



**Daffodil**  
*International*  
**University**

**Daffodil International University**

**Department of Software**

**Engineering SWE-431 Final Year**

**Project Documentation**

**Drocam House: An online-based drone selling system**

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# Approval

This project titled on “Drocam House”, submitted by Md. Mustafizur Rahman, ID: 181-35-2387 to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

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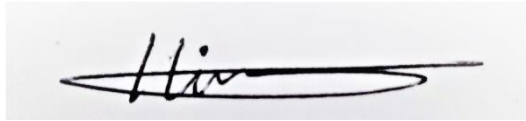
## Declaration

I hereby declare that I have done this Dorcas House project under the supervision of Mr. Farhan Anan Himu, Lecturer, Department of Software Engineering, Daffodil International University. This project or any part of this project is unique. This Project has not been used elsewhere

Mustafiz

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Farhan Anan Himu  
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## Acknowledgment

I am so much grateful to my honorable supervisor **Mr. Farhan Anan Himu** Sir for giving me a proper guideline to complete my project. His guidance and expertise made my task so much easier. I couldn't have completed the assignment effectively without his guidance.

I acknowledge the kind of support, efforts and timely guidance provided by **Mr. Farhan Anan Himu** Sir. This project documentation helps a better understanding of subject matter.

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# **Chapter 1: Introduction**

## **1.1 Project Overview**

Drone sales are increasing year after year, and an increasing number of individuals are embracing the idea of owning one. These surveillance drones are now finding more practical and innovative uses and applications as a result of all the attention they've received.

Drones have made their way into the realms of technology and consumer use. Many organizations are looking forward to putting these devices' capabilities to the greatest possible use. There are some really simple uses for drones, as well as some truly innovative concepts that you may use in your life.

This system is providing an online-based solution for buying and selling drones. Registered users can see the collection of drones. Also, they can buy this product or add it to their product cart. From the product cart, they can complete the order from the cart or remove the order from the product cart. System admin can see the order details and approve or delete the order. System admin can also add u and update, edit, delete user ad product information. The system maintenance is operated by the system admin.

## **1.2 Project Purpose**

The purpose of this project is to provide a virtualized platform for buying and selling drone and provide home delivery service for products including but not limited to providing technical solutions. To make this process easier we are offering an online-based solution to ensure that people can buy and sell drones through and easily.

### **1.3 Background**

Due to technical feasibility, people are preferring drones for their day-to-day services. Because of the covid-19 pandemic situation, people are unable to go outside and buy these devices phy

sically. That's why they need a system where they can buy and sell their desirable device. Also they will get additional services like product service and delivery from home.

## 1.4 Benefits & Beneficiaries

After analyzing the purpose of project and background we have found many benefits.

These are given below:

- People can take buy and sell easily drones and camera devices from this platform.
- They can buy Kits, lenses and relevant accessories from this platform.
- They can take emergency services and delivery from home if they need.
- They can search and check available products.
- They can compare the products with highlighted features.
- Easy to pay and ensure secure transactions.
- This system will provide user notifications with products and features.

## 1.5 Goals

The main goal of building this project is to establish an online and secure platform for buying and selling drones devices. Because it will provide an user-friendly platform where users can get professional services regarding drones and buy these products with best prices. By doing this project, I want to ensure that people will be benefitted from using this project. In this project, there is three stakeholders. They are:

- General User / Customer
- System Admin

Brief about the stakeholders are given below.

**General User / Customer:** In this system, registered user can see the product list, choice desired product and finally add the product to cart. User also can be notified through email for updated products and offers.

**System Admin:** System admin can add user, remove and update product and user info. System admin also can approve the buying request which is sent by registered user. System admin maintenance the overall system.

**Service Provider:** The service provider provides home delivery service and product-related service. They can see and service list and their delivery time.

## 1.6 Project Schedule

The whole project has been developed with a defined project schedule. SDLC (Software Development Lifecycle) has been followed while developing the system. It is known that SDLC contains planning, requirement analysis, system design, implementation, testing and maintenance phase. The project has been completed with defined time schedule and no extra time is required.

### 1.6.1 Gantt Chart

For maintaining project schedule, Gantt chart has been used. Gantt chart is basically used for project scheduling. To obtain the maximum level of output, project scheduling is must. A Gantt chart has been prepared for the project which shows the total project scheduling.

Activities	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15	Week 16
Planning	■	■														
Requirement Analysis			■	■	■	■										
System Design							■	■	■							
Implementation										■	■	■	■			
Testing														■	■	
Maintenance																■

## 1.6.2 Release Plan or Milestone

The release plan of the entire system is given below:

Activities	Duration in Week	Total Week
Brainstorming	Week 1	1
Problem Identification	Week 1, Week 2	2
Requirement Specification	Week 3, Week 4	2
Requirement Analysis	Week 5, Week 6	2
Design Specification	Week 7, Week 8	2
Database Design	Week 9	1
Client Side Implementation	Week 10, Week 11	2
Server Side Implementation	Week 12, Week 13	2
White Box Testing	Week 14	1
Black Box Testing	Week 15	1
Software Release	Week 16	1

# Chapter 2: Software Requirement Specification

## 2.1.1 Login/ Logout

<b>FR 1</b>	Login / Logout
Description	Customer must be log in their account when they want to purchase any service, and vendor must be log in when they want to post or upload something or view any details.
Stakeholders	Customer, Admin

## 2.1.2 Registration

<b>FR 2</b>	Registration
Description	User must be registration for log in to the system.
Stakeholders	Customer, Admin

## 2.1.3 Manage Product

<b>FR 3</b>	Manage Product
Description	Admin can add, delete and edit products.
Stakeholders	Admin

## 2.1.4 Manage Order

<b>FR 4</b>	Manage Order
Description	After any order Admin can order delete and confirm.
Stakeholders	Admin

## 2.1.5 Manage User

<b>FR 5</b>	Manage User
Description	Admin can disable users account.
Stakeholders	Admin

## 2.1.6 View Product

<b>FR 6</b>	View Product
Description	Customer can view all products.
Stakeholders	Customer

### 2.1.7 Payment

<b>FR 7</b>	Payment
Description	customer can pay bill after receive their product.
Stakeholders	Customer

### 2.1.8 Search

<b>FR 8</b>	search
Description	User can search any product.
Stakeholders	Customer

### 2.1.9 View Order List

<b>FR 9</b>	View Order List
Description	Customer Can View which product order.
Stakeholders	Customer



# Chapter 3: Requirement Analysis

## 3.1 Use Case Diagram



### 3.1.1 User Login

Use Case Title	User Login
Goal	Access this site by the registered users
Preconditions	<ol style="list-style-type: none"><li>1. User must be registered</li><li>2. User must give valid email and password</li><li>3. Press login button</li></ol>
Success End Condition	User can enter this site
Alternative Flow	Sign up
Description	Registered user or admin enter this system. After that, give valid email and password to sign in the system.

### 3.1.2 User Register

Use Case Title	User Register
Goal	enter required data for being authorized
Preconditions	<ol style="list-style-type: none"><li>1. Give the required data</li><li>2. Give the valid information</li><li>3. enter login button</li></ol>
Success End Condition	User can be registered
Failure End Condition	User becomes fail to register the system
Description	The user who will use the secure functionality will have to register. To complete this the user needs to provide some necessary data.

### 3.1.3 Manage Product

Use Case Title	Manage product
Goal	Manage all product
Preconditions	Admin can add, delete and edit products.
Description	Admin can manage all products. Admin delete unusual product and add new product.

### 3.1.4 Manage Order:

Use Case Title	Manage order
Goal	Manage all orders
Preconditions	After any order Admin can order delete and confirm
Description	Admin can manage all orders. Admin delete unusual order.

### 3.1.5 Manage User

Use Case Title	Manage user
Goal	Manage all orders
Preconditions	After confirm registration any user admin can judge user account.
Description	Admin can manage all user. Admin add and delete.

### 3.1.6 View Product

Use Case Title	view Product
Goal	Manage all Product
Preconditions	Customer can view all products.
Description	When customer search or click product button user can see all product.

### 3.1.7 Payment

Use Case Title	payment
Goal	Payment system manage
Preconditions	Customer can order cash on delivery.
Description	customer can pay bill after receive their product.

### 3.1.8 Search

Use Case Title	search
Goal	Search option manage
Preconditions	User can search any product.
Description	customer can search their choice product.

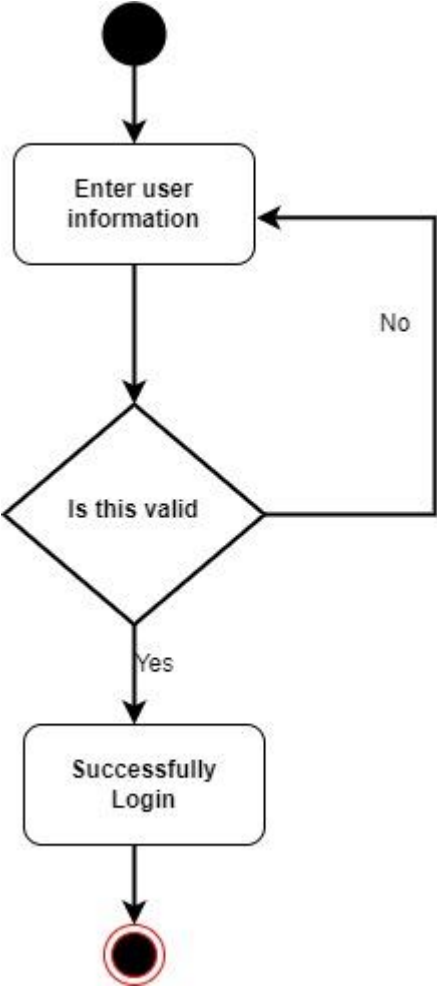
### 3.1.9 View Order List

Use Case Title	View Order List
Goal	User can view their order list.
Preconditions	User can find orders.
Description	customer can view all order.

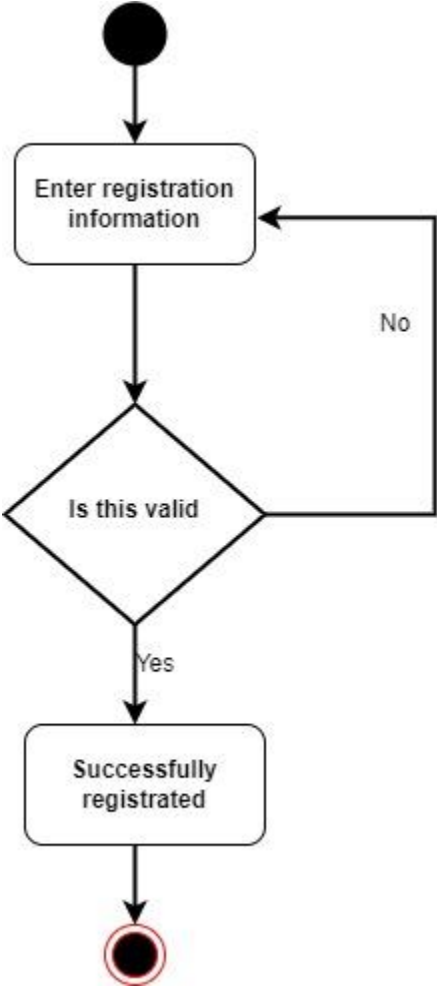
## 3.2 Activity Diagram

The activity diagram describes the features of the system. We can find the answer to how the main work of a system is managed, how the data goes through the system in the activity diagram. Diagrams are required for each system. I have prepared the activity diagram from the case of use of this project. All these diagrams indicate the flow of individual conditions of this project.

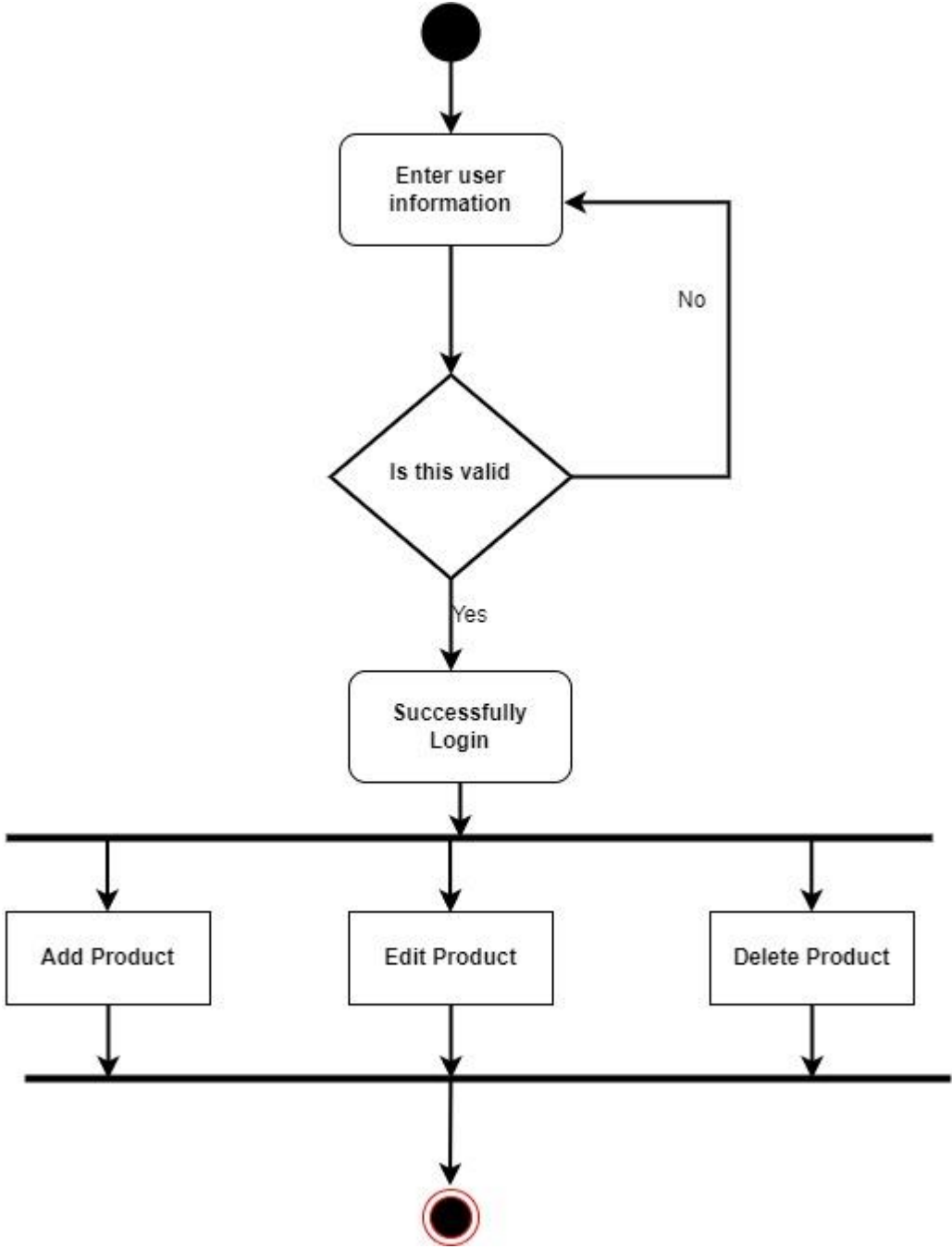
### 3.2.1 User Login



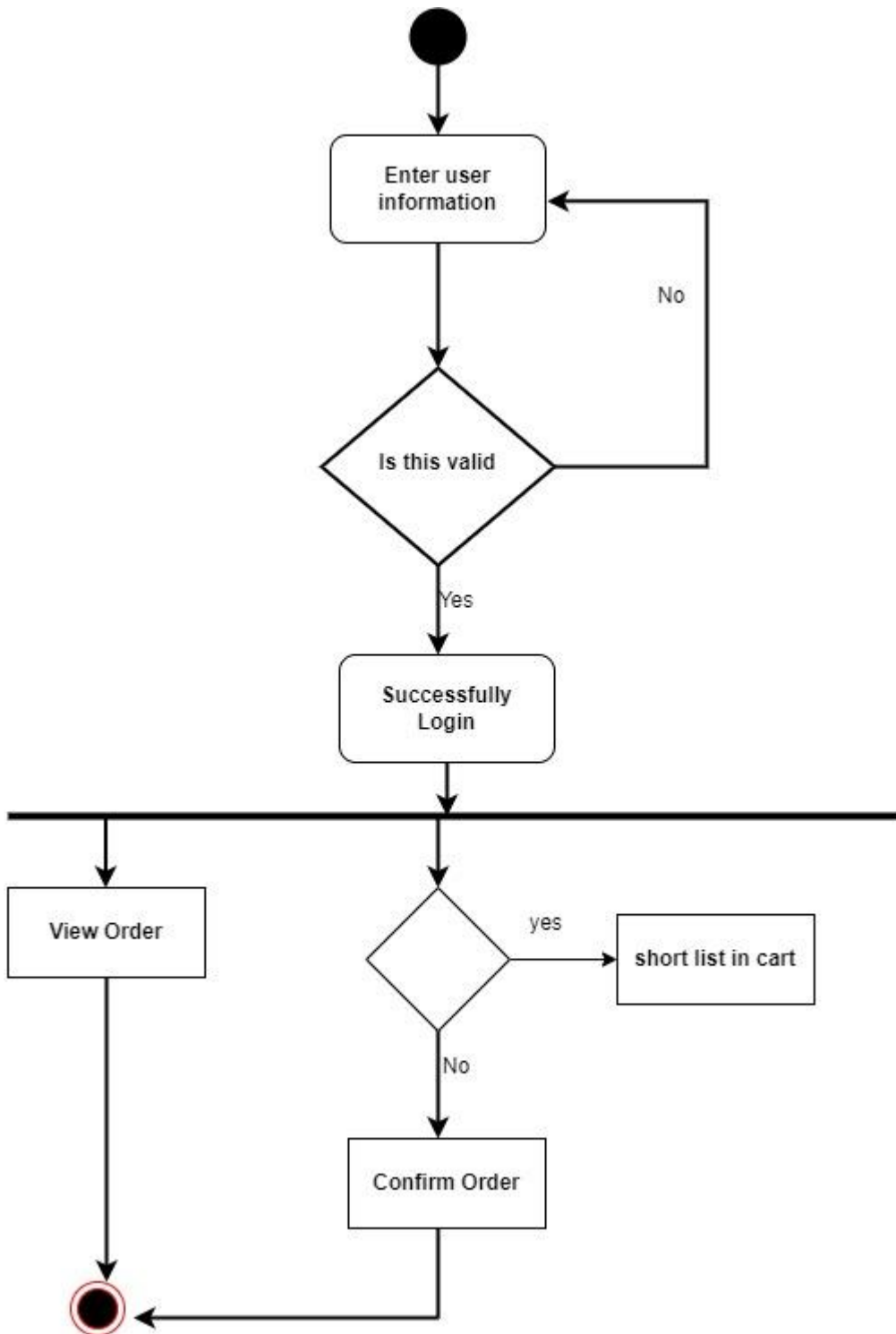
### 3.2.2 User Register



### 3.2.3 Manage Product

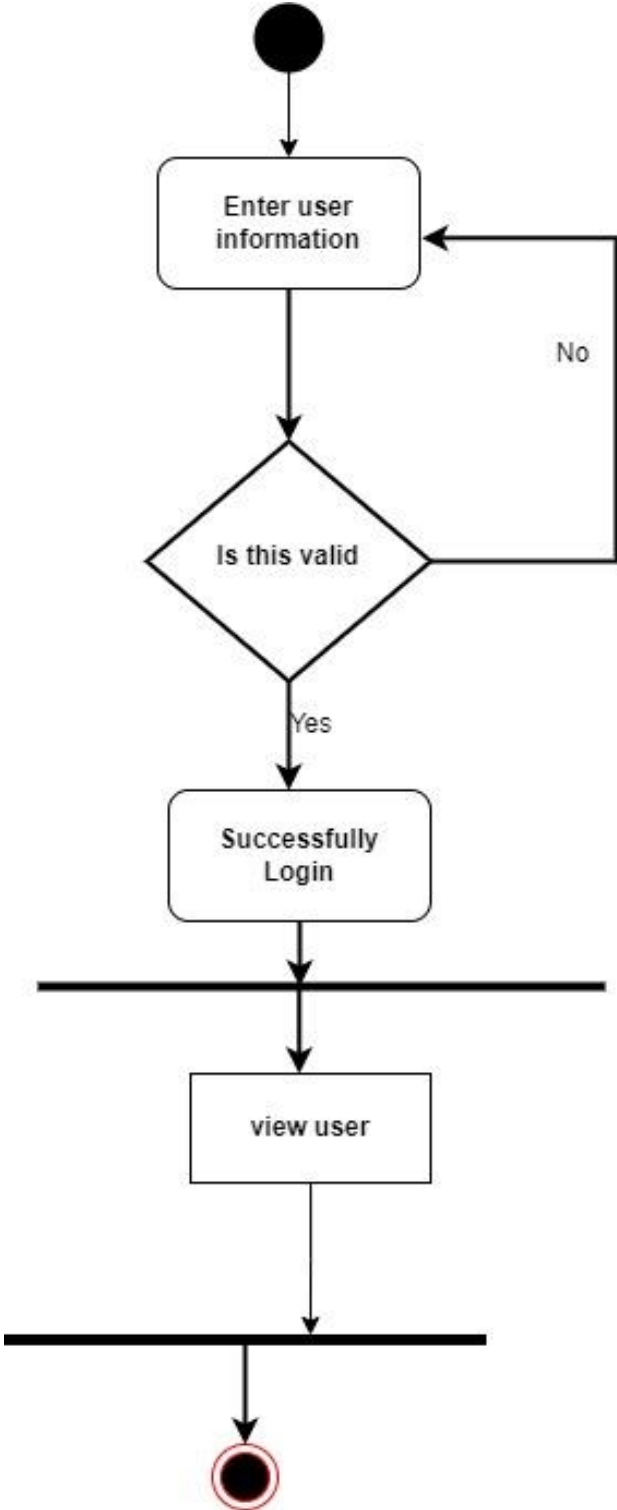


### 3.2.4 Manage Order

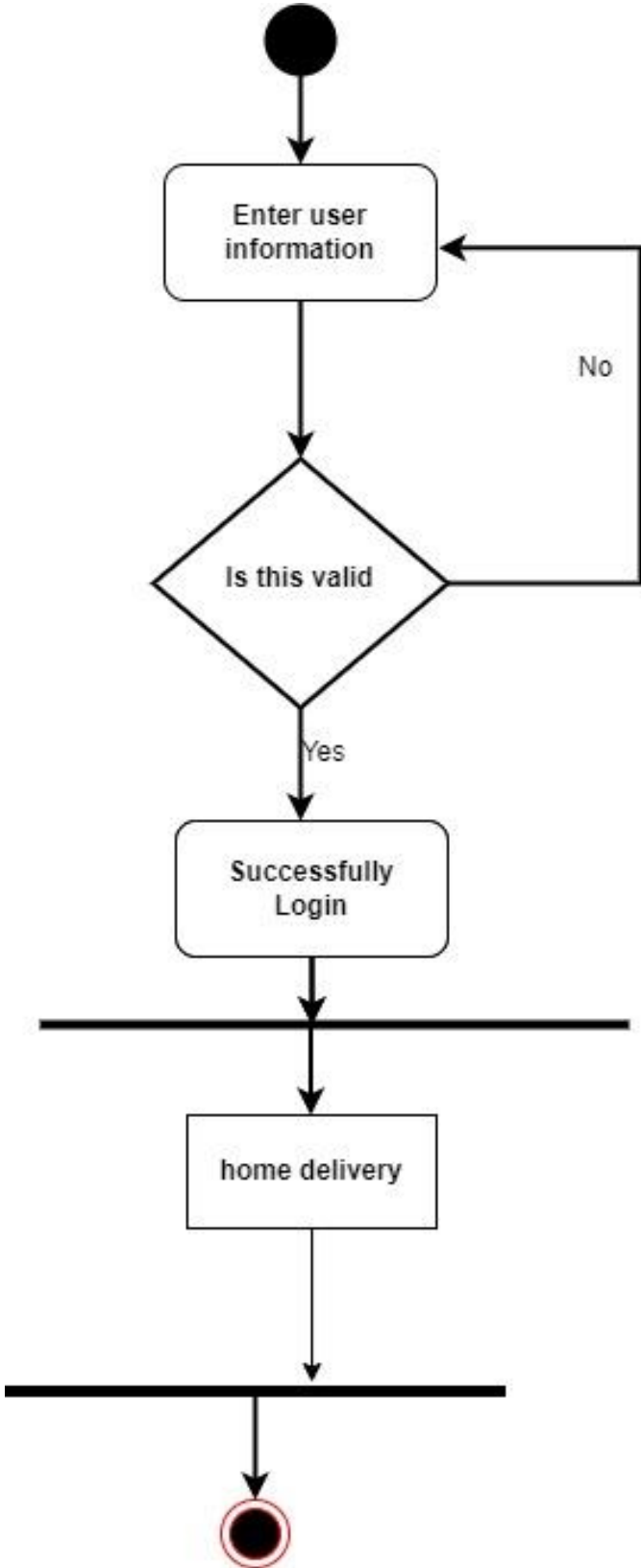




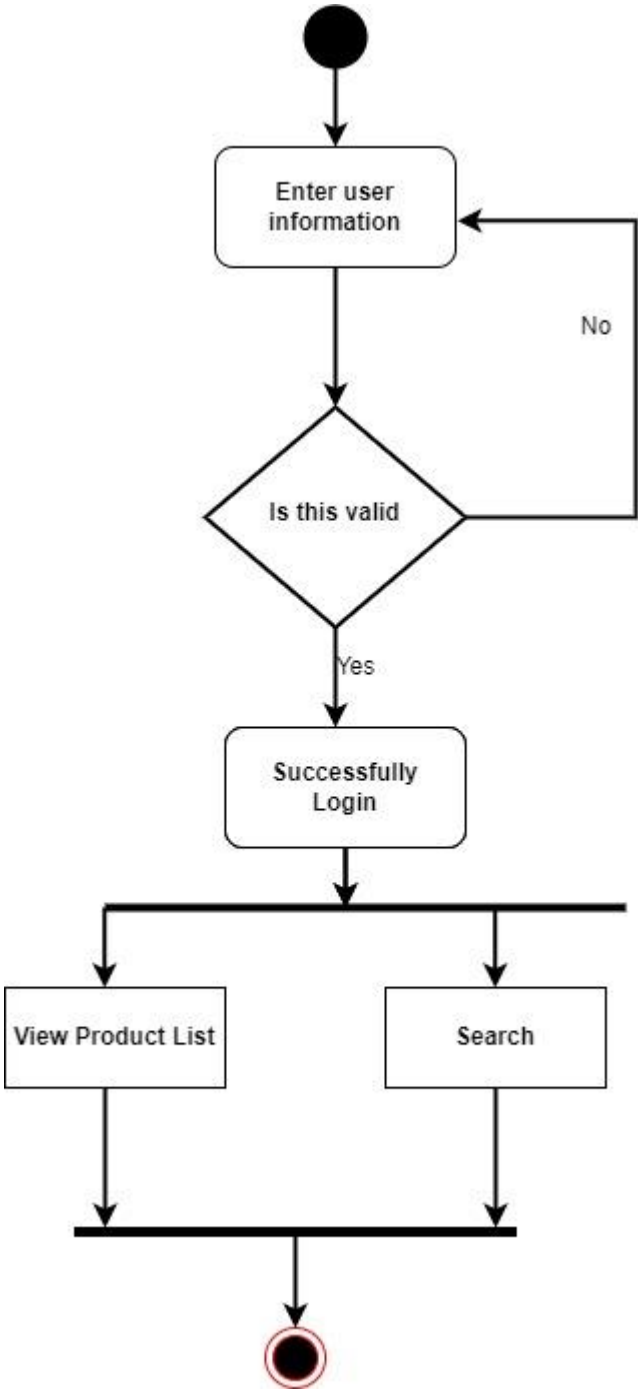
3.2.5 Manage User



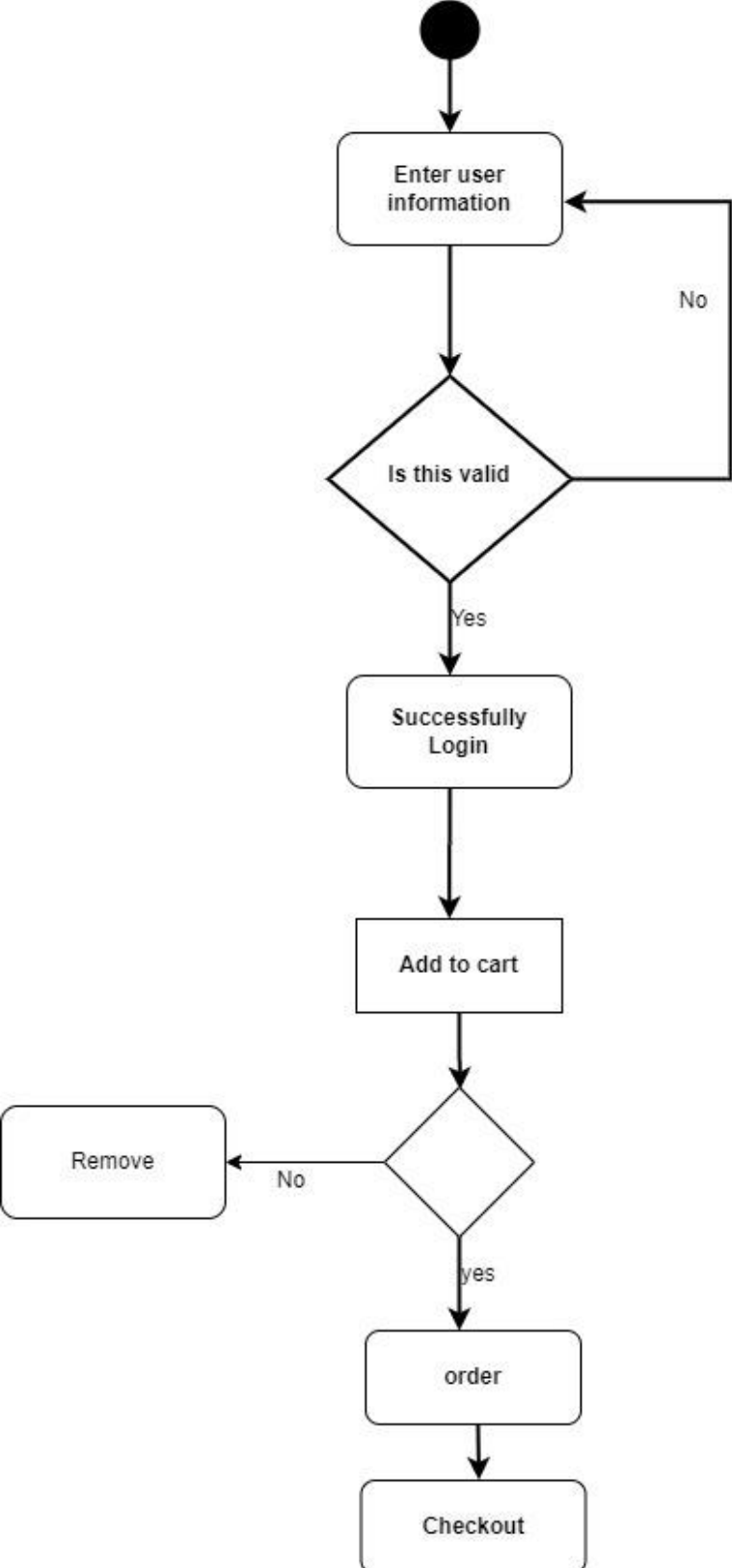
3.2.6 Get Service



3.2.7 View Product



3.2.8 Payment

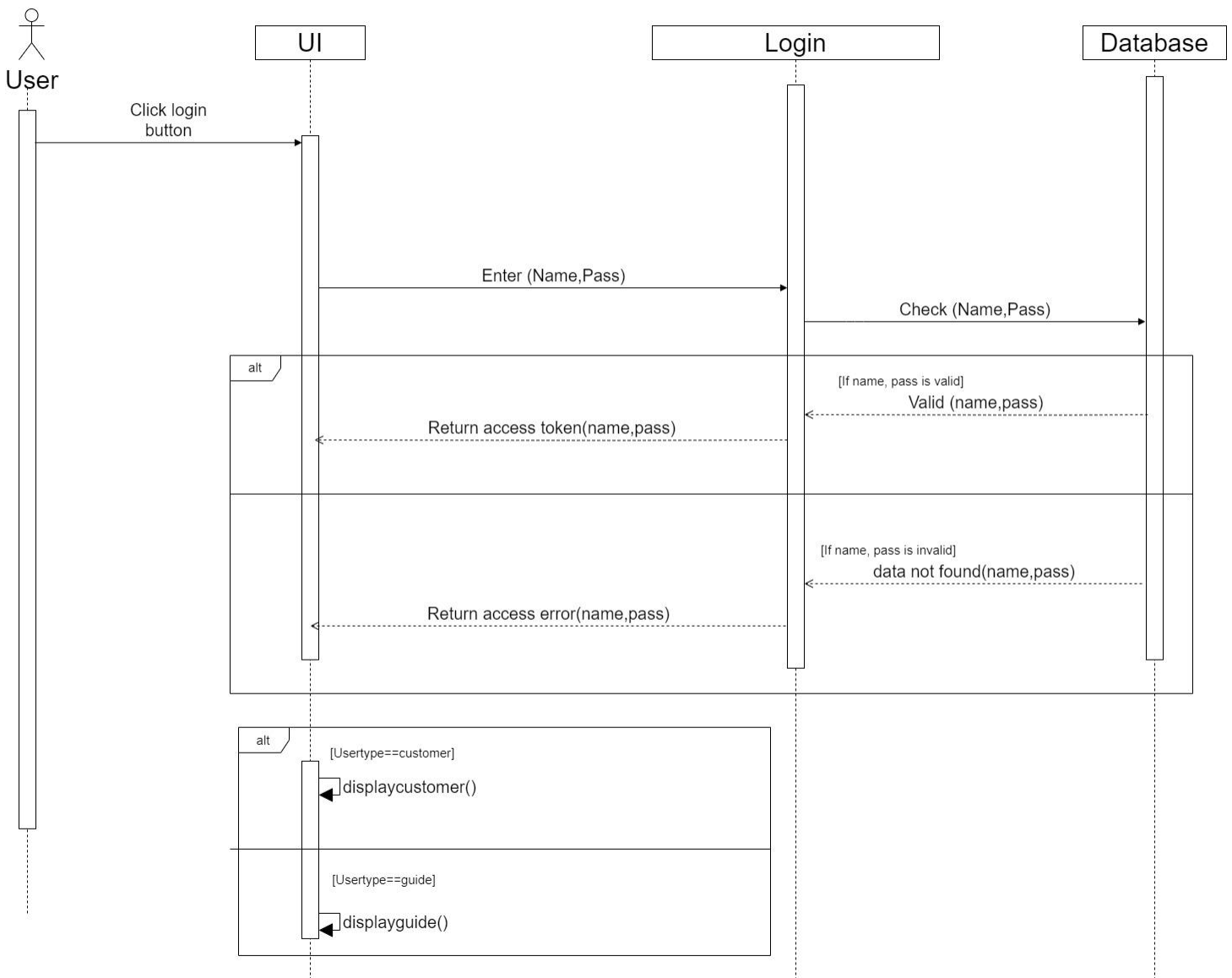


### 3.3 Sequence Diagram

The sequence diagram shows how data flows from function to function in a system. Sequence diagrams show the elements as they interact with each other.

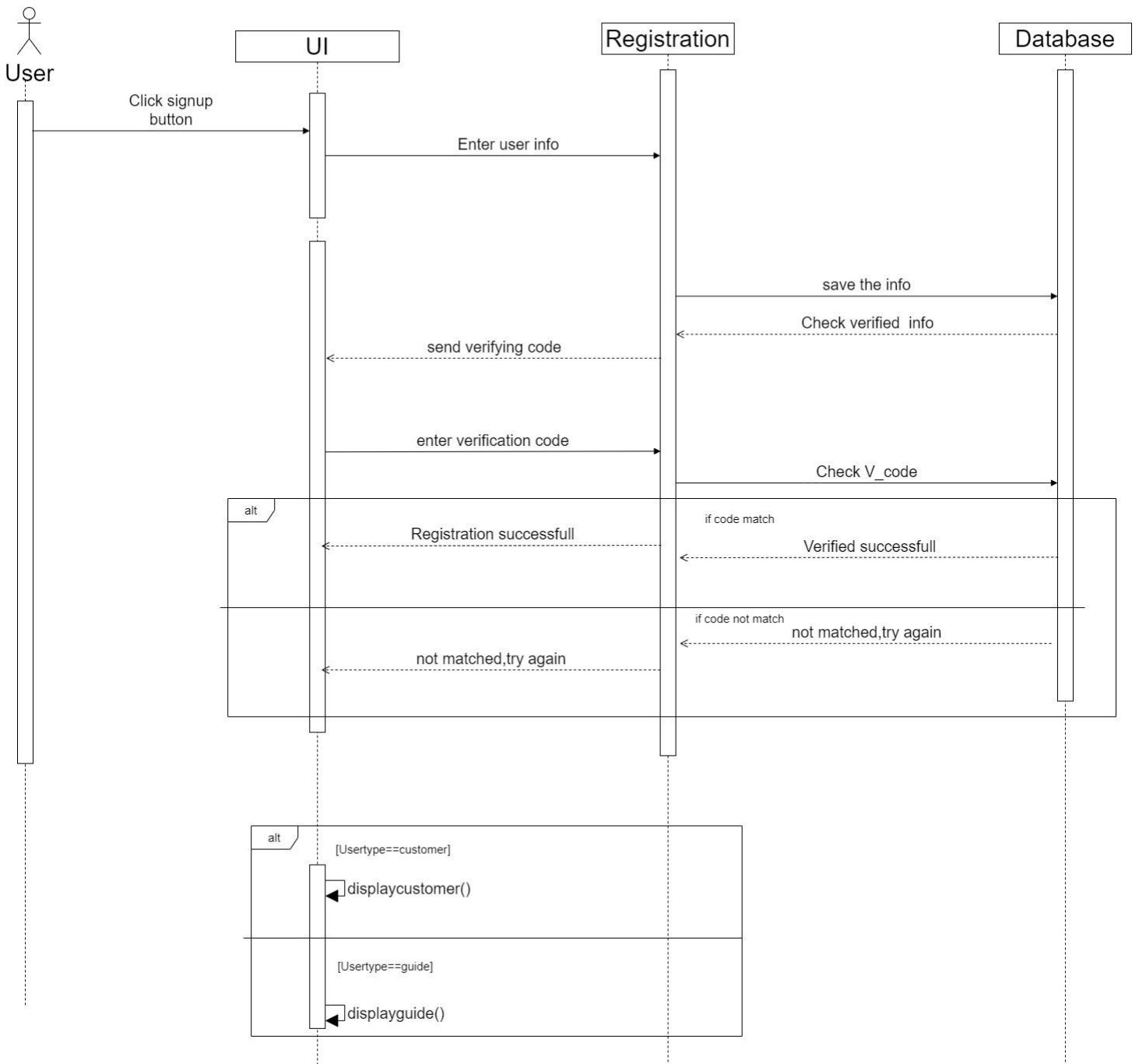
#### 3.3.1 User Login

## Login



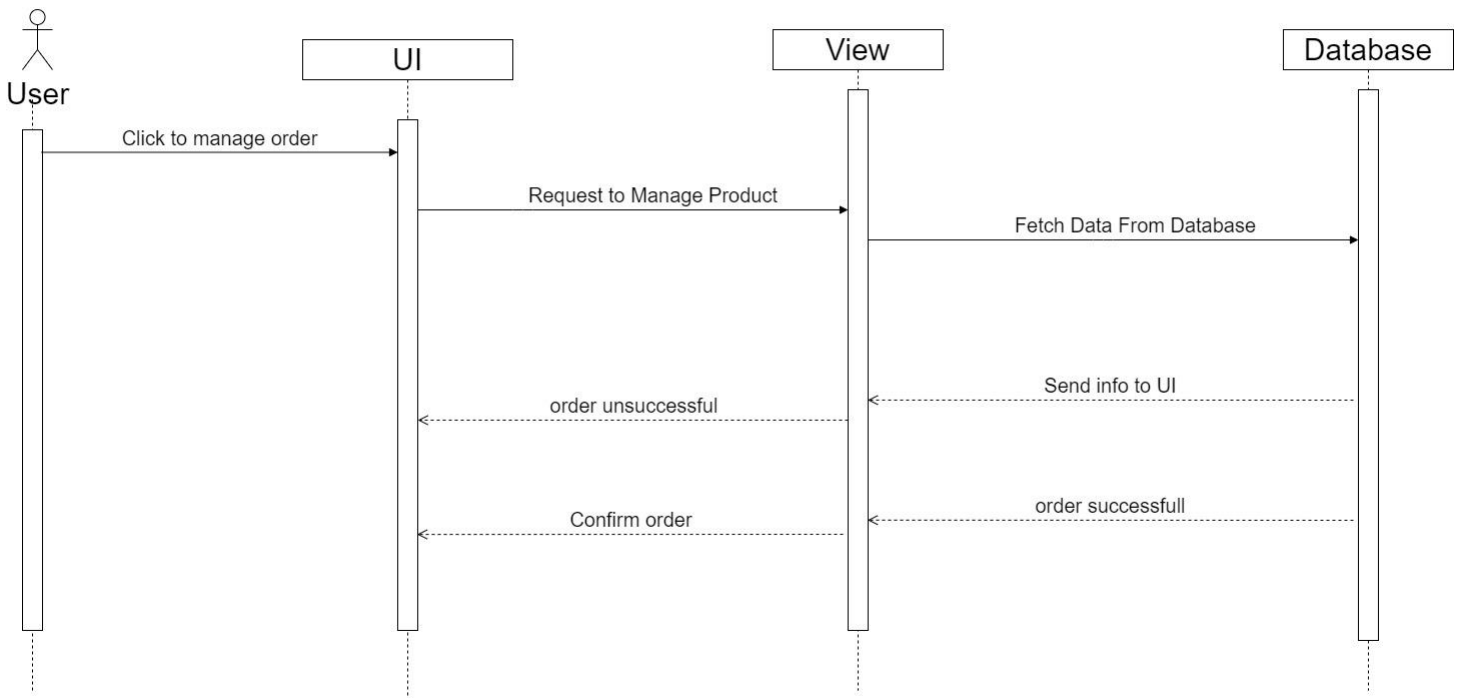
### 3.3.2 User Register

## Registration



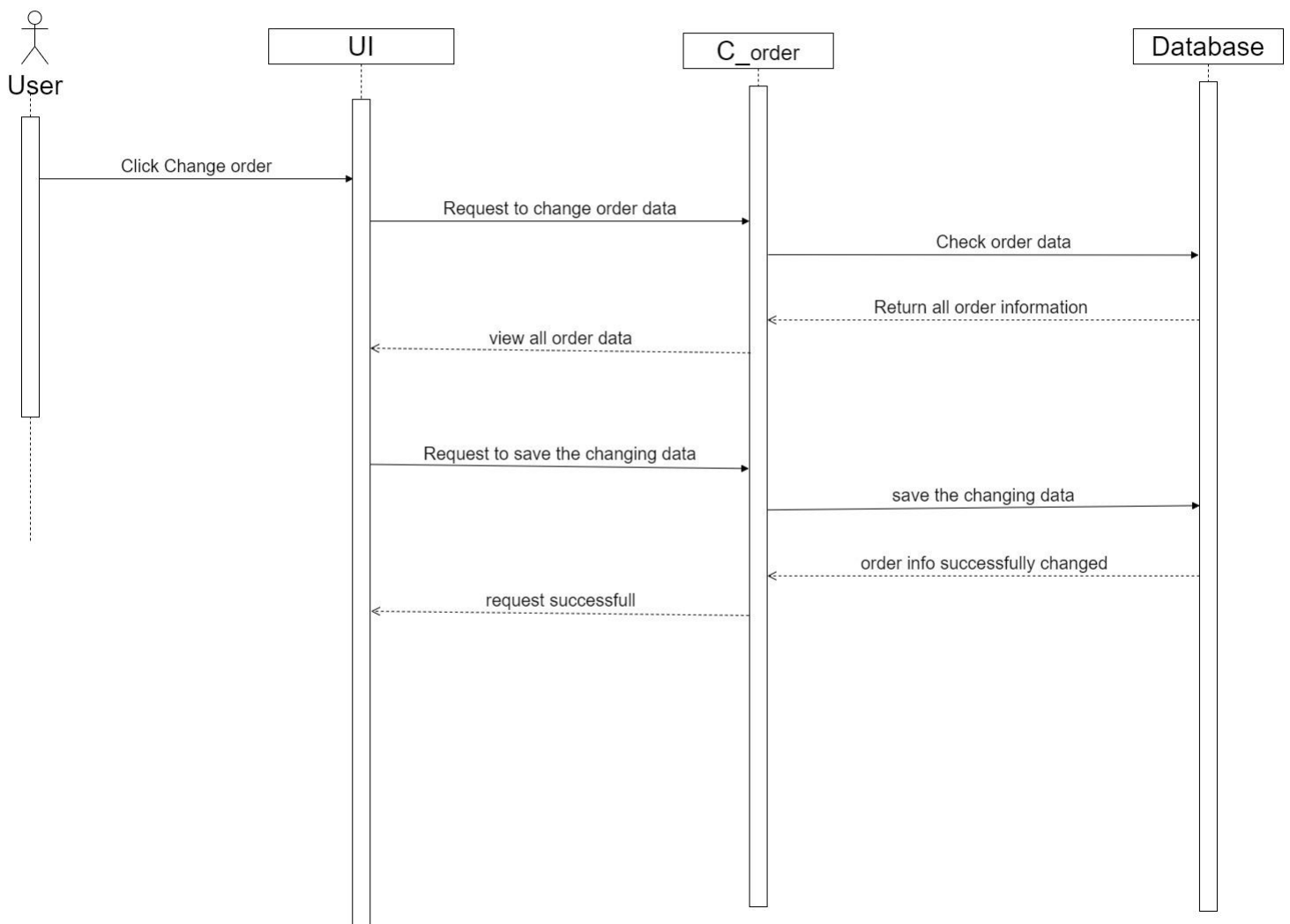
### 3.3.3 Manage order

## Manage order



### 3.3.4 Change Order

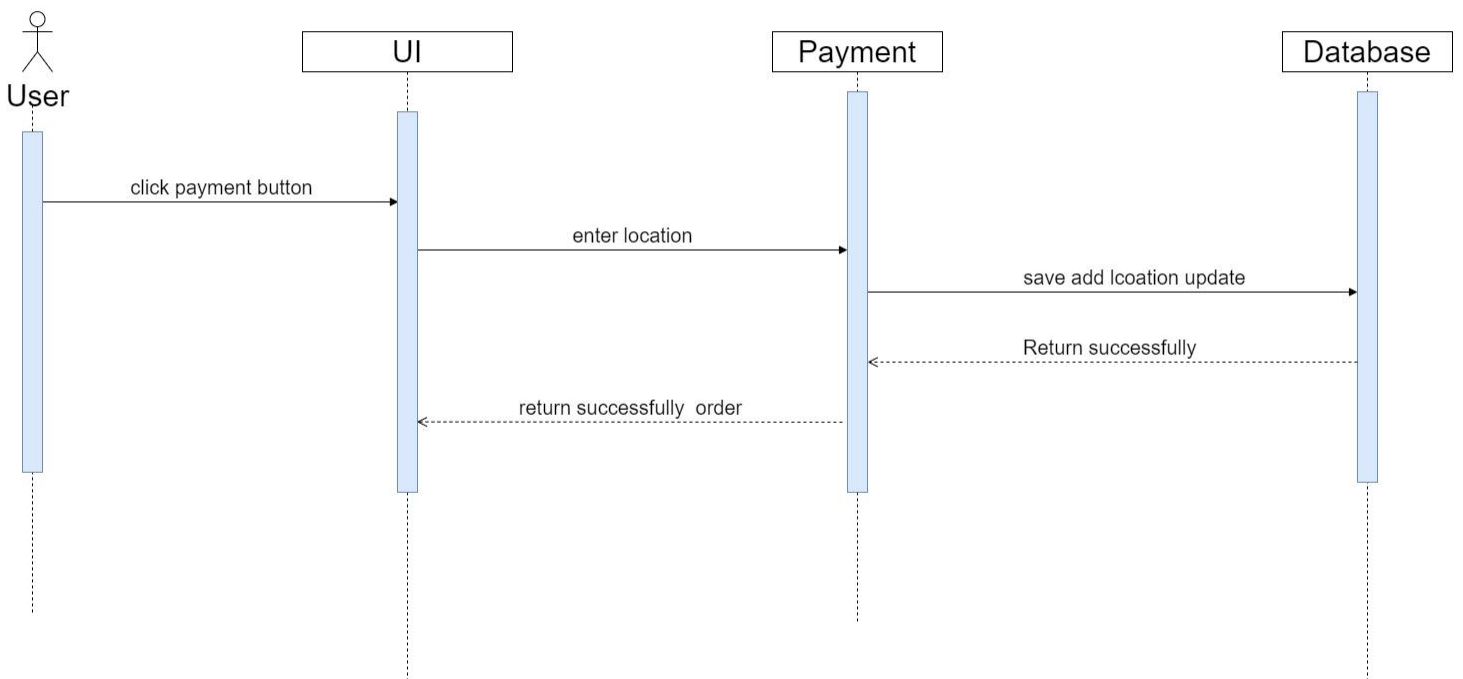
#### Change order





### 3.3.5 Payment

payment



## **Chapter 4: System Design Specification**

### **4.1. Development tools and technology**

Some tools and technologies need to be used to create a software system. The use of tools and technology varies from required specification, scalability, system complexity level, etc. The developers chose the most comfortable tool for them. Used to create my project (MySQL, Laravel, Bootstrap, HTML, CSS). This technology stack covers both client side and server side.

### **4.2 User interface technology**

Since my project is built on web-based application, I use HTML, CSS and Bootstrap to create frontend. And use Laravel framework for backend.

#### **4.2.1 Programming Language**

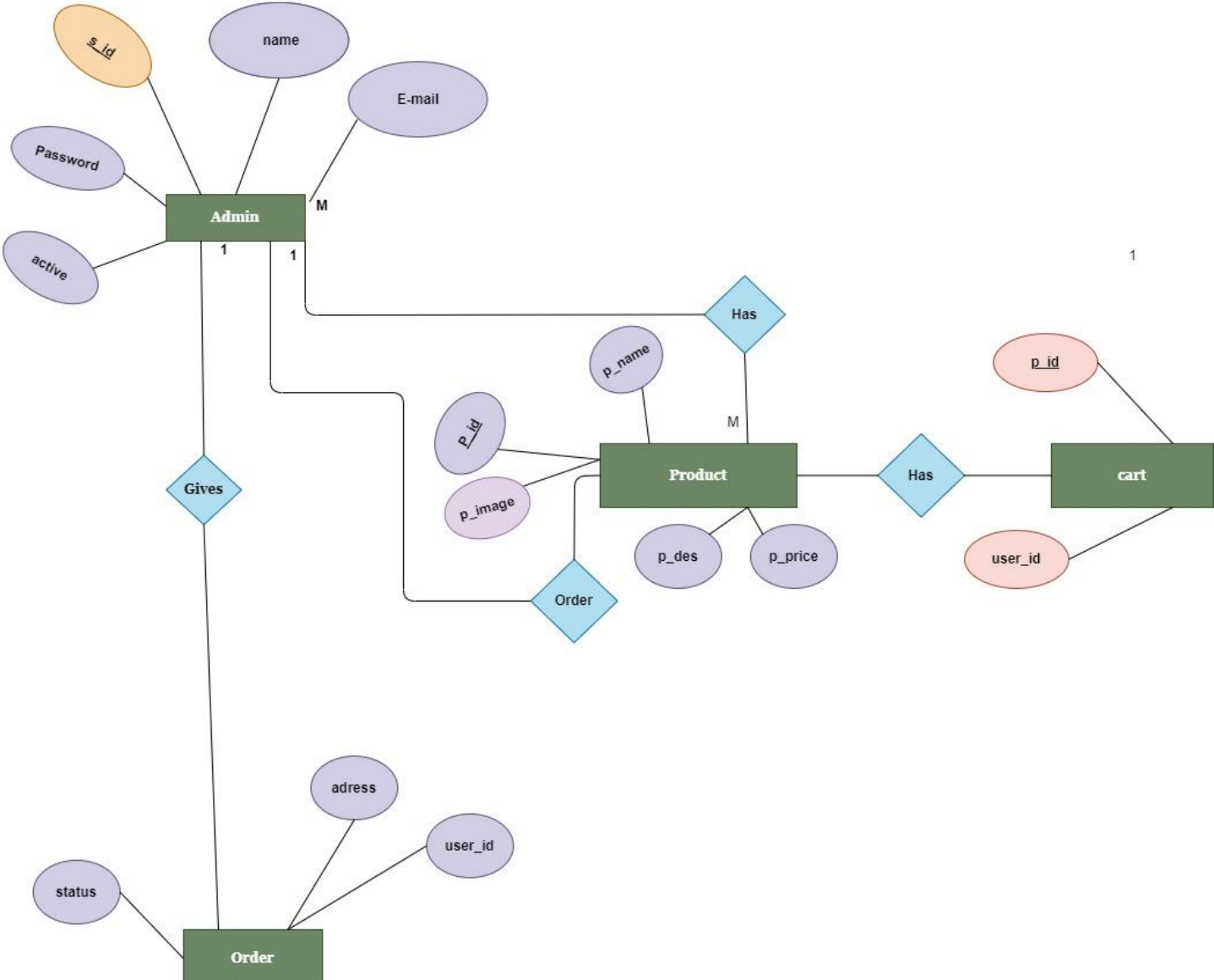
I have used Laravel to build my project. Most interestingly development tools which are used on my project are also PHP based tools and technologies.

#### **4.2.2 Integrated development environment**

The Integrated Development Environment, or IDE for short, is software that provides programmers with many features for developing projects. Developers use different IDEs for their projects. To create my project, I used

Visual Studio Code which is powered and organized by Microsoft.

### 4.3ER Diagram



## **Chapter 5: System Test**

### **5.1 Features Testing**

Testing a framework is fundamental and it additionally included as a period of SDLC. To test elements of framework, help to discover the bug, blunder. Additionally increment the versatility, client experience programming framework testing is finished. There are many elements are contained in a framework. Each element is fundamental and assume urgent part without a doubt. Thus, to test highlights is vital. I will test many highlights of my undertaking and break down the test report.

### **5.2 Testing Strategy**

To test any work, there are some techniques for testing the interaction. Essentially designers use to test some component which might have blunder or hacked. Later that it ought to be audited by the test group leads. Various types of testing procedures can be performed by the sort of utilization framework that should be tried.

#### **5.2.1 Test Approach**

For testing whole system work, analyzer needs to adopt some strategy. I will show the two-testing approach.

- **Automation Testing**

By this method, test engineers make testing scripts. From that point onward, they utilize some testing

apparatuses to perform and break down the highlights

- **Manual Testing**

Manual testing is one more method to discover the bugs and blunders. For this situation, test engineers test physically the experiments and discover the bugs and mistakes.

### 5.3 Test Cases

At the point when a system is grown, each component of system is should have been tried. With manual testing it is incredibly expected to make experiments. An experiment is a record, which has a bunch of test information, expected outcomes created for a specific test situation to confirm the component. In this venture, some experiments are made and furthermore be affirmed the experimental outcome. I have arranged some experiments for testing some of highlights. For example, login, enrollment, arrangement booking and so forth.

#### 5.3.1 Login

Sl No.	Test Case	Input	Expected Output	Actual Output
1	Email Check	Input without @	Invalid email	Email must have @
2.	Email Check	Numeric values	Invalid email	Email should be valid.
3.	Email Check	Blank	Invalid email	Should give email
4.	Password Check	Blank	Invalid password	Correct password should be given
5.	Password Check	Incorrect password	Invalid password	Correct password should be given

### 5.3.2 User Registration

Sl No.	Test Case	Input	Expected Output	Actual Output
1.	Type user name	Blank	Invalid text field	User name is required
2.	Type E-mail	Input without @	Invalid email	Email must have @
3.	Type Password	Password length is less than 6	Invalid password	Password length should be at least 6
4.	Re-type password	Not same as password	Does not match	Does not match with given password

### 5.3.3 Product Order

Sl No.	Test Case	Input	Expected Output	Actual Output
1.	Order without login	Press order button	User should be logged in	Redirect to login page
2.	Order with login	Press order button	Redirect to order page	Redirect to order page

## **Chapter 6: User Manual**

### **6.1 Login Page**

Client goes to login page through URL and afterward client needs to give the qualification to be signed in.

Client can likewise sign in straight by his/her google account.

# CUSTOMER LOGIN

If you have an account with us, Please log in!

**Email**

**Password**

**LOGIN**

## 6.2 Registration Page

Before sign in each client should enlist by giving some essential information. For example, client name, email, and secret key. Then, at that point, client can satisfy his/her enrollment.



## NEW CUSTOMERS

**Name**

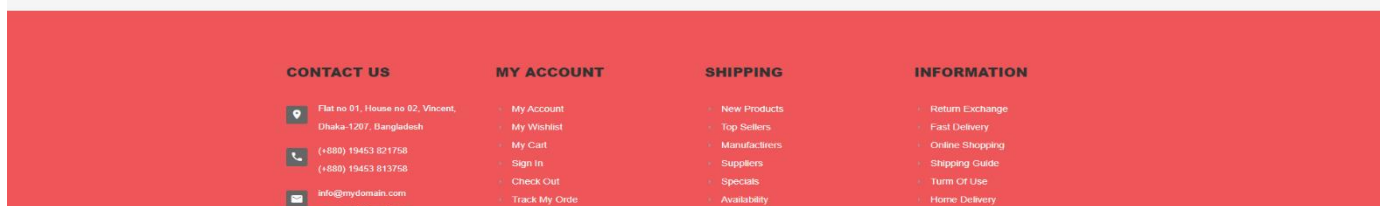
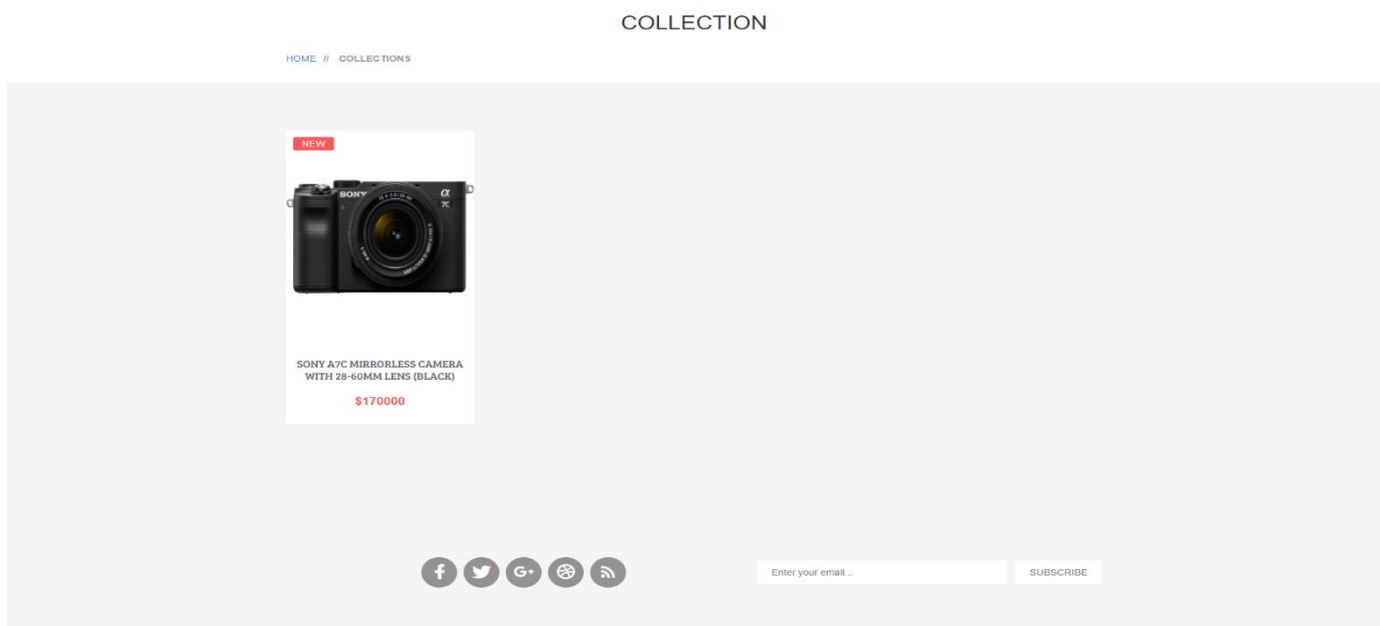
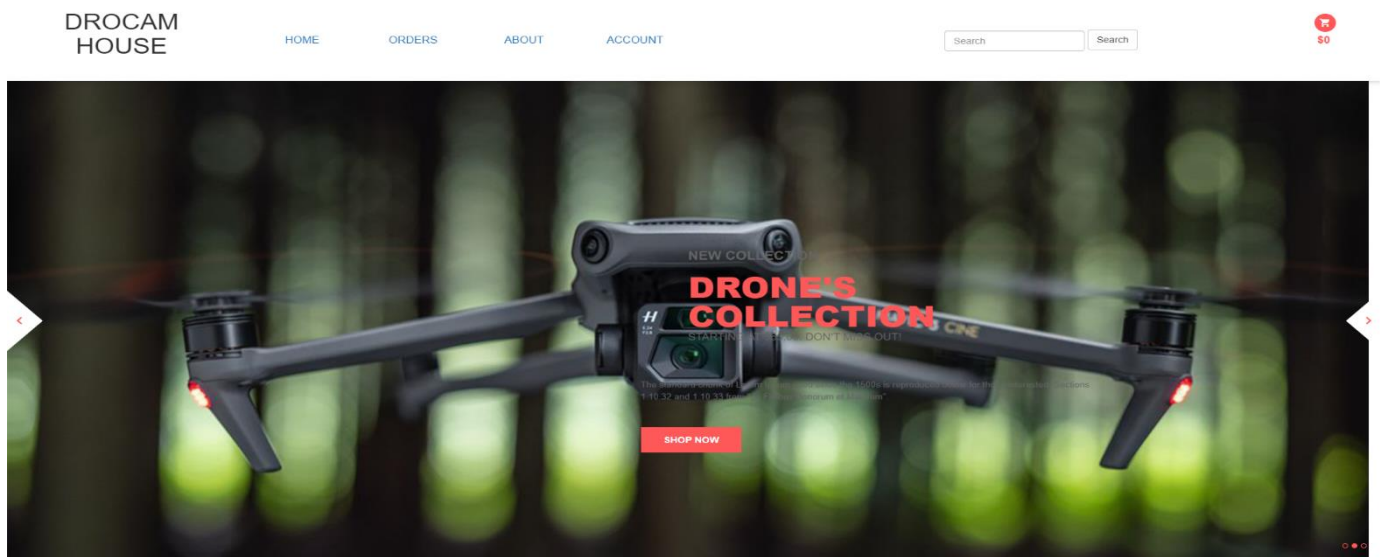
**Email**

**Password**

**REGISTER**

## 6.3 Home Page

After successfully log in, user can go to the Home Page.



## 6.4 Order option

After successfully log in, user can go to the order page and select the order for users comfortable.

### MY ORDERS

HOME // MY ORDERS

PRODUCT NAME	DELIVERY STATUS	ADDRESS	PAYMENT STATUS
DRONE	PENDING	DHANMONDI	PENDING



#### CONTACT US

 Flat no 01, House no 02, Vincent,  
Dhaka-1207, Bangladesh  
 (+880) 19463 821758

#### MY ACCOUNT

- My Account
- My Wishlist
- My Cart

#### SHIPPING

- New Products
- Top Sellers
- Manufacturers

#### INFORMATION

- Return Exchange
- Fast Delivery
- Online Shopping

## **Chapter 7: Conclusion**

### **7.1 Project Summary**

I have adapted such countless things during fostering this undertaking. I needed to learn about the Ecommerce area in Bangladesh, how extension is found in this area. I likewise felt a few challenges when I was doing my venture. All the more explicitly, when I was doing programming prerequisite investigation on my task, I felt a lot of challenges. To foster a full undertaking is especially trying for any understudy. However, we additionally need to concede that, we took in the entire course of SDLC (Software Development Lifecycle) while doing the undertaking. Instructions to accumulate prerequisite, then, at that point, examination the necessity, plan the necessities, carry out these by utilizing improvement devices and innovations and test the elements of the created framework all of things are learnt profoundly.

### **7.2 Scope of further development**

Ecommerce system is an ongoing system in our country though it is not very popular at present, if it is fully implemented. We already have a lot of web applications in the real world, but I think these kinds of applications should be more accessible and more available to our people. Because we have many opportunities and responsibilities in ecommerce sector in Bangladesh. From the great side of opportunity, I have chosen to solve this problem in my academic project.

### **7.1 References**

I need to gain knowledge from different resources while developing my project. I could not develop properly without gaining knowledge from those sites. Of course, I will cite links to those sites as a reference.

1. <https://laravel.com/docs/8.x/installation?fbclid=IwAR002sIU7l0XrLTxJwd4PSJqe3irkc6ZXj4ytZ6MxoXQMTTz1yFBGJneEOE>
2. [https://getbootstrap.com/docs/5.0/getting-started/introduction/?fbclid=IwAR22V3RnFwjV2EDPmpko275AnY\\_66DdsGWIh6WHiYT-PNJVi1c5cLnlp9k](https://getbootstrap.com/docs/5.0/getting-started/introduction/?fbclid=IwAR22V3RnFwjV2EDPmpko275AnY_66DdsGWIh6WHiYT-PNJVi1c5cLnlp9k)
3. <https://www.w3schools.com/>
4. <https://stackoverflow.com/>