

A Report on
Online Plant Selling Website

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CERTIFICATE

This is certify that Md Masum Rana, Al Mahmud Siam and Hasi Rani Roy submit this project work entitled “Online Plant Selling Website” is carried out in partial fulfillment for the award of the degree of bachelor of science (engineering) in computer science and engineering. This is a record of their own work carried out by them under of supervision and guidance.

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Acknowledgment

We would like to express our thanks of gratitude to Md. Nahid Sultan, Assistant Professor, department of computer science and engineering who gave us a golden opportunity to do this project and also provided support in completing in our project. His heartiest & kind Cooperation during our project work makes the dream real & we succeed to complete our project.

While we were preparing this project file, various information that we found helped us in chapter of profile adding and we are glad that we were able to complete this project and understand many things. Through preparation of Online Plant Selling website was an immense learning experience and we inculcated many personal qualities during this process like responsibility, punctuality, confidence and others.

We would like to thank to our supervisor who supported us all the time, cleared our doubts and to our parents who also played a big role in finalization of our project file. We are taking this opportunity to acknowledge their support and we wish that they keep supporting us like this in the future.

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Once again, we would like to thank our classmates and friends also for their encouragement and help in designing and making our project creative. We are in debt of all these. Only because of them we were able to create our project and make it good and enjoyable experience.

Abstract

The main objective of the project is to create an online plant selling website that allows users to search and purchase a plant online based on plant's name. The users can order their plants online through credit card payment. Using this website the user can purchase a plant online instead of going out to a nursery and wasting time. There are many online plant selling website like Trees.com, Amazon Plants, Bloomscape.com, Patch Plants which were designed using Html. We developed a similar website using PHP, HTML, JavaScript and MySQL. Through a web browser the customers can search for a plant by its name, later can add to the shopping cart and finally purchase using mobile banking transaction. The user can login using his/her account details or new customers can set up an account very quickly. They should give the details of their name, contact number. The plants are divided into many categories based on flower plants, fruits plants, Bonsai plants etc. A customer can, create, sign in to his/her account, place items into a shopping cart and purchase using his/her mobile banking details.

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Chapter 1

Introduction

1.1 INTRODUCTION

In the world of software development there lots of improvement in the area of Architectural design and principles. The philosophies and implementation details are changing as the people guiding the development of the application. In this fantastic and yet sometimes complex world of software development there are some tried and true architecture patterns and software development guidelines employed by most architects. Also your design must have an ability to turn towards innovation instead of lending itself to common practices. Web services are one such area where architects must lean on their creative side and hope that their solutions are still successful. In this report we will explain an exciting voyage down the road of Web services application. From requirements to use cases, to database design, to component frameworks, to user interfaces, we will cover each and every aspect of system design required to build an application with collaborative Web services. The reason why we selected online Plant selling web service is everybody walking down the street has some idea about plant stores. The objective of this project is to develop an e-plant store where plants can be bought from the comfort of home through the Internet. An online plant selling web is a virtual store on the Internet where customers can browse the catalog and select plants of interest. The selected plants may be collected in a shopping cart. At checkout time, the items in the shopping cart will be presented as an order. At that time, more information will be needed to complete the transaction. Usually, the customer will be asked to fill or select a billing address, a shipping address, a shipping option, and payment information such as credit card number. An e- mail notification is sent to the customer as soon as the order is placed.

The motivation to create this project has many sources

- Interest to develop a good user friendly website with many online transactions using a Database.
- To increase my knowledge horizon in technologies like PHP, SQL, CSS, and HTML.
- To gain good experience in web before joining in a full time job.
- To gain expertise using Data Set, Data Table and Data Readers.

1.2 PROBLEM STATEMENT

This project aims to develop an online shopping for customers with the goal so that it is very easy to buy loved things from an extensive number of online buying sites available on the web.

The customer simply requires a PC or a laptop and one important payment sending option to buy online. To get to this online buying system, all the customers will need to have an email and password to login and proceed to their buying. Upon successful login, the customer can purchase a wide range of plants. The customer will pick their favorite plants from the online plant store sites. They do not need to go physical shops, instead just need a computer and a payment making options like net banking, credit card or debit card. If an order has not yet been shipped out to the customer, the customer may cancel it. The system cancels the order with the publishers or returns the plants to them in the occurrence of a cancellation.

1.3 OBJECTIVE

1.3.1 Main Objective

An online plant selling project that serves as a central database for all of the plants in stock, as well as their name, and price. The goal of this project is to create a website that serves as a central plant store. This website was built with php on the front end and SQL on the back end. Various plant-related details are stored in the SQL database. A user visiting the website will find a wide selection of plants organized by category. The user can choose a plant and see its price. The user can even utilize the website to look for certain plants. After the user chooses a plant, he/she must fill out a form before the plant is booked for the user.

Customers may buy for plants online using a web browser thanks to the Online Plant Selling Project. A customer can create an account, log in, sort plants by category, add plants to a buying basket, and pay their bill using their credit card information. When compared to a regular user, the Administrator will have more options. He can edit plant categories, plant details, and member information, as well as confirm an order.

The following are the three main components of the software:

1. Implementation of a new user registration and login process.
2. Allow the user to select any plants.
3. Allow the user to purchase plants.

1.3.2 Specific Objectives

- To design an online plants selling management system.
- To analyze the problems in the existing system.
- To analyze the possible requirements for the new system.

1.4 PURPOSE AND SCOPE OF STUDY

1.4.1 Purpose

The purpose of an online shopping system would be to achieve the following goals:

- Create a web user interface for adding, viewing, and deleting records in different areas.
- Create a user interface for inputting computer details.
- Provide a user interface for changing computer and accessory details.
- Provide a user interface that allows users to browse the store and select things to purchase.

1.4.2 Scope

The main scope deliverables of the project would be to:

- Analyze and develop detailed specifications and requirements
- Prepare high-level and detailed system design specifications
- Prepare a test plan as well as test cases.
- Develop the system and write the code.
- Unit, integration, and system testing should all be performed.
- Demonstrate a bug-free application after making any necessary changes

Chapter 2

Literature Review

2.1 INTRODUCTION

When we use Google to search for educational websites and applications, we will find a lot of options. However, there is some ambiguity in selecting suitable content at the proper time. Some websites have been developed that contain stories, novels, essays, and other types of content. Electronic Commerce (e-commerce) applications allow multiple parties involved in a commerce transaction to connect in order to shop for new, rare, plants. Review of literature for an online plant selling website. The prototype serves as a roadmap for establishing a solid Online Plant Ordering System based on user feedback, notably from the perspective of their choice.

According to a software development firm, an e-catalogue delivers vital information about product specifications to potential customers. It makes it easier for potential customers to find the items they want in the format they want. The system is described as self-updatable in a few simple clicks, with the content in the e-catalogue always being accurate and, best of all. Furthermore, the e-catalogue promotes the products on its own, with greater interactivity, consumer personalization, and even a shopping cart for inquiries.

Trees.com, Amazon Plants, Bloomscape.com, Patch Plants are few of the most popular online shopping sites that employ an e-catalogue to display their products. The website lists the many types of plants that are available. The plant cover can be found on the left side of the main frame, as well as the plant description, which includes information such as the name, price, and number of volumes left to be sold, as well as customer ratings.

But in this above existing systems, there is no returning system. If a customer wants to return their purchasing plants, he can't do this. Besides there is no mobile banking system for transaction. If a customer has no credit card, he can't buy plants. In our proposed system we overcome this problem.

Chapter 3

Requirement Analysis

3.1 INTRODUCTION

The Online Plant Selling Project is an essential component for those people who are very fancy. In order to design and develop an efficient and user-friendly plant store system, it is crucial to conduct a comprehensive requirement analysis. This analysis serves as a foundation for understanding the needs, objectives, and constraints of the project, ensuring that the final system meets the expectations of both buyers & sellers.

3.2 FEASIBILITY STUDY

Feasibility studies inform the decision of whether or not to go ahead with a more detailed analysis.

3.2.1 Technical Feasibility

- To make our web application, the required tools both software and hardware are available
- This system is developed to make work easier. This web application is working efficiently both in terms of time and space.
- As technologies are advancing day by day, future update is a very important issue to modern software development era. Our application is also eligible to be updated.

3.2.2 Economic Feasibility

- All of our group members have personal computers with enough processing power to develop this application. So, no economic issue to install new hardware.
- We basically used open-source software as well as for some software we have used our university email to get access.
- As there was no economic barrier, cost to develop this web application is in capability.

3.2.3 Operational Feasibility

- As our system is developed as a web application, all types of devices like desktop PC, laptop, iOS phones, tablets etc. can use it with perfect responsiveness.
- Operating our system is super easy. Any person who has basic idea to visit websites, can operate our web application also.
- User interface and user experience are the two main factors we maintained during the development of our system. Its user interface is very understandable to find the features of our system easily.

3.3 REQUIREMENT ENGINEERING

Requirement engineering refers to the process of defining, documenting, and maintaining requirements in the engineering design process. Requirements Engineering Process consists of the following main activities:

- i. Requirement elicitation and analysis
- ii. Requirement specification
- iii. Requirement validation

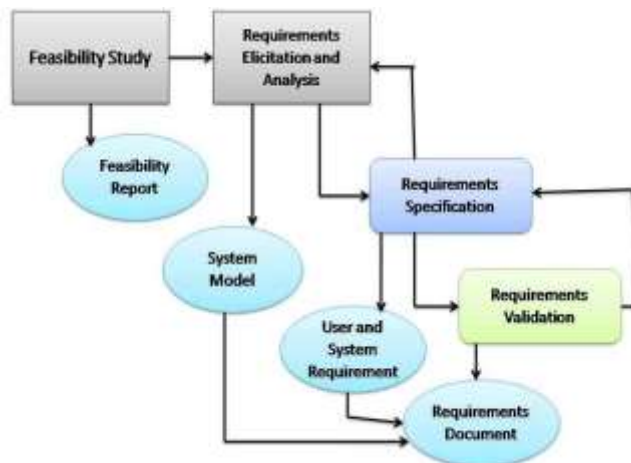


Figure 1: Requirement Engineering Process

3.3.1 Requirements Elicitation and Analysis

This is the process of deriving the system requirements through observation of existing systems, discussions with potential users and task analysis and so on. The techniques used for requirements elicitation include interviewing, task card, prototyping, and etc.

3.3.2 Requirements specification

Requirements specification is the activity of translating the information gathered during requirements analysis into a document that defines a set of requirements. Two types of requirements may be included in this document. User requirements are abstract statements of the system requirements for the customer and end-user of the system. System requirements are a more detailed description of the functionality to be provided. The models used at this stage include ER diagrams.

The Functional requirements of Plant Store System are listed below:

- There will be an option for buyer login.
- The buyers will be able to see his/her desired fee for buying plants.
- There will a smart payment system which will include important payment sites like Card.
- Easy and secure transaction process.
- There will be an option to contact the admin body.
- There will be an admin window to view buyers state.

The Non Functional Requirement of Plant Store System are listed below:

- Security should be maintained.
- System should be robust.
- Maintainability should be followed.
- Responsive to any device.

3.3.3 Requirements validation

This activity checks the requirements for realism, consistency and completeness. During this process, errors in the requirements document are inevitably discovered. It must then be modified to correct these problems.

3.4 CONCLUSION

The requirement analysis phase of the Plant Selling Project plays a vital role in shaping the development of an efficient and user-centric system. By thoroughly understanding the needs and expectations of stakeholders, defining the functional and non-functional requirements, analyzing system interactions, and identifying constraints and risks, the project team can lay a solid foundation for the successful implementation of the system. This phase sets the stage for subsequent system design, development, and testing phases, ensuring the creation of a robust and user-friendly system that meets the evolving needs of sellers and buyers.

Chapter 4

Methodology

4.1 INTRODUCTION

In this chapter, we aim to provide an overview of the methodology, tools and technologies used in the development of “Plant Selling Website”. The purpose is to detail the various software development methods, tools, programming languages, frameworks, libraries, and other technologies that were utilized in the project. Our aim is to provide an understanding of the technology stack used and the reasons behind the choices made. The project “Plant Selling Website” is a software with many small modules. To meet the project requirements, we carefully selected and adopted a range of tools and technologies that would enable us to achieve our goals efficiently and effectively. This report will provide a detailed analysis of methods, each tool and technology used, its purpose, and how it was integrated into the project. After confirming that the application will be possible to develop financially and technically, we perform several actions to implement it. In the Plant Selling System application, we have two separate modules: Admin module and Buyer module. In the admin module, the administration can see all the buyers’ information who have enroll for buying trees. Additionally, admin can upload and update plants. The details of plants are specified according to the plant name and categories. In the buyer module, after signing in buyers will get the main page. By clicking the menu option plants information will be shown which also include plants related fee. By clicking the pay button buyers will get the payment option. If their bank account is credited with sufficient balance for enroll, then the enrollment process will complete successfully.

4.2 USE CASE DIAGRAM

A use case diagram is used to represent the dynamic behavior of a system. It encapsulates the system's functionality by incorporating use cases, actors, and their relationships. It models the tasks, services, and functions required by a system/subsystem of an application.

Use case diagram of Plant Store is shown below:

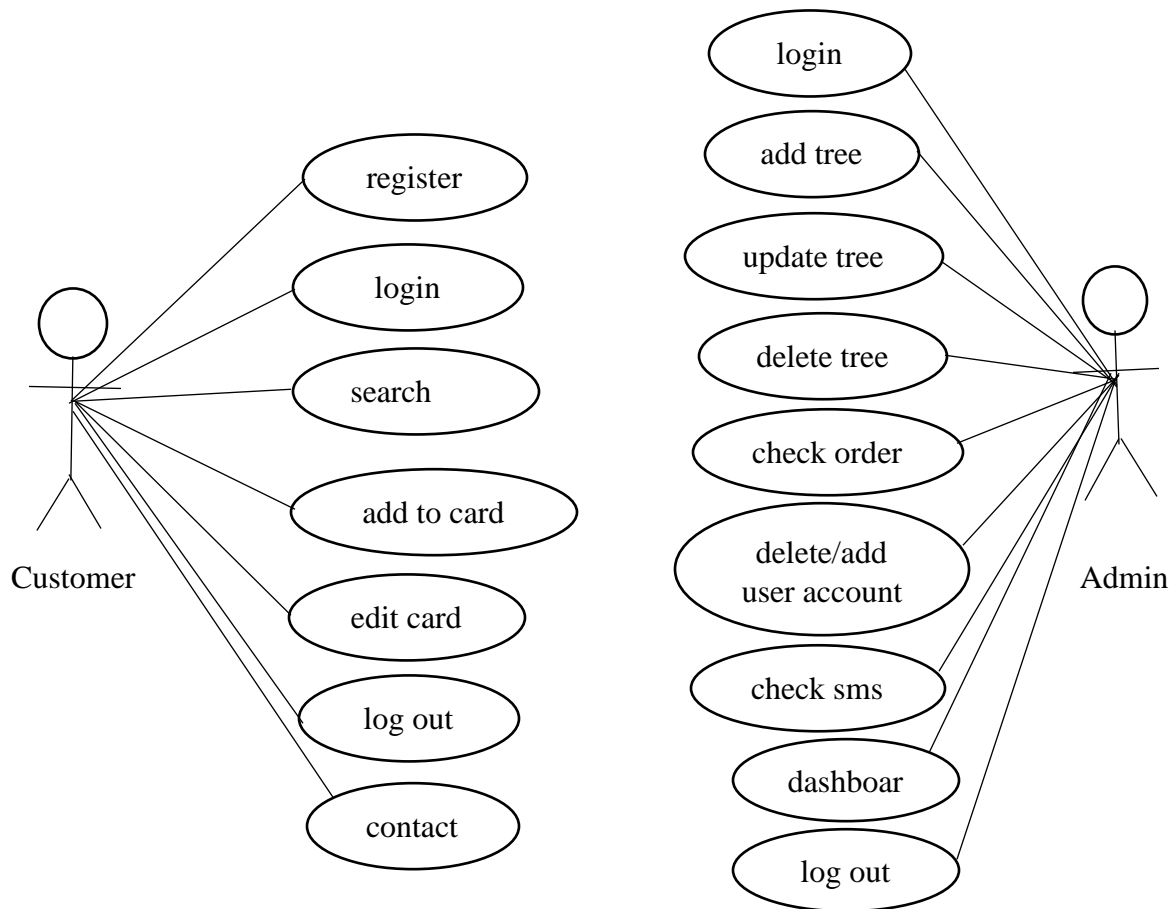


Figure 2: Use Case Diagram

4.3 ACTIVITY DIAGRAM

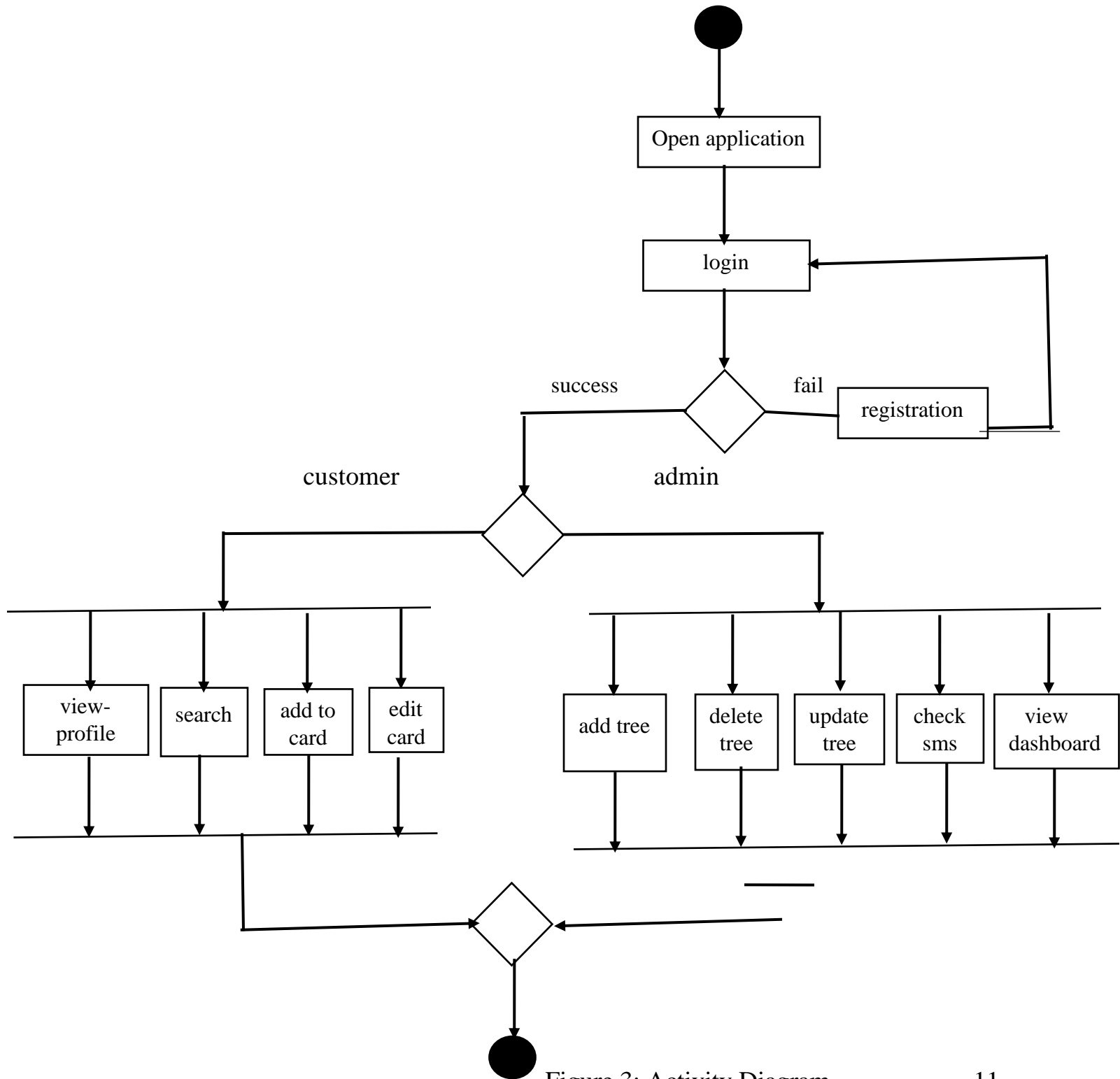
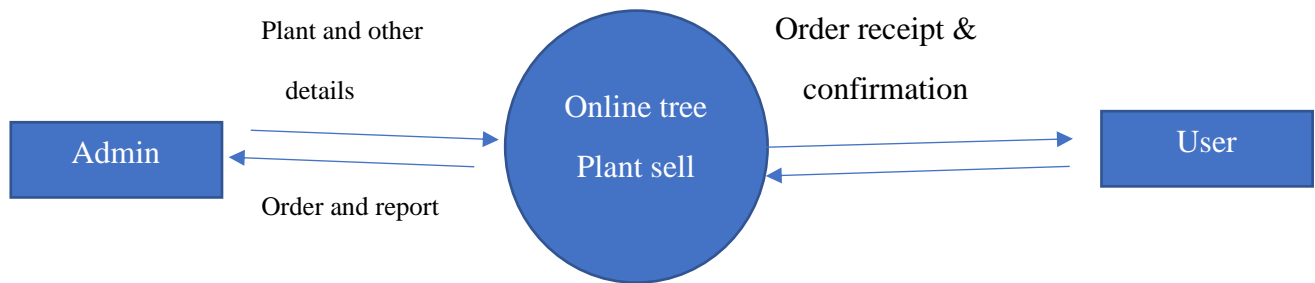


Figure 3: Activity Diagram

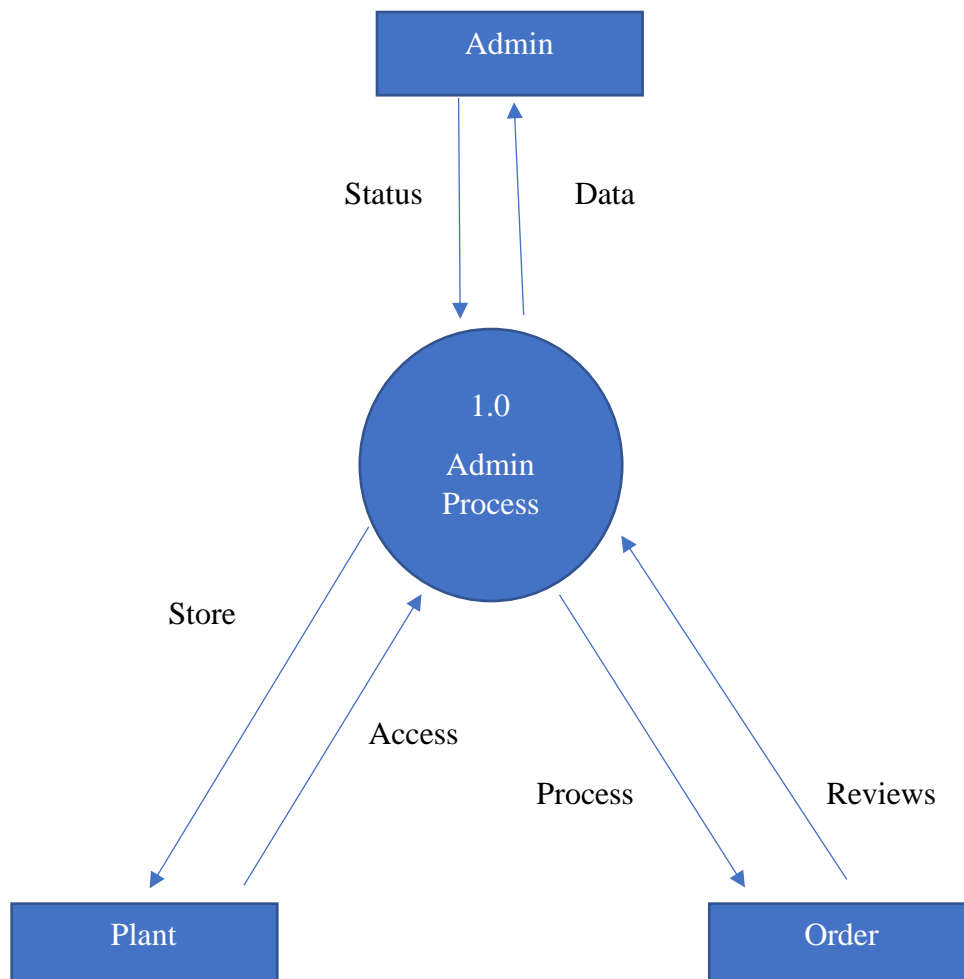
4.4 DATA FLOW DIAGRAM

A decomposition diagram illustrates a system's top-down functional decomposition and highlights its structure. The goal of the Functional Decomposition is to break down a system step by step, starting with the system's main function and progressing through the intermediate levels to the level of basic functions. More extensive process diagrams, such as Data Flow Diagrams (DFD) start with this diagram. Data Flow Diagrams illustrate the flow of data from external entities into the system, as well as from one process to the next.

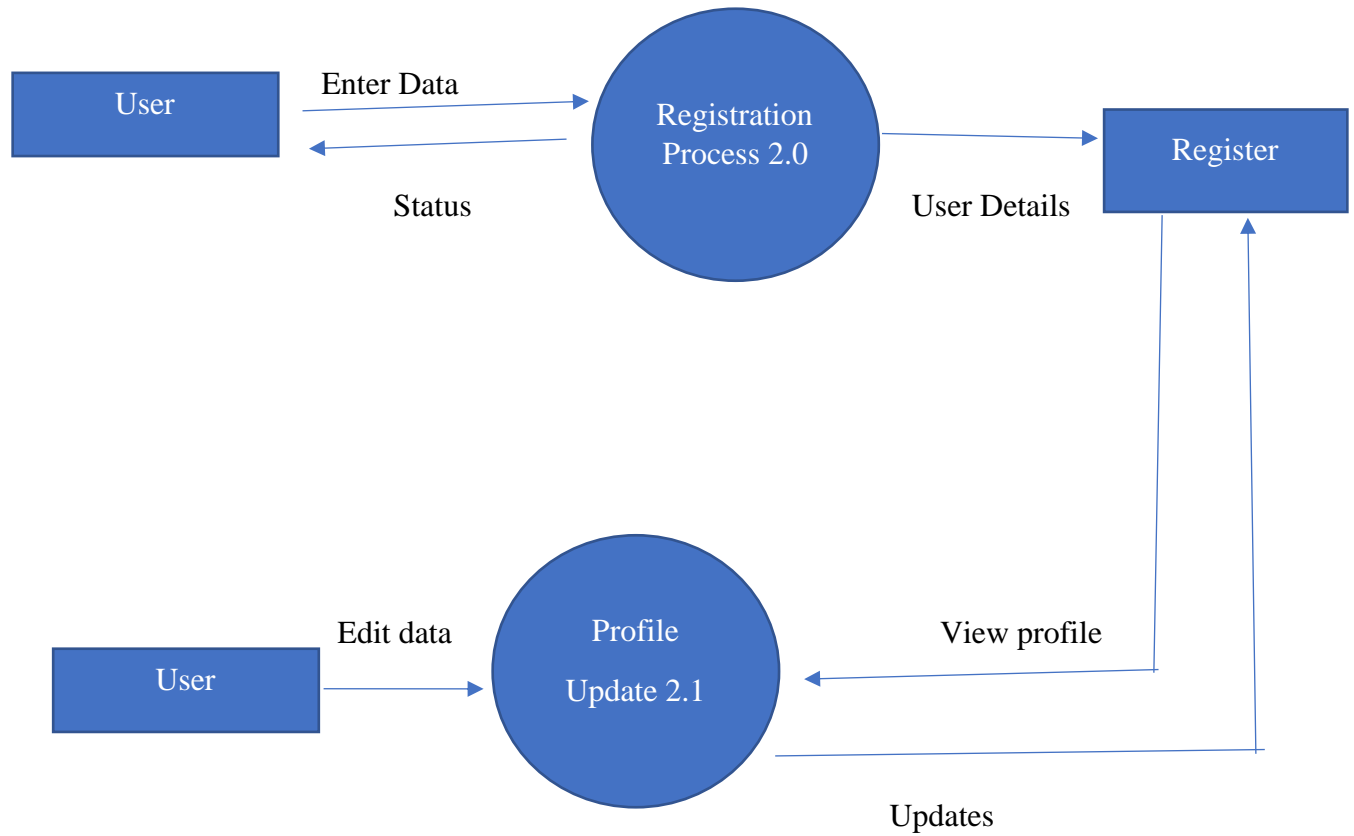
0-Level DFD:



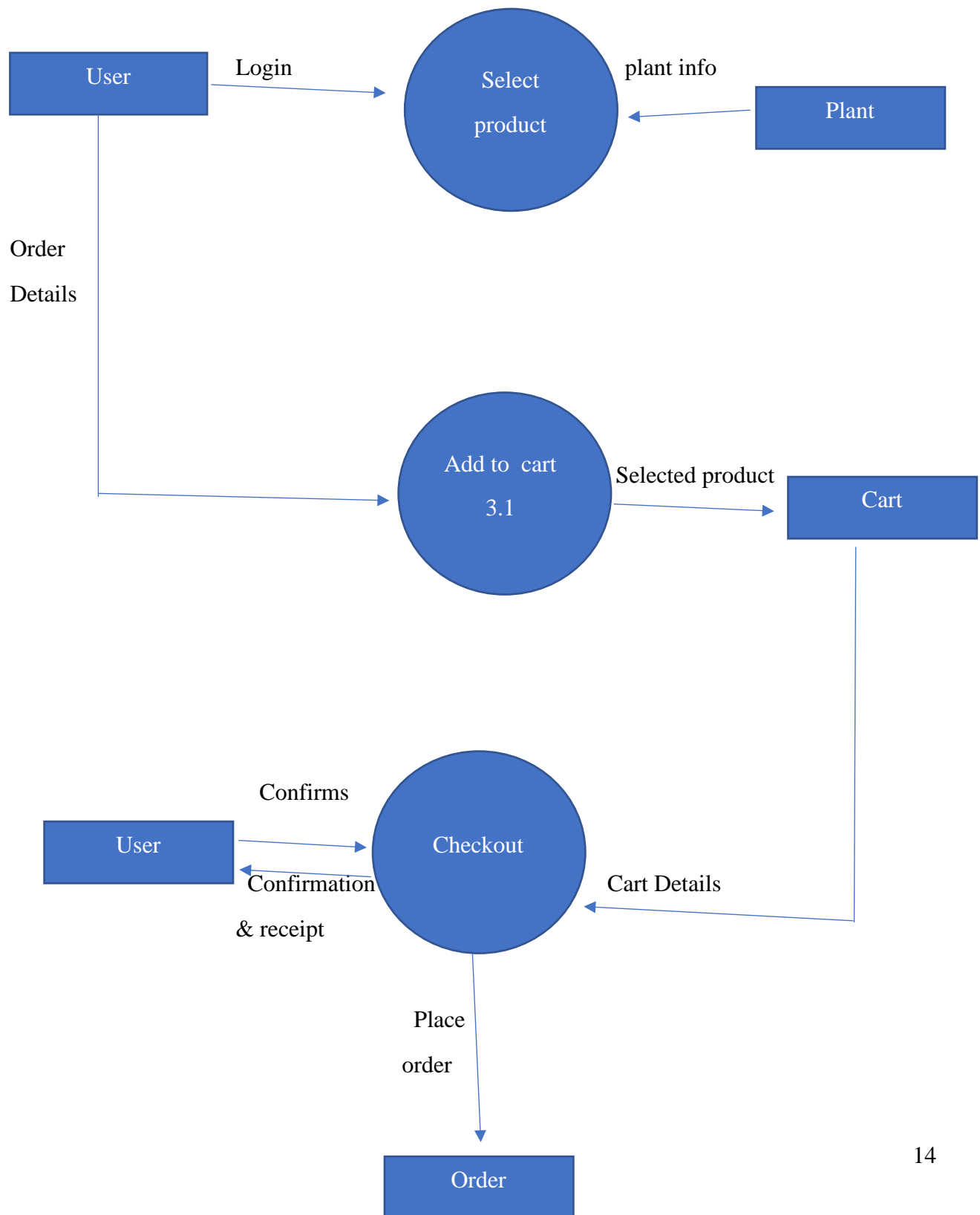
DFD for Admin Process:



DFD for User Registration and Profile Update:



DFD for Shopping and Checkout Process:



4.5 ENTITY RELATIONSHIP (ER) MODEL

The ER model uses a collection of entities and relationships among these entities. An Entity is an object in the real world that is distinguishable from other objects. The ER diagram of Online Plant Selling System is shown below:

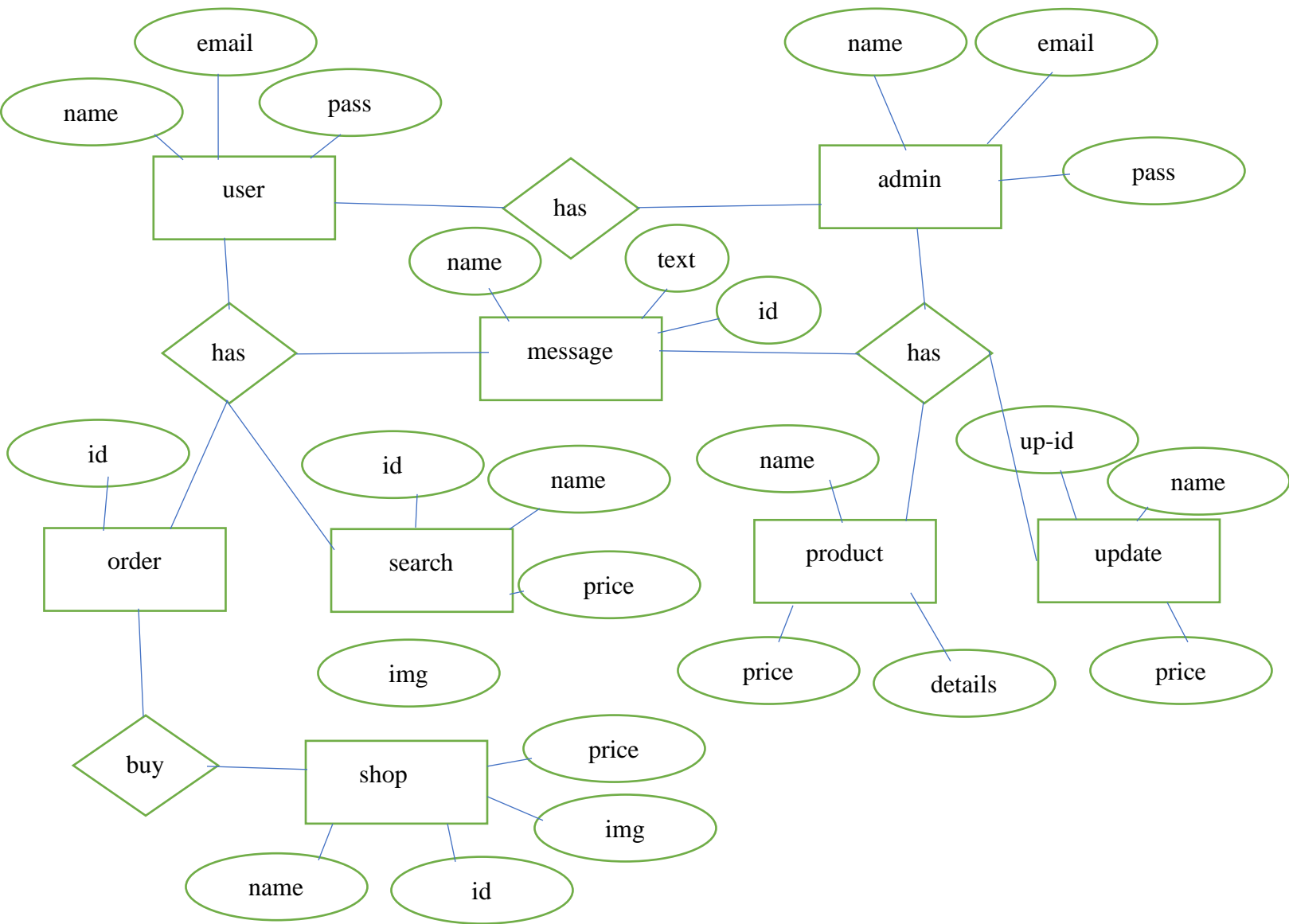


Figure 4: ER Diagram

4.6 SOFTWARE DEVELOPMENT MODEL SELECTION

There are several software developments models but for Smart Enrollment System we apply the concept of Incremental Model. Incremental Model is applied because with time new features will need to be added or existing features will need to be removed.

4.6.1 Incremental Model

Incremental development is based on the idea of developing an initial version of the system which incorporates some of the functionality that is needed by the customer. Generally, the early increments of the system include most important functionality. This means that the customer can evaluate the system at a relatively early stage to see if it delivers what is required. If not, then only the current increment has to be changed and possibly new functionality is defined for later increments until the required system has been developed.

Specification development and validation activities are interleaved rather than separated with rapid feedback across activities.

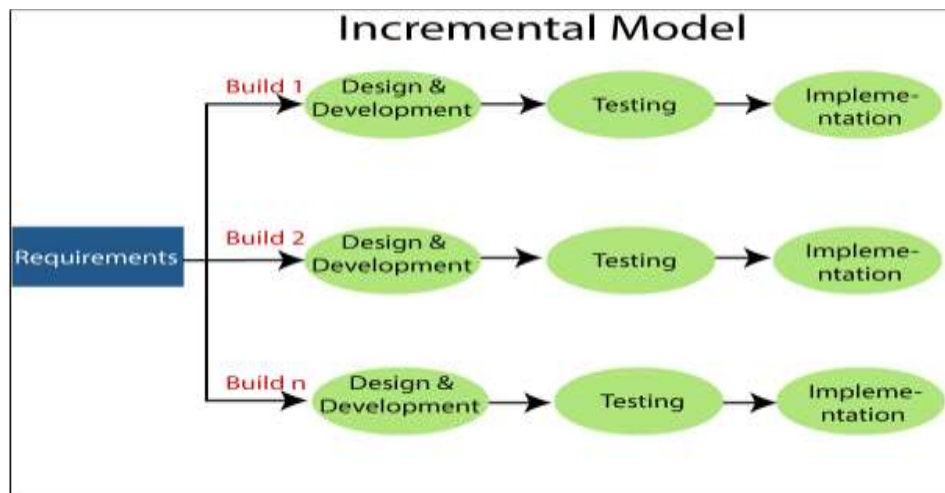


Figure 5: Incremental Software Development Model

4.7 AGILE SOFTWARE DEVELOPMENT METHODOLOGY

The development of agile methods in the late 1990s from the dissatisfaction with the disadvantages of plan-driven approach. Agile methods are designed to produce software quickly and meet changing requirements. It is based on the Incremental development approach software development.

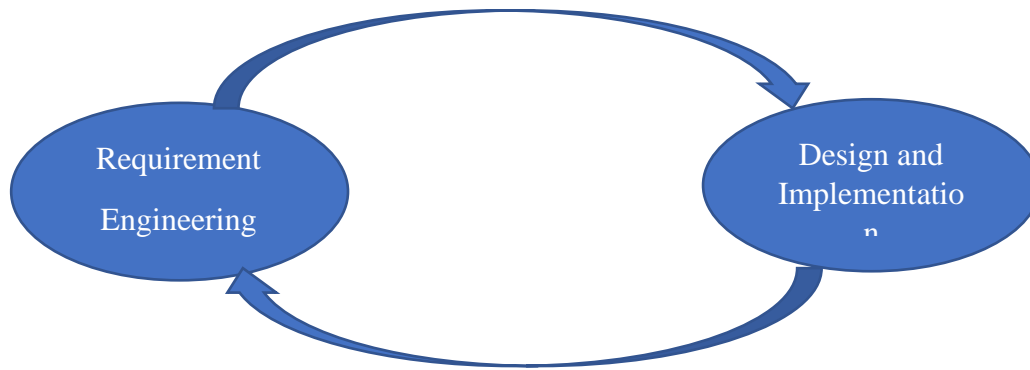


Figure 6: Agile Software Development Methodology

Agile methods to software development consider design and implementation to be the central in the software process. They incorporate other activities such as requirement elicitation and testing, into design and implementation. In agile methods, iteration occurs across activities. Therefore, the requirements and design are developed together rather than separately. Agile method is best suited to application development where the system requirements usually change rapidly during the development process. They are intended to deliver working software quickly to customers, who can then propose new and change requirements to be included in later increments of the system.

Chapter 5

Implementation And Evaluation

5.1 INTRODUCTION

The implementation phase entails the development of an executable program based on the design created during the design phase. Selecting programming languages, additional tools and technologies like as frameworks, selecting hardware platforms, and coding the system are some of the main activities carried out during this phase.

The system is evaluated against multiple factors such as functional and non-functional requirements in order to guarantee that it is working properly and meets all of its specified standards during the evaluation phase of the software development process. This chapter discusses the web-based system testing methodologies, test plan, and test cases, as well as test data and outputs and acceptance testing.

This chapter covers the application's implementation environment, the framework, the development tools used, the application's structure, and an explanation of the key code segments.

5.2 DEVELOPMENT TOOLS AND TECHNOLOGIES

- Visual Studio Code for coding.
- XAMPP for local host and server connectivity with MySQL database. Refer to appendix A.
- phpMyAdmin for database manipulation.

The Web-Based Book Store System was built using the following technologies:

- The web pages were developed using Visual Studio Code. The new features that were added in the new version are developed to increase the semantics of web pages. This is the most basic web-related language, and it assists in maintaining a clear and conscious system structure.
- The pages were styled with CSS3. It makes it possible to create a unified design for the entire system in an easy-to-manage manner.
- When developing the system, PHP was employed as the server-side object-oriented programming language.

- The application's database was implemented using MySQL.
- The client-side scripting was implemented with JavaScript. Especially for the form validation process on the client side. It is a scripting language that allows the system components to be continuously changed.
- JQuery was used to improve the JavaScript development process and to provide various effects on webpages.
- Bootstrap – It's a free framework for developing websites and online apps. It includes design templates that are based on HTML and CSS. With a single code base, Bootstrap easily and efficiently scales the application. Bootstrap speeds up and simplifies frontend web development.

5.3 SYSTEM TESTING

The planning of a testing phase is critical for both the development and completion of a system. The test plan should be able to test the overall system's functionality. By extensively testing a system, it is possible to identify and fix errors that occur as a result of the system. Multiple test scenarios were used to evaluate the implemented system. The test plan has continued to test the system units since the development began. Upon completing the system, it was thoroughly evaluated to determine whether it could execute as planned. As a result, this testing stage assisted in the early detection of errors. Following the system unit testing, integration testing was conducted, which allowed for the detection of errors.

To evaluate the functionality of the fully developed web-based application, system testing was performed as the final stage.

5.4 TESTING METHODS

In software engineering, a number of software testing methodologies and styles have been introduced to test various features of various systems. The major testing methodologies utilized widely in the software testing process are Black Box testing and White Box testing. In Black Box testing, the function is evaluated by comparing the output to the input without taking into account the inner structure of the function, whereas in White Box testing, each of the function's logical routes is evaluated while taking into account the inner structure of the function.

Various styles of testing were utilized at various stages of the web-based system's development. During the design phase, unit testing was performed on each individual function of each module to check that they were correct. Following the completion of unit testing, integration testing was performed to check that the functionality of the modules when they interacted with one another was correct. Following the conclusion of the integration testing, system testing was performed on the entire system to guarantee its reliability.

5.4.1 Purchase Module

The following table list a relevant test case for the Purchase Module.

5.5 TEST DATA AND RESULTS

Test data is a collection of information that is used in the testing process. When preparing test data, some of the requirements were carefully followed, such as collecting not only valid but also invalid datasets to cover all parts of the testing process and selecting the smallest data set possible to reduce extra complexity. In unit and integration testing, dummy datasets were utilized, but in Web-Based system testing, datasets retrieved from the current system were used. The test results generated during the execution of the test cases were also documented, which will come in handy for future review and maintenance.

5.6 ACCEPTANCE TESTING

After the system testing was completed, the users were chosen to reflect the WB's whole business operation. After that, all of the input was collected and analyzed, and slight changes were made in response to the users' requests.

User Acceptance Testing was entered into the developed system to begin testing. There were a few small changes that needed to be made to the system. The client tested the entire system by modifying the user's rights. Following the system's testing, it was requested that the system be tested with staff members. Under the instruction of the Administrators, they had tested the system by logging onto their user accounts. The admin pointed up a few minor changes that needed to be made. When they finished their session, they expressed satisfaction with the system. All of the users who recommended minor changes after completing the user acceptance testing gave a positive response. Rather of continuing to use the old way, the client indicated that the newly designed system would allow the business to operate more efficiently and smoothly.

Chapter 6

Result and Discussion

6.1 INTRODUCTION

The results and discussion phase of the Online Plants Selling Web is a crucial step in evaluating the effectiveness and impact of the implemented course enrollment system. This phase involves analyzing the system's performance, gathering feedback from stakeholders and users, and conducting discussions to identify strengths, weaknesses, and areas for improvement. The outcomes of this phase provide valuable insights for further enhancements and optimizations of the system.

The results and discussion phase focuses on assessing the course enrollment system's performance, usability, and overall user satisfaction. It involves collecting data, conducting surveys, and engaging in discussions with stakeholders and end-users to gain insights into their experiences with the system. This phase aims to identify the achievements of the project, as well as any challenges or issues that need to be addressed.

Key Objectives:

1. **Evaluating System Performance:** The results and discussion phase involves analyzing the performance of the Online Plants Selling Web against predefined metrics and objectives. This includes assessing factors such as system response time, reliability, scalability, and availability. By measuring and evaluating these performance indicators, the project team can identify areas where the system excels and areas that require improvement.

2. **Gathering User Feedback:** Feedback from stakeholders and end-users is invaluable in understanding their perspectives and experiences with the course enrollment system. Surveys, interviews, and user feedback sessions are conducted to collect qualitative and quantitative data regarding system usability, efficiency, and overall user satisfaction. This feedback helps in identifying areas where the system meets user expectations and areas that need attention or enhancement.

3. **Identifying Strengths and Weaknesses:** Through the analysis of system performance and user feedback, strengths and weaknesses of the course enrollment system can be identified. This includes recognizing features or functionalities that are well received and deliver positive outcomes, as well as areas that may require further development or refinement. Understanding these strengths and weaknesses guides future enhancements and improvements to optimize the system's performance.

4. **Discussing Areas for Improvement:** The results and discussion phase provides a platform for stakeholders and the project team to engage in discussions about the course enrollment system.

These discussions focus on addressing identified weaknesses or challenges and brainstorming solutions to improve the system. It is essential to involve all relevant parties to ensure that perspectives from different stakeholders are considered and potential improvements are thoroughly evaluated.

6.2 OVERVIEW OF COURSE ENROLLMENT SYSTEM

6.2.1 Register and Login Interface

The system registers and login page, which is part of the developed system, is the primary interface for logging into the system. Both pages are the initial interface a user encounters in any computerized system. As a result, by properly designing and managing errors, the user might develop a positive attitude toward the rest of the system. The main register and login interface for Web-Based Plant Store System is shown in Figure 6 and 7.



Figure 7: Registration Interface



Figure 8: Login Interface

6.2.2 Administration Home Page

Figure 8 shows the home page of the administrator's account. The final output was developed based on the research into other similar web-based system interfaces. It displays the user's basic information, including login history. Web-Based Plant Store System Admin page is shown in Figure 8.

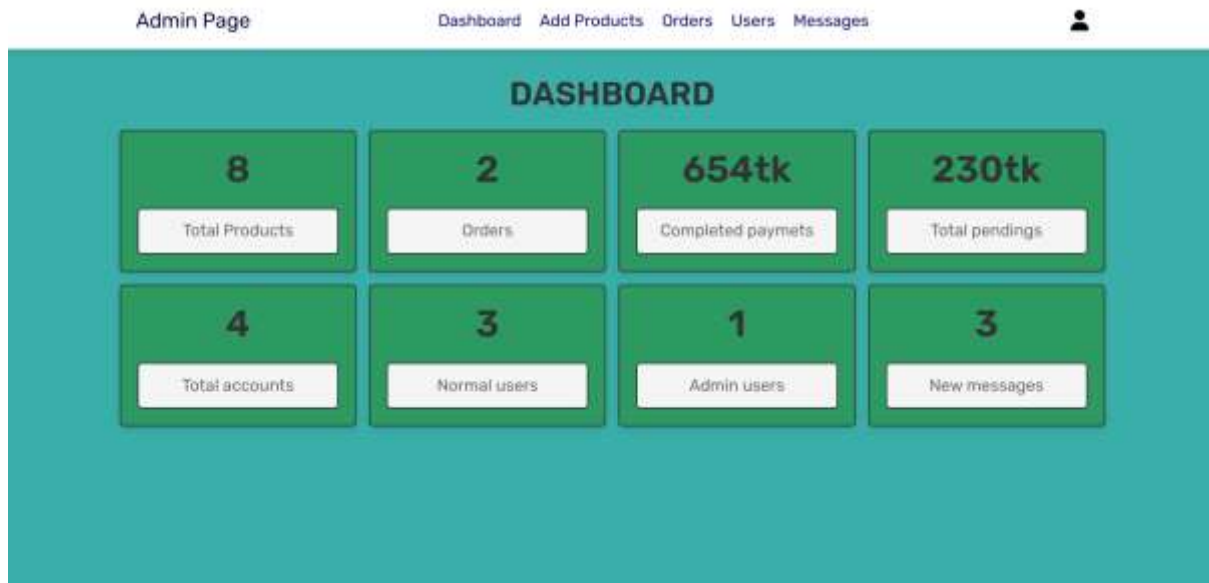


Figure 9: Admin Home Page

6.2.3 User Home Page

Since first impressions can influence how many people perceive your company, the web homepage is typically the first opportunity to hook a potential customer. The homepage of the website should be well-designed because it is the anchor that ties the rest of the website together.

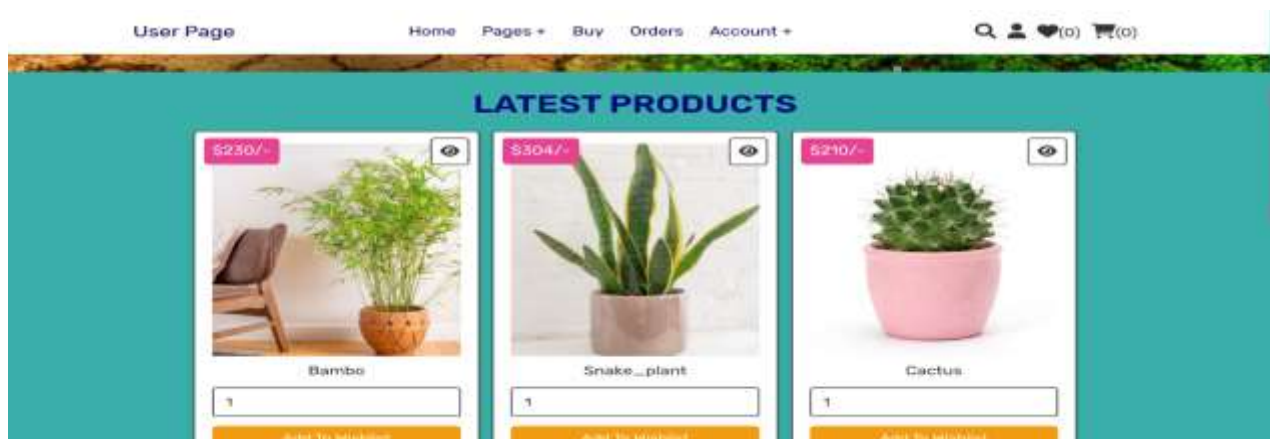


Figure 10: User Home Page

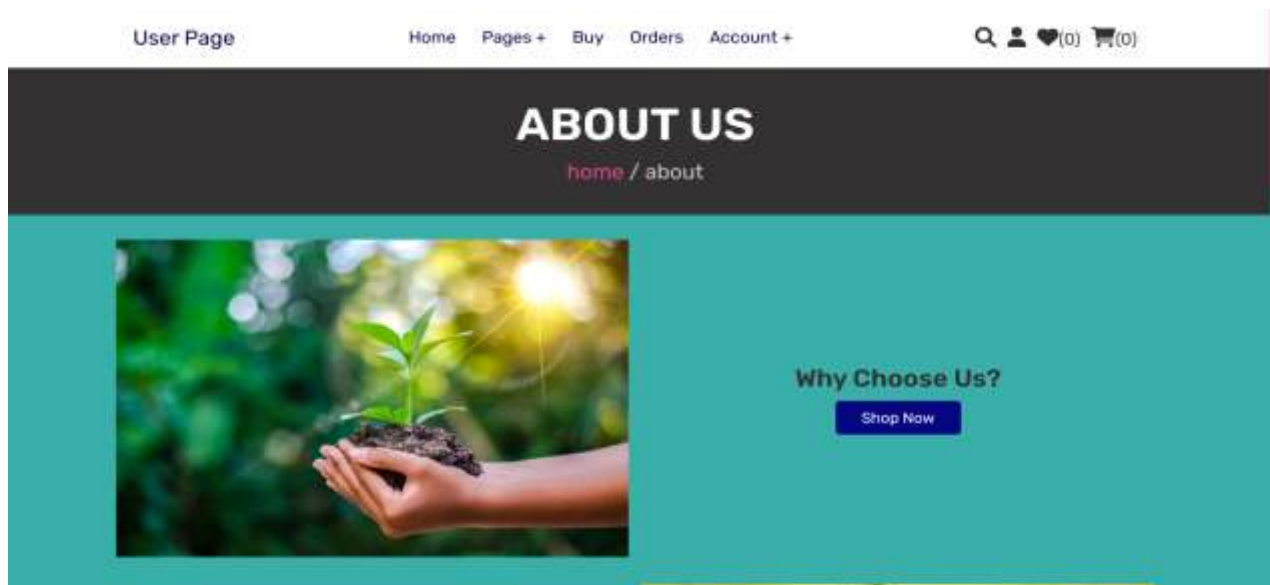


Figure 11: User Home Page

6.2.4 Shopping Cart Page

The aim of this program is to give users with an online store where they would purchase plants from the comfort of their own homes. For this purpose, a shopping cart is implemented. The customer can choose the plants they want, add them to their shopping cart, and pay for them with a debit or credit card. The user's order will be shipped based on the delivery method selected at the time of purchase. Figure 11 illustrate the main shopping cart page.

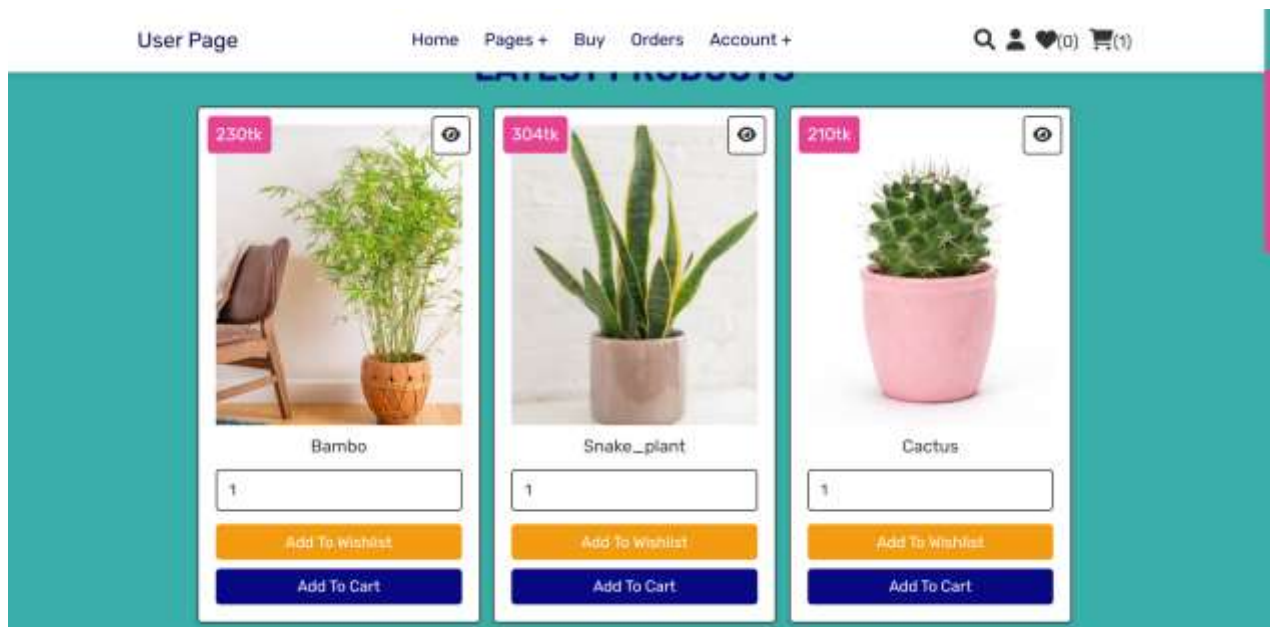
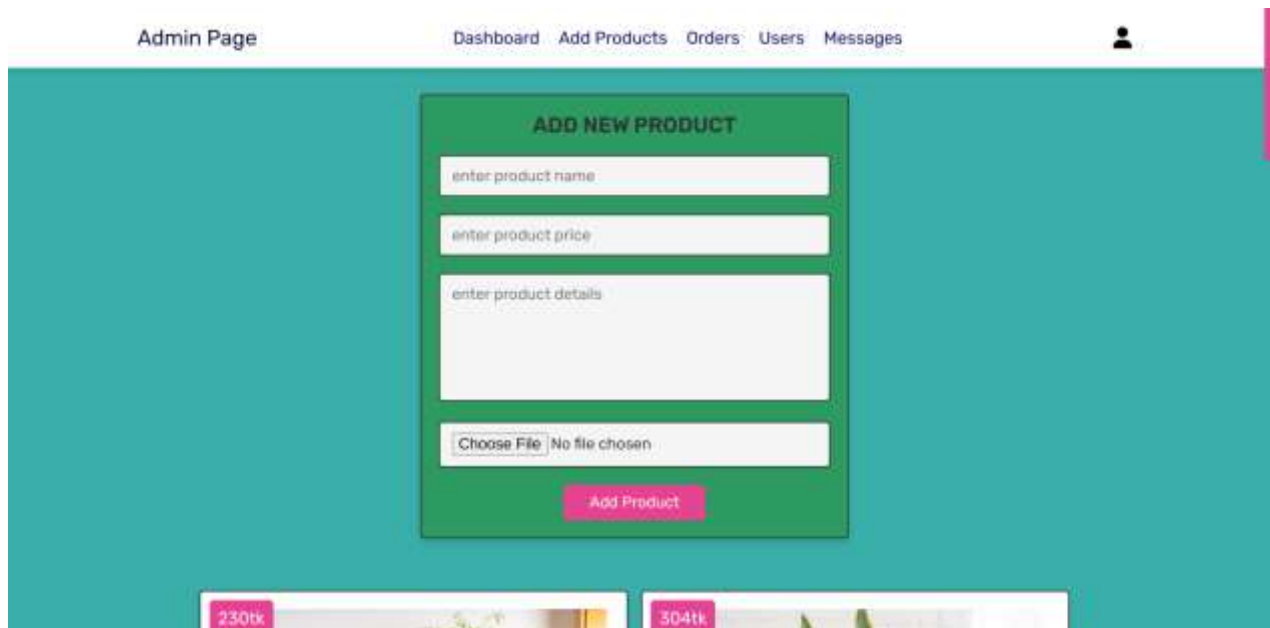


Figure 12: Shopping Cart Page

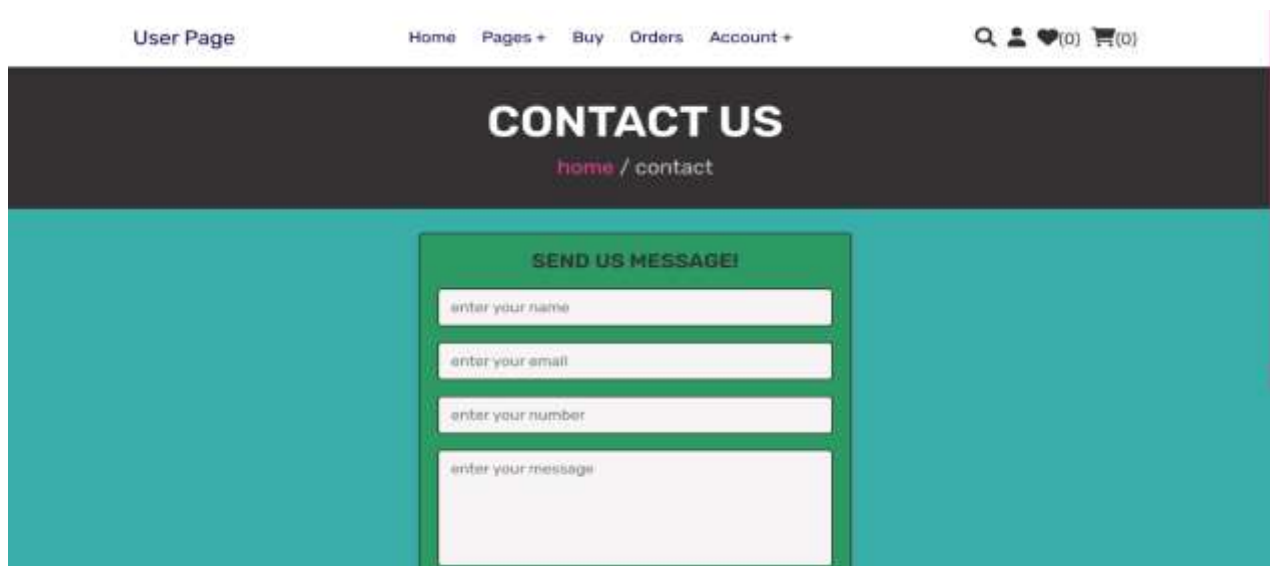
6.2.5 Forms

The forms shown in Figure 11 are used to add new products to the system, send a message to admin, and checkout products. Depending on the type of data to be entered, different form elements have been chosen. Error warnings are also designed to keep data input mistakes to a minimum.



The image shows the 'Admin Page' interface. At the top, there is a navigation bar with links: 'Admin Page', 'Dashboard', 'Add Products', 'Orders', 'Users', and 'Messages'. A user profile icon is on the right. The main content area has a teal background. In the center, there is a green-bordered box titled 'ADD NEW PRODUCT'. Inside this box, there are four input fields: 'enter product name', 'enter product price', 'enter product details' (a larger text area), and a file upload field with a 'Choose File' button and 'No file chosen' text. Below these fields is a pink 'Add Product' button. At the bottom of the page, there are two product cards. The first card shows a price of '230tk' and a product image. The second card shows a price of '304tk' and a product image.

Figure 13: Form Interface (admin)



The image shows the 'User Page' interface. At the top, there is a navigation bar with links: 'User Page', 'Home', 'Pages +', 'Buy', 'Orders', and 'Account +'. On the right, there are icons for search, user profile, heart (0), and shopping cart (0). Below the navigation bar is a dark grey header with the text 'CONTACT US' in large white letters, and 'home / contact' in smaller pink letters. The main content area has a teal background. In the center, there is a green-bordered box titled 'SEND US MESSAGE!'. Inside this box, there are four input fields: 'enter your name', 'enter your email', 'enter your number', and 'enter your message' (a larger text area). Below these fields is a pink 'Send Message' button.

Figure 14: Form Interface (user)

User Page Home Pages + Buy Orders Account + 🔍 👤 ❤️(0) 🛒(1)

home / order

PLACED ORDERS

placed on : 27-Aug-2023

name : hasi

number : 123

email : hasiroy.cse@gmail.com

address : flat no. ff, dhaka, dha, bd - 567

payment method : cash on delivery

your orders : , Bambo (1)

total price : 230tk

payment status : **pending**

Figure 15: Form Interface (user)

Chapter 7

Conclusion And Future Work

7.1 CONCLUSION

Online shopping has gained importance not only from the standpoint of the entrepreneur, but also from the standpoint of the customer, since the Internet has become a vital resource in modern business. Electronic shopping opens up new business prospects for the entrepreneur, and it allows customers to compare prices. According to a report, most online shoppers are impulsive and decide whether or not to stay on a site within the first few seconds. "Website design is similar to the interior design of a store." If the shop appears to be run-down or similar to hundreds of other shops, the customer is likely to move on to the next site." As a result, I created the project to give the user as much ease of navigation, data retrieval, and essential feedback as possible. The user is given with an ecommerce web site that can be utilized to purchase books online in this project.

I utilized PHP to make this a web application. PHP (XAMPP) has a number of advantages, including improved performance, scalability, security, and simplicity. To create a web application with PHP, I'll need a programming language like JAVA, HTML, or anything similar. The language used to develop this application was JAVA. PHP connects with the database using the MySQL server because it offers in-memory caching, which reduces the need to visit the database server frequently, and it is simple to deploy and manage. MySQL was chosen as the back-end database because it is one of the most widely used open-source databases, with rapid data access, ease of installation, and simplicity.

A user-friendly shopping cart functionality must match a solid shopping cart design. Viewing the contents of the customer's cart and being able to remove or add items to the cart should be easy. 49 This project's shopping cart application includes a variety of features aimed at making the customer's experience more pleasant. This project will help me understand how to make an interactive web page and the tools that go into making it. The project's architecture, which contains a Data Model and a Process Model, shows how the database is constructed with various tables, as well as how data is accessed and processed from the tables. The project's development has provided me a thorough understanding of how PHP is utilized to develop a website, how it connects to a database to obtain data, and how the data and web pages are modified to provide a shopping cart application to the user.

7.2 RECOMMENDATION FOR FUTURE WORK

Software development is a never-ending process that maintains the software's life based on the changing needs of the user throughout time. The project will undoubtedly be designed with easy modification and enhancement in mind, which may be required from time to time. This project, on the other hand, can be modified in a variety of ways. Because of limited a time frame, I am unable to incorporate many things here. But I will attempt to cover all of the existing system that the Online Book Store should consist.

During the development phase, various improvements were found that would be considered in future versions of the Web-Based Online Book Store System:

- **Introduce the Barcode System**

Adding an effective Bar Cord Reader helps to improve data capture reliability at the operational level. The accuracy of data entry for sales and purchasing activities can be improved by employing system-generated barcodes for items' SKUs.

- To manage the business in the future, integrate application and back-office operations connected to the technology of the existing website and internal system as Enterprise Resource Planning (ERP).
- Provide an SMS service when orders are processed and for special jobs. By implementing this recommendation, users will be able to acquire relevant information from the system without having to enter the system or their email account.
- As the Intranet deals with a considerable amount of sensitive information, improve security by putting in a standardized Firewall and Gateways methods to tighten security even more.
- Obtain an SSL Certificate to ensure that all transactions are conducted over a secure channel using https.
- Make plans to secure an Intellectual Property (IPR) for the company's website.

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