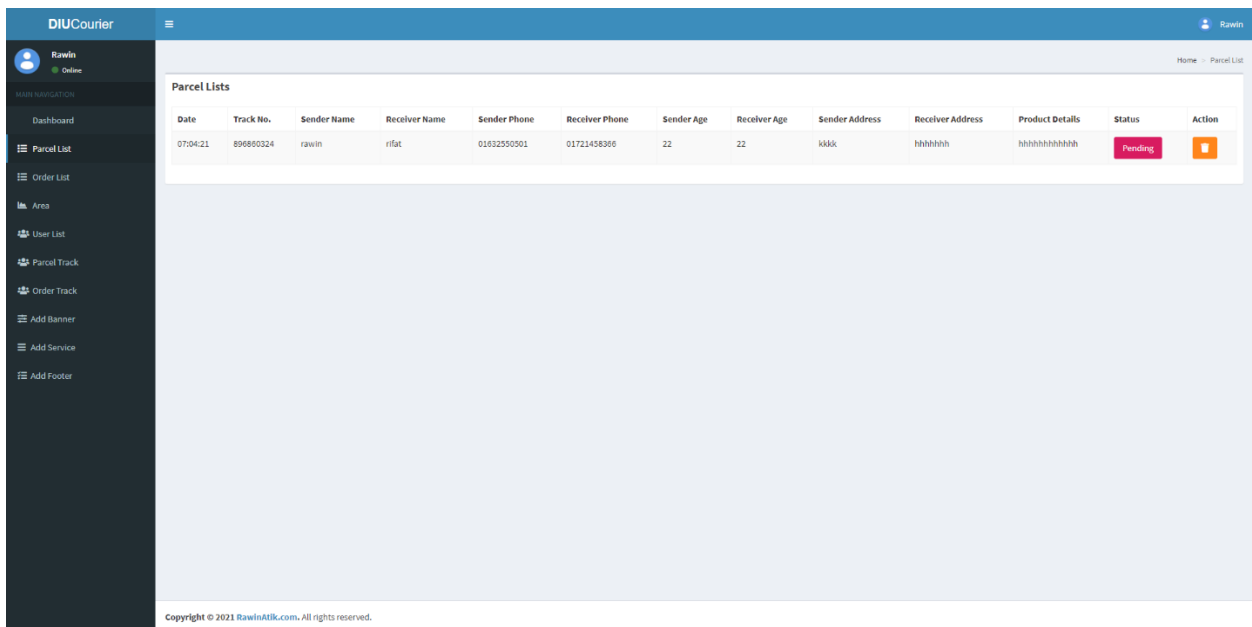


Figure 4.2.1 Admin Panel parcel list

Admin can see the dashboard where all kinds of information will be provided like how many users are there in the website. How many parcel order are pending, how many parcel are delivered. How many orders are pending and how many orders are left to be delivered? He also can see the user lists. He will be able to see the orders created by the user. He will give the track details of the orders created by the users. In the area section he can select areas where our parcel service will be provided.

### Admin Panel area:

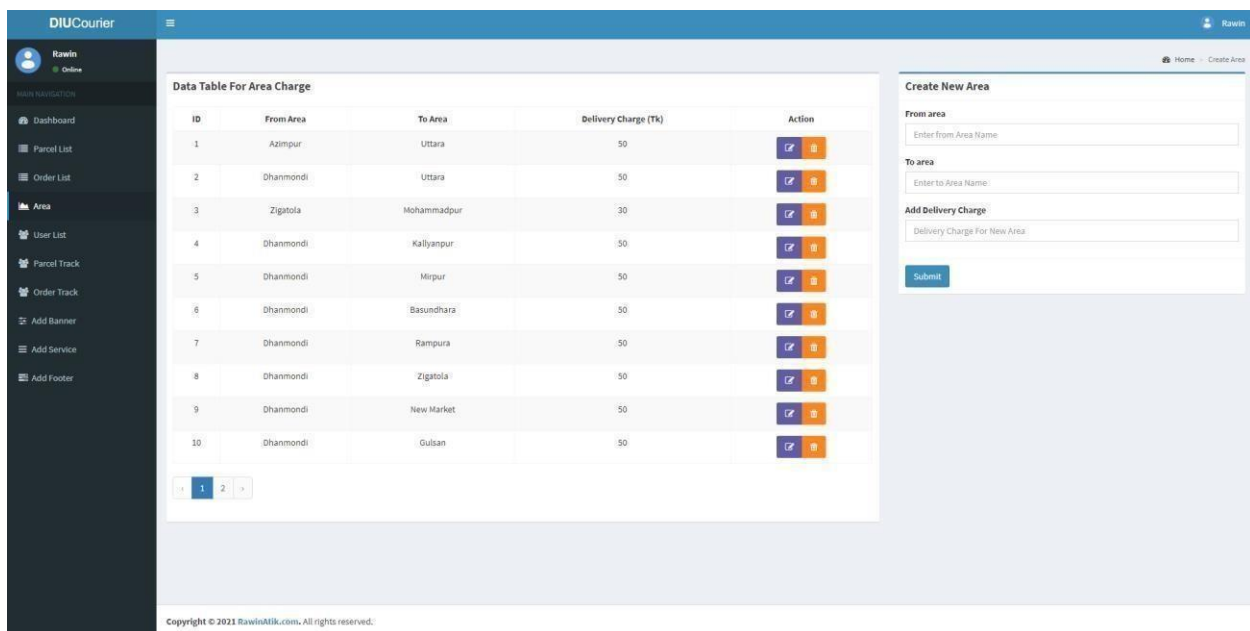


Figure 4.2.2 Admin Panel area

These are the areas created by the admin. Here he can provide the parcel charge for different areas. He can edit or delete those areas.

## Admin Panel parcel track:

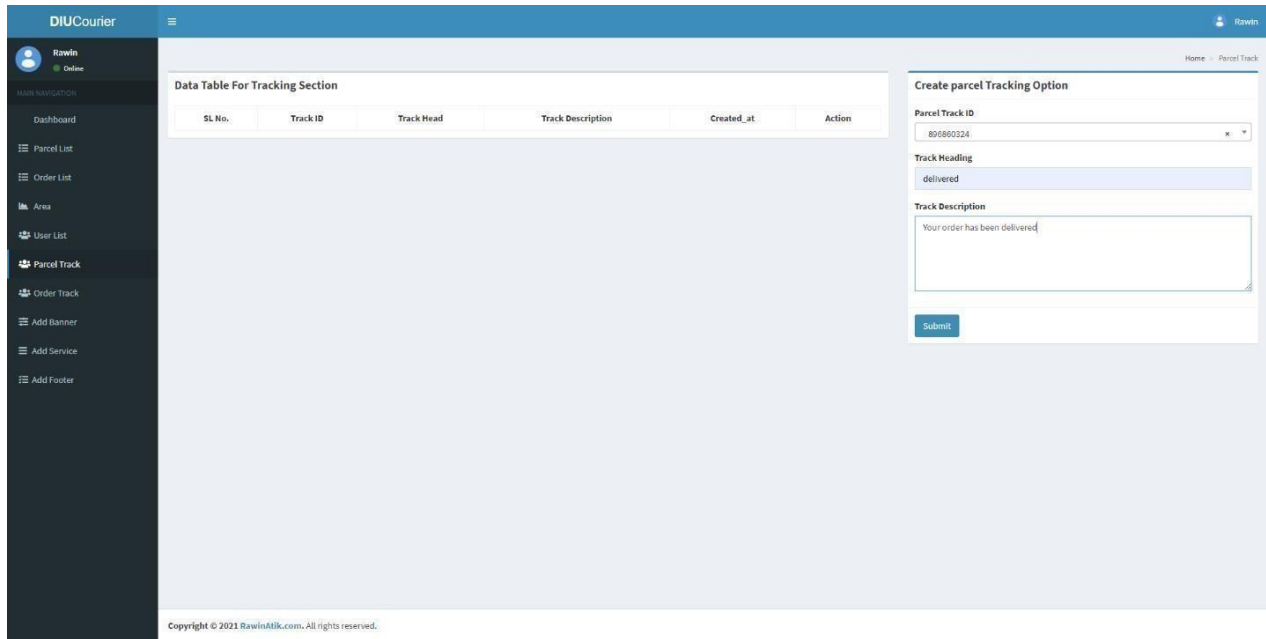


Figure 4.2.3 Admin Panel parcel track

## 4.3 Implementation Requirements

### Front-end:

- Html
- CSS
- Bootstrap[5]
- JavaScript

### Back-end:

- Php
- Laravel

### Database:

1. My-sql

### Ide:

1. Vs Code

# CHAPTER 5

## IMPLEMENTATION & TESTING

### 5.1 Implementation of Database

As we are developing a website, for that we need to store all the data under a database. We used MySQL database. Figure 5.1.1 shows the entire Diu Courier database. Some more important database table is given below:

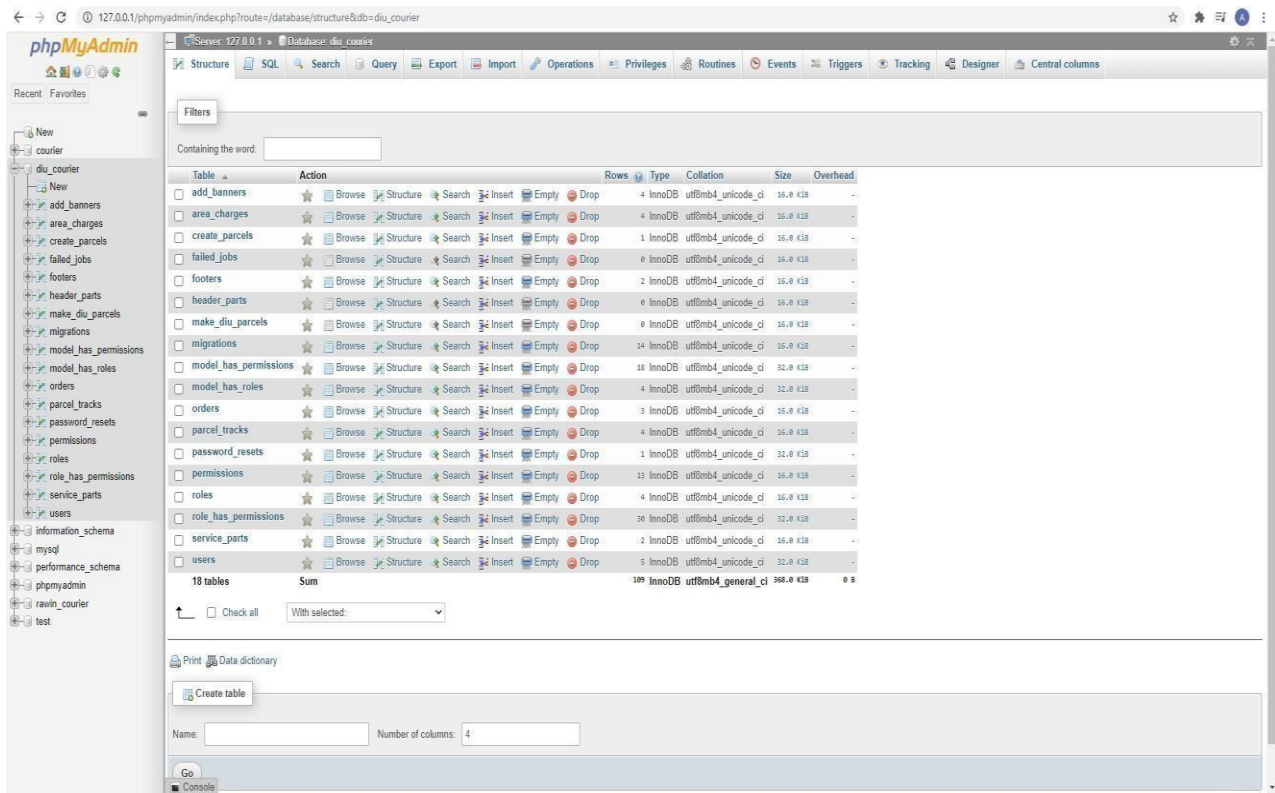


Figure 5.1.1 Diu Courier database tables

Figure 5.1.2 shows the database table of creating or making a parcel.

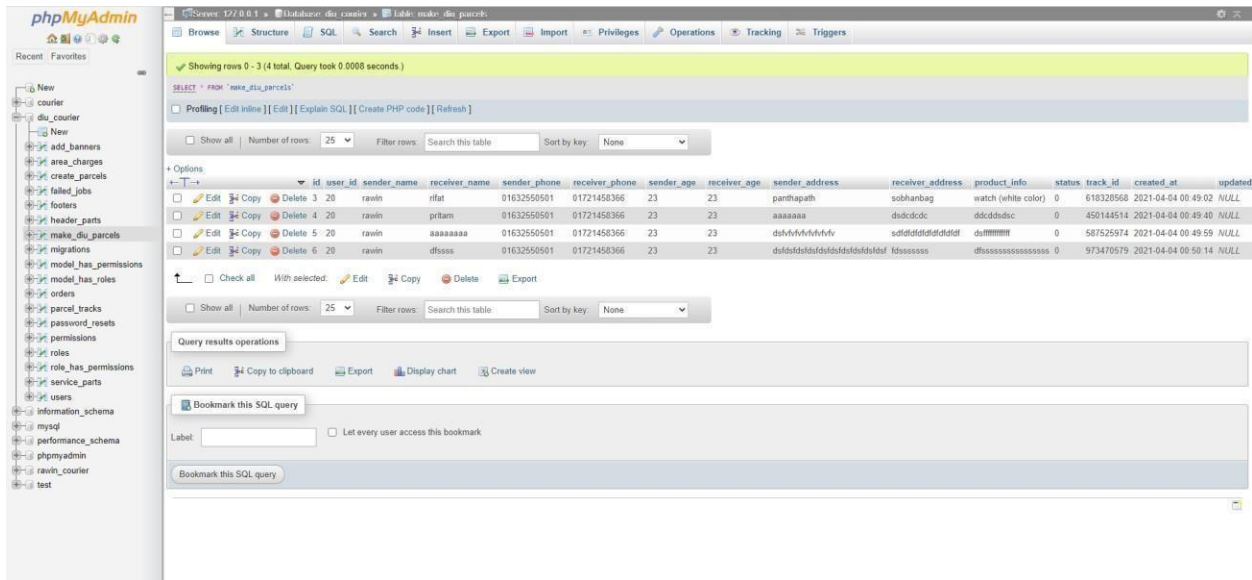


Figure 5.1.2 make parcels database

Figure 5.1.3 shows the database table of tracking a parcel.

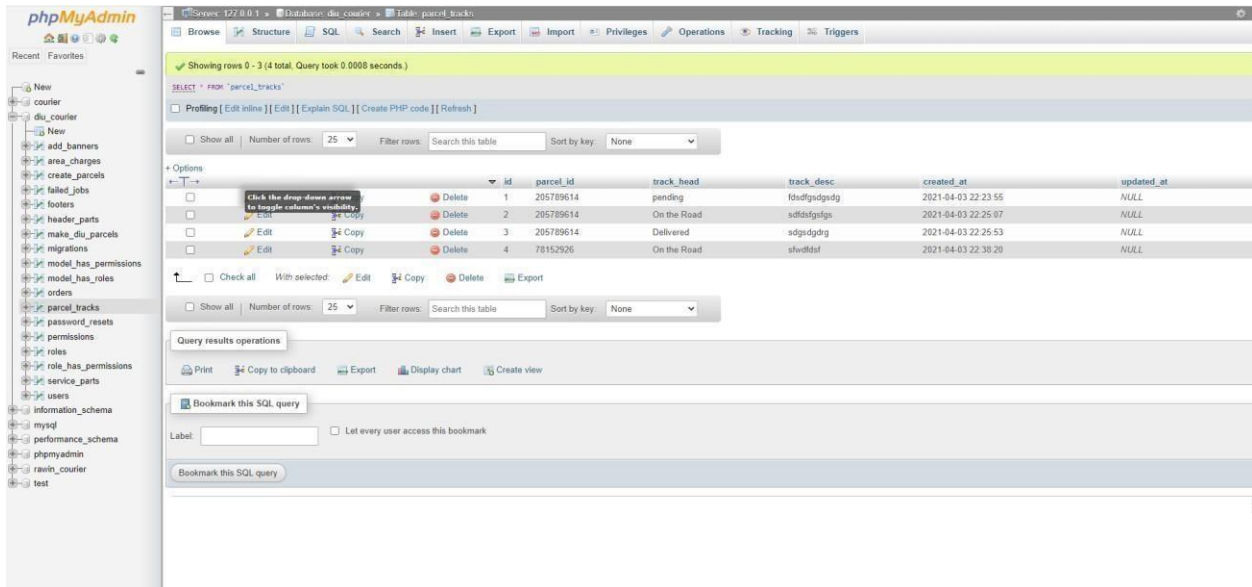


Figure 5.1.3 track parcel database

Figure 5.1.4 shows the database table of the users of the courier service.

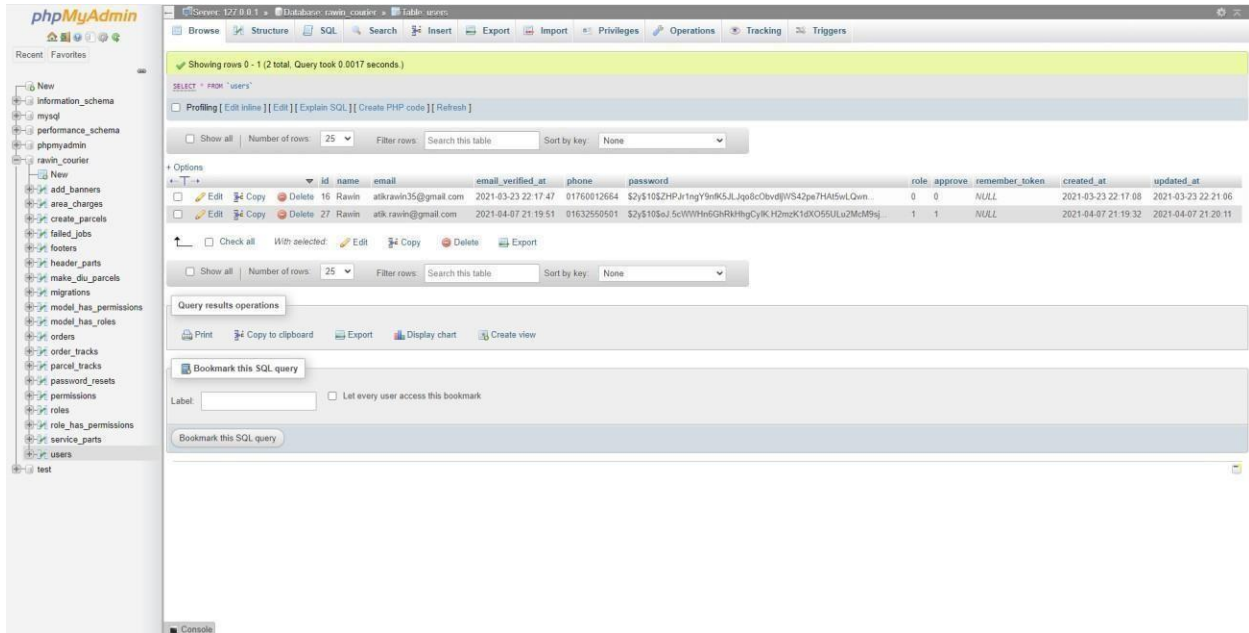


Figure 5.1.4 users database

## Testing Implementation

We put the highest priority on testing to create this website. Our main goal was to create a bug free website. We tried our best to make this website user friendly and bug free. That's why testing was an important part of our project. We have done testing a lot of times. We will tell the details in the following part and we will attach some pictures of our testing. In Figure 5.2.1 we are trying to create a parcel and we can see that the parcel is created successfully and the data successfully stored in database.

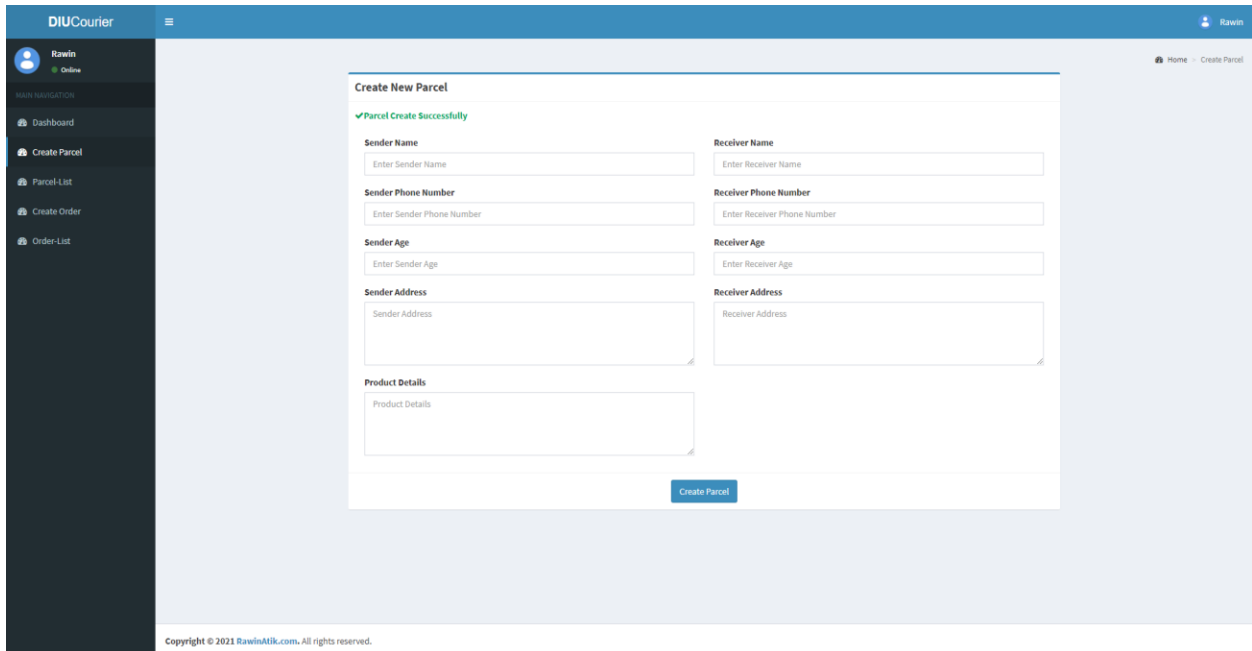


Figure 5.2.1 Create parcel testing

In Figure 5.2.2 we tried to track an order. And we can see that the website shows the order details. And it works successfully.

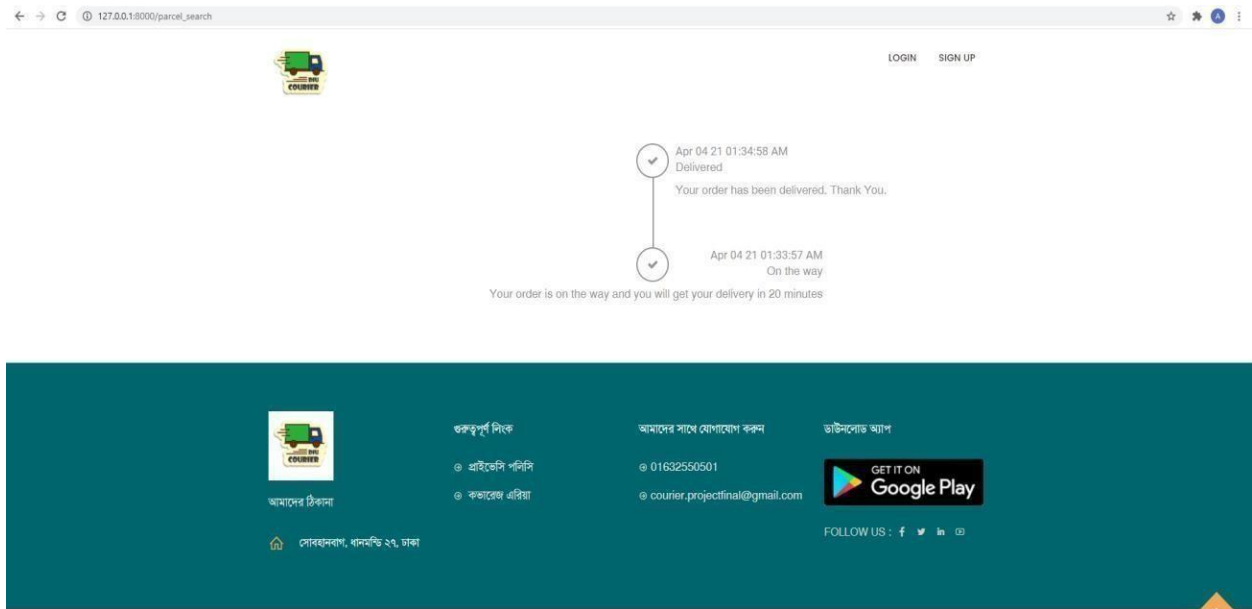


Figure 5.2.2 Parcel tracking testing

## 5.2 Test Results and Reports

Test case	Expected outcome	Obtained outcome	Successful/Failed	Testing period
Sign up	Work successfully	Did not work successfully	Failed	28-8-2020
Sign up	Work successfully	work successfully	Successful	8-10-2020
Login as user	Work successfully	work successfully	Successful	13-11-2020
Login as admin	Work successfully	Did not work successfully	Failed	15-12-2021
Login as admin	Work successfully	work successfully	Successful	11-1-2021
Approve user	Work successfully	work successfully	successful	19-1-2021
Parcel creation	Work successfully	Did not work successfully	failed	5-2-2021
Parcel creation	Work successfully	Work successfully	Successful	16-2-2021
Add areas	Work successfully	Work successfully	Successful	23-2-2021
Order creation	Work successfully	Did not work successfully	failed	25-2-2021
Order creation	Work successfully	work successfully	Successful	1-3-2021
Password reset	Work successfully	work successfully	Successful	5-3-2021
Track order	Work successfully	Did not work successfully	failed	8-3-2021



Track order	Work successfully	work successfully	Successful	12-3-2021
Users Crud	Work successfully	work successfully	Successful	15-3-2021

Figure 5.3.1 Testing Table

## CHAPTER 6

### CONCLUSION AND FUTURE SCOPE

#### 6.1 Discussion and Conclusion

We have tried to create an online-based courier service that is easy to use. Usually, a manual courier service project has a lot of complex functionality. However, we have tried to keep this system as simple as possible. If we want in the future, the system can be improved and extended on a large scale as per user demand. In doing this project we have learned many new concepts which will be helpful in our next project. [9]

#### 6.2 Future work and Further Development

The online courier service project is a good startup for our country. If we work on a good plan then we can benefit from here. Our project is web-based only. We have created the project with some very simple functionality. We want to work on this project on a larger scale in the future. There are some other creative features in our mind. We will work with those features in the future. There will be an Android application in the future. And we will work on how to provide our online courier service across the country.

## REFERENCES

- [1] Parcel Express BD Courier service. Available at "<http://www.parcelpressbd.com/>" last accessed on 03/03/21 at 3.22pm.
- [2] Home delivery service. Available at "<https://chaldal.com/>" last accessed on 15/03/21 at 03.50pm
- [3] Use case diagram. Available at "<https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-use-case-diagram/>" last accessed on 20/03/21 at 10.00am
- [4] Food panda – food home delivery service. Available at "<https://www.foodpanda.com.bd/>" last accessed on 20/03/21 at 2 pm.
- [5] Bootstrap . Available at "<https://getbootstrap.com/>" last accessed on 7/2/2021 at 3 am.
- [6] Business process modeling. Available at "[https://en.wikipedia.org/wiki/Business\\_process\\_modeling](https://en.wikipedia.org/wiki/Business_process_modeling)" . last accessed on 26/3/2021 at 9pm.
- [7] E courier an online courier service. Available at "<https://ecourier.com.bd/>". Last accessed on 28-3-2021.
- [8] Pathao courier service . Available at "<https://pathao.com/parcel/>". Last accessed on 29-3-2021.
- [9] An overview of courier service. Available at "<https://en.wikipedia.org/wiki/Courier>". Last accessed on 2-2-2021.
- [10] Motivations, Available at "<https://smallbiztrends.com/2019/01/start-a-courier-business.html>". Last accessed on 5- 2-2021.
- [11] JavaScript Library-JQuery, Available at "<https://jquery.com/>". Last accessed on 8-1-2021.
- [12] Font and CSS toolkit, Available at "<https://fontawesome.com/>." Last accessed on 10-3-2021.
- [13] Typography- Google Font, Available at "<https://fonts.google.com/>". Last accessed on 15-3-2021.

## DIU Online Courier and Home Delivery Service

### ORIGINALITY REPORT

<b>17%</b>	<b>15%</b>	<b>0%</b>	<b>12%</b>
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

### PRIMARY SOURCES

<b>1</b>	<b>Submitted to Daffodil International University</b> Student Paper	<b>8%</b>
<b>2</b>	<b><a href="https://dspace.daffodilvarsity.edu.bd:8080">dspace.daffodilvarsity.edu.bd:8080</a></b> Internet Source	<b>7%</b>
<b>3</b>	<b>Submitted to Green University Of Bangladesh</b> Student Paper	<b>1%</b>
<b>4</b>	<b>Submitted to Embury Institute for Teacher Education</b> Student Paper	<b>&lt;1%</b>
<b>5</b>	<b><a href="https://dspace.library.daffodilvarsity.edu.bd:8080">dspace.library.daffodilvarsity.edu.bd:8080</a></b> Internet Source	<b>&lt;1%</b>

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off