

**Village Market: A Web Based Application  
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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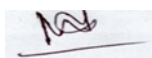
**Dhaka, Bangladesh**

**04 January, 2022**

## APPROVAL

This Project titled “**Village Market: A Web Based Application**”, submitted by Novel Chakma. Id:181-15-10898, Puja Fouzder. Id: 181-15-10977 and Md. Masum Rana. Id: 181-15-10640 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 04/01/2022.

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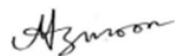
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## DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Mr. Raja Tariqul Hasan Tusher**, Senior Lecturer, Department of Computer Science and Engineering 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.

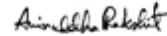
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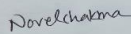
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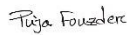
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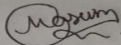
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## **ABSTRACT**

This project is on “Village Market: A Web Based Application”. This is a web based Online marketplace application, which will help the people who are finding product for home delivery. The most visible business use of the Word Wide Web is the business to consumer aspect of electronic commerce (e-commerce). The system of an e-commerce site is to sell products online and deliver products to the customers whit the help of a delivery workers. This project is about an online shopping system for a village ecosystem. The project objective is to deliver the online shopping application to village people. This project is an attempt to provide the advantages of online shopping to villagers of a real shop. It helps buying the products in the shop anywhere through internet by using a web site. Thus, the villagers will get the service of online shopping and home delivery from this shop. This system can be implemented to village market in the locality. If shops are providing an online portal where their customers can enjoy easy shopping from anywhere. In this particular project we had try to make it user friendly, as the users can understand and use it easily. In this ecommerce website users can create an account with their email and a password. After that they can search there what they need. And they can select items what they want to buy. Then if they confirm their selected order then they will get it by delivery. Another feature of our site is seller and admin can post what they want to sell in this website. By making this project our goal is to help village people, introduce them with a new ecosystem.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

We all know the process of buying and selling of goods in an online platform is called an ecommerce. This is a web-based application. Ecommerce defined as the buying and selling goods with the help of a website. For its own online business models e-business -internet marketing, electronic funds transfer, mobile commerce it's popular. This application is designed by web engineering technique. Actually, this is an Online marketplace for village people who can find their daily needs product for home delivery. Our aim is to introduce village people with online ecosystem and help them through an ecommerce website where they can buy product in online. Basically, this application is an online platform that is the place for village people where they can buy their product from our website. By this application customer connect directly with seller and this will help the customer manage their desire product more efficiently. Customers can easily shop with a short of time using their mobile and also get what they want. They can easily find and choose items through many items at a time and buy what they need. When online, customers can find items that are available in physical stores far away from them or not found in their locality. This is internet-based site and dynamic site and this site is able to attract to the village people who use internet. In this site product information will updates regularly. The site is able to get good response from many organizations who use online business. A product listing is what the customer sees when they search for an item. This is one advantage in ecommerce meant for the seller.

### 1.2 Motivation

The uses of technology are increasing day by day. Technology is everywhere wherever you look around. The device you are using for communicating with others is technology. In simple words, to adjust with modern world we have to walk with this running world proportionally. Due to pandemic period of Covid-19 we all had to suffer with Lockdown. At that moment we were not allowed to go outside. At that situation those who live in the city are used to with a new ecosystem. Through mobile with internet anybody can buy their

needs from home, to do this they don't even have to go to the shop. At that moment the people who lived in village they were not familiar with online shopping, though they were using internet in their daily life. To introduce those village people with a new ecosystem and create an opportunity for them to enjoy the benefits of using internet we are motivated to create this type of web application.

### **1.3 Objectives**

The main reason behind our website is to introduce an online based ecosystem with a branch of village people who use internet. The most common objective of an ecommerce website is selling products and providing their customer a good service. To do that you have to provide a proper information on what you are selling, how customers can easily order from our site. Due to its world-wide nature, the web may be an adaptable structure permitting clients to select from lots of comparable items and they can do this with one tap when they are not even in front of the shop. The most challenging thing for our website is introducing village people with a new ecosystem when they are not even familiar with internet. We are living in 21<sup>st</sup> century. Using of technology is increasing day by day. In the month of victory in Bangladesh a few areas of the capital have been introduced with 5G experimental manner. Those who live in the city are already enjoying the benefits of ecommerce website. In comparison, those who live in rural areas have access to internet and they are not able to familiar with this facility. We want to connect them and introduce them with a new ecosystem.

### **1.4 Expected Outcome**

The expected outcome for our project is making an online platform which will help all the customers who are lived in village and wanted to buy product in online. They can easily complete their shopping with more interest by using this web application. This web application will provide for customers to find product what they want and buy them easily. They will be able to shopping for what they want in a very short time by using internet. And the seller will also enjoy the benefits of internet. Through this web application his sell will increase. It will also provide a product listing for customers. Can also add many

images, a description, product category, price, shipping fee and delivery date. This feature will help the customer for find out product with pleasure.

## **1.5 Report Layout**

**In chapter 1:** It has given something about this application. In this chapter motivation is also given. Why customer and seller should use this application. Then some objective is given here. And then expected outcome also given here.

**In chapter 2:** It will provide background about this kind of application. Related works about this application. What I have studied about this application. That will also give in this chapter. Scope of this problem and challenges will provide in this application.

**In chapter 3:** Firstly, this chapter will provide information about business process model that means (BPM). Then it will provide requirement collection and analysis. The total result about the requirement and the analysis. After that use case model and logical data model will provide. Then requirement is given.

**In chapter 4:** In this chapter all the design process are here like font-end design, back-end design, interaction design and UX and the last thing of this chapter in implementation requirement.

**In chapter 5:** This chapter discussed about the implementation of database, front-end designs, implementation and interactions, testing implementation and the test results of the project.

**In chapter 6:** I have discussed about the conclusion of my application, limitation and the scope for further developments of my project

## **CHAPTER 2**

### **BACKGROUND**

#### **2.1 Introduction**

The first web browser, World Wide Web, was progress in 1990 by Tim Berners-Lee for the NeXT Computer. This is the first web server for that same machine on that time. and present to his workmate at CERN in March 1991.

Rokomari.led.com is the first and leading ecommerce site in Bangladesh. They started this journey on January 2012. A web-based application is any program that is acquire over a attachment using HTTP, rather than surviving within a device's memory. Most of the time Web-based applications run inside a web browser. Web-based applications are also known as web apps. Then people are started using this pregame in their work. But today most of the people use web applications for searching a job and also creating job portal and other e-commerce and e-business.

#### **2.2 Related Works**

Now a days There are lot of platforms who are using web-based application. www.Rokomari.com is the first web based online business platform in our country where we can find different types of books. They sell different types of books and also have home delivery system. This web-based application gets lot of appreciation from a large number of organizations in the country who use online facility. people also give good response on this platform. But today we have lot of online web-based application in our country. people are more found of online based work.

#### **2.3 Comparative Studies**

Showcase investigate about and statistics are the basic device within the trader hands. Without them it is unbelievable to examine the showcase position and also arrange communicate budgets or build advancement methodologies. In every case the challenge is to instigate get to data from all the broadcast which is must in relative examination. Generally, this is the way to gate the real picture of the showcase position and to draw deduction successfully. Getting all the information and evaluative device may be the

pivotal issue for trade advancement. Basically, available data in shape of reports and appraise allocated by many organizations may display. In the last stage they offer continuously insufficient and based on explaining case. That is not enough to connect with a hard relative problem on that time. with full of complete positioning is directed trade. All players on a showcase make their knowledge available to others, and also agree to a pre-organize plot. The investigator here will be a investigate company who isn't directly included within the showcase and takes care of secure the data which is shared, and also notice the quality necessities and standard. the same investigator gives identical devices to all members, so that they can browse and check the assemble information. In the last stage tap into the results of the complete progress.

## **2.4 Scope of the Problem**

E-commerce has germinated with a long time and it is also known as the fastest-growing spaces. Though it has same benefitted it also took a few moments for this to be appreciated by the end-users. In today's time we are at a stage where the lion's share of the individuals admires to online shop. Though online platform has some shipping problem, but over a long-time individuals tend have started trusting E-commerce site for all their shopping they do. In our country individuals dispose toward online shopping. And today people are more found of online base shopping. Their interest to visit physical store getting less day by day. The installment plan highlights that are anxious and save as well as money on shipment (COD), that makes the installment, indeed more, more secure with stress-free shipping, simple returns and reachable. After that check out all the development of this e-commerce site in India. We have manually collected all important information from over the internet after examination and abstraction of data obtained from bona fide sources. From the year 2013, almost 8 million people have been shopping online. They have done shopping from a few numbers of online shopping site. But in 2016 around 100 million people do their shopping in online. The unutilized customers are book keeping to around 50% came from the first level to next level towns of India. But today we can say that India is one of the places where most of the people doing online shopping. And now a days it has been will proceed. This realize that online shopping makes a part of expectation within the future.

## 2.5 Challenges

MongoDB cluster is the word usually used for either a replica set or a sharded cluster. A sharded cluster is also known as horizontal scaling, where data is allocated across many servers. The main motive of sharded MongoDB is to scale reads and writes across multiple shards. MongoDB cloud system consist of an exhaustive data set which modify and simplify data for any approach. for developing this application at first, we have to learn web-based application development. After that we had to learn more about web development. So that this application can bring out user's expectation. Mongo DB cluster & cloud operation was big dare to everyone. usually, A mongo dB cluster used for sharded cluster. A sharded mongo dB do Scale reads and writes along various nodes. This is the main motivation of sharded mongo db. you can separate data along with all the nodes of the shard. Because each node does not handle the whole data. Every node is a member of a shard which is a replica set and the data are divided on all shards. MongoDB cloud gives consist of a exhaustive suite of all data set that accurate, modify and simplify data. when you build it with data for any application? Different types of ecommerce site sell different types of products on the report of their customer demand. The main problem for us to assist our online ecommerce. It's inconvenient to compulsion all the elements working together unless you've got the right equipment. The most perfect way to establish an eCommerce site is to make use of program that conduct all those instruments under one umbrella. And also ensure that your wrapped up site will integrate all the usefulness you would like which it'll all work together easily. This computer program is called an eCommerce stage. the primary choice you need to establish website for offering online. Affordably-priced, adaptable eCommerce stages have leveled the playing field so that indeed the littlest trade can begin web site and effectively offer online as restricted to earlier days when as it were the giant might bear the necessary devices.

## 2.6 Choosing an eCommerce Platform:

The eCommerce stage you select decides the capabilities of your site, on both the frontend and backend. There's a wide extend of stages accessible nowadays, and a few have more highlights than others. Now and then these restrictions are by plan, as with stages expecting



as it were for businesses on the littlest conclusion of the scale, such as sole proprietors offering exceptionally few things to a moderately little client base. By and large, these sorts of businesses do not require a few of the higher-end highlights adapted toward administration of a bigger company. However, smaller-scale stages rapidly gotten to be deficiently when your trade begins to develop. Adaptability is crucial to your business's long-term future, so explore for a stage that develops with you. Fair since you do not require certain highlights presently doesn't cruel you won't require them afterward. In the event that your software lacks feature for a bigger commerce, you will be stuck, and the as it where choice will be to switch to another stage. This prepare can be time-consuming and costly, particularly in case you lose work whereas exchanging to diverse software. Likewise, it's too a botch to begin off with an enterprise-grade eCommerce stage when your commerce doesn't require it however. Typically, fair a gigantic increase in costs with no prompt advantage. The leading choice is continuously to utilize a stage that will work similarly well for businesses of any estimate and budget.

## CHAPTER 3

### REQUIREMENT SPECIFICATION

#### 3.1 Business Process Modeling

Seller, Customer and product these are the entities. Sellers can list products and upload those in an online platform by using this web application. Seller can post product, searching product and filtering product by login his account. Admin can add any kind of user in this web application. If necessary, Admin also can update & delete user information. After login, customers can place orders and get notification. Users also update their profile information by login to this system. After posting the seller can filter product and search product using his required specification. This web application can be used as an e-commerce platform. All the posting products and recommended products will show in the seller dashboard.

#### 3.2 Requirement Collection & Analysis

**Customer:** Sometimes customers face some problem when he/she login to the website and search for a product. This problem faced all types of customers. Sometimes customers can't find all product information. In this web application will help them to solve this kind of problem. All the customers can use the same function to place all types of products. But it's a main mistake. Our web application provides different types of place order functions for different types of products. Every day many products are posted from many websites but sometimes it cannot reach the customer. But our system can notify customers of all recommended products. This is a great opportunity for customers. That's why web applications are an appropriate platform for customers who are interested in online shopping.

**Seller:** Sometimes sellers face some problems when they want to post a new product. Basically, this problem mainly faced all types of websites. But our system solves those problems, because using this site sellers can easily post products. Sellers can face another problem when they filter products from a huge number of products. This problem is solved using our web application because our web application provides a product filter option by

required specification. For this reason, our system is very much helpful for any type of sellers.

**Admin:** Admin faced problem generally when admin notice any unwanted things happen in a system. In this kind of problem admin need to permission to perform some specific action such as delete, update, maintenance database. In our system we provide those types of action for admin panel.

### 3.3 Use Case Modeling & Description:

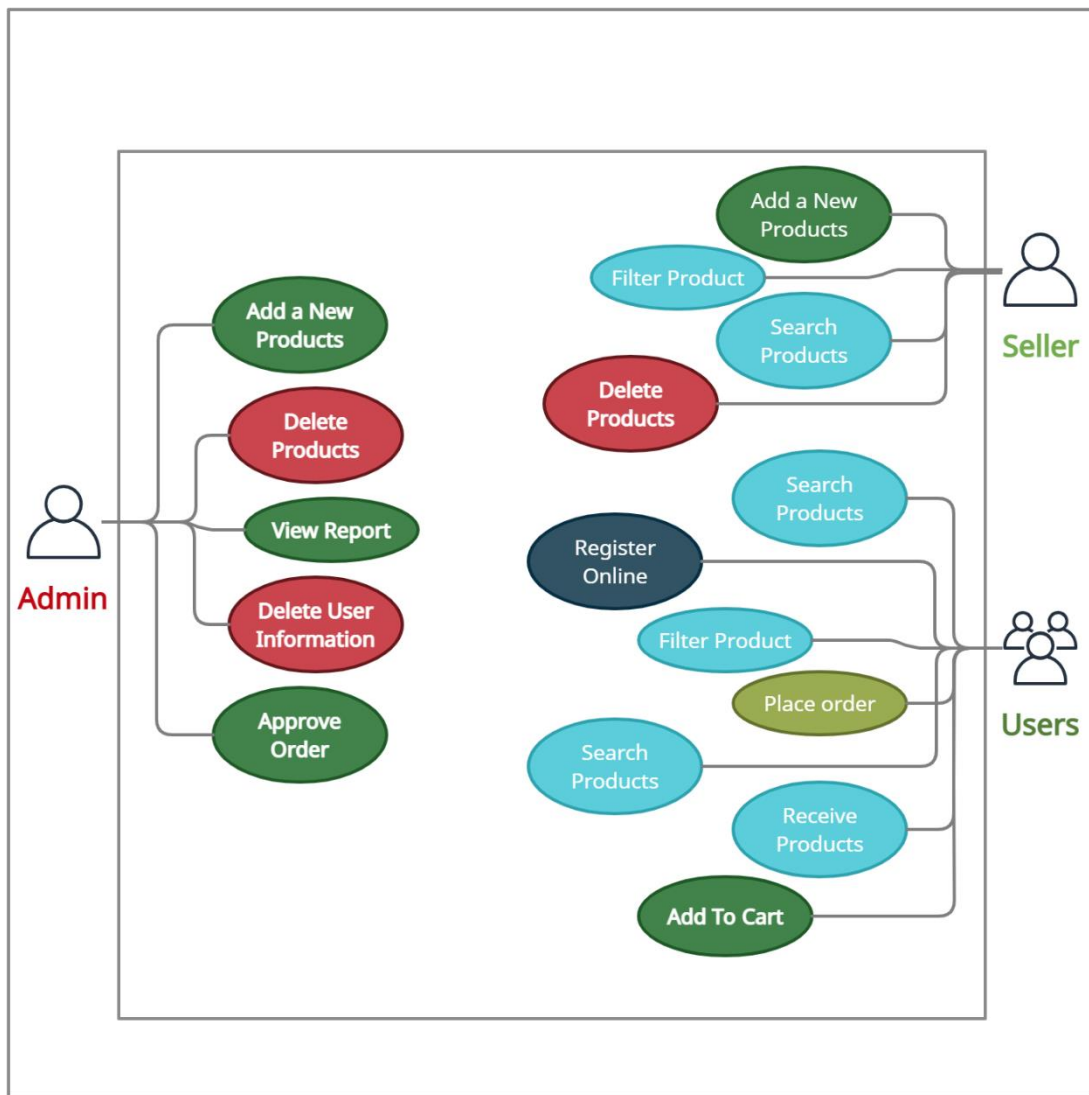


Figure 3.3.1: Use Case Model of The System

**Use Case Description:** In software and systems engineering, a **use case** is a list of actions or event steps typically defining the interactions between a role and a system to achieve a goal. The actor can be a human or other external system. In this application there is job seeker who can find and apply job, create cv. The system will provide an outcome on the basis of his activity.

Table 3.3.1: Use case description of Search Product.

Use Case 01	Search product
Primary Actor	Village Market
Secondary Actor	Null
Pre-Condition	A customer needs to have an internet connection and browse our site for searching products and click the search icon to watch those products.
Main Success Scenario	Click the search icon with a specific keyword and find the product.
Exception Scenario	No data found because of internet connection or keyword problem

Table 3.3.2: Use case description of Selecting Product.

Use Case 02	Selecting products.
Primary Actor	Village Market.
Secondary Actor	Null
Pre-Condition	A customer going to login to account search for a product and click the Product image for a specific product.
Main Success Scenario	Click the Add to Cart for a specific product and order successfully.
Exception Scenario	Unsuccessful order because of internet connection or uploading problem.

Table 3.3.3: Use case description of Product Details.

Use Case 03	Product Details
Primary Actor	Village Market
Secondary Actor	Null
Pre-Condition	Login in the system.
Main Success Scenario	The user will select his/her desire product image icon what he/she want to buy.
Exception Scenario	Unable to see product Details for internet problem or server problem.

Table 3.3.4: Use case description of product order.

Use Case 04	Product order.
Primary Actor	Village Market
Secondary Actor	Null
Pre-Condition	Login in the system and internet connection.
Main Success Scenario	User should check all the details about product and select add to cart and quantity (how many he/she want to buy).
Exception Scenario	Product order failed for server problem and submit problem for internet connection.

Table 3.3.5: Use case description of place order.

Use Case 05	Place order
Primary Actor	Village Market
Secondary Actor	Null
Pre-Condition	Login in the system and needed 60 % completed order
Main Success Scenario	Customers will login in the website with proper email and password then be able to buy different types of products.
Exception Scenario	Place order failed for internet connection or server problem

Table 3.3.6: Use case description of registration.

Use Case 06	Registration
Primary Actor	Village Market
Secondary Actor	Null
Pre-Condition	Must need an email account and Internet connection.
Main Success Scenario	Customers will give their email and provide required information correctly to registration.
Exception Scenario	Email problem, Database problem, Internet problem, server problem.

Table 3.3.7: Use case description of login.

Use Case 07	Login
-------------	-------

Primary Actor	Village Market
Secondary Actor	Null
Pre-Condition	Must need an email account and Internet connection.
Main Success Scenario	Customer will give the email and password correctly to login in the website.
Exception Scenario	Database problem, Internet problem, server problem.

Table 3.3.8: Use case description of follow.

Use Case 08	Follow
Primary Actor	Customer
Secondary Actor	Null
Pre-Condition	Login in the system and internet connection.
Main Success Scenario	Customers will give the email and password correctly to login in the Website, then they can search order and place them.
Exception Scenario	Internet problem, server problem.

Table 3.3.9: Use case description of post new product.

Use Case 09	post a new product.
-------------	---------------------

Primary Actor	Seller/Admin
Secondary Actor	Null
Pre-Condition	Login and internet Connection and complete company profile.
Main Success Scenario	Seller/admin will give the email and password correctly to login in the Website, then be able to post new products.
Exception Scenario	Internet problem, server problem.

Table 3.3.10: Use case description of Search and Filtering.

Use Case 10	Search and Filtering
Primary Actor	Customer
Secondary Actor	Null
Pre-Condition	Login, Internet Connection and must post job circular.
Main Success Scenario	Customer will give the email and password correctly to login in the website, then be able to search product and product filtering using specific keywords.
Exception Scenario	Internet Connection and database problem

Table 3.3.11: Use case description of Add/Update/Delete product.

Use Case 11	Add/Update/Delete product.
-------------	----------------------------



Primary Actor	Seller/Admin
Secondary Actor	Null
Pre-Condition	Login, Internet Connection and must post job circular.
Main Success Scenario	Seller/Admin will give the email and password correctly to login in the Website, then be able to add product, update product and delete product successfully.
Exception Scenario	Internet Connection and server problem.

Table 3.3.12: Use case description of Perform Specific Action.

Use Case 12	Perform Specific Action
Primary Actor	Admin
Secondary Actor	Null
Pre-Condition	Login and Internet Connection.
Main Success Scenario	Admin will give the email and password correctly to login in the portal, then be able to do some specific action such as disable posted product, hide something etc. successfully.
Exception Scenario	Database problem

Table 3.3.13: Use case description of Manage database.

Use Case 13	Perform Specific Action
Primary Actor	Admin
Secondary Actor	Null
Pre-Condition	Need database access.
Main Success Scenario	Admin will give the email and password correctly to the login system panel, then be able to manage the database successfully.
Exception Scenario	Database and server problem.

Table 3.3.14: Use case description of Get notification.

Use Case 13	Get notification
Primary Actor	Customer/Seller.
Secondary Actor	System
Pre-Condition	Login in the system and need an internet connection.
Main Success Scenario	Customer/ Seller will give the email and password correctly to login in the portal and get notification for specific issues.
Exception Scenario	Unsuccessful applications because of internet connection or uploading problems.

### 3.4 Logical Data Model

An entity relationship diagram (ERD) shows the relationships of entity sets stored in a database. An entity in this context is a component of data. In other words, ER diagrams illustrate the logical structure of databases. Logical data model describes data those are stored in database as deep as possible. It includes all entities and relationship among them. Actually, Logical data model presents the Entity Relationship Diagram called E-R diagram. In E-R diagram all attributes for each entity are specified. The primary key, foreign key and other attributes are specified in the diagram. In figure below we have shown the ER diagram of our application.

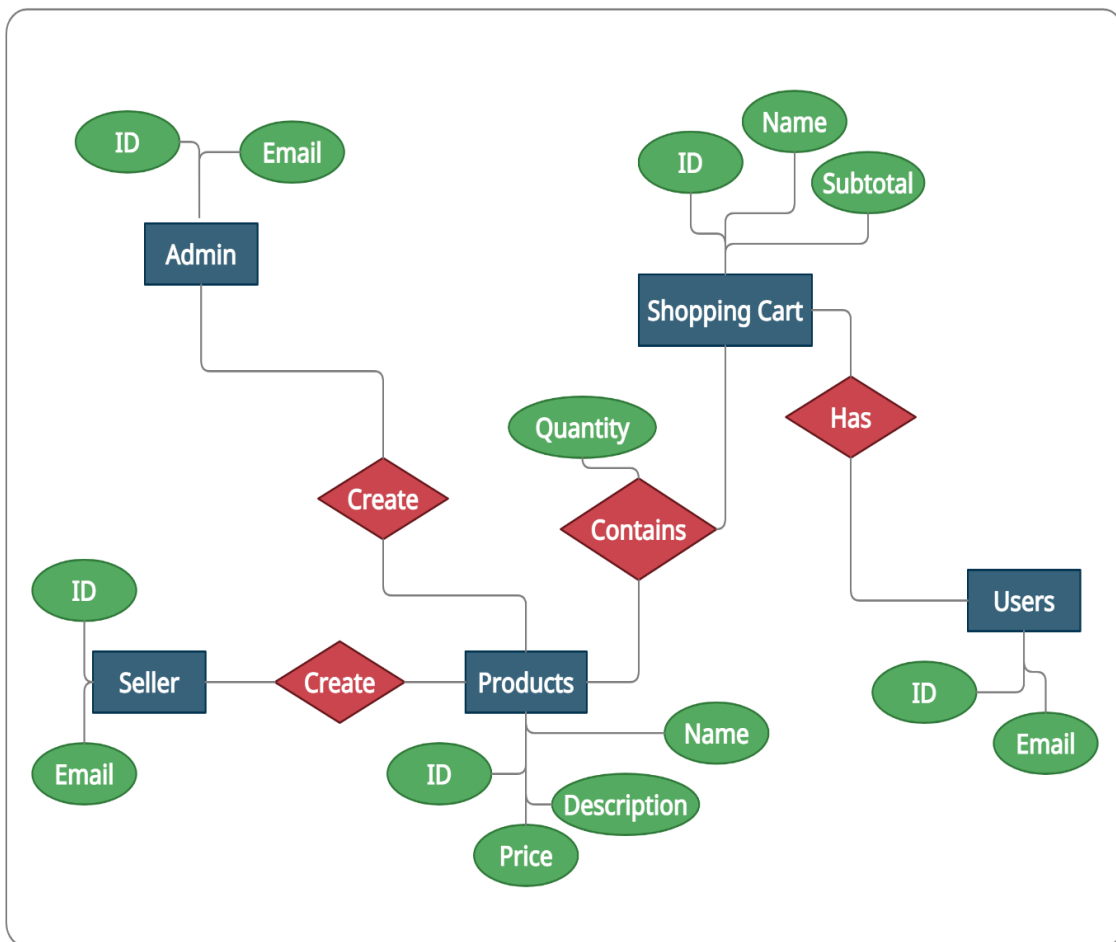


Figure 3.4.1: E-R diagram of the System

### 3.5 Design Requirements

Designing a system from the front end & back end play the main role as they are responsible to run the system smoothly. I have followed below points.

**User Friendly:** We all know that our project is an e-commerce web application. Though it's an e-commerce website but it's totally focused on village ecosystem. For that we have to focused on user friendly interface, as the people can use it easily. The application must be user friendly so that the customer can easily find and order the product. And employer can easily post product info.

**Compatible to various Device:** There are a lot of device and device to device screen size is different. That's why we use responsive website. So, this application will support any size of screen.

**Efficient:** To run faster we have tried to keep this online platform as light as possible. Now I am going to discuss some extra feature:

- This system will contain three types of users like customer, seller and Admin.
- Only Seller will post the product info.
- Only Admin can delete, update and create user and user info, if necessary.
- Customer will get notification when post new Ad.
- Any user can't input any vulgar word in our system, our system can able to detect vulgar word.
- Customer must need to registration.

## **CHAPTER 4**

### **DESIGN SPECIFICATION**

A design specification is a detailed document providing information about a designed product or process. For example, the design specification must include all necessary drawings, dimensions, environmental factors, ergonomic factors, aesthetic factors, maintenance that will be needed, etc. It may also give specific examples of how the design should be executed, helping others work properly (a guideline for what the person should do). In this section we will show the front-end and back-end design of our application together with admin panel, job seeker panel and employer panel. We will also discuss about different tools and platforms that are used in our project.

#### **4.1 Front-end Design**

The frontend design is the customer interface of an ecommerce site, and comprises everything what client sees when they visit site for shopping. The frontend is additionally called the front view of the shop, and by and large when individuals points to "the site," they're talking about the frontend design. The appearance and functionality of the frontend could be a coordinate result of the alternatives you set up within the backend server. The frontend must be basic to utilize, and organized well sufficient that the client can discover what they're searching for with negligible exertion. You'll be able make this happen by setting up a sensible category structure for your items and actualizing clear route. You ought to moreover incorporate commerce data, like an "Almost Us" page, an FAQ (Frequently-Asked Questions), and extra pages to diagram your store approaches, counting returns, shipping, and security. These last mentioned pages are considered a necessity for any commerce, and in any case, the more straightforward data you give, the more the client will believe your store. You'll upgrade the frontend with other highlights, like item surveys and Q&As, security logos and other believe identifications, the capacity for clients to see, alter, and spare their cart, and more. Your store's checkout ought to work easily and utilize a clear format that makes a difference anticipate botches. Keep in mind that the quality of your website's frontend features a effective impact on your change rate.

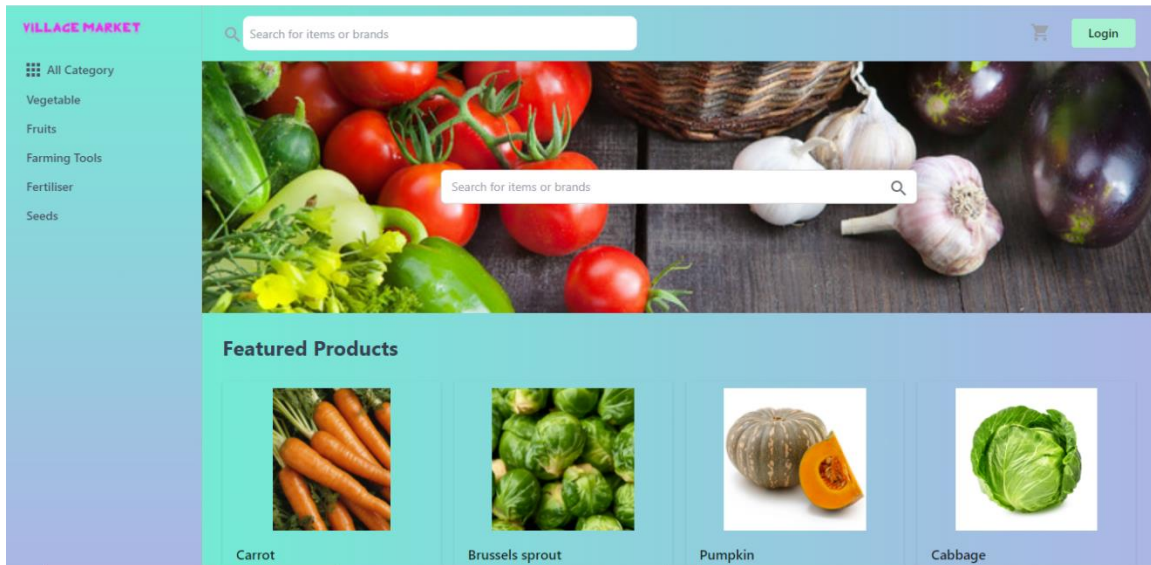


Figure 4.1.1: Home page of Village Market

**Registration & Login page for User:** There is registration page for user. If a customer wants to visit our web application for buy some stuff and want to get notification for recommended related this particular stuff then he/she must need to complete registration by they have to cooperate by providing correct information what the site want. And a user or customer must need to registration for every type of action. After registration customer can search for what they need, product filtering and product search. Users can also update his/her profile. Registration login page shown in figure 4.1.2, 4.1.3 and figure 4.1.4.

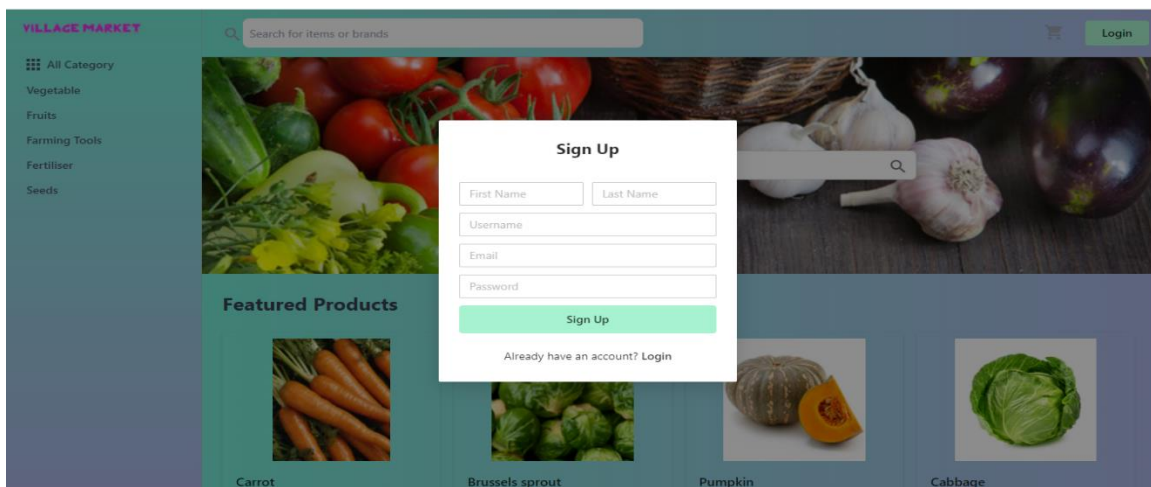


Figure 4.1.2: User Registration page.

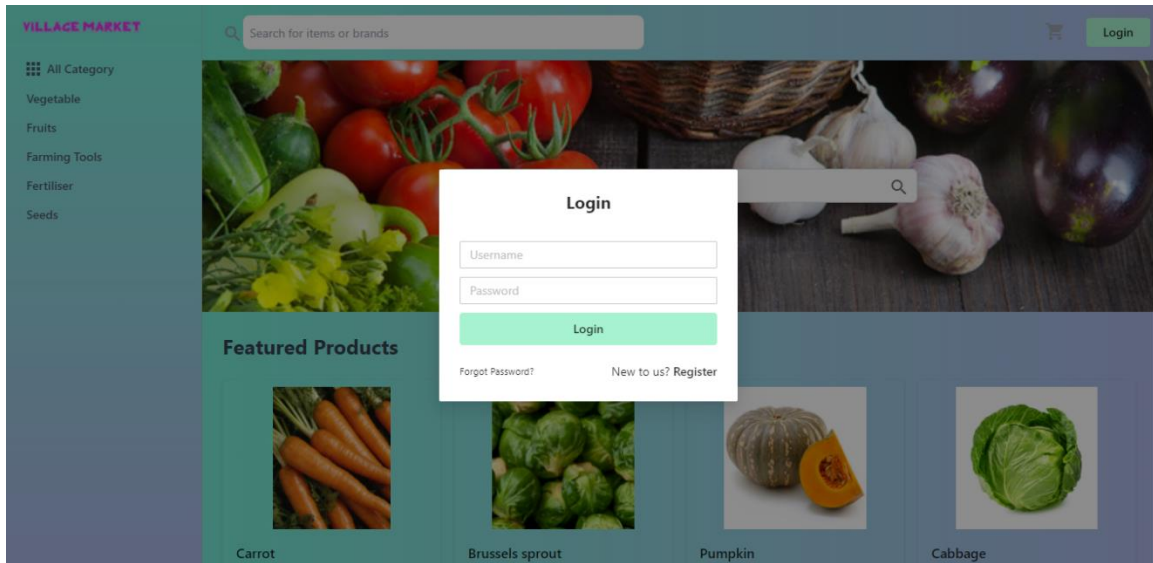


Figure 4.1.3: User Login Page.

**Admin Dashboard:** After login Admin can able to view his/her dashboard. In this dashboard admin see his/her all information at a glance. What they selected, price of all selected, payment status, what the shop previously all the needy information they can see from their dashboard. User dashboard page shown in figure 4.1.5.

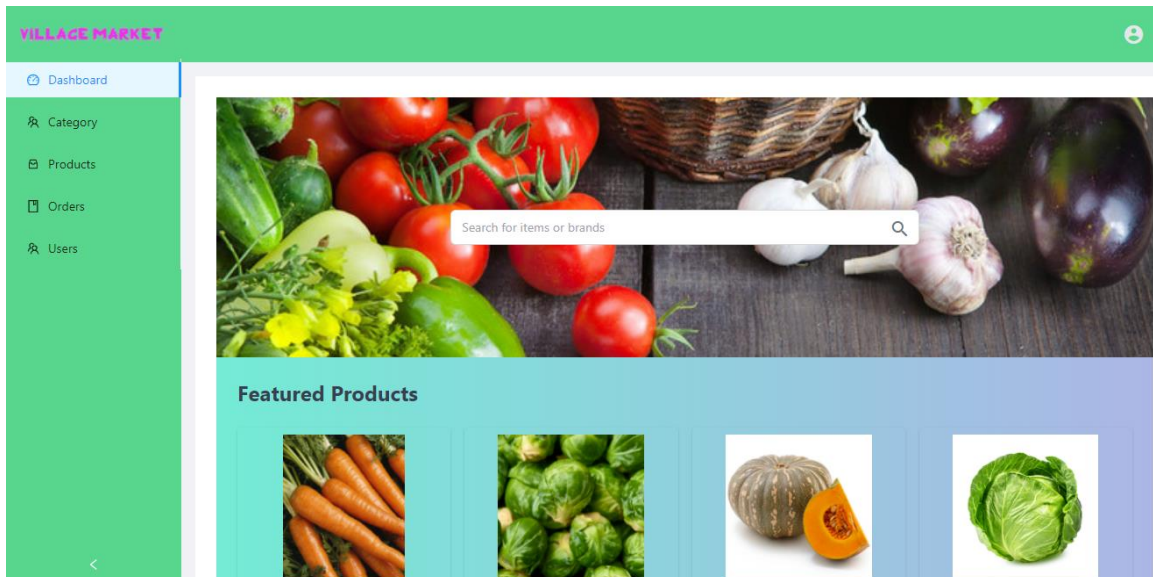


Figure 4.1.4: Admin Dashboard.

**User Search Result:** User can find their desire product by searching. If he/she can search their product by its name. search result shown in figure 4.1.8.

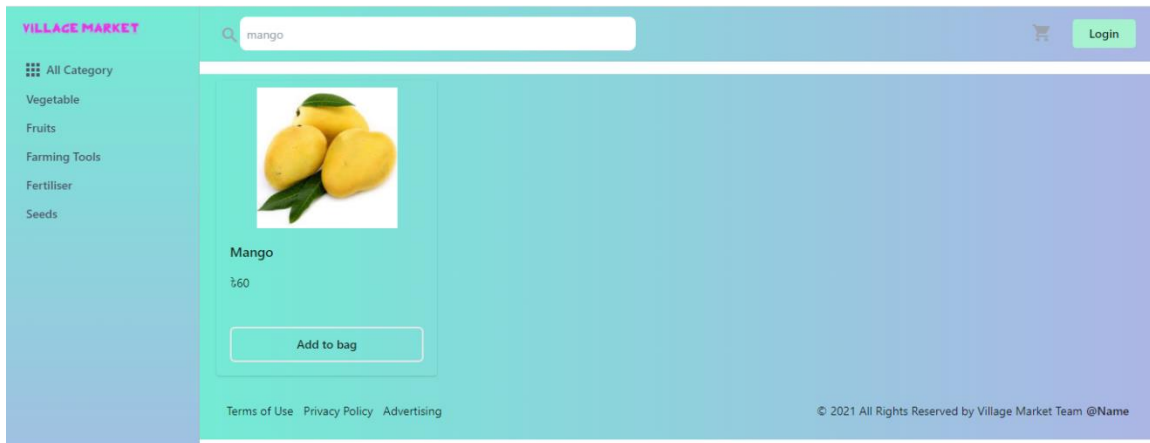


Figure 4.1.5: Search Result.

**Product:** Users also see the product details by clicking on the image. Product details page shown in Figure 4.1.9.

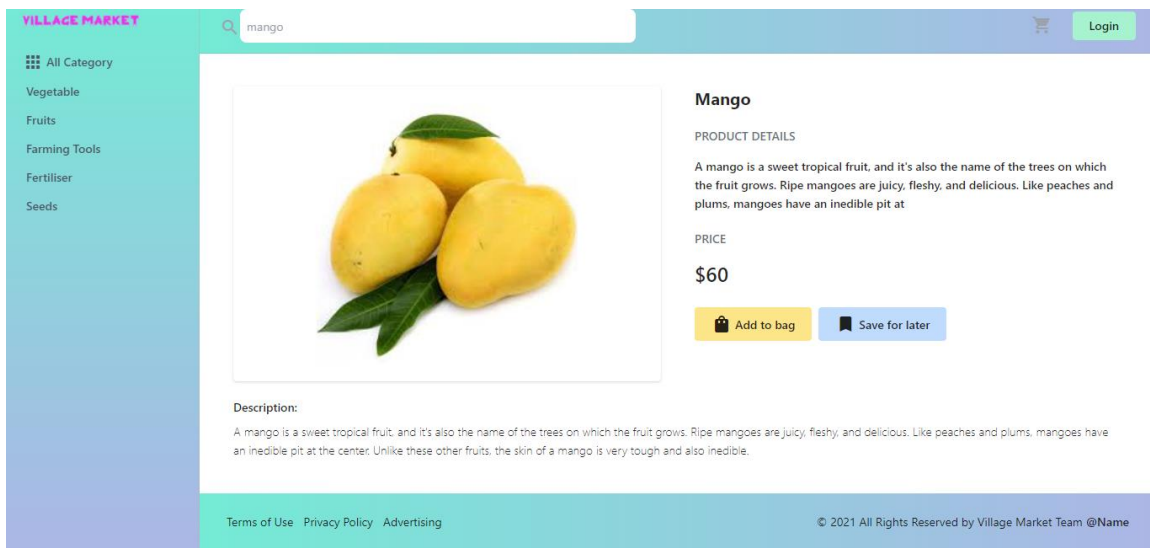


Figure 4.1.6. product details

**Add To Bag:** Users can select '+' icon if he/she want to buy and every time it will increase and add a product on his/her cart. He/she also can remove product by selecting '-' icon. Add to cart page shown in Figure 4.1.10.



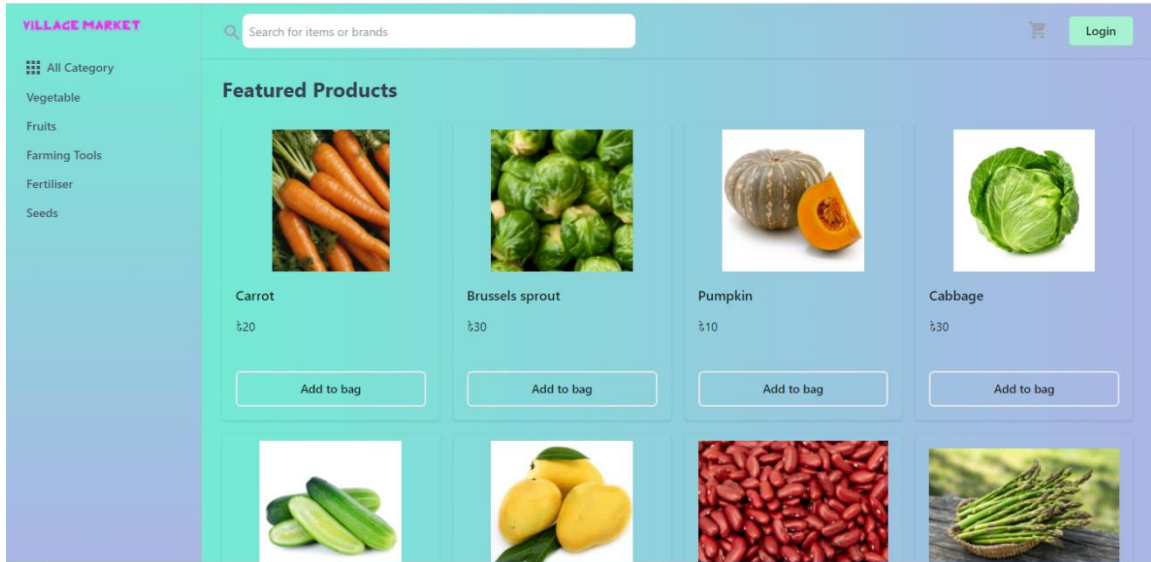


Figure 4.1.7. Add to Bag.

**Cart:** Users can see the cart list details what he/she select before and how many products he/she select for each product. And users also can see the price list of every selected items. Cart list page is shown in Figure 4.1.8.

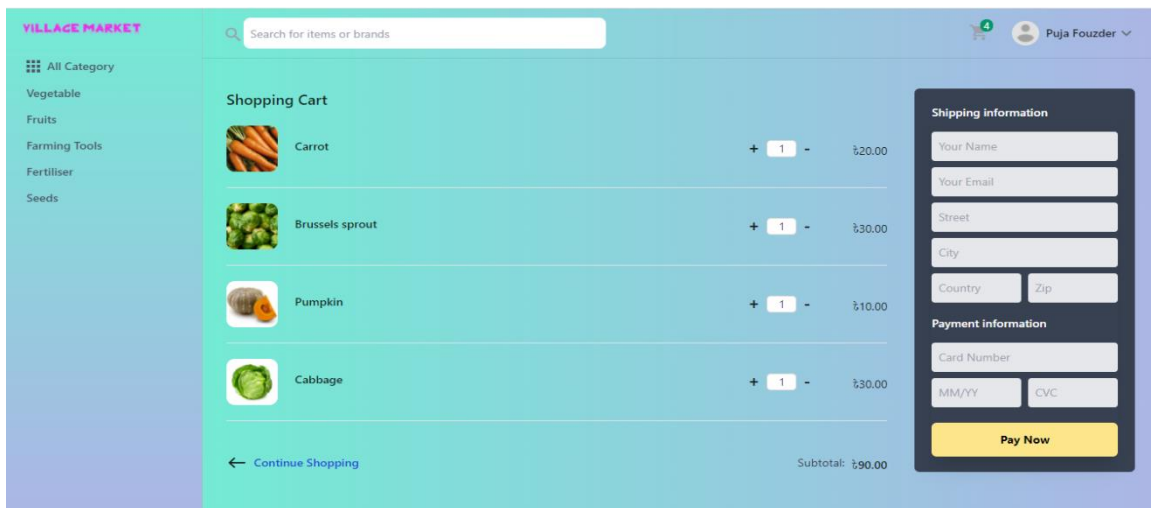


Figure 4.1.8. Cart

**Subtotal & Total Amount:** This is the page where users can see the total amount of all selected products. It is the last page before make payment. Subtotal and total page is shown in figure 4.1.9.

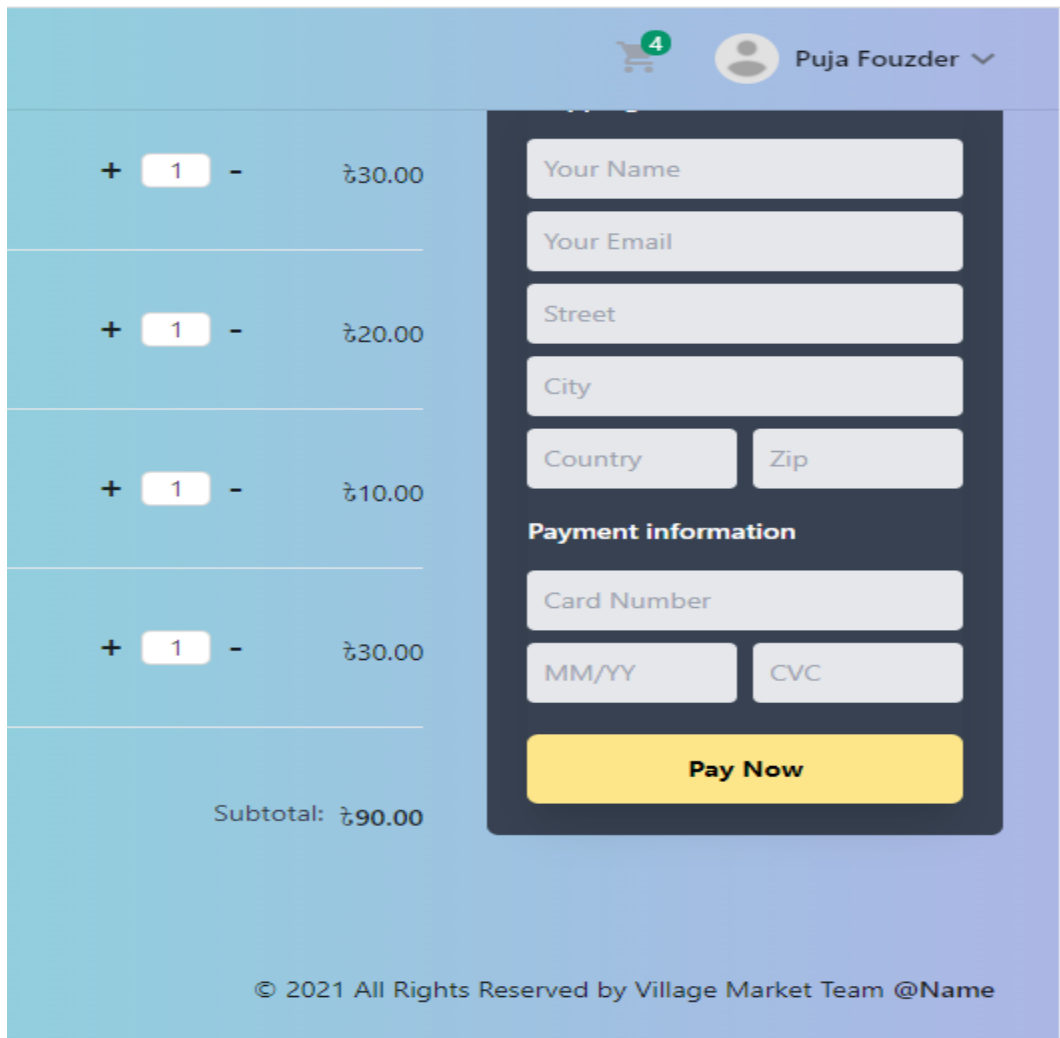


figure 4.1.9. Subtotal and total amount.

**Admin Control Panel:** Admin Can control all the seller and customers action from their control panel. Admin also can add products and delete products if they want.

**Orders:** After login by user name and password admin can see the order list. Here order list from admin view shown in figure 4.1.10.

**VILLAGE MARKET**

Dashboard  
Category  
Products  
**Orders**  
Users

**Orders** [Create New Order](#)

Order No	Customer	Email	Shipping Address	Order Date	Status	Action
#1	Puja Fouzder		dhanmondi	December 30, 2021	pending	<a href="#">Edit</a> <a href="#">Delete</a>
#2	Puja Fouzder		dhanmondi	December 30, 2021	pending	<a href="#">Edit</a> <a href="#">Delete</a>

< 1 >

figure 4.1.10 order list

**User list:** After login by user name and password admin can see the users list and control the user list if admin want admin can delete a user. Here user list from admin view shown in figure 4.1.11.

**VILLAGE MARKET**

Dashboard  
Category  
Products  
Orders  
**Users**

**Users** [Create New User](#)

Name	Username	Email	Role	Action
Novel	novel	novel15-10898@diu.edu.bd		<a href="#">Edit</a> <a href="#">Delete</a>
Puja	puja	puja15-10977@diu.edu.bd		<a href="#">Edit</a> <a href="#">Delete</a>
Masum	masum	masum15-10640@diu.edu.bd		<a href="#">Edit</a> <a href="#">Delete</a>

< 1 >

Figure 4.1.11: User list page.

**Category list:** After login by user name and password admin can see the category list and control the category list if admin want admin can delete a category. Here category list from admin view shown in figure 4.1.12.

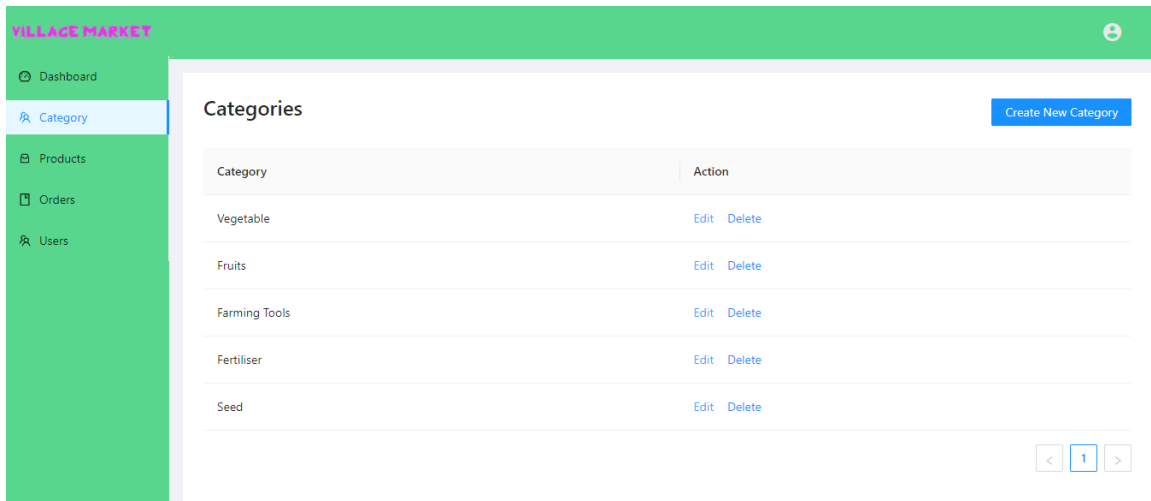


figure 4.1.12 category list.

If admin want to create a new category, he can create a new one by clicking on create a new category button. Create a new category shown in figure 4.1.13.

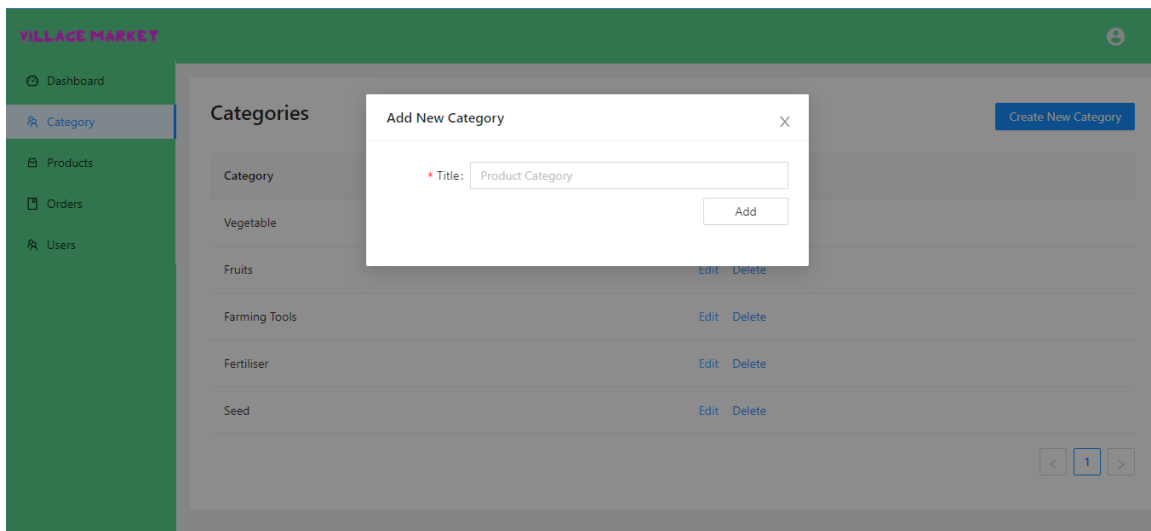


figure 4.1.13 Create a new Category.

**Products list:** After login by user name and password admin can see the Products list and control the products list if admin want admin can delete products. Here products list from admin view shown in figure 4.1.14.

Thumbnail	Title	Description	Price	Category	Action
	Carrot	The carrot ( <i>Daucus carota</i> ) is a root vegetable often claimed	20	61cd4e81bb0fe10e04f2279e	<a href="#">Edit</a> <a href="#">Delete</a>
	Brussels sprout	The Brussels sprout is a member of the <i>Gemmifera cultivar gr</i>	30	61cd4e81bb0fe10e04f2279e	<a href="#">Edit</a> <a href="#">Delete</a>
	Pumpkin	Pumpkins are the most famous of all the winter squashes, and	10	61cd4e81bb0fe10e04f2279e	<a href="#">Edit</a> <a href="#">Delete</a>
	Cabbage	Despite its impressive nutrient content, cabbage is often ov	30	61cd4e81bb0fe10e04f2279e	<a href="#">Edit</a> <a href="#">Delete</a>
	Khira	Cucumber is a widely-cultivated creeping vine plant in the C	25	61cd4e81bb0fe10e04f2279e	<a href="#">Edit</a> <a href="#">Delete</a>

figure 4.1.14 products list.

If admin want to create a new product, he can create a new one by clicking on create a new product button. Create a new product shown in figure 4.1.15.

**Add New Product** ✕

\* Title:

\* Description:

\* Price:

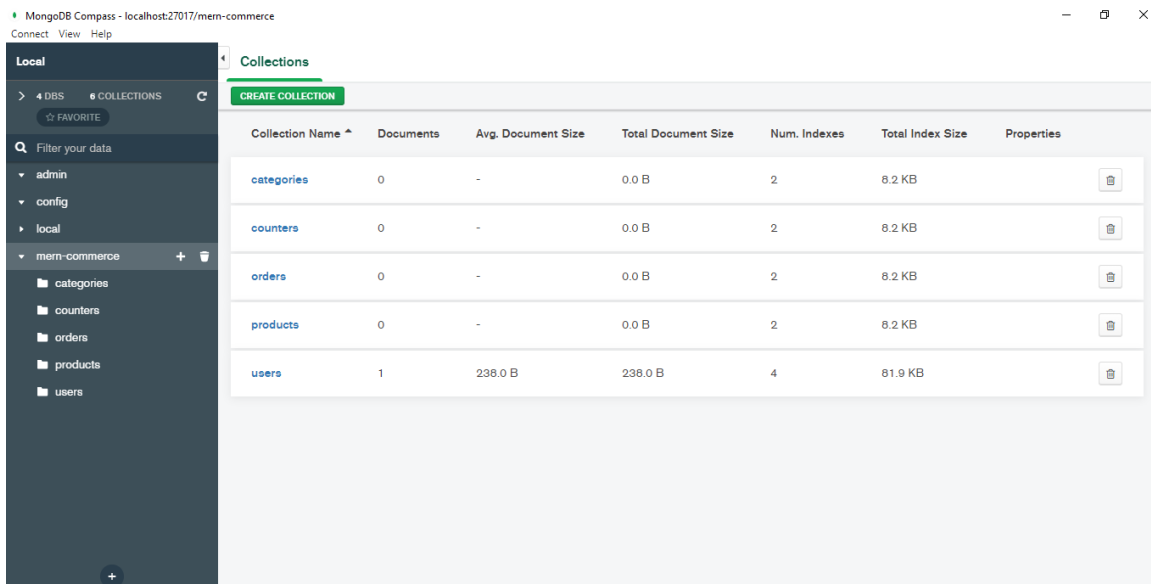
Thumbnail:

\* Category:

figure 4.1.15 create a new Product.

## 4.2 Back-end Design

The backend is the business-facing side of an ecommerce site. You'll regularly see it alluded to as the dashboard, the control board, or the admin board, or in some cases fair the admin. A few program suppliers utilize a particular title for the backend, such as the Shift4Shop Online Store Supervisor, but the work is the same: typically, where you control all the perspectives of your eCommerce website. The backend incorporates devices for site setup and trade administration. Clients can transfer items, organize them into categories, and select which installment strategies to acknowledge. Many eCommerce stages offer online store layouts to create plan quick and simple. Other highlights can incorporate stock following and control, arrange preparing, promoting apparatuses, a coupon and advancement maker, client records, and more. We have connected our project with mongo DB. This is the backend data sheet view of our project. Backend image are shown in figure 4.2.1, figure 4.2.2, figure 4.2.3, figure 4.2.4



The screenshot shows the MongoDB Compass interface for a local database named 'mern-commerce'. The 'Collections' tab is active, displaying a table with the following data:

Collection Name	Documents	Avg. Document Size	Total Document Size	Num. Indexes	Total Index Size	Properties
categories	0	-	0.0 B	2	8.2 KB	[icon]
counters	0	-	0.0 B	2	8.2 KB	[icon]
orders	0	-	0.0 B	2	8.2 KB	[icon]
products	0	-	0.0 B	2	8.2 KB	[icon]
users	1	238.0 B	238.0 B	4	81.9 KB	[icon]

Figure 4.2.1 backend overview.

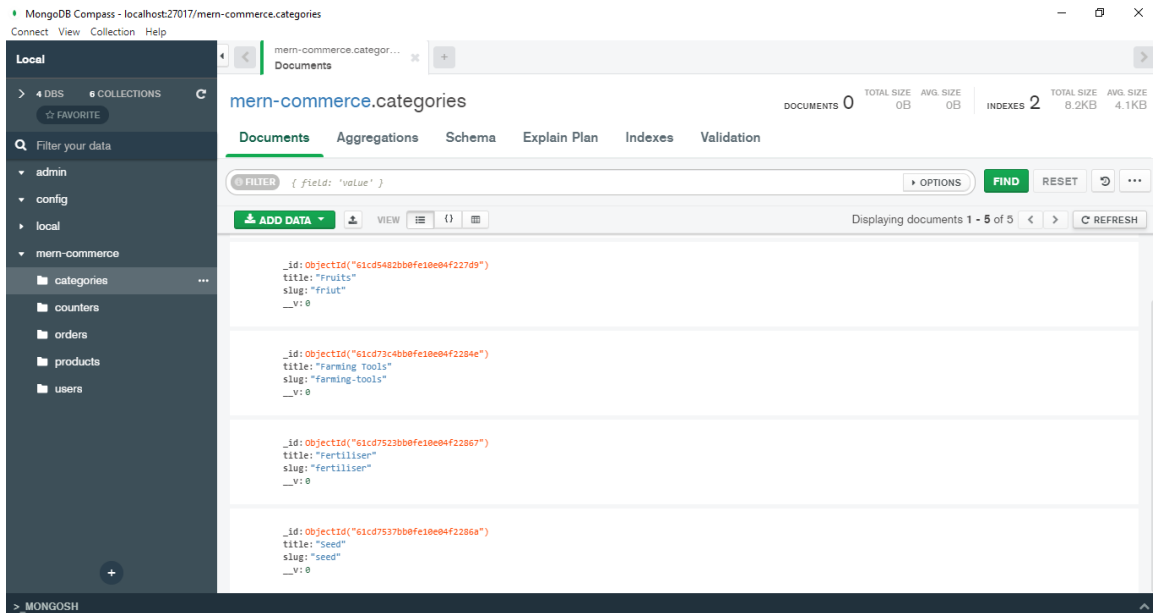


Figure 4.2.2 backend categories.

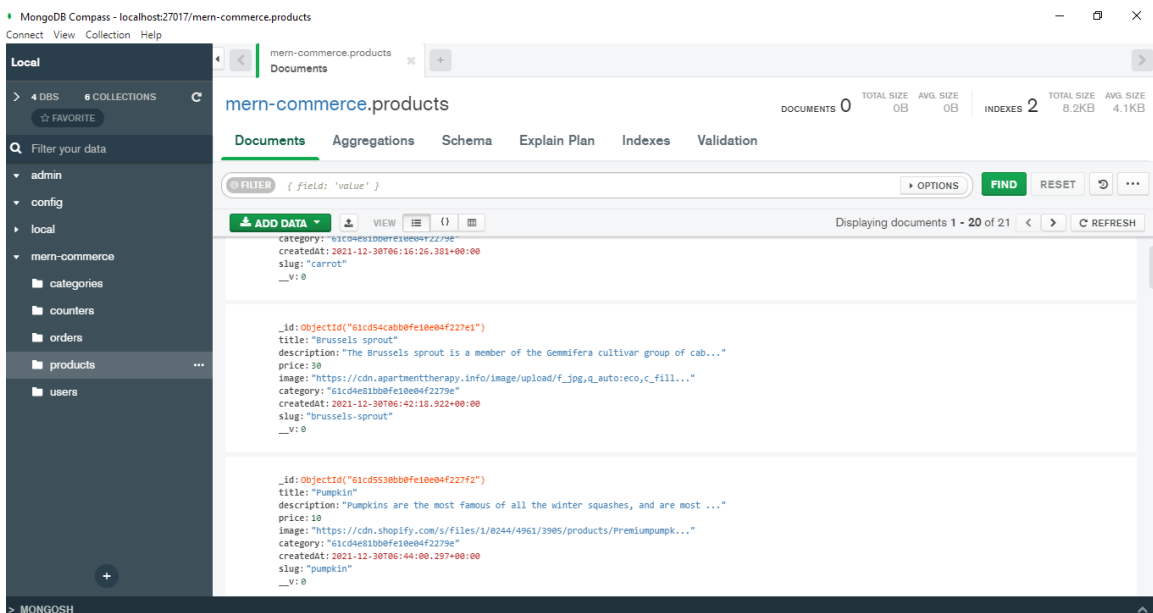


Figure 4.2.3 backend products.

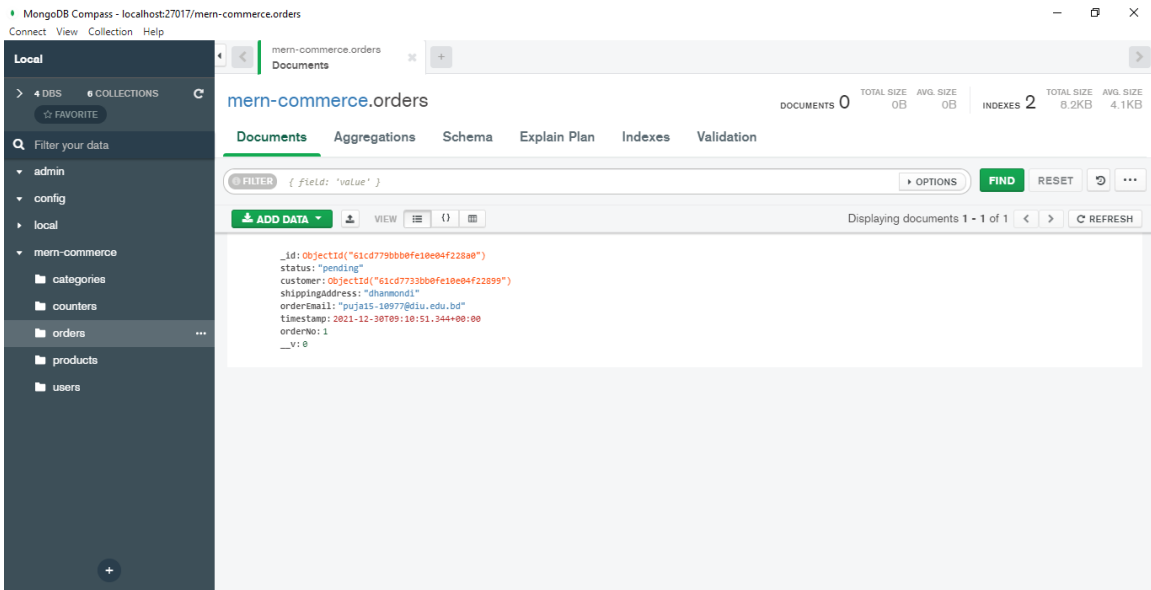


Figure 4.2.4 backend order list.

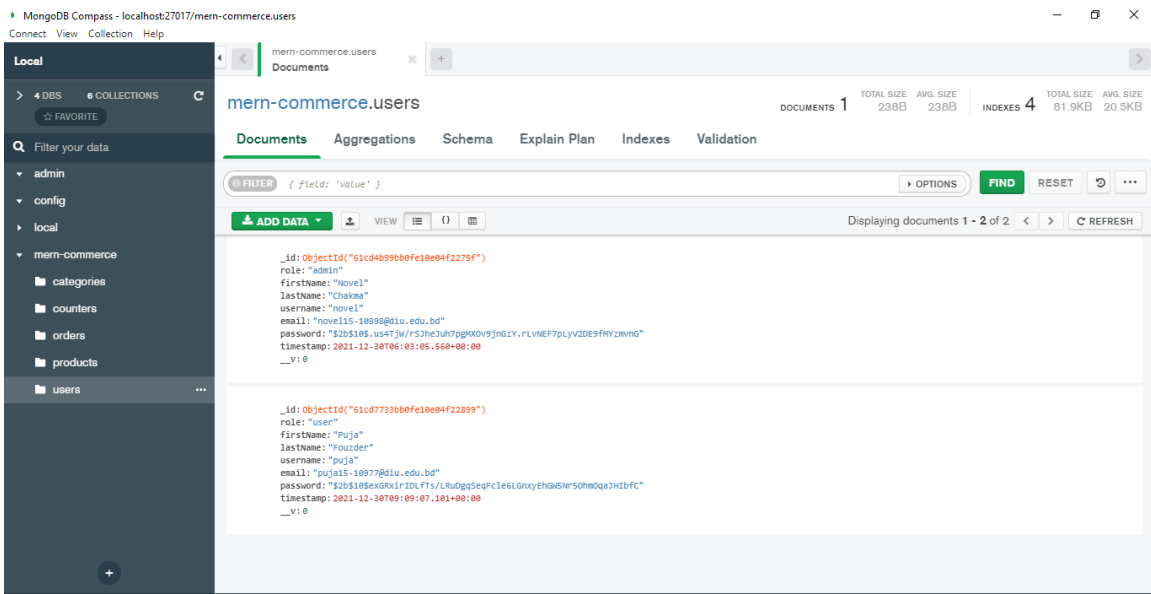


Figure 4.2.5 backend user list



### **4.3 Interaction Design and UX**

Interaction design is abbreviated as IxD. It is the process or design of creating interactive products and relationship between the item or product and users. There is a huge difference between Interaction design (IxD) and UX design. Interaction design is also useful for creating products, exploring how a user might interact with it. Interaction design is a proper way that the interaction between a product and its user. An interaction design is the processes which understand the user problem, process the problem and find out the results, perform actions by the respecting results and solve the problem. On the other hand, user experience focuses on the overall experience design between a user and an application. In our web application, seller and admin can post Product for sell and filtering product using category. And users or customers can search products and select products what they want to buy and buy the selected products and also select online payment and cash on delivery system. User can easily use the web application because of its UI design. For UX we have tested it by some peoples. In those people most of them are said the interface of the application is enough user friendly. One or two of them said it ok but it will be very good if you add demo promotional slider. Based on their comment we can say that this application's UI is user friendly.

### **4.4 Implementation of Requirements**

To implement this project, we need sublime text editor for HTML, CSS, Bootstrap, java script, Mongo DB, postman, node JS for localhost. We need Photoshop or Figma to design UI/UX. We need all the tool to work with this project already we have discussed above. Our application is web base that's why we need to domain name and hosting space.

## **CHAPTER 5**

### **IMPLEMENTATION AND TESTING**

#### **5.1 Implementation of Database**

The implementation phase is where we store our admin and user information. We are using MongoDB for store our all the information what we need. For testing we took the help of postman. To do that firstly we created an account in Mongo DB. After that we create a server for store the information what we are using in our web application. After that we took the link of this particular server link and connect it through our server with env file. Then we test the server is working or not by postman application. We also can post our information by using postman. After that we run connected our backend server by commanding `npm run dev`.

#### **5.2 Implementation of Front-end Design**

We have tried to better front-end design in this ecommerce web application. We used HTML, CSS, Java Script, React, bootstrap for front end design and react that's makes the better user interface by the help of CSS and java script. In front end implantation we used font awesome for better look and better font. We want to make the user friendly and attractive design in our web application project. So that all user and all types of users can easily use our system.

#### **5.3 Implementation of Interactions**

To make our interface interactive, we used responsive UI for better user experience and the user also use our site both mobile and computer devices. And we also used icon, text link and buttons so that users can easily use and fall in love with user interface. The system design of our application is user friendly because of its unique concept.

## 5.4 Testing Implementation

System Testing is also known as software testing, a complete software is tested in this system. The main motive behind this test to estimate the system's compliance. It is also maintained with exact requirement. It is defined by ISTQB. System testing is the process of testing combined system. Implementation is the process where it tests for fulfillment of a system. developer also notices or verify that is the system implementable and also clear that the limitation to develop the system.

Table 5.4.1: Test case evaluation

Test case	Test input	Expected outcome	Obtained outcome	Pass / Fail	Tested on
1. Login	Login by various browser	Login successfully	Successful login	pass	15-10-21
2. Login as admin	Login by various browser	Login successfully	Successful login	pass	20-10-21
3. Products list	Using API product.	Get product information from API and show as a product	Successfully get information	pass	25-10-21
4. Create Category	Need to input a new Category	Category Created successfully	Successfully created	Pass	30-10-21
5. Create new Product	Need to input a and select a Category	Product Created successfully	Successfully created	Pass	05-11-21

6. Product view	Click on the product image	Show details about products	Successfully showed details	Pass	10-11-21
7. Increment / decrement	Click on the increment / decrement button	successfully increasing/ decreasing the amount of product	successfully increasing/ decreasing the amount of product	Pass	12-11-21
8. Search product	Input specific key word in search field and click search icon	Show specific product.	Show specific product successfully.	Pass	15-11-21
9. Product search and filtering	Need to login going to search option and input keyword and click search icon	Show matched product.	Successfully show matched product.	Pass	18-11-21
10. Delete product and category	Need to login as admin and going to product or category option and click add/update/delete action.	if click delete product/ category deleted.	Successfully deleted product/ category	pass	20-11-21
11. Subtotal and total	Need to go Cart	Subtotal and total amount will be showed	Successfully showed.	pass	23-11-21
12. Order list check	Need to click pay now button	If admin can see selected items in order list, then it will be successful	Successfully showed in order list	pass	27-11-21

13. Application not responding	Application is testing in various device.	No responding is very much rare.	ANR problem ration is very much rare like 0.01%	Pass	30-11-21
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## 5.5 Test Results and Reports

Test report is needed to reflect testing results in a formal way, which gives an opportunity to estimate testing result quickly. It is a document that records data obtained from an evaluation experiment in an organization manner, describe the environmental or operating conditions, and shows the comparison of test results with objectives.

From this chapter we are find our results which was expected. In this chapter we also find test input and exact output. The customer is satisfied by our “Village-Market” web-application. Accessibility testing inspect the admirer “Village-Market” of our web application.

- How much easy to use the “Village-Market” web-application?
- How appropriate is the “Village-Market” Web-application to end-user?
- Better application for our customer.
- Better UI for design and User friendly.
- This Application is more acceptable by customer.

So, at the end of the development, we can say that, this application is very helpful for the village people and they can easily use this application also they can buy their desire product with one click by using our “Village-Market” application.

## **CHAPTER 6**

### **CONCLUSION AND FUTURE SCOPE**

#### **6.1 Discussion and Conclusion**

All the thanks go to almighty ALLAH who has blessed us with this innovative idea. Thanks to our supervisor who have help me a lot to complete this project successfully.

The idea is to make an interactive Web based application that will help village people to buy their daily needs using internet and bring them to an ecosystem where the world is currently based on. We still need to work hard to make our project successful. By the grace of one & only almighty ALLAH if we can do this, it will help to introduce villagers to a new way of shopping. And we hope they will adjust with this new ecosystem easily, because we made our site user interface user friendly. We hope this web application will help villagers to make their life easy and they are going to love this.

#### **6.2 Limitations**

- Our system is only limited into a particular village area.
- Our system is only browser depended.
- Only developed in Website.
- People can trade few items from our website.

#### **6.3 Scope for Future Developments**

- Our future goal is to cover more village areas.
- Our application's data needs more storage in future, so we will add this with our own server and database.
- We will try to develop an android application.
- We will add more items in our shop list.
- We will add more payment methods in our project.
- We will add human resources management system in our system.
- We will add real time chat system in our site.

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