



AGRIVENTURE SCOUT

Software Project Submitted by

Name	ID
CHOWDURY ISTIAQ AHMED	15-30054-2
ALAM, NEEHAL	19-39435-1
RAFIA SAYEDA	18-36450-1
RAHMAN, SAMIYA	18-36272-1

Under the supervision of

TANVIR AHMED

Lecturer

Department of Computer Science

Faculty of Science and Technology

American International University Bangladesh

Summer Semester 2021-2022

Disclaimer

This is to certify that this project is our original work. No part of this has been submitted elsewhere partially or fully for the award of any other degree. Any material reproduced in this project has been properly acknowledged.



Name: Chowdury Istiaq Ahmed

ID No: 15-30054-2



Name: Alam, Neehal

ID No: 19-39435-1



Name: Rafia Sayeda

ID No: 18-36450-1



Name: Rahman, Samiya

ID No: 18-36272-1

Approval

The following students submitted the Software Project or Project titled "**Agriventure Scout**" to the following respected members of the Faculty of Science and Information Technology on 01/09/2022 in partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and it was accepted satisfactorily.

Tanvir Ahmed

Lecturer and Supervisor

Department of Computer Science

American International University- Bangladesh

Sazzad Hossain (External)

Assistant Professor

Department of Computer Science

American International University- Bangladesh

Dr. Md. Abdullah-Al- Jubair

Head (Undergraduate)

Department of Computer Science

American International University- Bangladesh

Professor Dr. Tafazzal Hossain

Dean in Charge

Faculty of Science & Technology

American International University- Bangladesh

Dr. Carmen Z. Lamagna

Vice Chancellor

American International University- Bangladesh

Acknowledgements

We'd want to take this opportunity to thank our honourable teacher and supervisor **Tanvir Ahmed**, for his ongoing advice and help with this report. Aside from that, we've received so much sincere and useful advise from so many people that we'd like to honour them. We also would like to convey our gratitude to our honourable Associate Professor **Sazzad Hossain Sir. Dr. Carmen Z. Lamagna**, our honourable Vice Chancellor, has been a source of inspiration for us.

Table of Contents

CHAPTER 1: STATEMENT OF WORK.....	10
1.1 Purpose/ Objectives:	10
1.2 Scope:.....	10
1.4 System features:	12
1.5 Environment:.....	13
1.5.1 Organizations Involved:	13
1.5.2 Processing:	13
1.5.3 Security:	13
1.6 Assumptions:.....	14
1.7 Constraints:	14
1.8 Proposed System:.....	15
1.9 Project Time & Cost:	16
1.10 Risk Assessment:	19
1.11 Assessing Overall Project Risk:	20
CHAPTER 2: SOFTWARE REQUIREMENT SPECIFICATION	22
2.1 Objectives and Scope:	22
2.2 Overview of the Present System:	22
2.3 Data Flow Diagram of The Present System:.....	22
2.7.2 Website login:	24
2.7.3 Home features:	25
2.7.4 Pages:	25
2.7.5 Shop features:.....	25
2.7.6 Cart features:	26
2.7.8 Contact:	26
2.8 Non-functional Requirements:	26
2.9 Project Requirements:	27
2.10 System Features:	27
2.10.1 Farmer:	27
2.10.2 Consumer:	27
2.10.6 Admin:	28
2.11 Hardware and Software Requirements:	28
2.11.1 Hardware:.....	28
2.11.2 Software:	28
2.12 Human Resource Requirements:.....	28
2.13 Constraints and Limitations:	29
2.13.1 Assumption and Dependencies:	29

2.13.2 Constraints:	29
2.14 Budget:	29
2.15 Conclusion:	30
CHAPTER 3: DIAGRAM AND PROTOTYPE	31
3.1 ER diagram	31
3.2 Use case diagram	35
3.2.1 Farmer Functionalities	37
3.2.2 Consumer Functionalities	38
3.2.6 Admin Functionalities	39
3.3 Activity Diagram.....	40
3.3.1 Activity Diagram for Farmer	40
3.3.2 Activity Diagram for Consumer.....	41
3.3.6 Activity Diagram for Admin.....	42
3.4 Prototypes	44
CHAPTER 4: SOFTWARE PROJECT MANAGEMENT PLAN.....	53
4.1 Document History and Distribution	53
4.1.1 Revision History	53
4.1.2 Distribution	53
4.2 Overview.....	54
4.2.1 Purpose, Objectives and Project Scope	54
4.2.2 Project Scope.....	54
4.2.3 Assumptions and Constraints	54
4.3 Project Deliverables	54
4.3.1 The list of project deliverables is:	54
4.3.2 Schedule and Budget Summary	55
4.4 Evolution of the Software Project Management Plan	55
4.4.1 Definitions.....	55
4.5 Project Organization	56
4.5.1 External Interfaces	56
4.5.2 Internal Structure.....	56
4.5.3 Roles and Responsibilities	56
4.6.2 Estimation Plan	57
4.6.3 Staffing Plan.....	57
4.6.4 Resource Acquisition Plan	57
4.6.5 Project Staff Training Plan.....	57
4.7 Work Plan	57
4.7.1 Budget Allocation	57
4.8 Control Plan	58
4.8.1 Requirements Control Plan	58
4.8.2 Schedule Control Plan.....	58

4.8.3 Budget Control Plan.....	58
4.8.4 Quality Control Plan	58
4.8.5 Reporting Plan.....	58
4.8.6 Metrics Collection Plan.....	58
4.9 Risk Management Plan	59
4.10 Closeout Plan	59
4.11 Technical process plans	60
4.12 Process Model.....	60
4.13 Methods, Tools and Techniques	60
4.14 Infrastructure Plan.....	60
4.15 Product Acceptance Plan	60
4.16 Supporting Process Plans	60
4.17 Configuration Management Plan	60
4.18 Verification and Validation Plan.....	61
4.19 Documentation Plan.....	61
4.20 Quality Assurance Plan.....	61
4.21 Reviews and Audits Plan	61
4.22 Problem Resolution Plan.....	61
4.23 Subcontractor Management Plans.....	61
4.24 Process Improvement Plan.....	61
4.25 Test Case.....	62
Reference:	65

List of table

Table 1: Project Leadership	16
Table 2: Project Time Table	17
Table 3: Estimated Budget Cost.....	19
Table 4: Risk Probability	19
Table 5: Project Risk Impact.....	20
Table 6: Whole Software Budget Plan.....	29
Table 7: Document Revision History.....	53
Table 8: Document Handover	53
Table 9: Project Deliverable Schedule.....	55
Table 10: Project Management Terms And Description.....	55
Table 11: Whole Software Budget Allocation.....	57
Table 12: Whole Software Risk Management Plan	59
Table 13: Software Test Case	62

List of Figure

FIGURE 1:ER DIAGRAM.....	31
FIGURE 2:CLASS DIAGRAM	32
FIGURE 3:USE CASE DIAGRAM	35
FIGURE 4:UML DIAGRAM (FARMER).....	37
FIGURE 5:UML DIAGRAM(CONSUMER/CUSTOMER)	38
FIGURE 6:UML DIAGRAM(ADMIN).....	39
FIGURE 7:ACTIVITY DIAGRAM(FRAMER)	40
FIGURE 8:ACTIVITY DIAGRAM(CUSTOMER).....	41
FIGURE 9:ACTIVITY DIAGRAM(ADMIN).....	42
FIGURE 10:REGISTRATION PAGE FOR USER	44
FIGURE 11:LOGIN PAGE FOR USER	44
FIGURE 12:VIEW PRODUCTS	45
FIGURE 13:TRACKING PRODUCTS WITH INVOICE NUMBER.....	45
FIGURE 14:ADMIN DASHBOARD VIEW	46
FIGURE 15:ADD PRODUCTS FOR SELL	46
FIGURE 16:UPDATE/DELETE PRODUCTS	47
FIGURE 17:PRODUCTS TABLE ON SALE	47
FIGURE 18:ADD CATEGORIES	48
FIGURE 19:EDIT/UPDATE CATEGORIES	48
FIGURE 20:ADD BLOGS/EDIT BLOGS.....	49
FIGURE 21:ADD SLIDER/BANNER.....	49
FIGURE 22:ADD VENDOR/FARMER	50
FIGURE 23:UPDATE VENDOR/FARMER	50
FIGURE 24:CART(VIEW)	51
FIGURE 25:CHECKOUT(FROM CART)	51
FIGURE 26:FOOTER& SUBSCRIPTIONS.....	52

CHAPTER 1: STATEMENT OF WORK

1.1 Purpose/ Objectives:

COVID has triggered and induced the supply demand challenges. Farmers had a huge loss all throughout. Agriculturalists / Farmers mostly of the Asian continent, encounter infrastructural problems, absence of farm labourers. It was also seen that farmers did not get the actual net worth for the products they used to sell to a third –party broker. This website can avoid the scenario which has occurred with the farmers earlier as this is a peer to peer business with the farmers and consumers.

In this website, consumers can place their orders by selecting items in the cart according to their choice. They can also remove or modify their items if they want.

The attraction towards agriculture or gardening has almost become an addiction to most people nowadays. They can save a lot of time and help consumers judge, decide and buy their products. The purpose of designing this website is to make the phenomena more leisurely and comfortable among farmers and consumers.

1.2 Scope:

The “Agriventure Scout” is a website, which will make day by day selling and buying easier, more interactive, user-friendly, and less stressful for both farmers and consumers. Below are some stages the system follows:

- It stores the information of what farmers sell and it sells all items that are essential for proper gardening/ plantation by adding a post on the website, just in case it needs to modify the post it can also modify. Information to ensure that a farmer must be from a verified store/nursery.
- Information of varieties of products stock, which can be modified.
- Information of what consumer/customer orders, and its order status such as time of order, time of serving, modify their cart, remove/cancel items from the cart etc.

The administrator has complete control over the system, as he or she can view and adjust the attendance of moderators and agriculture experts. The admin has access to the seller's and consumer's/information. The stock details can also be viewed and modified by the admin. The gardener's attendance and details can be viewed by the administrator. The administrator may see which gardener receives consumer requests and reply accordingly. The admin can also see the status of consumer orders. The list of banks can be modified, added, or removed by the admin.

1.3 Proposed system:

The main goal of our website is to make easier, interactive, user-friendly, informative and hassle free purchases for farmers and purchasers / consumers. Using this website will benefit both farmers and consumers. Overall this will provide richness to the website among users all around the world. The system focuses on the requirement of information technology for Agricultural Production, Research, Education and Agri-business for the socio-economic development of a nation. Such a facility would make a favourable impact on adoption and utilization of the improved and innovative techniques in agriculture.

Below are the benefits / enhancements of the proposed system:

- i)** This website can help the interactions between farmers and consumers grow. It is very user-friendly, rich and it has made interactivity very easier. It has a global reach too. Farmers can benefit from a good opportunity to sell their items / products starting from a wide range of prices. They can also get a training session from experts.
- ii)** Consumers can order online. They can also cancel their orders if needed. Every time they can view / access the recent update price. Customers can also make a live chat with admin. This website accepts either cash on delivery or online payment methods.
- iii)** By using this website, consumers / customers can also look for home decoration plans from our home decorator. Decorators will work in accordance with the consumer's payment.
- iv)** A consumer can comfortably decide and order their items and wait for the deliveries to be made at the doorstep. They can also freely consult experts, if they require assistance.
- v)** Farmers can bring varieties and the buyers can preferably choose them while sitting at home. Both farmers and consumers are equally getting the benefit from this exchange.
- vi)** It will be a hassle-free purchase for consumers. They are not required to seek any permission to buy / view merchandise. Consumers can freely choose products and they can view the prices of their desired products without asking anyone. They can also compare the items in the list.

1.4 System features:

These features in this website made it more user-friendly henceforth the difficulties encountered by consumers or farmers can be limited. Below are the list of users and their features:

Farmer:

- A farmer can definitely sell their products.
- He can view or control all categories such as balcony, rooftop, money-plants and gardening equipment's.
- He will have varieties of products with him in stock and sell them in respect to what the consumer demands.
- He can sell all items that are essential for proper gardening / plantation by adding a product on the website, just in case he needs to update the product.
- He can also remove product, add offers.

Consumer:

- A consumer is just a regular user.
- He / she can add their desired items in the cart, modify / update their cart, remove / cancel items from the cart.
- A consumer can also view the plant's products.

Admin:

- An Admin can view or control all categories.
- An admin has the ability to view the product, add, delete, sell and view the pending product.
- He can view or control all farms.
- He can also add and modify all vendors.
- He has the calibre to control the slider, the sort banner and side banner.
- He can also add blog , show blog comment and show subscription message.
- He can view about the contact, change policy information, change delivery information.

1.5 Environment:

1.5.1 Organizations Involved:

Project Client: Tanvir Ahmed.

Developer: Agriculture Scout team from AIUB

Users: Consumer, Farmer and Admin.

1.5.2 Processing:

- This website will have a graphical user interface.
- The working modules:
 - 1) Consumer
 - 2) Farmer
 - 3) Admin
- The system will store the information of all registered users attendances, consumer orders, income of the website, farmer sell information, user information, product information and stock information.
- As the consumer, farmer and admin has to login to the system, it means there is an authenticated & secure login system and secure data transmission for all users.

1.5.3 Security:

System's security requirements:

- User authentication is required to access the system.
- A client or user must be a registered user to login to use the features of the website.
- Without proper authentication no one can login to the system or use the features.

1.6 Assumptions:

This project may need the usage of third-party software. These are all free components, with the most of them being open source. For database table connection, we have used Microsoft SQL Server Management Studio 18. As a result, our project will be unaffected because we will not be using anything that will become illegal to utilize. Some open source libraries and software's are used to build up this project.

1.7 Constraints:

- Data is sent from the client to the server via TCP/IP, and there is no public key encryption service used, such as an SSL certificate. As a result, we have limitations when it comes to transferring user data. It may result in issues with confidentiality and integrity. Only registered users are valid, and only valid users can use the software through the Client Application on the server side with the use of an Internet Browser. The liability for any missing password discovered by an anonymous user falls to the valid user.
- Bandwidth restrictions: There is a possibility of losing server connection due to technical errors (depending on hardware/ internet connection). We'll have to run the query once more.
- Databases: We use the MySQL database for our databases. We need to verify databases and refresh table data whenever user queries exceed the server's restrictions. In the event that there isn't any database caching.
- Parallel operations: Parallel use of other Internet application with this software may hamper in bandwidth, may occur taking time for a query for slow connections.
- Language requirements: Language is used in this software is PHP. Suppose any user wants Oracle Database we need to use bind variable technique.
- Communications protocols: To interface with the server, we use TCP/IP communication protocols. Other protocols aren't important if the user doesn't want them.
- Security considerations: Client apps will not use any public key encryption service like SSL certificate if the user does not want to buy SSL security (i.e. 128 bit RSA encryption). As a result, we have limitations when it comes to transferring user data.

Problems may arise (In case of internet security) –

- **Authentication problem:** It's possible that the server won't recognize or validate a genuine user.
- **Confidentiality problem:** The intended server as well as the user is unable to "understand" the contents of the message.
- **Integrity problem:** It is possible that the sender and server will fail to ensure that the message is not tampered without any detection.
- **Eavesdrop:** Intercept messaging is possible, as is purposefully inserting messages into the connection.
- **Impersonation:** can spoof (fake) the source address of a packet (or any field in packet).
- **Hijacking:** “take over” on going connection by removing sender or server, inserting himself in place.
- **Denial of service:** The service is restricted from being used by others (e.g., by overloading resources).

1.8 Proposed System:

1.8.1 Description/Improvements of Proposed System:

- The website is designed in such a way so that the users are satisfied.
- This system will help reduce the usage of labour, as tasks such as sell the product from farmers and having to take orders from customers are eliminated. Hence, fewer labour will be required leading to a lower labour cost.
- This system has no chances of that they cannot sell their produces at the price fixed by the government. Because they will not be forced to sell their produces at low prices to brokers.
- The customer can make faster orders and the farmer can faster sell far as they don't have to wait for any kind of brokers.
- There are less chances of data being lost or incorrect data entry. Sometimes it may enter the wrong orders of the consumer, however due to online orders; this possibility of mistake is eliminated.
- It is efficient, smooth and easy procedure for running this system.
- This system is the solution which will create opportunities for the farmers and also will help the government, farmers and consumers to keep intermediaries away

from agro-marketing and regulating the price varying so that price will be same all over the state and consumers can buy produces in an accessible price.

- The admin can monitor all side of the system easily from any location.

1.8.2 Resources:

All the resources needed are provided below.

1.8.3 Hardware:

Minimum Requirement:

Processor: Core i5 8th Generation.

RAM: 8 GB.

System Type: Windows 10 (64 bit).

Storage: 256 GB SSD.

1.8.4 Software:

Sublime text

PHP, LARAVEL, MySQL.

Microsoft SQL Server Management Studio.

1.9 Project Time & Cost:

1.9.1 Project Period:

Expected time of completion of the project is 8 months

1.9.2 Project Schedule:

Table 1: Project leadership

Term	Description
BA	Business Analyst
PM	Project Manager
D	Developer
QT	Quality Tester

Project Schedule

Project Start Date: 02-08-2021

Project End Date: 30-08-2022

Table 2: Project Time Table

WBS	Task	Lead	Start	End	Work Days	%Complete
1	Project Analysis	PM/BA	02-08-2021	08-08-2021	6	
1.1	Define User Requirements		08-08-2021	13-08-2021	5	100%
1.2	Analysis system Requirements		14-08-2021	16-08-2021	2	100%
1.3	Cost and Functionality Analysis		16-2-2021	03-9-2021	20	100%
2	Design	PM/D	03-09-2021	19-09-2021	20	
2.1	Define Standards for Project		20-09-2021	30-09-2021	7	100%
2.2	Designing Software Structure		01-10-2021	10-10-2021	7	100%
2.3	Desktop/User Interface		11-10-2021	23-10-2021	12	100%
2.4	Security Features		25-10-2021	2-11-2021	6	0%
2.5	Prototyping		03-11-2021	19-11-2021	11	100%
3	System Development	D/QT	20-11-2021	10-12-2021	20	
3.1	System Forms		20-11-2021	15-12-2021	13	50%
3.2	Databases		16-12-2021	30-01-2022	42	80%
3.3	Unit/ Component Test		31-01-2022	15-02-2022	16	0%
4	System Integration	D/QT	15-02-2022	18-03-2022	29	
4.1	Link Databases		18-03-2022	20-04-2022	34	100%
5	Overall System Test	QT	20-04-2022	10-05-2022	22	90%
5.1	Form Links		10-05-2022	27-05-2022	18	100%
5.2	User Interface		27-05-2022	15-06-2022	20	100%
5.3	Database Access		15-06-2022	15-07-2022	30	100%
5.4	Exception Handling		15-07-2022	01-08-2022	18	80%
6	Connection to Database		01-08-2022	25-08-2022	25	100%

1.9.3 Hosting Package:

Hosting Package A: Great for small websites

- Web Space: 1GB SSD Storage
- Bandwidth: 30GB/monthly
- RAID 10 SSD Server
- Unlimited Sub Domains
- Unlimited Email Accounts
- Unlimited Databases
- Tk. 1500/Year

Hosting Package B: Perfect for medium sized websites

- 3GB SSD Storage
- 90 GB Bandwidth Monthly
- RAID 10 SSD Server
- Lite Speed Web Server
- Unlimited Sub Domains
- Unlimited Email Accounts
- Unlimited Databases
- Tk. 2500/year

Hosting Package C: For the demanding sites

- 5 GB SSD Storage
- 150 GB Bandwidth Monthly
- RAID 10 SSD Server
- Lite Speed Web Server
- Five Add-on Domains
- Unlimited Sub Domains
- Unlimited Email Accounts
- Unlimited Databases
- Tk. 3500/year

Hosting Package D: For the highly demanding sites

- 20 GB SSD Storage
- 500 GB Bandwidth Monthly
- RAID 10 SSD Server
- Lite Speed Web Server
- Nine Add-on Domains
- Unlimited Sub Domains
- Unlimited Email Accounts
- Unlimited Databases
- Tk. 7000/year

Table 3: Estimated Budget Cost

Description	Cost	
	One time	Every Year
Online Hosting	7,000 BDT	7,000 BDT
Hosting Set up	16,000 BDT	
Software Development	1,25,000 BDT	
Maintenance		25,000 BDT
Total	1,48,000 BDT	32,000 BDT

1.10 Risk Assessment:

Table 4: Risk Probability

<u>Risk</u>	<u>Probability</u>	<u>Impact</u>
Schedule slip	42%	B
Project cancelled	10%	D
Wrong features	60%	A
Frustrated team member	20%	C
Average	33%	
RISK PROBABILITY	33%(likely)	
Impact value		
A	Disastrous	
B	Critical	
C	Marginal	
D	Negligible	

The impact of each risk driver on the risk component is divided into one of four impact categories—negligible, marginal, critical, or catastrophe.

Table 5: Project Risk Impact

	Disastrous	Critical	Marginal	Negligible
Schedule slip		Project delays, exceeding budget		
Project cancelled				Booking cancelation
Wrong features	Unable to fulfill requirement			
Frustrated team member			Failed to complete on time	

1.11 Assessing Overall Project Risk:

- Is there a formal commitment from the software engineer team to assist the project?

Answer: Yes, all of the members have made a formal commitment to support the project and have said that they will devote all of their resources to ensuring its success.

- Is the software engineering team aware of all requirements?

Answer: Yes. Because the software engineering team or developers are well-versed in the requirements and all of the required specifics are extremely comprehensive, the team can understand it.

- Are end-users enthused about the project and the system/product that will be developed?

Answer: Yes, the end-users are eagerly committed to the initiative and the system/product that will be built.

- Is the project's scope secure?

Answer: Yes, the project scope is stable since the software engineering team has almost completed the minimal and mandatory scope, and any more scope that arises in the future will be added to the existing ones.

- Is the software engineering team made up of the right people?

Answer: Yes, the software engineering team possesses the required qualifications. The members of the team are capable of working in a group, can work under pressure, and have a thorough understanding of the software implementation.

- Are the project's requirements consistent?

Answer: Yes, currently all possible requirements are listed, and it seems that if anything needs to be added later to the list, it will not make the project unstable. All requirements for this project are easily available that will enthrall the end-user to use it.

- Is there any experience on the project team with the technology that will be used?

Answer: Yes, the project team has experience with the technology that will be implemented because they have a thorough understanding of the technologies and have previously implemented them.

- Are the project team and the client aware of the potential risks?

Answer: Yes, the project team makes a list of possible events and plans ahead of time to avoid unpleasant scenarios.

CHAPTER 2: SOFTWARE REQUIREMENT SPECIFICATION

2.1 Objectives and Scope:

The purpose of this document is to give a detailed description of the “Agriculture Scout” application. The “Agriculture Scout” is a website, which will make day by day selling and buying easier, more interactive, user-friendly, and less stressful for both farmers and consumers. It stores the information of what farmers sell and it sells all items,

- Information of varieties of products stock, which can be modified.
- Information of what consumer/customer orders, and its order status such as time of order, time of serving, modify their cart, remove/cancel items from the cart etc.
- Information to ensure that a farmer must be from a verified store/nursery.

2.2 Overview of the Present System:

There are few number systems available on internet and farmers are not familiar to those system. Farmers can to sell directly to the consumers. Consumers also cannot collect from farmers directly. For selling, farmers have to follow a long process. Farmers do not get any suggestions from experts.

2.3 Data Flow Diagram of the Present System:

Not required.

2.4 Weakness of the Present System:

- Technologies are not available to farmers.
- Farmers cannot communicate to the consumers directly.
- Less information and availability for farmers.

2.5 Overview of the Proposed System:

In this website, consumers can place their orders by selecting items in the cart according to their choice. They can also remove or modify their items if they want.

The attraction towards agriculture or gardening has almost become an addiction to most people nowadays. They can save a lot of time and help consumers judge, decide and buy their products. The purpose of designing this website is to make the phenomena more leisurely and comfortable among farmers and consumers.

2.6 Benefits of Proposed System:

- This website can help the interactions between farmers and consumers grow. It is very user-friendly, rich and it has made interactivity very easier. It has a global reach too. Farmers can benefit from a good opportunity to sell their items / products starting from a wide range of prices.
- Consumers can order online. They can also cancel their orders if needed. Every time they can view / access the recent update price. Customers can also make a live chat with admin. This website accepts either cash on delivery.
- Consumers can comfortably decide and order their items and wait for the deliveries to be made at the doorstep.
- Farmers can bring varieties and the buyers can preferably choose them while sitting at home. Both farmers and consumers are equally getting the benefit from this exchange.
- It will be a hassle-free purchase for consumers. They are not required to seek any permission to buy / view merchandise. Consumers can freely choose products and they can view the prices of their desired products without asking anyone. They can also compare the items in the list.

2.7 Functional requirements and specifications:

This website should be a responsive website, meaning, it should be designed in such a way so that it is user friendly and can be accessed in all types of devices of all versions.

Below are various sections and features our website will contain:

2.7.1 Website registration:

- A user can register them to the website by entering the correct information needed in the registration form.
- The form will contain personal information of the user containing their First name, last name, date of birth, nationality, gender, phone and email.
- The next part will contain their account information for the website that includes their username and setting a password.
- The fields cannot be left empty. If so there will be a pop up message shown for the empty field.

Priority level: High

Prerequisite: The account user must have a valid account/email.

Cross-reference:

2.7.2 Website login:

- The website has a login page after the registration is completed. This page will allow the user to login to their profile using their username and password.
- If there is a wrong input or any field is kept empty, an error message will pop up and it will not allow a successful login.
- After the username / email and password are entered correctly a home page appears.
- A user can also reset their password if they forget their password.

Priority level: High

Prerequisite: The account user must enter valid username and password.

Cross-references:

2.7.3 Home features:

- Home page or the start page contains all the sections our website will work with.
- Associated links will be presented in the upper right corner of the page which can redirect any user to that particular link.
- There will be a 'your profile' for a user to edit their profile (changing password, or editing any other information).
- A search panel will be designed in the home page to make it feasible for the users to search anything they want.
- Home page will include hovered buttons under which there will be options like pages, shop, cart, contact, address, help and support.

Priority: Average

Prerequisite: The account must be logged in with correct email / username and password.

Cross-references:

2.7.4 Pages:

- This section is located in the home page under one single tab.
- It includes all information about our website, our farmers, our projects, rewards etc.
- We also have stored information about our farmers.
- The gallery contains all pictures of our farms or products that are captured.

Priority: Average

Prerequisite: The account must be logged in with correct email / username and password.

Cross-reference:

2.7.5 Shop features:

- This section is located in the home page under one single tab.
- There are 5 categories under shop namely balcony, rooftop, houseplant, money-plant and photos for the users to purchase.
- Each category will display at least 10 products with their price details.
- Consumers can select either of the categories and add their items in their cart.

Priority: Average

Prerequisite: The account must be logged in with correct email / username and password.

Cross-references:

2.7.6 Cart features:

- This feature is also located in the home page under one single tab.
- Users can select their desired items and add to cart or wish-list.
- They can also add or remove the items in / from the cart which means the cart can be updated.

Priority: Average

Prerequisite: The account must be logged in with correct email / username and password.

Cross-references:

2.7.8 Contact:

- Under this section located in home page, consumers can leave a message and finally entering their names, email and phone in a tabular form.
- The website's address, email and phone number will also be given so that users can contact at any point of time.

Priority: Average

Prerequisite: The account must be logged in with correct email / username and password.

Cross-references:

2.8 Non-functional Requirements:

- If the customer purchases more than 1000tk then the website will delivery charge free for that customer.
- Farmers should sell affordable items according to the consumer's ultimate choice. And after every 3 months offers should be added.
- Online payment is only accepted in this website. If any customer denies paying online, his or her orders will be cancelled.
- Items will also be gone if a customer leaves an unsaved change in the cart before ordering and then logs out of the website.

2.9 Project Requirements:

- The website will have a budget of \$950 for development.
- The website will be designed using PHP and LARAVEL FRAMEWORK.
- Every user must have only one account to access to their respective individual tasks / duties in the website.
- The website needs a good internet connection to run smoothly.

2.10 System Features:

These features in this website made it more user-friendly henceforth the difficulties encountered by consumers or farmers can be limited. Below are the list of users and their features:

2.10.1 Farmer:

- A farmer can definitely sell their products.
- He can view or control all categories such as balcony, rooftop, money-plants and gardening equipment.
- He will have varieties of products with him in stock and sell them in respect to what the consumer demands.
- He can sell all items that are essential for proper gardening / plantation by adding a product on the website, just in case he needs to update the product.
- He can also remove product, add offers.

2.10.2 Consumer:

- A consumer is just a regular user.
- He / she can add their desired items in the cart, modify / update their cart, remove / cancel items from the cart.
- A consumer can also view the plant's calendar.

2.10.6 Admin:

- An Admin can view or control all categories.
- An admin has the ability to view the product, add, delete, sell and view the pending product.
- He can view or control all farms.
- He can also add and modify all vendors.
- He has the calibre to control the slider, the sort banner and side banner.
- He can also add blog, show blog comment and show subscription message.
- He can view about the contact, change policy information, change delivery information.

2.11 Hardware and Software Requirements:

2.11.1 Hardware:

Minimum Requirement:

Processor: Core i5 8th Generation.

RAM: 8 GB.

System Type: Windows 10 (64 bit).

Storage: 256 GB SSD.

2.11.2 Software:

Sublime Text

PHP, LARAVEL (framework), MySQL.

Microsoft SQL Server Management Studio.

2.12 Human Resource Requirements:

Hardware Specialist: A part time hardware specialist is needed to manage all the computers of the center. So in case of any hardware failure he/she may come and solve the problem.

Computer operator/Data entry operator: A computer operator is needed to control restaurant order and bill payment.

2.13 Constraints and Limitations:

2.13.1 Assumption and Dependencies:

Some third-party software may be used to build up this project. These are free components; most of them are open source. We have used Microsoft SQL Server Management Studio 18 for database table connection. So our project will not be affected because we are not using anything for which it becomes illegal to use.

Some open-source libraries and software's are used to build up this project:

2.13.2 Constraints:

- Due to bandwidth restrictions, the server connection to the system may be lost.
- We are using MySQL Database for our databases. We need to verify databases and refresh table data whenever user queries exceed the server's restrictions.
- Using other Internet applications concurrently with this software may cause a reduction in bandwidth, as well as the time it takes to do a query for slow connections.
- To interact with the server, we use TCP/IP communication protocols. Other protocols are irrelevant to use.

2.14 Budget:

Table 6: Whole Software Budget Plan

Description	Cost	
	One time	Every Year
Online Hosting	7,000 BDT	7,000 BDT
Hosting Set up	16,000 BDT	
Software Development	1,25,000 BDT	
Maintenance		25,000 BDT
Total	1,48,000 BDT	32,000 BDT

2.15 Conclusion:

The main goal of our website is to make easier, interactive, user-friendly, informative and hassle-free purchases for farmers and purchasers / consumers. Using this website will benefit both farmers and consumers. Overall, this will provide richness to the website among users all around the world. The system focuses on the requirement of information technology for Agricultural Production, Research, Education and Agri-business for the socio-economic development of a nation. Such a facility would make a favourable impact on adoption and utilization of the improved and innovative techniques in agriculture.

CHAPTER 3: DIAGRAM AND PROTOTYPE

3.1 ER diagram

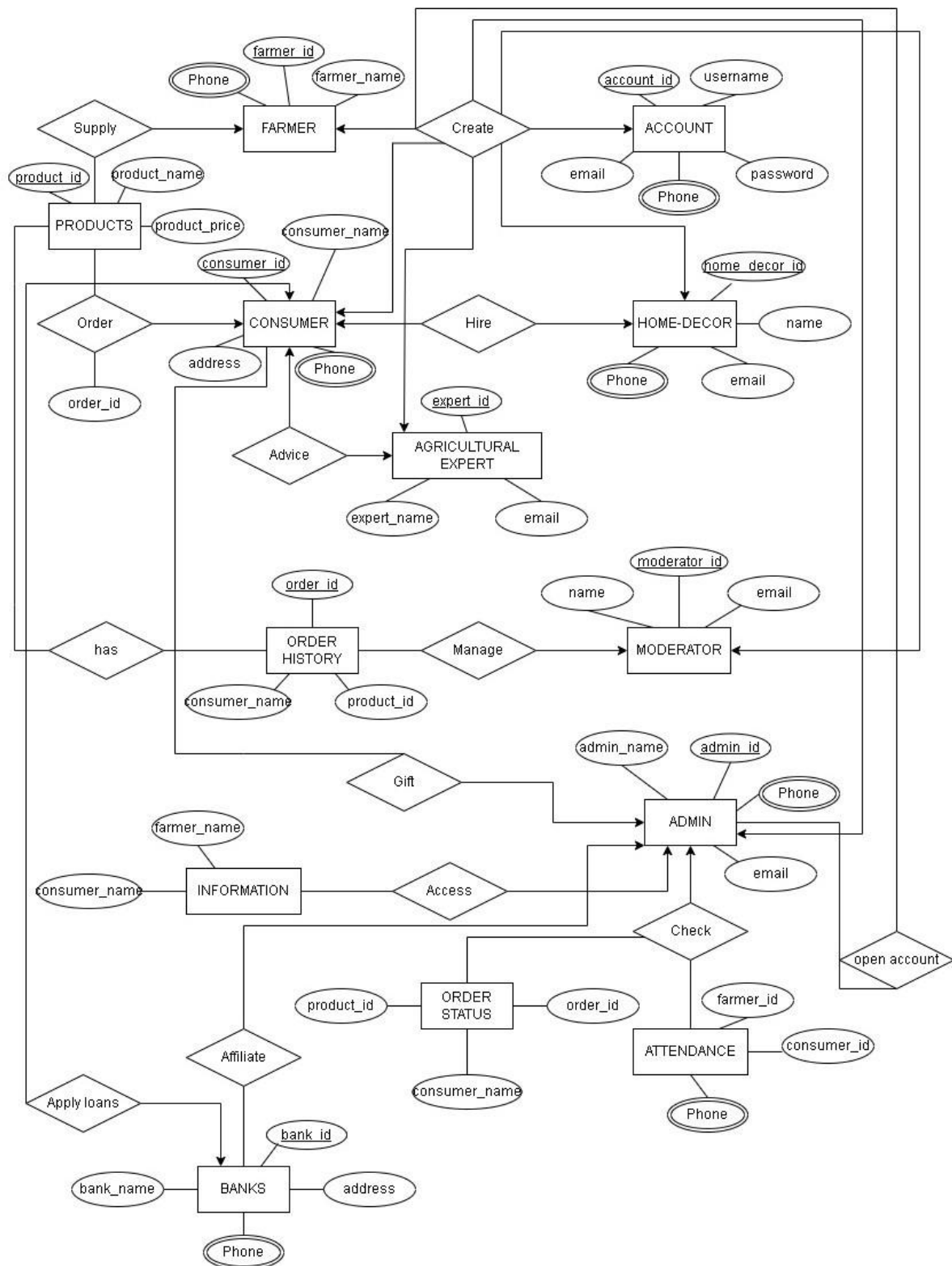


Figure 1: ER diagram

3.2 UML Class diagram

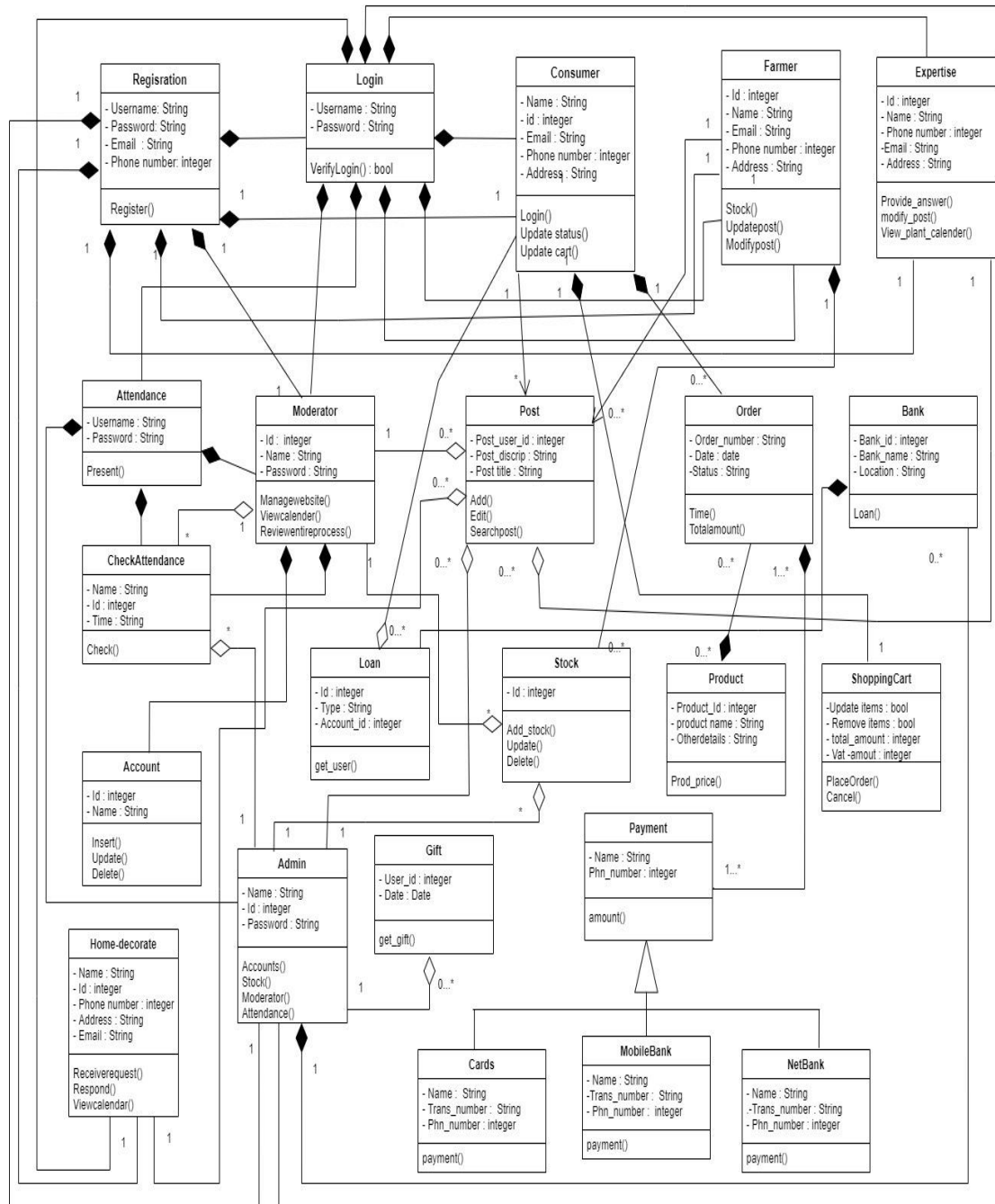


Figure 2: Class Diagram

Here, in the UML class Diagram it can be seen that there is a class named Registration, which has four attributes Username, Password, Email, Phone number which are declared as private and registration class has the operation register, by which system can successfully login class and it can be seen that the Registration class and login class have a composition relationship among themselves and none can exist without one another. Users need to have a verified registered account to proceed in further operations. The Login has two attributes namely Username, Password which are declared as private. The system will also verify the login details. The login class and the Attendance class have a

composition relation among them and none can exist without one another. It means that if the user does not Login, then the user cannot continue and give their attendance.

The Attendance class have two attributes and one operation which are present. Similarly, the customer class and the login class have a composition relationship among them. The customer class has five attributes namely name, id, email, phone number, Address number which are declared as private and three operations which are login, update status, update cart. The customer class and the login class have a composition relationship among them. After the user will login, they will give attendance. The Farmer class and the login class has a composition relationship among them The Farmer class has five attributes are and three operations which are add post, modify post and remove post. After the user will login, they will give attendance. This is shown in the Attendance class where there are two attributes and an operation is present. The Expertise class and the login class have a composition relationship among them.

The Expertise class has five attributes and three operations which provide answer, modify post and view plant's Calendar. After the user will login, they will give attendance. This is shown in the Attendance class where there are two attributes and an operation is present. The Home-decorator class and the login class has a composition relationship among them The Home-decorator class has five attributes are and three operations which are provide answer, modify post and view plant's calendar. After the user will login, they will give attendance. The Moderator class and the login class has a composition relationship among them The Moderator class has three attributes and three operations which are view website, view calendar and review entire process. After the user will login, they will give attendance. The Admin class and the login class have a composition relationship among them. The Admin class has three attributes are and four operations which are approving posts, modifying and removing. The admin can also gift top rate users, provide loans through the website and add bank lists to the website. After the user will login, they will give attendance. The Attendance class and Moderator class has a composition relationship among them, the moderator must give attendance and none can exist without one another. The check attendance class have three attributes: name, id, time and one operation check. Check attendance class and Attendance class has a composition relationship and so one cannot exist without another. Moderator class and Check attendance class has an aggregation relationship and so one can still exist without another. Account class and moderator class has a composition relationship.

It means account class cannot exist without moderator class. The Check attendance class and Admin class has an aggregation relationship and so one can still exist without another. It means, the Check attendance class can still exist without Admin class. The post class has three attributes which are post user id, post description , post title number which are declared as private and three operation which are add, edit, search post. Customer (class) and Farmer (class) can upload one to many post. (One too many relation).Moderator, Expertise, Admin, Home-decorator class and post class has aggregation relationship and so one can still exist without another. Stock class has one attribute is id and three operation which are add stock, update, delete. Farmer class and stock class have composition relationship (one too many relationship) and so one cannot exist without another. Moderator, Admin class and stock class have an aggregation relationship and so one can still exist without another. Gift class has two attributes which are user id, date, which are declared as private.

The Gift class has one operation which is get gift. Admin class and Gift class has a aggregation relationship and so one can still exist without another. Bank class has three attributes which are bank id, bank name, location which is declared as private and one operation which is loan. Bank class and admin class has composition relationship and so one cannot exist without another. Loan class have three attributes which are id, type and account which are declared as private and it has one operation. . Bank class and loan class has composition relationship and so one cannot exist without another.

Consumer class and loan class has aggregation relationship and so one can still exist without another. Shopping cart class have four attributes which are update items, remove items, total amount, vat amount which are declared as private and it has two operations which are place order, cancel. Consumer class and shopping class have composition relationship and so one cannot exist without another. Order class has three attributes which are order number, date, status number which are declared as private and order class has two operations which are time, total amount. Consumer class and order class has composition relationship and so one cannot exist without another. Product class has three attribute which are product id, product name, other side which are declared as private and product class has one operation. Product class and order class has composition relationship and so one cannot exist without another.

The payment class has two attributes which are name, phone number which are declared as private. The order class and Payment class has composition relationship and so one cannot exist without another. The payment class has one operation which is amount which is declared as private. Payment class has two classes which are Card, Mobile Bank and Net Bank. The Card class has three attributes which are name, Tran's number, phone number which are declared as private. And Card class has one operation which is payment. The Mobile bank class has three attributes which are declared as private and one operation. The net bank class has three attributes number which are declared as private and one operation. Now it can be seen Name, phone number of three classes (Cards, Mobile Bank, Net Book) can be combined as a payment to form one higher level entity and this process is called as Generalization relationship.

3.2 Use case diagram

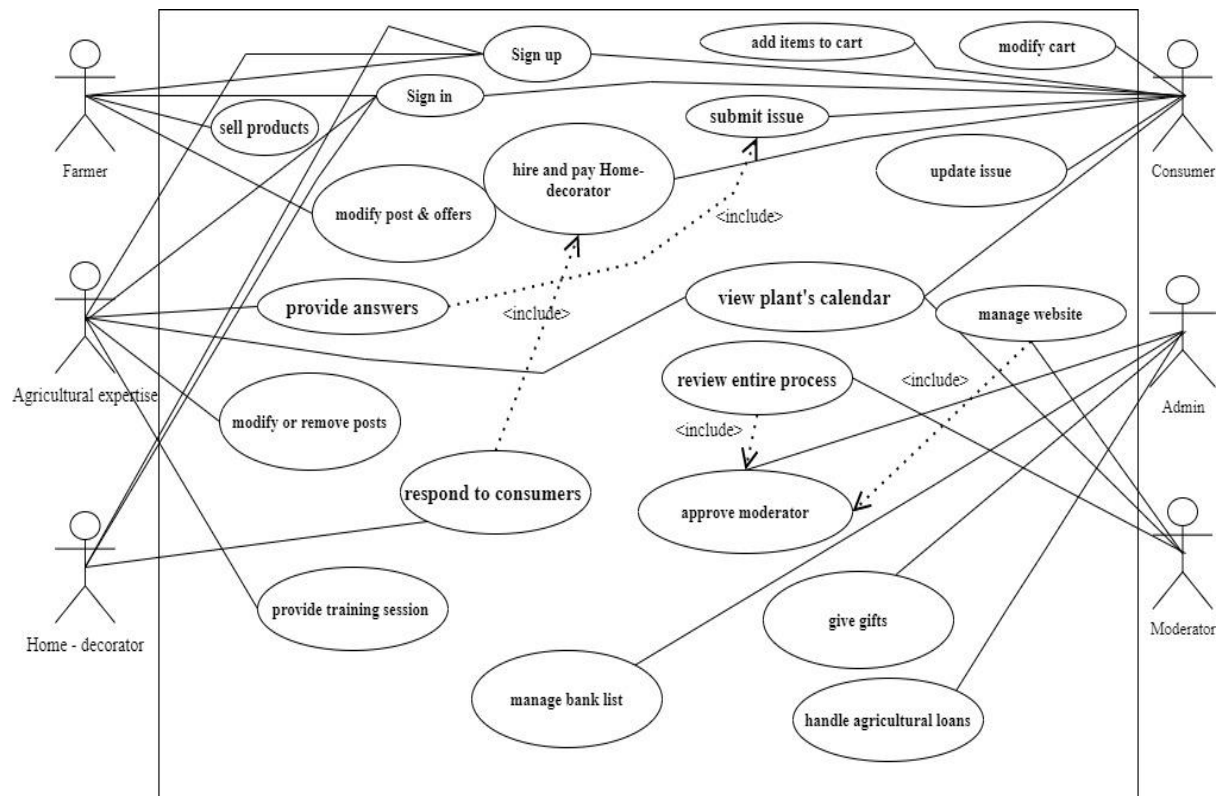


Figure 3: Use case diagram

Given above, the use case diagram, we see that farmer, agricultural expert, consumers and home decorator will first register/signup if they are new user. If not they will directly sign in into their account. After there is a successful signup, they will sign in. If failed, they will try to sign in again. After logging in successfully, the farmer will pick what he wants to do with the website. He has the option of adding, editing, or removing a sell post. If he wishes to make a sale post, he should first add the product details. Following this, he will determine if an offer should be included or the product should be offered at its regular price. The funds will be transferred to his account as soon as possible. After that, the farmer can submit the post and consider it a day. After that, he can delete a sale post by choosing it and clicking the delete button. The decision can be confirmed, and then the process can be completed. If necessary, the farmer can also make changes to the sell post. He must first change the product information before deciding whether to edit the offer, add the deal, or simply add the standard price. In addition, the farmer can make changes to the payment account system, submit the post, and complete the procedure. The consumer will decide what he wants to accomplish on the website after successfully signing in. He has the option of adding, editing, or removing a sell post. If the consumer decides to purchase a product, he should first put it to his cart, then select the quantity, payment method, and confirm. After that, the customer can verify the cancellation period and cancel the order. If the time limit has passed, the request will be denied; if the time limit has not passed, the order will be canceled and verified. The customer can also engage a house decorator by choosing one and confirming their choice. An expert consultation will be available, during which the consumer can post a query, add a

description, and submit it. In the event that a change is required, the customer can do so. Following this phase, the consumer will determine whether or not to take out a loan. In this case, the customer will choose a bank, apply for a loan, fill out the application, attach all supporting documents, confirm, and complete the procedure. After all processes have been confirmed, they are terminated.

As a result, the house decorator can choose between two options: rejecting or accepting a request. If the home-decorator selects "Reject request," the home-decorator will logout from the website after "Rejecting request." If the home-decorator wants to accept the suggestion, he or she will click "Accept request." If the home-decorator approves the request, the customer's requirements will be met. The home-decorator can then choose between two options: "not finish the work" or "according to consumer design." If the home-decorator chooses to "not finish the task," the work will be "not finished," and the decorator will be able to logout.

After successfully sign in for agricultural expert will go the home page and after that expert have multiple options for training session, posts and issue from consumer. In training session any video can add, edit or delete. After doing this action it will go back to home page. Agricultural expert has only view option in plants Calendar. Agricultural expert post can add, edit or delete any post. If Consumer has any question agricultural expert will frequently provide the answer.

The "Registration" will be done initially by the Moderator. After then, the Moderator can "login." If the moderator's username and password are correct, the moderator can take attendance; otherwise, an error message will appear. If it is valid, the moderator can go to the "homepage" and do four decision operations: "Manage complete process," "Manage payment," "Manage website," and "Manage post." If the moderator selects "manage complete process," the moderator can control products and orders, then confirm and return to the previous screen. Then he'll be able to go "Back." If the moderator decides to manage the post, he has four options: see consumer, view farmer, view home decorator, and view agriculture expertise. If the moderator selects "view consumer," the moderator has two options: change or remove the post; if he selects "modify post," he can edit the post. If a moderator has the option to "remove post," he can erase it. Then he'll be able to go "Back." If the moderator selects "view farmer," he has two options: change or remove the post; if the moderator selects "modify post," he has the option to "Edit post." If the moderator has the option of selecting "Delete post," he can erase the post. Then he'll be able to go "Back." If the moderator selects "see home decorator," the moderator has two options: change or remove the post; if he selects "modify post," he can edit the post. If he has the option to erase a post, he can "delete post." He has the ability to remove posts. Then he'll be able to go "Back." If the moderator selects "view agriculture expertise," the moderator has two options: alter or remove the post; if the moderator selects "modify post," he may then "Edit post." If the moderator has the option to "remove post," he can also "delete post." He has the ability to remove posts. Then he'll be able to go "Back." If the moderator can select "manage website," the moderator can then select "Review," "Confirm," and finally "Back." If the moderator selects "Manage payment," the moderator can then select "Calculate profile," "Check monthly sales," and finally "Confirm" before returning to "Back." The moderator can then return to the homepage and logout of the website.

An admin can approve, alter, remove, and see postings, depending on the moderator. He may also reward top users with presents depending on their ratings. The website may provide chances and access to apply for agricultural loans from a variety of financial institutions. The admin can change, add to, or delete banks from the list.

3.2.1 Farmer Functionalities

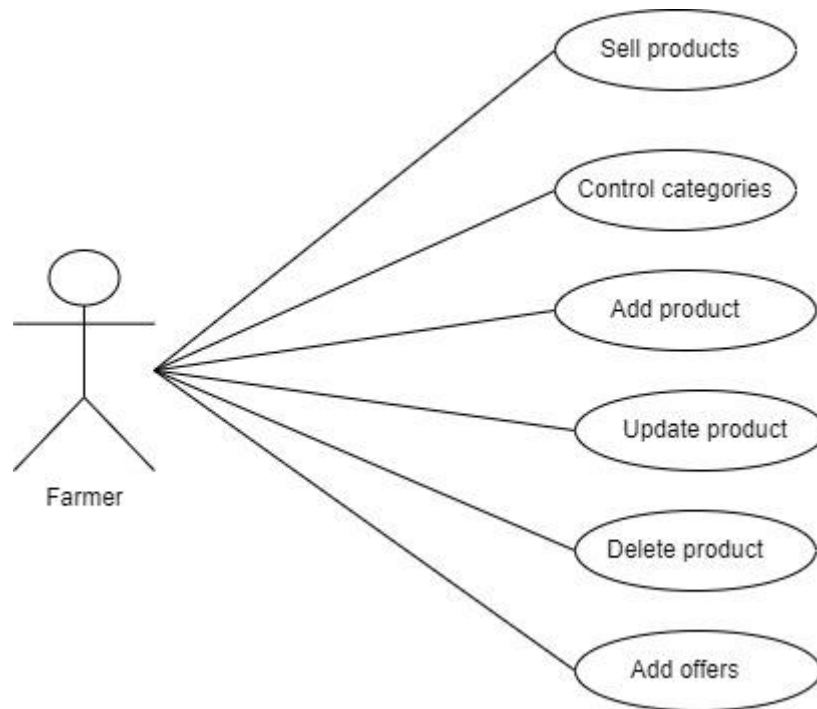


Figure 4: UML diagram (Farmer)

Farmer functionalities are as follows:

- A farmer can sell products.
- He/she can view or control categories.
- He/she can also add product.
- The posts can also be updated.
- A farmer can delete the sell product post.
- A farmer can add offers to the sell product post.

3.2.2 Consumer Functionalities

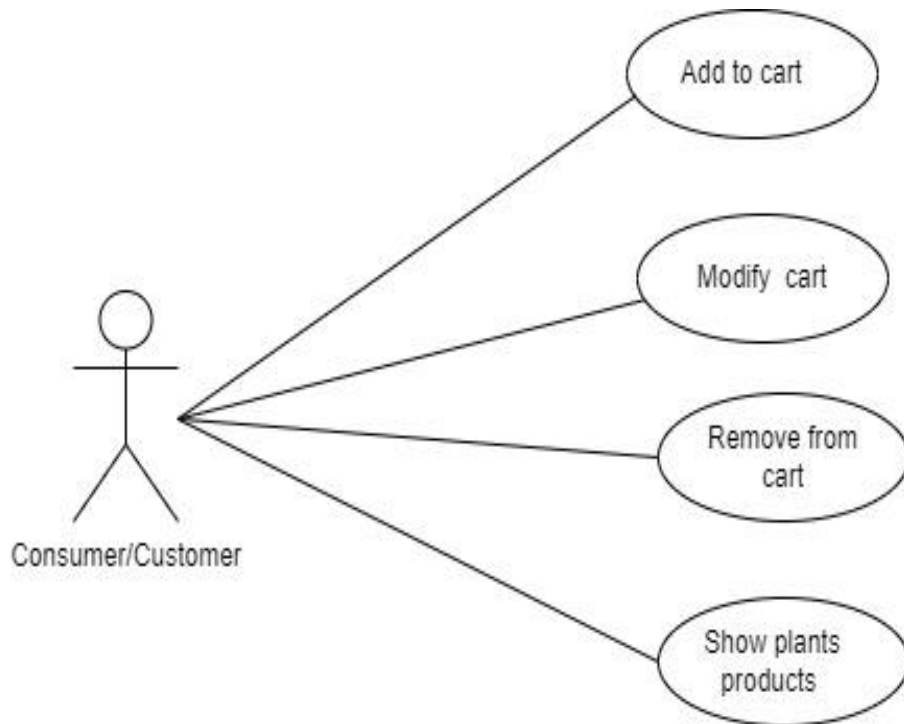


Figure 5: UML diagram (Consumer/customer)

Consumer/Customer functionalities are as follows:

- A consumer/ Customer can add products to cart.
- He/ she can also modify the cart.
- The items added to the cart can also be removed if needed.
- He can show the plants products.

3.2.6 Admin Functionalities

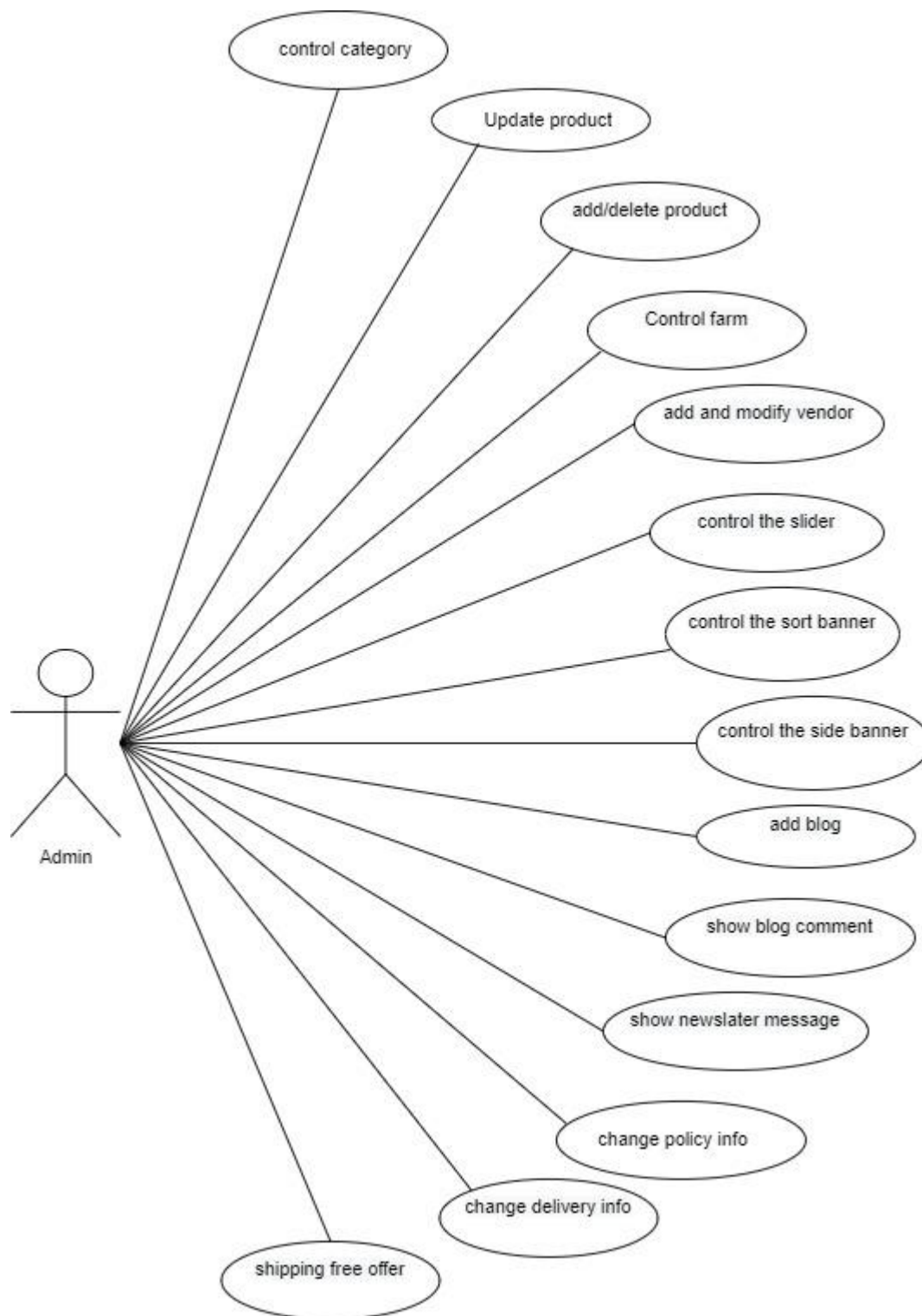


Figure 6: UML diagram (Admin)

Admin functionalities are as follows:

- Admins have the entire right to approve all posts.
- Admins can update any post depending on the moderator.
- They can also remove posts if needed.
- They can view all posts on the website.
- Admins can provide bank loans to the consumers through the website.
- They can add the list of banks in the website.
- The lists can also be updated and removed if needed.
- Admins will give offer the users who purchases more products.

3.3 Activity Diagram

3.3.1 Activity Diagram for Farmer

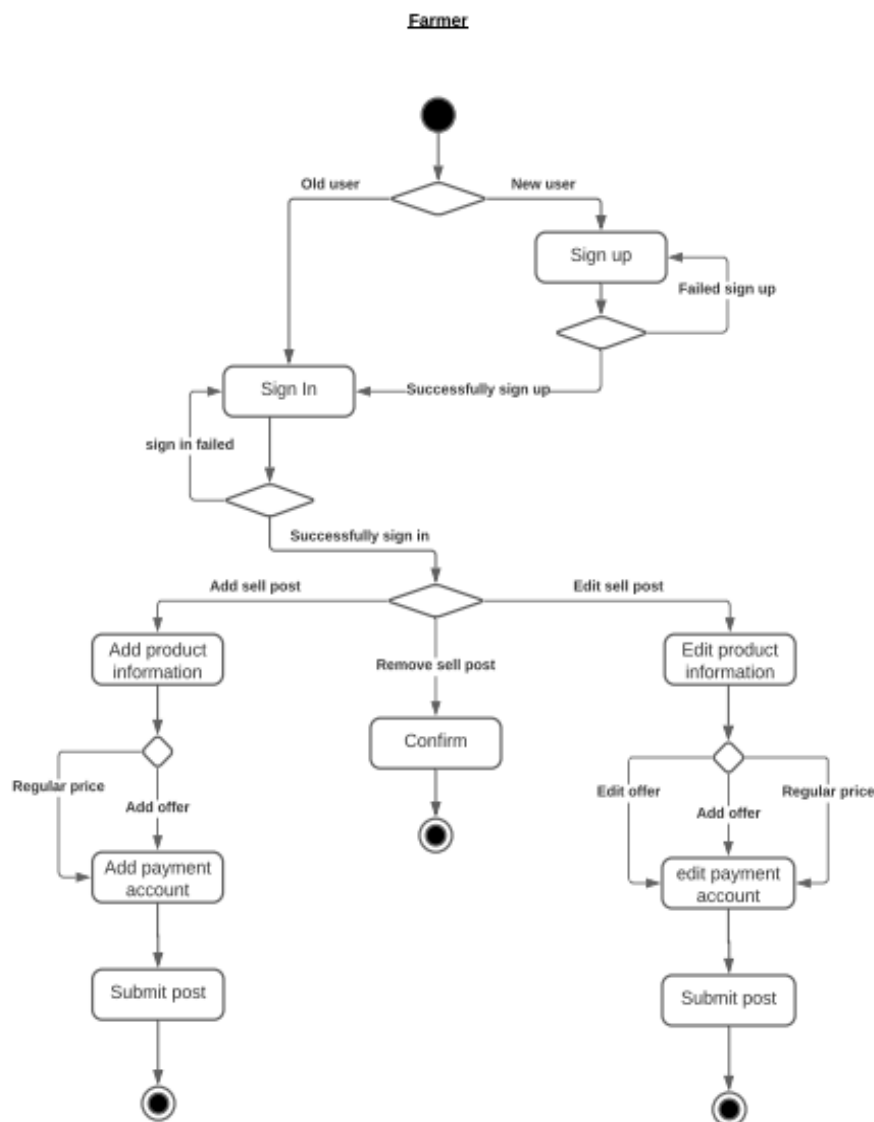


Figure 7: Activity diagram (Farmer)

Above is described an activity diagram for farmer. The farmer will first register/signup if the user is new. If not the farmer will directly sign in into their account. The farmer should have to try signing up again if there is a failure while registering/ signing up. After there is a successful signup, the farmer will sign in. If failed, the user will try to sign in again. After a successful sign in, the farmer will decide what he wants to do in the website. He can either add a sell post, edit a sell post or remove a sell post. If he decides to add a sell post, the product information should be added first. After this step he will decide whether an offer should be added or the product should be sold in a regular price. The payment will then be transferred to his account accordingly. The farmer can then submit the post and end the operation. Next, he can remove a sell post by selecting the post and confirm to remove the post. The decision can be confirmed and then ended respectively. The farmer can also edit the sell post if needed. He will first have to edit the product information and then a decision must be taken either to edit the offer, add the offer or add regular price itself. The farmer can also edit the payment account system, submit the post and end the process.

3.3.2 Activity Diagram for Consumer

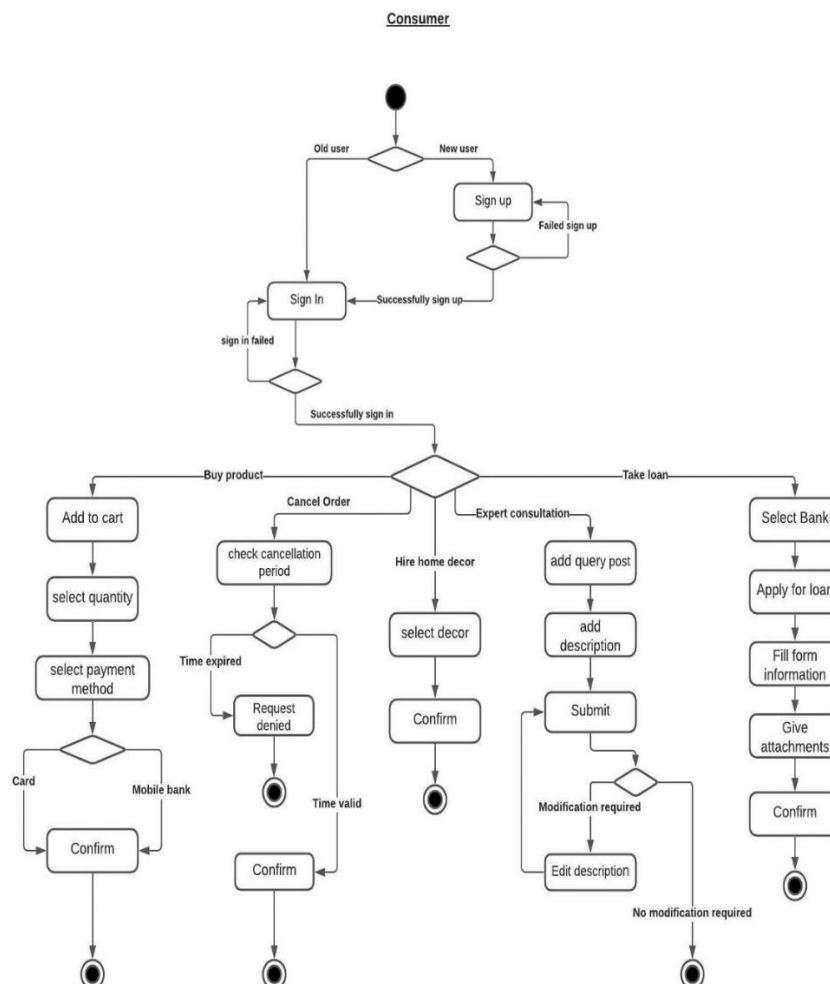


Figure 8: Activity diagram (Customer)

Above is described an activity diagram for consumer. The consumer will first register/signup if the user is new. If not the consumer will directly sign in into their account. The consumer should have to try signing up again if there is a failure while registering/ signing up. After there is a successful signup, the consumer will sign in. If failed, the user will try to sign in again. After a successful sign in, the consumer will decide what he wants to do in the website. He can either add a sell post, edit a sell post or remove a sell post. If he decides to buy a product, the consumer should first add to cart, then select the quantity, select the payment method and the confirm. Next the consumer can cancel the order by checking the cancellation period. If the time is expired the request will be denied and if time valid the order will be canceled thus confirmed. The consumer can also hire a home decorator by selecting a decorator and confirm their decision. There will be an expert consultation where the customer can add a query post, add the description and submit. In case a modification is required the consumer can modify it. After this step the consumer will decide whether a loan is to be taken. In that case the consumer will select bank, apply for loan, fill the information, attach all testimonies and confirm and end the process. All processes are ended after their respective confirmations

3.3.6 Activity Diagram for Admin

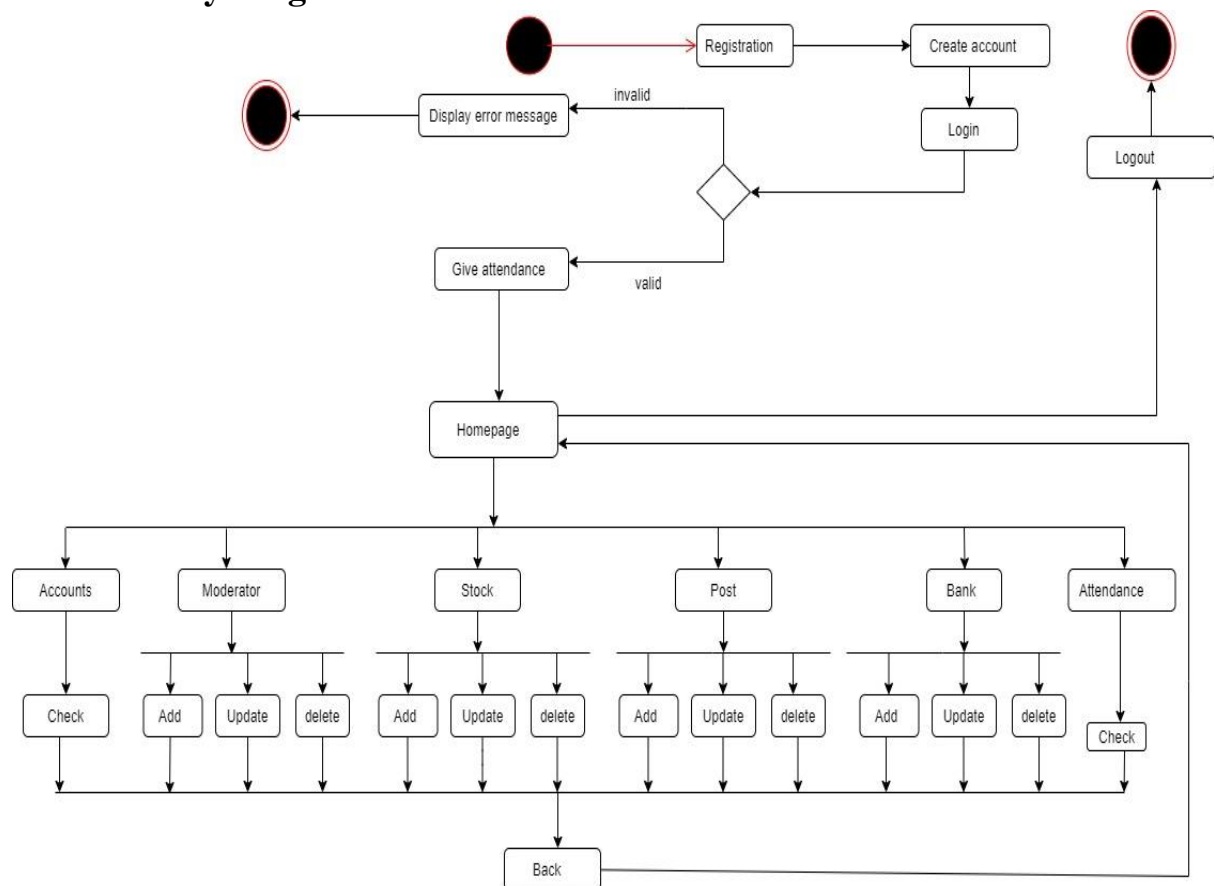
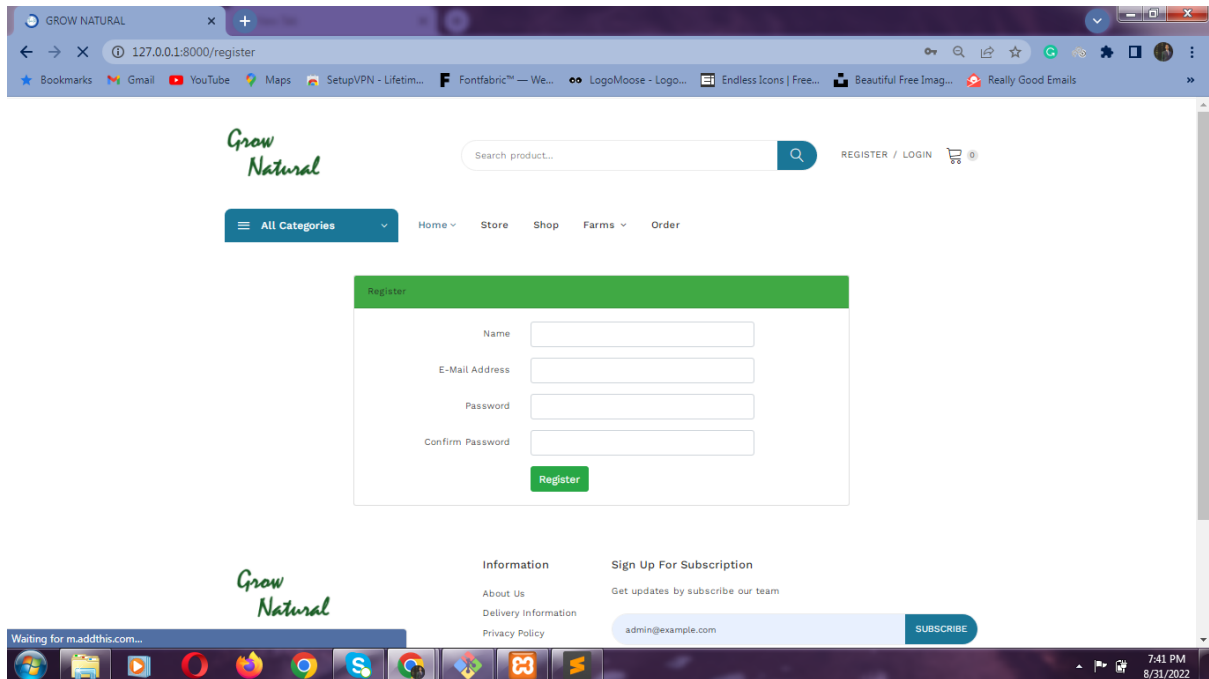


Figure 9: Activity diagram (Admin)

In the Activity diagram of Admin, it is shown that the admin will register first and create an account. Then the Admin can login. If username and password given by admin is valid then the admin can give attendance, otherwise an error message will be displayed. If it is valid then after giving attendance, the admin can go to the homepage and do various operations such as view or update accounts, stock, Moderator, post, Bank, Attendance. The admin can check Accounts and then go back to homepage. If admin chooses “post” or “bank” or “stock” then the admin can add, update delete and go back to homepage. Lastly if the admin chooses “Attendance” then the admin can check and go back to homepage. He can then logout from the website.

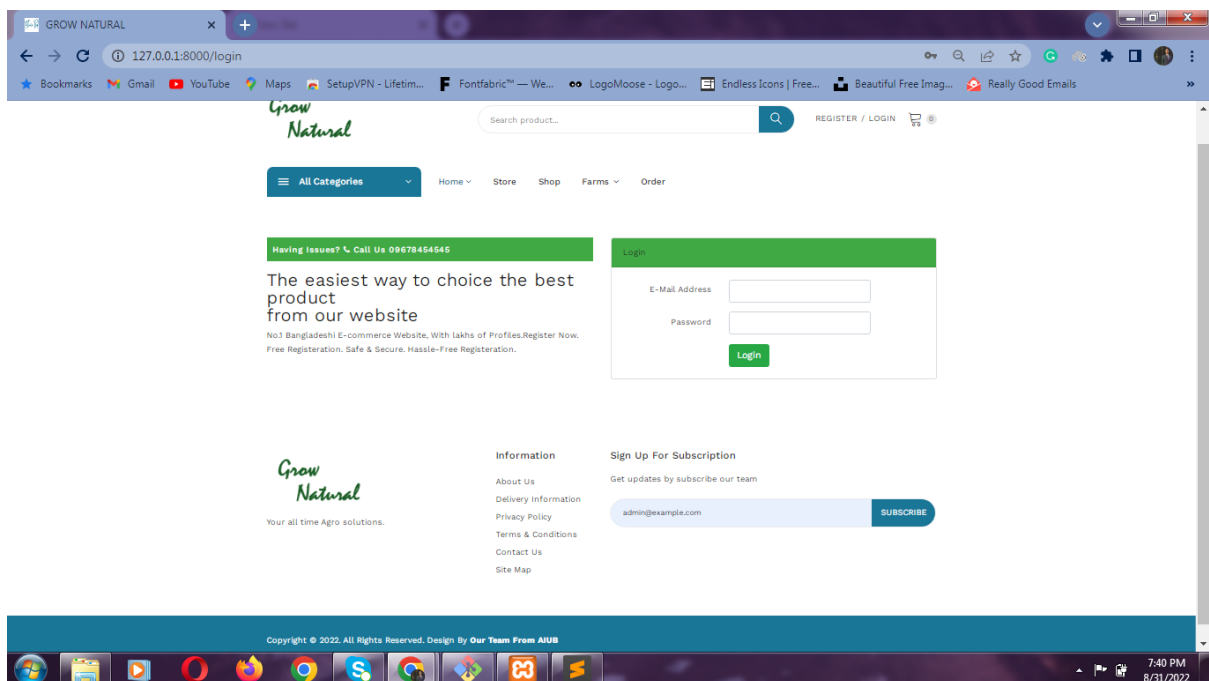
3.4 Prototypes

Registration & Login:



The screenshot shows the 'Grow Natural' website's registration page. The browser address bar displays '127.0.0.1:8000/register'. The page features a green header with the 'Grow Natural' logo, a search bar, and links for 'REGISTER / LOGIN' and a shopping cart. A navigation menu includes 'All Categories', 'Home', 'Store', 'Shop', 'Farms', and 'Order'. The main content area is titled 'Register' and contains a form with fields for 'Name', 'E-Mail Address', 'Password', and 'Confirm Password', followed by a green 'Register' button. The footer includes a 'Grow Natural' logo, a 'Waiting for m.addthis.com...' message, a 'Sign Up For Subscription' section with an email input field and a 'SUBSCRIBE' button, and a list of links: 'Information', 'About Us', 'Delivery Information', and 'Privacy Policy'.

Figure 10: Registration page for User



The screenshot shows the 'Grow Natural' website's login page. The browser address bar displays '127.0.0.1:8000/login'. The page features a green header with the 'Grow Natural' logo, a search bar, and links for 'REGISTER / LOGIN' and a shopping cart. A navigation menu includes 'All Categories', 'Home', 'Store', 'Shop', 'Farms', and 'Order'. The main content area is titled 'Login' and contains a form with fields for 'E-Mail Address' and 'Password', followed by a green 'Login' button. The footer includes a 'Grow Natural' logo, a 'Having Issues? Call Us 09678454545' message, a 'Sign Up For Subscription' section with an email input field and a 'SUBSCRIBE' button, and a list of links: 'Information', 'About Us', 'Delivery Information', 'Privacy Policy', 'Terms & Conditions', 'Contact Us', and 'Site Map'.

Figure 11: Login Page for User

Shop:

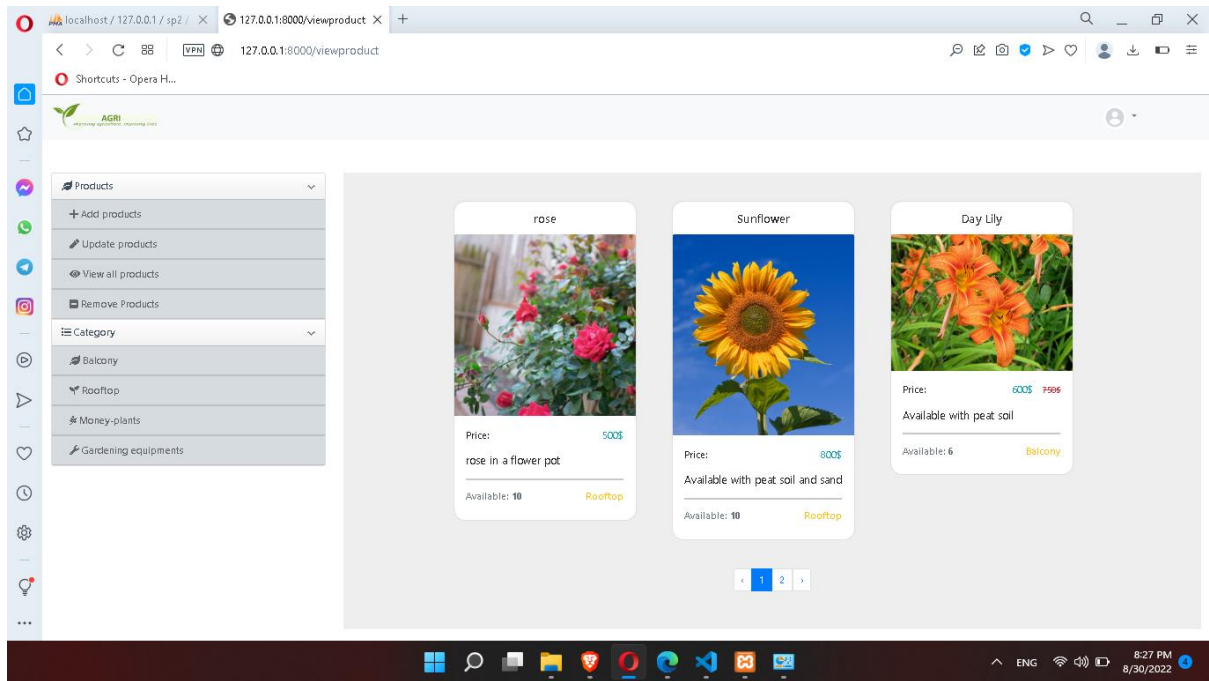


Figure 12: View products

Product Tracking:

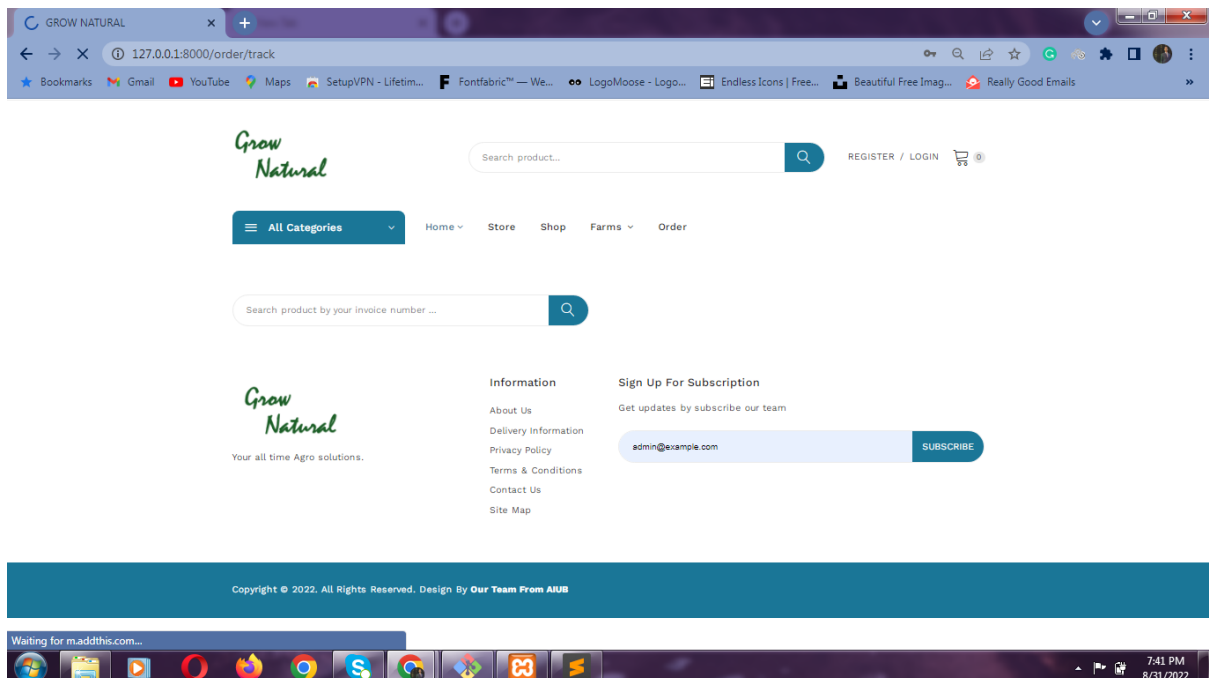


Figure 13: Tracking products with Invoice Number

Admin Dashboard:

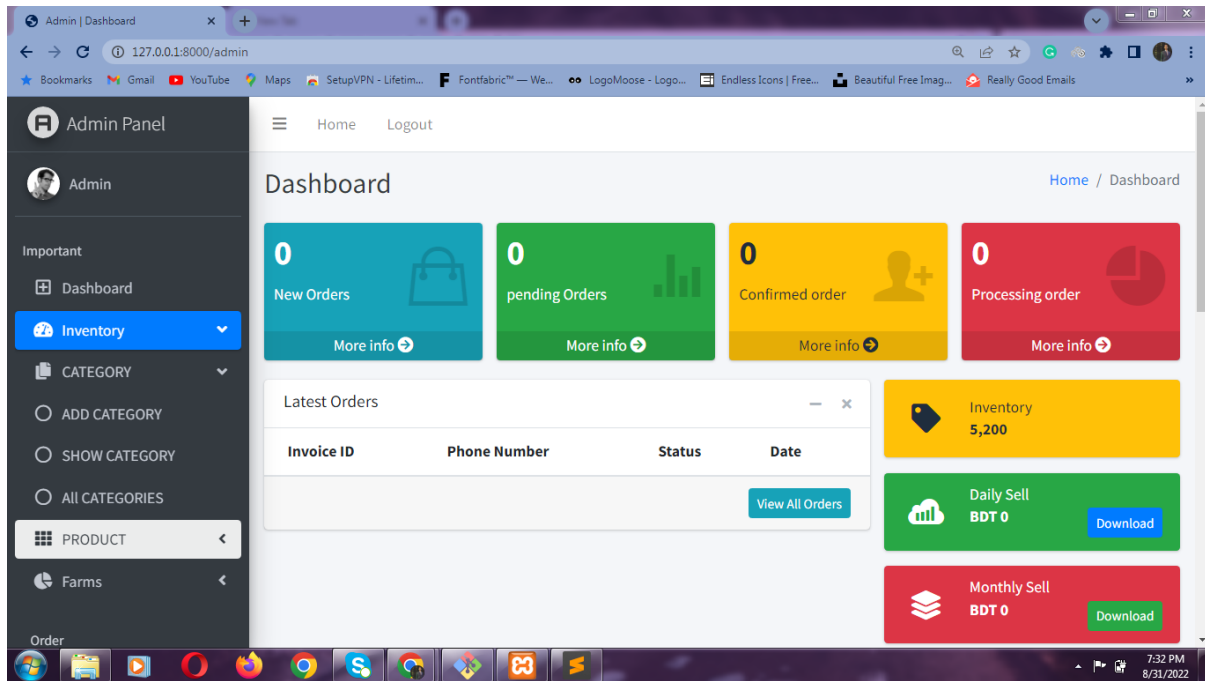


Figure 14: Admin Dashboard view

Add/Update Products:

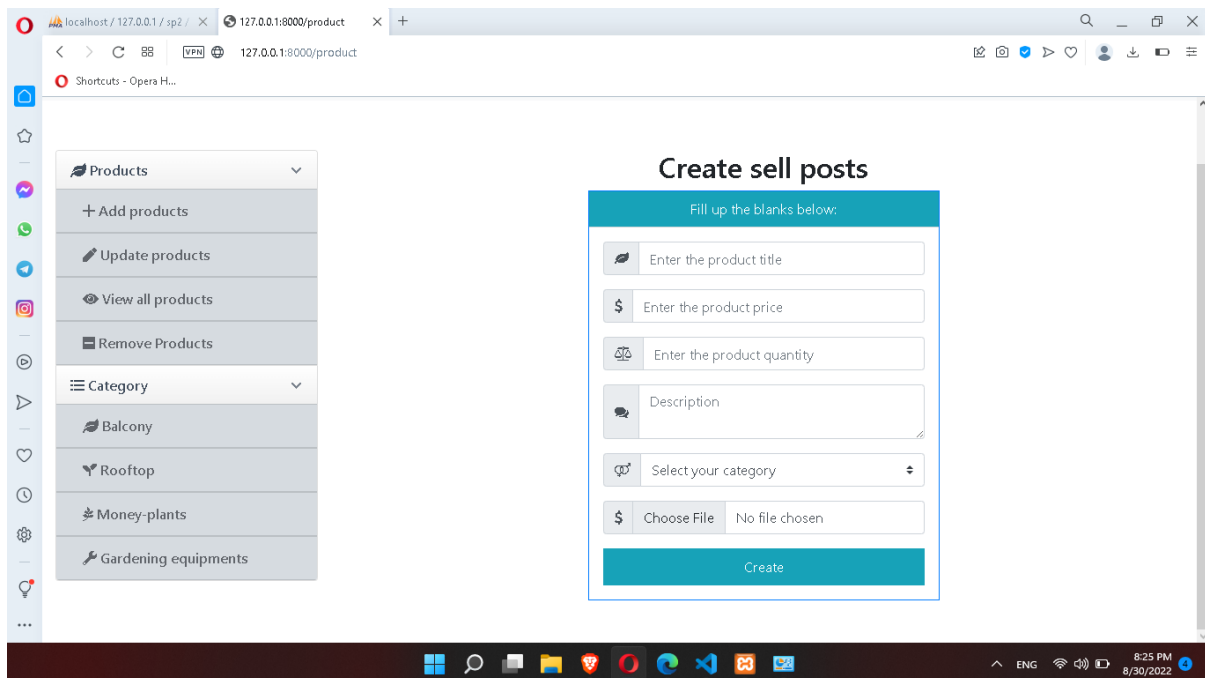


Figure 15: Add Products for Sell

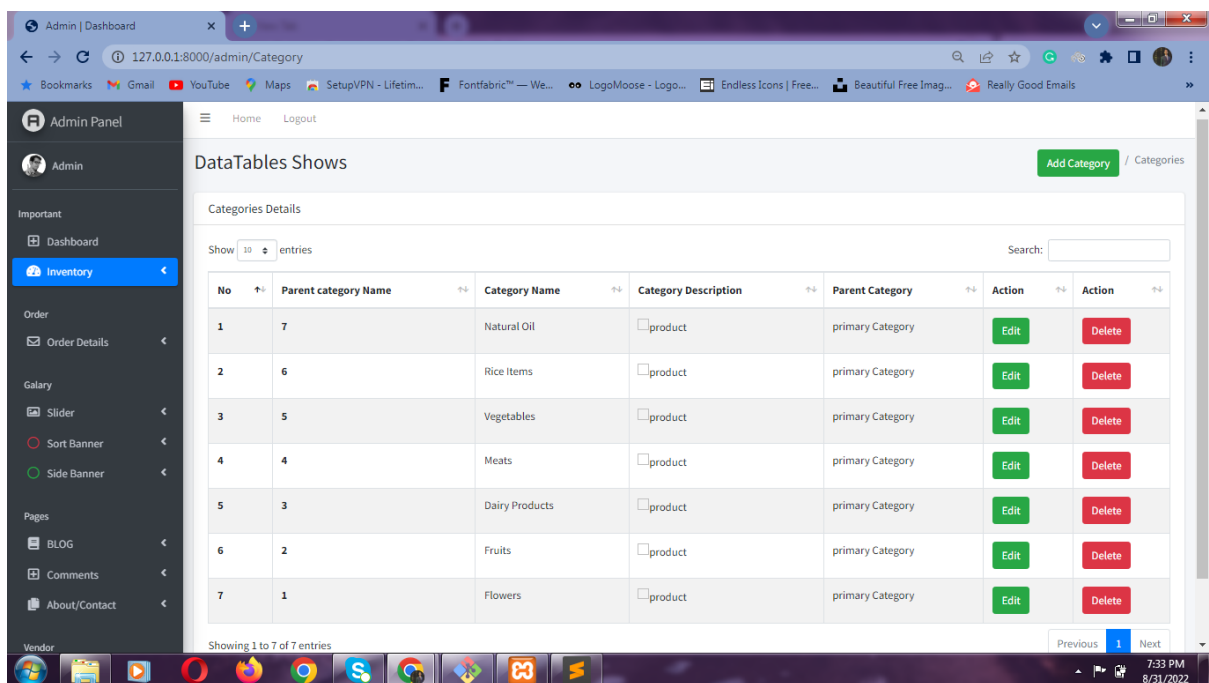


Figure 16: Update/Delete products

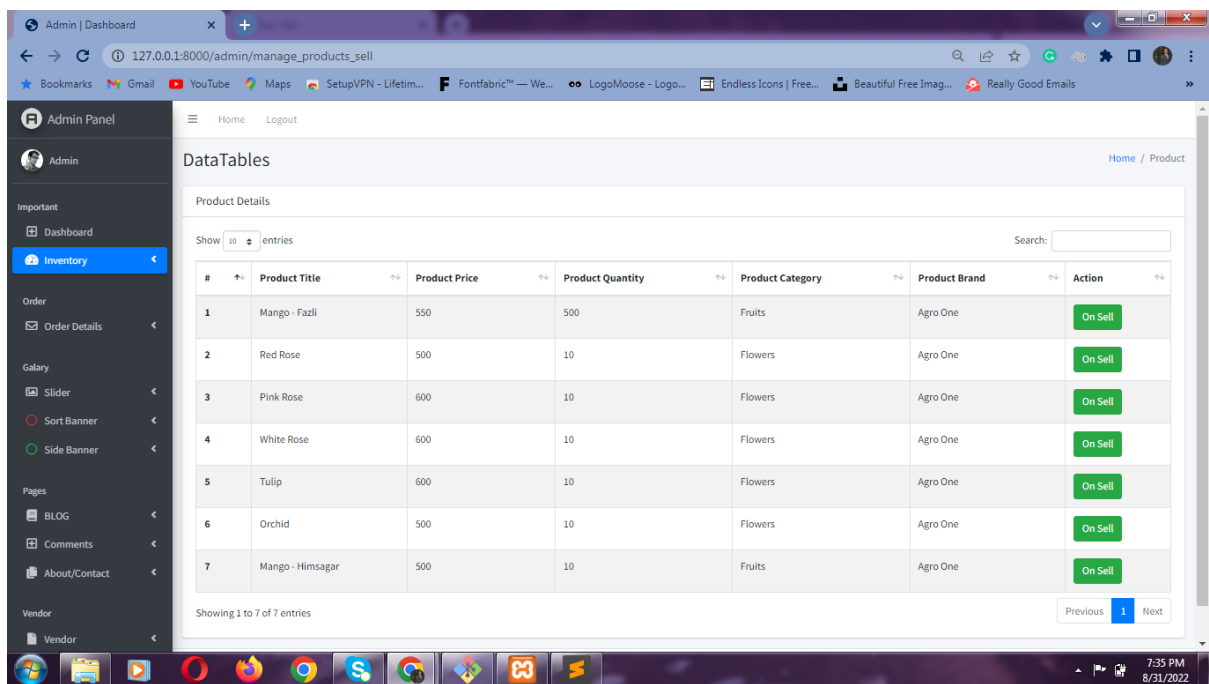


Figure 17: Products Table on Sale

Add/Update Categories:

The screenshot shows the 'category Create' form in the Admin Panel. The form is titled 'Validation' and has a blue header bar that says 'category Create Give the details'. The form fields are:

- Name:** A text input field with the placeholder 'Enter Category name'.
- Description:** A large text area for the category description.
- Parent Category:** A dropdown menu with the placeholder 'Choose a Category'.
- Category Image:** A file upload field with the placeholder 'Choose File' and the text 'No file chosen'.

A 'Submit' button is located at the bottom of the form. The left sidebar shows the 'Inventory' menu item selected.

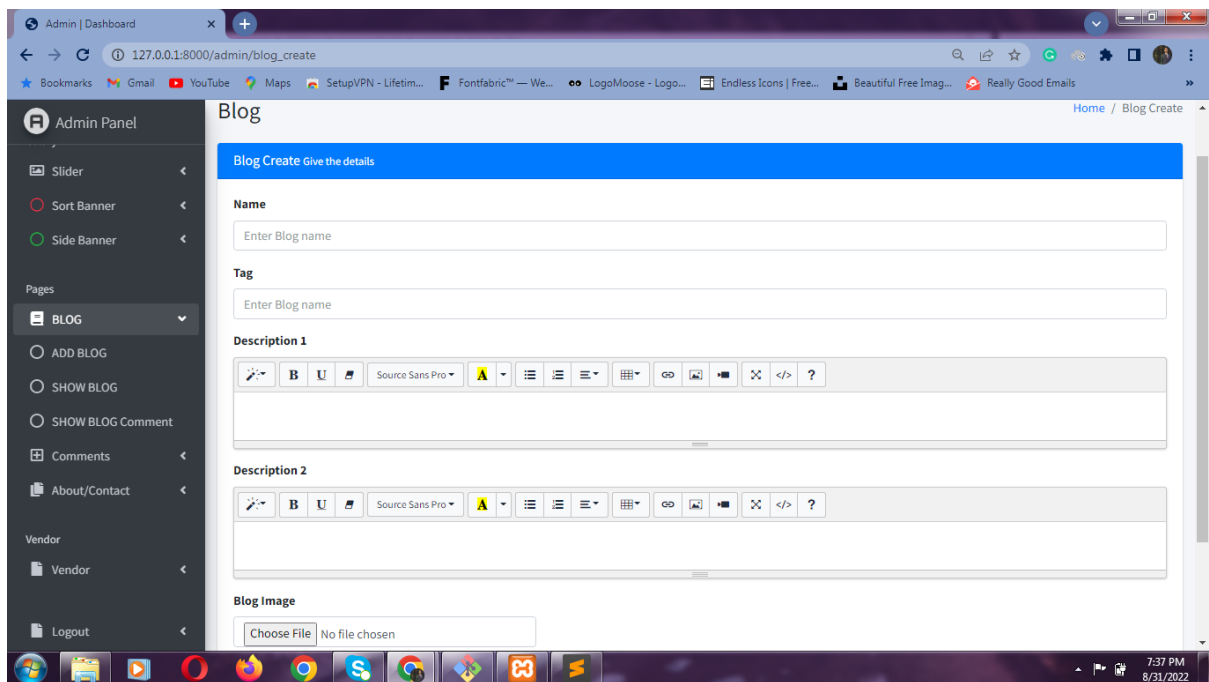
Figure 18: Add Categories

The screenshot shows the 'DataTables' view in the Admin Panel. The table displays a list of categories with the following columns: #, Category Name, Category Description, and Active. The 'Active' column contains green buttons labeled 'ON Single Category'. The table is titled 'Product Details' and has a search bar and a 'Show 10 entries' dropdown. The left sidebar shows the 'Inventory' menu item selected.

#	Category Name	Category Description	Active
1	Natural Oil	natural oil	ON Single Category
2	Rice Items	rice items!	ON Single Category
3	Vegetables	vegetables	ON Single Category
4	Meats	Meats	ON Single Category
5	Dairy Products	Dairy Products	ON Single Category
6	Fruits	Fruits!!!!	ON Single Category
7	Flowers	Flowers!!!	ON Single Category

Figure 19: Edit/Update Categories

Add Blogs:



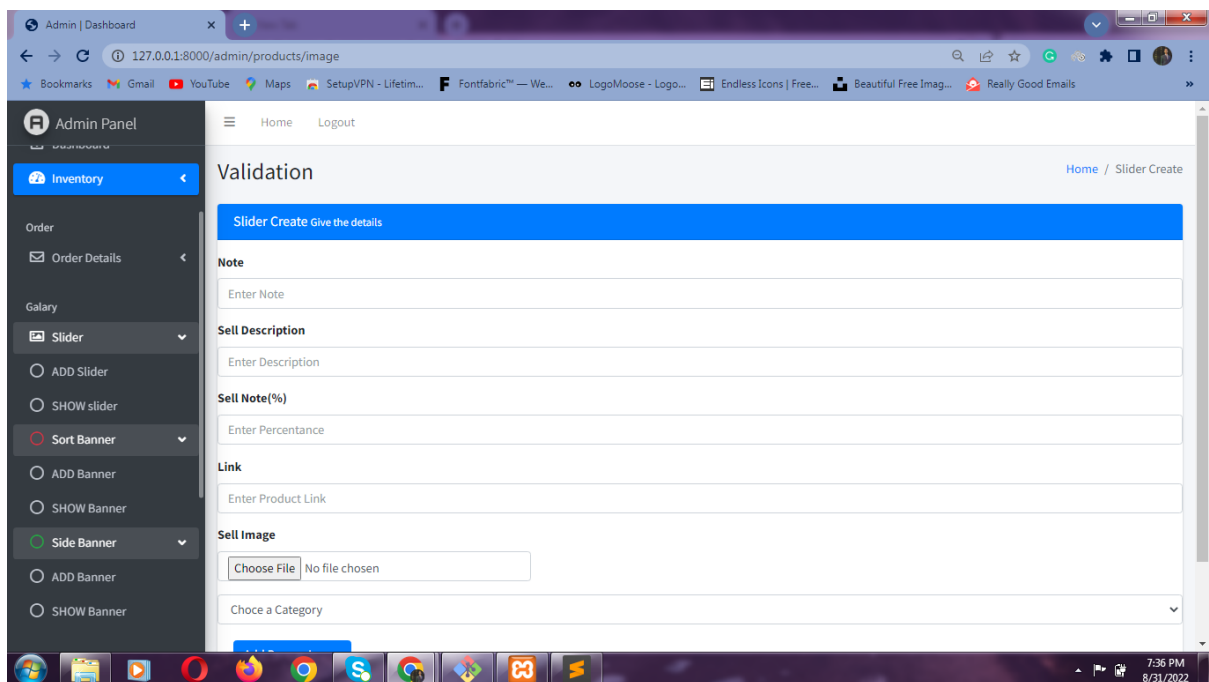
The screenshot shows the 'Blog Create' form in the Admin Panel. The form is titled 'Blog Create Give the details' and is located at the URL '127.0.0.1:8000/admin/blog_create'. The form includes the following fields:

- Name:** A text input field with the placeholder 'Enter Blog name'.
- Tag:** A text input field with the placeholder 'Enter Blog name'.
- Description 1:** A rich text editor with a toolbar containing icons for bold, italic, underline, link, unlink, list, and table. The text area is empty.
- Description 2:** A rich text editor with a toolbar containing icons for bold, italic, underline, link, unlink, list, and table. The text area is empty.
- Blog Image:** A file upload field with a 'Choose File' button and the text 'No file chosen'.

The Admin Panel sidebar on the left shows the 'BLOG' menu item selected under the 'Pages' section. The sidebar also includes options for 'Slider', 'Sort Banner', 'Side Banner', 'Comments', 'About/Contact', 'Vendor', and 'Logout'.

Figure 20: Add Blogs/Edit Blogs

Add Slider/Banner:



The screenshot shows the 'Slider Create' form in the Admin Panel. The form is titled 'Slider Create Give the details' and is located at the URL '127.0.0.1:8000/admin/products/image'. The form includes the following fields:

- Note:** A text input field with the placeholder 'Enter Note'.
- Sell Description:** A text input field with the placeholder 'Enter Description'.
- Sell Note(%):** A text input field with the placeholder 'Enter Percentance'.
- Link:** A text input field with the placeholder 'Enter Product Link'.
- Sell Image:** A file upload field with a 'Choose File' button and the text 'No file chosen'.
- Choose a Category:** A dropdown menu.

The Admin Panel sidebar on the left shows the 'Slider' menu item selected under the 'Inventory' section. The sidebar also includes options for 'Order', 'Order Details', 'Gallery', 'Sort Banner', 'Side Banner', 'ADD Banner', 'SHOW Banner', and 'Logout'.

Figure 21: Add Slider/Banner

Add Vendor/Farmer:

Admin | Dashboard

127.0.0.1:8000/admin/vendor/create

Admin Panel

Home Logout

Vendor Info

Home / Vendor Create

Vendor Create Give the details

Shop Name

Enter Shop name

Email

Enter Email

Password

Enter Password

Vendor Image

Choose File No file chosen

Add vendor

Copyright © TEAM AIUB . All rights reserved. Version 1.1.0-pre

Figure 22: Add Vendor/Farmer

Admin | Dashboard

127.0.0.1:8000/admin/vendor/show

Admin Panel

Admin

Important

Dashboard

Inventory

Order

Order Details

Gallery

Slider

Sort Banner

Side Banner

Pages

BLOG

Comments

DataTables

Home Vendor

Vendor Details

Show 10 entries Search:

#	Shop Name	Customer Email	Shop Image	Action	Action
1	DEMO VENDOR 5	demovendor5@example.com	product	Edit	Delete
2	DEMO VENDOR 4	demovendor4@example.com	product	Edit	Delete
3	DEMO VENDOR 3	admin@example.com	product	Edit	Delete
4	DEMO VENDOR 2	demovendor2@example.com	product	Edit	Delete
5	DEMO VENDOR 1	demovendor1@example.com	product	Edit	Delete

Showing 1 to 5 of 5 entries

Previous 1 Next

Figure 23: Update Vendor/Farmer

Cart & Checkout:

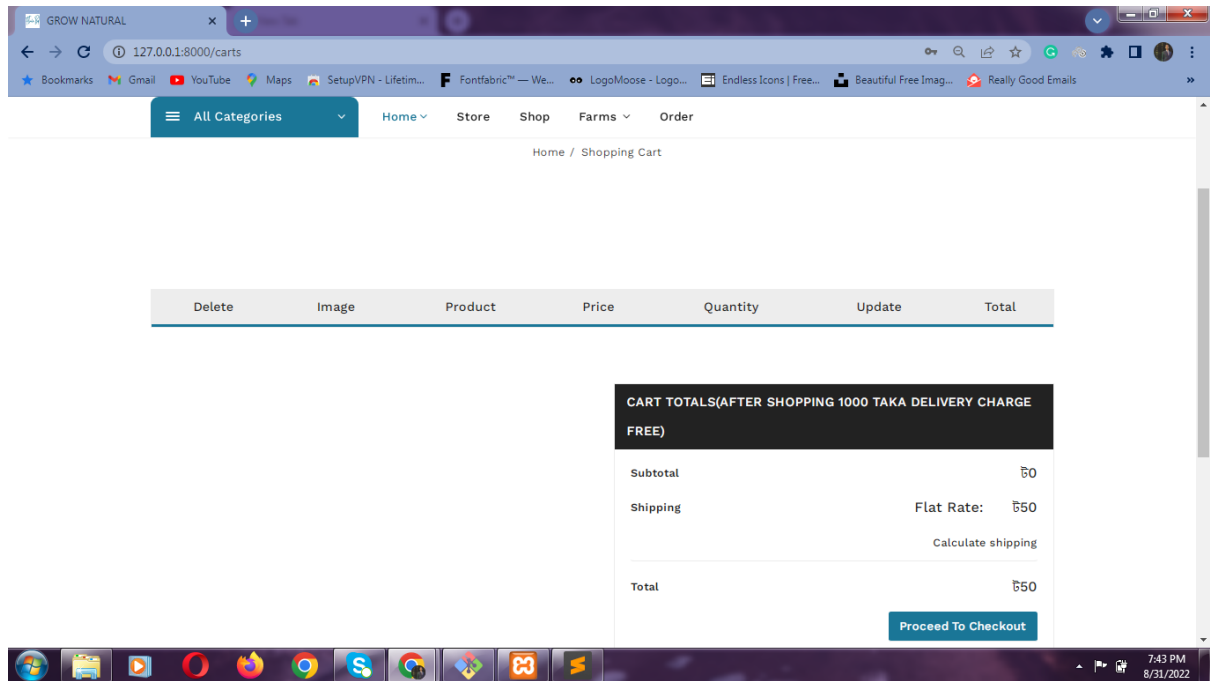


Figure 24: Cart (View)

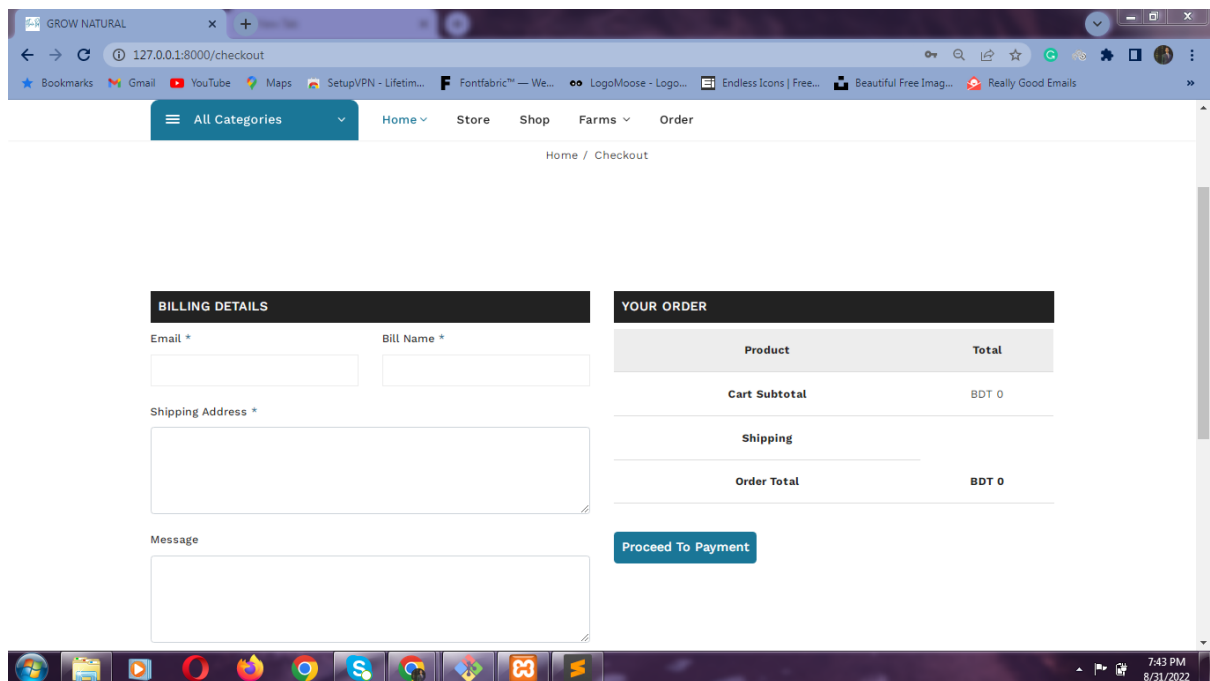


Figure 25: Checkout (from Cart)

Footer & Subscriptions:

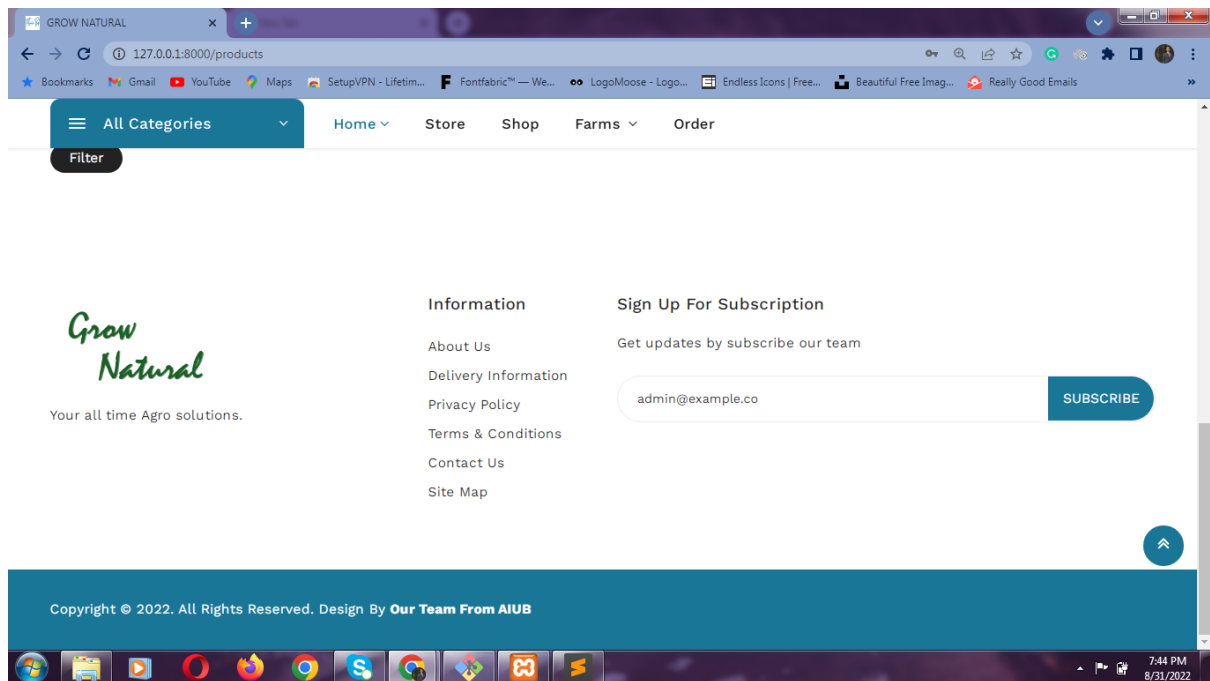


Figure 26: Footer & Subscriptions

CHAPTER 4: SOFTWARE PROJECT MANAGEMENT PLAN

4.1 Document History and Distribution

The agricultural scout website is an E commerce website. This is a friendly and responsive website for customer to place their orders for various agricultural products. In the present people are so preoccupied with their various occupations that purchasing agricultural products and items have become a scheduling difficulty. This website has made purchasing easier and comfortable. Consumers can easily order their desired products and complete their payments via online banking. They can also get advices and suggestions from the experts present in the website. In this way people can be updated with the latest updates of products and other materials they need. The farmers in the website can post information and pictures about their products to attract consumers. The admin keeps a total track of the entire website and handles all operations taking place. Thus, the agricultural website has played a pivot role and enhanced all techniques making it an easier business for farmers and the consumers.

4.1.1 Revision History

Table 7: Document revision History

Revision #	Revision Date	Description of Change	Author
01	February 25 th , 2022	Primary Phage	Diya Rahman
02	February 29 th , 2022	Yes	Diya Rahman

These versions will show up there and also on its service work good.

4.1.2 Distribution

Table 8: Document Handover

Recipient Name	Recipient Organization	Distribution Method
TANVIR AHMED	AIUB	Hard Copy, Soft Copy
TANVIR AHMED	AIUB	Hard Copy, Soft Copy

Soft copy and Hard copy Distributed copy mention on the table.

4.2 Overview

4.2.1 Purpose, Objectives and Project Scope

The requirements of the agricultural website are illustrated in detail in this document. Both functional and non-functional requirements are described in a thorough manner. The project/ website is developed after a proper study of the requirement specification paper of the given project. The team's final project must meet the document's specifications.

4.2.2 Project Scope

- The establishment of an agricultural website will make it easier for users to acquire all of the latest product information and suggestions of the experts.
- This system makes the administrative work easy and hassle free ordering process.
- The website provides many options in a single system, making ordering, selling, and payment methods easier.

4.2.3 Assumptions and Constraints

The assumptions made during the development of the project:

- The entire development team has not worked on a full project before. Therefore there is comparatively less experience.
- Additional resources like actors/people, capital/money are not available for the project development.
- The development of the project was done in a relatively short amount of time with some minor compromises.

4.3 Project Deliverables

4.3.1 The list of project deliverables is:

- Statement of Work (SOW)
- Software Requirements Specification (SRS)
- Software Project Management plan (SPMP)
- Software Design Plan (SDP)
- Design drawing
- Design review

4.3.2 Schedule and Budget Summary

Table 9: Project Deliverable Schedule

Schedule	
Milestone or Major Project Deliverable	Planned Completion Date(Day)
SOW	March 4 th , 2022
SRS	March 24 th , 2022
SPMP	March 29 th , 2022
SDP	April 5 th , 2022
Soft testing plan	April 8 th , 2022
Presentation & project progress	April 14 th , 2022
Technical documentation	With completed product
Software evaluation report	Along with final submission

4.4 Evolution of the Software Project Management Plan

The preliminary draft papers of the complete Software Project Management plan is to be submitted to the project manager for a cross check and approval. After the approval is done, the copies of the same documents will be distributed among the other team members.

4.4.1 Definitions

Table 10: Project Management Terms and Description

Terms	Description
1 SOW	Statement of Work
1 SRS	Software Requirement Specification
1 SPMP	Software Project Management Plan
1 SDP	Software Design Plan
1 SQATP	Software Quality Assurance and Testing Plan
1 Impact	1-catastrophic

	2-critical
	3-marginal
	4-negligible

4.5 Project Organization

There are 3 major structures in which a Project organization depends on. They are as follows:

4.5.1 External Interfaces

The system user's relationship will be in charge of the developer's team's formal interface with the customer contact. Any necessary engagement will be handled by anyone on the team, but all conversations with the user will be meticulously documented. All requests for services or modifications to configuration items must be submitted in writing and authorized by the project's Configuration Control Board (CCB), which includes all team members.

4.5.2 Internal Structure

There are four developers working on this project. Each team member is assigned specific responsibilities, and everyone contributes equally to the project. Because there are four people working, each member will be holding multiple roles. Throughout the project's life cycle, each team member will switch positions and everyone will therefore continue to serve in all capacities.

4.5.3 Roles and Responsibilities

The making of the complete documentation and completion of the work are to be handled by the software developers.

4.6 Managerial Process Plans

4.6.1 Project Start-up Plan

The resources and materials required to start the project are described in this section. There will not be any principle descriptions since most of the information was previously defined.

4.6.2 Estimation Plan

As previously stated in that, the total development time is estimated to be 6 days and the total internal cost to be BDT. These figures were obtained by expert judgment by analogy, that is, by comparison with similar projects.

4.6.3 Staffing Plan

As a part of the project, each member should work for at least 8 hours per day. Document preparation and inspection, tool development and meetings with the team and supervisor will take place during this time.

4.6.4 Resource Acquisition Plan

- As already stated that all resources will be available at the start of the project, there should not be any considerable changes over time. After the completion of the documentation, the technical writer will make necessary changes.
- There might be changes in the team member's roles according to the project needs.

4.6.5 Project Staff Training Plan

There is no need for an additional training staff.

4.7 Work Plan

Work Activities and Schedule Allocation are as follows:

4.7.1 Budget Allocation

Table 11: Whole Software Budget Allocation

Description	Cost	
	One time	Every Year
Online Hosting	7,000 BDT	7,000 BDT
Hosting Set up	16,000 BDT	
Software Development	1,25,000 BDT	
Maintenance		25,000 BDT
Total	1,48,000 BDT	32,000 BDT

4.8 Control Plan

4.8.1 Requirements Control Plan

When changes to the requirements are needed after the Software Requirement Specification has been published, the changes must be brought to the developers' notice and addressed. Any changes will only be done with the supervisor's agreement and only if they are practical and allowed within the project's restrictions and resources in terms of developer knowledge and expertise. After the changes to the Software Requirement Specification document have been made, an updated version of the Software Requirement Specification document will be released and distributed.

4.8.2 Schedule Control Plan

A project schedule is a valuable tool that helps project managers describe the start and finish times for each individual work that is part of a project, resulting in a graphical depiction of how long the project will take.

4.8.3 Budget Control Plan

The process of creating a budget and then using it to manage a company's operations is known as budgetary planning. To reduce the chances that an organization's financial results will be less than ideal, budgeting is done.

4.8.4 Quality Control Plan

A quality plan is a document (or set of documents) that outlines the quality standards, processes, resources, needs, and sequence of actions for a specific product, service, project, or contract.

4.8.5 Reporting Plan

A basic task of project reporting is the development of periodical project reports on the project's progress in terms of content, timeline, and expenses. The goal is to create condensed current information as a basis for decision-making for a specific target group.

4.8.6 Metrics Collection Plan

By definition, a metric is any type of measurement that is used to assess a quantifiable aspect of performance. A metric can be derived from directly observable data, such as faults per thousand lines of code or a cost performance index, or it can be collected by observation, such as the number of days late or the number of software bugs identified.

4.9 Risk Management Plan

Table 12: Whole Software Risk Management Plan

Risks	Probability	Impact	Rating	RMMM
Project Manager Availability	60%	3	Medium	R-1
Schedule slips	70%	1	High	R-2
System goes hour	70%	3	Medium	R-3
Project cancelled	30%	4	Low	R-4
False feature rich	30%	2	Low	R-5
Programmers doesn't have good experience	30%	3	Medium	R-6
Late delivery	40%	3	Medium	R-7
Customer Participation in Beta Testing	30%	4	Low	R-8

4.10 Closeout Plan

The following will occur at the end of the project:

- A final hard copy file which includes all documents, source code, plans, tests generated by the team will be made by the developer team.
- To ensure the safety and backup of the whole project, the developer team will upload all files in the cloud.
- They can also transfer a copy of the project file to a HDD or pen-drive.

4.11 Technical process plans

The Technical Planning Process is a process for defining the technical effort required to design, field, and maintain a system, as well as providing essential quantitative inputs to program planning and life-cycle cost estimates. Technical planning gives the program office a framework for carrying out the technical activities that raise product maturity and knowledge while lowering technical risks.

4.12 Process Model

Due to the short project length, the XP (extreme Programming) agile process model will be used for project implementation.

4.13 Methods, Tools and Techniques

The project converts the system to a PC using a desktop program and MySQL as the database management system. Adobe Photoshop and other similar programs might be used as well.

4.14 Infrastructure Plan

Intel Atom 4 Personal Computers running Windows 10 or newer are the hardware resources. Sublime Text, Adobe Photoshop, XAMPP, and other software resources are used. LARAVEL framework is also used in this project.

4.15 Product Acceptance Plan

The project manager will formally accept each project milestone by signing proper acceptance documentation. The project manager will conduct an acceptance test at the end of each phase. This could lead to more demands for changes and enhancements. The project manager will conduct acceptance testing on the final product/application.

4.16 Supporting Process Plans

The strategies for the supporting process that are a part of the software project will be included in the SPMP. Configuration management plans, verification and validation, software documentation, quality assurance, reviews and audits, problem resolution and subcontractor management will be elementary parts of the plan.

4.17 Configuration Management Plan

Every project deliverable should be viewed as a configuration item. The configuration item and associated file will be titled after the document, such as SOW or SRS, and will include the version number. All preliminary versions submitted to the project manager for approval, for example, would be given the acronym followed by 0.1, 0.2. This baseline document will be version 1.0 and issued to project members after the project manager accepts the basic SPMP. The project manager's informal updates will be numbered 1.1, 1.2, and so on, while the committee's next comprehensive delivery will be version 2.0, etc.

4.18 Verification and Validation Plan

This project's Software Project Management Plan must include the software project's verification and validation plan, as well as tools, techniques, and responsibilities for the verification and validation work activities. The verification and validation strategy will be kept separate from the rest of the document and will be updated as needed.

4.19 Documentation Plan

Before their baseline versions are released and sent to the members of the committee on the required dates, all of the papers will be discussed and evaluated with the project manager. For all documentation needs, IEEE standards would be followed.

4.20 Quality Assurance Plan

The project manager will check and keep a track of the project. He will also maintain it. He will also assure and maintain the quality of the project work.

4.21 Reviews and Audits Plan

The Software Quality Assurance and Verification & Validation Plan, which would be designed in accordance with suggested departmental standards, would include review and audits.

4.22 Problem Resolution Plan

There is no specific plan but the project manager and the developer settles all the problems informally. However, if the necessity for such a plan emerges, the Software Project Management Plan will be revised accordingly.

4.23 Subcontractor Management Plans

There is no structure in place for managing subcontractors who may provide work products for the software project.

4.24 Process Improvement Plan

The project will be regularly kept track of by the project manager and he will advise the developers if any kind of adjustments, modifications are required after the development.

4.25 Test Case

Table 13: Software Test Case

Test Case no.	Action Description	Expected Results	Actual Results	Pass/Fail	Comments
TC_101	Open the software.	There will be two boxes for taking the input, one for the username and another for the password. There will also be a show button and a login button.		Passed	The item passed
TC_102	If “Login” button is clicked without giving any username and password.	An “Error” message will pop-up.		Passed	The item passed
TC_103	If “Login” button is clicked after giving only username without any password	An “Error” pop up will be shown, showing “Invalid Password”.		Passed	The item passed
TC_104	If the “Show” button is clicked after giving the username and password.	After clicking on the “Show” button the encrypted input will be shown.		Passed	The item passed
TC_105	After a successful login to the consumer form.	The consumer can perform their operations after entering into their dashboards. They can add products to their cart from the shop, update or remove them from the cart. After adding items to the cart they can see the total price and place their orders. After the consumers are done with all their desired operations, they can logout from the		Passed	The item passed

		website.			
TC_106	Click on "Home page"	The consumer can choose anything among pages, shop, cart, help and support, contact; edit profile to perform his/her operations.		Passed	The test case passed
TC_107	Click on "Pages"	This will allow the consumers to take a look at our farmers. The page will contain information and pictures about our farmers.		Passed	The item passed
TC_108	Click on "shop"	Customers can add, modify or remove items from their cart in this area. And they can confirm their payments and place their orders.		Passed	The item passed
TC_19	Click on "Help and support"	The consumers can clear all their doubts by asking questions to the experts.		Passed	The item passed
TC_110	Click on "Logout"	The consumer can logout from their dashboard.		Passed	The test case passed
TC_111	After successful login to the farmer form.	aFarmer can perform operation after logging in.		Passed	The item passed

TC_112	Clicking on “Shop” Button.	Farmers can add sell. They can sell items like rooftop plants, balcony plants etc. all the selling information will be stored in the database.		Passed	The item passed
TC_113	Clicking on the “Logout” button.	All the operations will be saved and the farmer can logout from the website.		Passed	The item passed
TC_114	Clicking on the “Logout” button	The admin can logout of the website after the operations are complete.		Passed	The test case passed

Reference:

1. Acharya, S.S. 2001. Domestic Agricultural Marketing Policies, Incentives and Integration. In S.S. Acharya and D.P. Chaudhri. Indian Agricultural Policy at the Crossroads: Priorities and Agenda. Rawat Publications, Jaipur and New Delhi.
2. Agarwal, B. 1994. A Field of One's Own. Cambridge University Press. Cambridge, 572 pp.
3. Bhalla, G.S. 2001. Political Economy of Indian Development in the 20th Century: India's Road to Freedom and Growth. Presidential Address. 83rd Annual Conference of Indian Economic Association, University of Jammu, Jammu.
4. Birthal S., Pratap, A.K., Ravishankar, A. and Pandey, U.K. 1999. Sources of Growth in the Livestock Sector. Policy Paper 9. National Centre for Agricultural Economics and Policy Research (ICAR), New Delhi.
5. Chand, R. and Jha, D. 2001. Trade Liberalisation, Agricultural Prices and Social Welfare. In S.S. Acharya and D.P. Chaudhri. Indian Agricultural Policy at the Crossroads: Priorities and Agenda. Rawat Publications, Jaipur and New Delhi.
6. Chaudhri, D.P. 2000. Basic Human Rights, Core Labour Standards and Relative Educational Deprivation of Youth in Modern Indian States. V.V. Giri Memorial Lecture. 41st Annual Conference of the Indian Society of Labor Economics, Mumbai. The Indian Journal of Labor Economics. 43 (1): 35-58.
7. Fan, S, Hazell, P, and Thorat, S. 1999. Linkages Between Government Spending, Growth, and Poverty in Rural India. Research Report 110. IFPRI, Washington, D.C.
8. FAO, 2000. The State of Food Insecurity in the World, 2000. FAO, Rome.
9. FAO, 2001. Total Factor Productivity Trends for Crops in Selected States of India. A Study at the FAO Regional Office for Asia and the Pacific (RAP), Bangkok.
10. Jha, D. 2001. Agriculture Research and Small Farmers. Presidential Address. 60th Annual Conference of Indian Society of Agricultural Economics. Institute for Studies in Population, Agricultural and Rural Change, University of Kalyani, Kalyani.
11. Kumar, P. 1998. Food Demand and Supply Projections for India. Agricultural Economics Policy Paper 98-01. New Delhi: Indian Agricultural Research Institute, New Delhi.
12. Kumar, P. and Mittal, S. 2000. Agricultural Performance and Productivity. Final Report ICAR-ACIAR Collaborative Project on Equity Driven Trade and Marketing Policies and Strategies for Indian Agriculture. Division of Agricultural Economics, Indian Agricultural Research Institute, New Delhi.