

ShopSmart Wiki

By

**Anzala Adnan 3237/459894
2020- GCUF- 060030**

**BACHELOR OF SCIENCE
IN
COMPUTER SCIENCE**



DEPARTMENT OF COMPUTER SCIENCE

Govt . Post Graduate College of Science

2024

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Revision History

| Name | Date | Reason For Changes | Version |
|------|------|--------------------|---------|
| | | | |
| | | | |

1. Introduction

1.1 General Information

Electronic commerce, also known as e-commerce, is an industry in which the buying and selling of products is conducted over electronic systems, such as the internet.

This software is developed to help computer science students learn about application design using React.js and HTML from their basic capabilities. This application allows students to understand the basics of the appearance of a first web page and how a complete working application can be built from scratch. It enables students to grasp the concept of user-integrated graphics and how JavaScript can be embedded into HTML. Furthermore, it provides insight into how the client-side language interacts with the server-side language and, finally, with the database.

Project Name: ShopSmart Wiki

Controlling Agency:

Final Date:

Prepared By:

Anzala Adnan

Authorized by:

1.2 Purpose

The purpose of this application is to bring knowledge to students about ecommerce and how an interactive ecommerce application can be designed from scratch using client-side languages, such as React.js and HTML, combined with the server-side Node.js express language through Node.js Server Faces. The server side, mostly Node.js, contains all the implementation related to setting up the database, creating session models for joining different user interface (UI) pages, calculating the shipping costs and sales tax, etc. It is responsible for taking information from the database and making it available to the UI by mapping the category or item ID to the respective IDs stored in the database. The client side is responsible for showing the entire user interface, containing the CSS, HTML, and React.js.

1.3 Document Conventions

All the steps required in the software-analysis process related to this project (product function, user characteristics, functional and non-functional requirements, constraints, assumptions, and dependencies for the Online Shopping Store application)

1.4 Project Objective

The motivation for designing this shopping-cart application came because I love online shopping rather than spending lot of time at physical markets. Further, using the available stores to sell the products, there is also the possibility of designing one's own customized shopping-cart application from scratch because custom-designed platforms are expensive. Moreover, I value recent learning about the Nodejs and React programming languages as well as seeing how powerful and dynamic they are when it comes to web designing and applications. Apart from helping computer science students understand the concepts of web-application designing, it would be very easy to incorporate the idea of using programming techniques from the available visuals to understand how a piece of code appears on a user interface. The languages used to build this application are JavaScript, HTML, and Java because I found them to be extremely useful while working on the technologies at my workplace.

OSS- Online shopping System (for electronics item shop)

SRS- Software Requirement Specification

GUI- Graphical User Interface

Stakeholder- The person who will participate in the system (Exp. Customer, Administrator, Visitor etc.)

| Agency Goals | Project Objectives |
|--|--|
| A well-defined goal will help everyone on the team be on the same page and focus on the primary objectives. These principles can help you achieve tremendous success from your e-commerce website. | An objective is a measurable milestone that you must complete to meet one of your goals. It is something you must do to achieve your end goal. For example, if your goal is to increase online sales by 10%, one of your objectives might be to increase website traffic by 20%. If you can reach that objective, you are well on achieving your goal. |

| | |
|--|--|
| When setting website goals and objectives for your eCommerce, it is essential to understand the difference between outputs and outcomes. The significant difference between the two is that outputs | Setting specific and measurable website goals for your eCommerce is crucial because this will help you get everyone on the team to agree on what we want to achieve. It will also make it easier to |
| are deliverables of the project. In contrast, outcomes are the results of achieving those deliverables, that is, the impact these outputs bring to the world. Outputs are the things you will produce to meet your objectives. In other words, they are the things you must do to meet your goals. For example, if you start an online clothing store and aim to increase sales, one of your objectives is to hire a new eCommerce manager. In this case, the objective is to find the right eCommerce manager for the job. Likewise, the outcome will be to get good eCommerce management and an efficient and orderly online sales process. | monitor the success of your goals and help you see if you are moving in the right direction, if you are on the right track, if you need to make some adjustments, etc. By setting specific and actionable goals, you can progress toward achieving your objectives without getting lost in the bigger picture. |

Output-based deliverables and products

Outputs are often tangible deliverables such as products, services, or data. For example, when you set goals and objectives for your eCommerce, one of your objectives could be to build a new eCommerce website. This objective would be an output-based deliverable. At the same time, you could have another objective: increase your sales by a certain percentage. This objective would be an outcome-based result

There are many different ways of setting goals and objectives for your eCommerce. However, the most effective way to measure success is to use the **SMART** framework. **SMART** is **specific, measurable, achievable, relevant, and time-bound**.

Specific

What are your goals and objectives? What are you trying to achieve? What are the outcomes you want to measure? Be as specific as possible when setting goals and objectives.

Metrics

What metrics will you use to measure success? What are the outcomes you want to measure? How can you tell if your goals and **objectives** were successful? How can you use data and insights to measure progress? If you want to

| | |
|--|---|
| | <p>answer these questions, perhaps you need to use Google Analytics as well.</p> <p>Achievable</p> <p>Is your goal or objective realistic? Is it something you can achieve? Is it a stretch goal, or are you setting the bar too low? If you set the bar too low, you risk missing out on growth opportunities.</p> <p>Relevant</p> <p>What is the goal or objective trying to achieve? What value does it bring to your business? Why is it important? What problem does it solve?</p> <p>Time-bound</p> <p>What is the deadline for this goal or objective? When do you want to achieve it? What is the timeline for this goal or objective?</p> |
|--|---|

1.5 Project Scope

Our designed online shopping system provides a 24×7 service, that is customers can surf the website, place orders anytime they wish to. Also, the delivery system works 24×7 hours a week. Some of the features that can be modified and added to this system in the future involve its implementation by local shopkeepers, where shops will be providing an online interface to customers for shopping and placing orders.

Then some delivery persons can perform their work. This will be adding on benefit for the customers as it will save their time, plus it adds on for the shopkeepers also, as people will continue to shop from local shops rather than preferring supermarkets every time.

Also, the deliveries from these local vendors will not be as time-consuming as these days Flipkart, Amazon, etc. take but rather will be delivered the same day of an order placed. Else the shopkeeper can ask the customer if the product will be available by the next day, so if he/she still wants to place the order, it can be done.

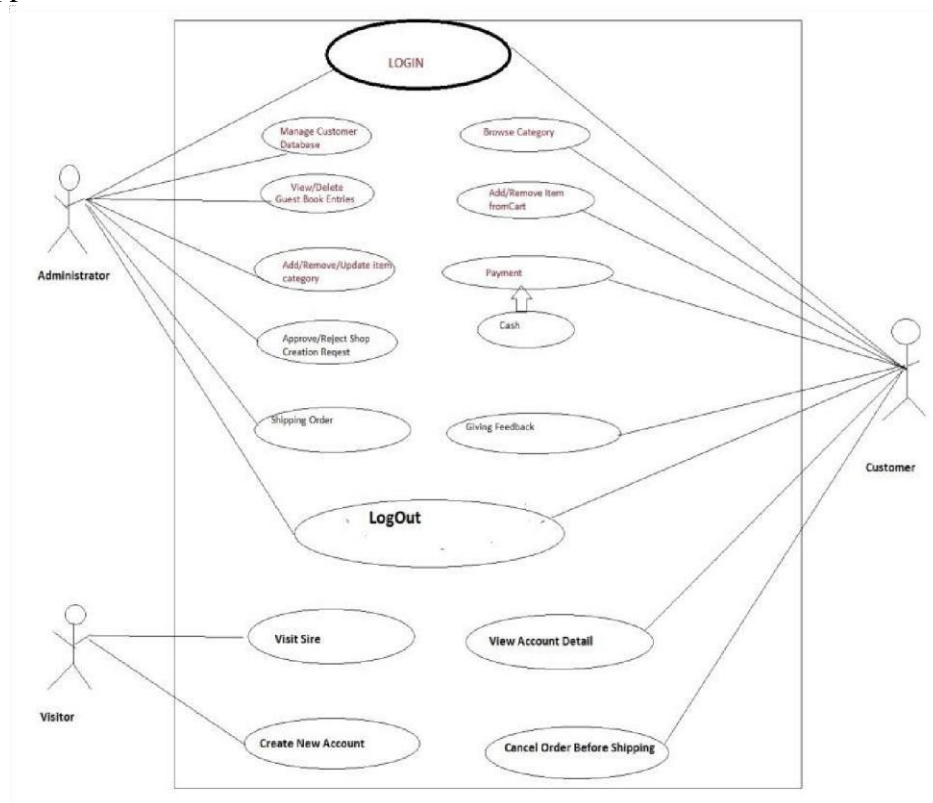
Again, return or exchange will be easy since the delivery boy can even do it as the store is nearby. Including a chatbox for public benefit is also a great idea via which people can directly have a conversation with some officials regarding any type of query.

1.6 Product Perspective

This product aimed toward a person who don't want to visit the shop as he might don't get time for that or might not interested in visiting there and dealing with lot of formalities.

1.7 Product Features

OSS should support this use case:



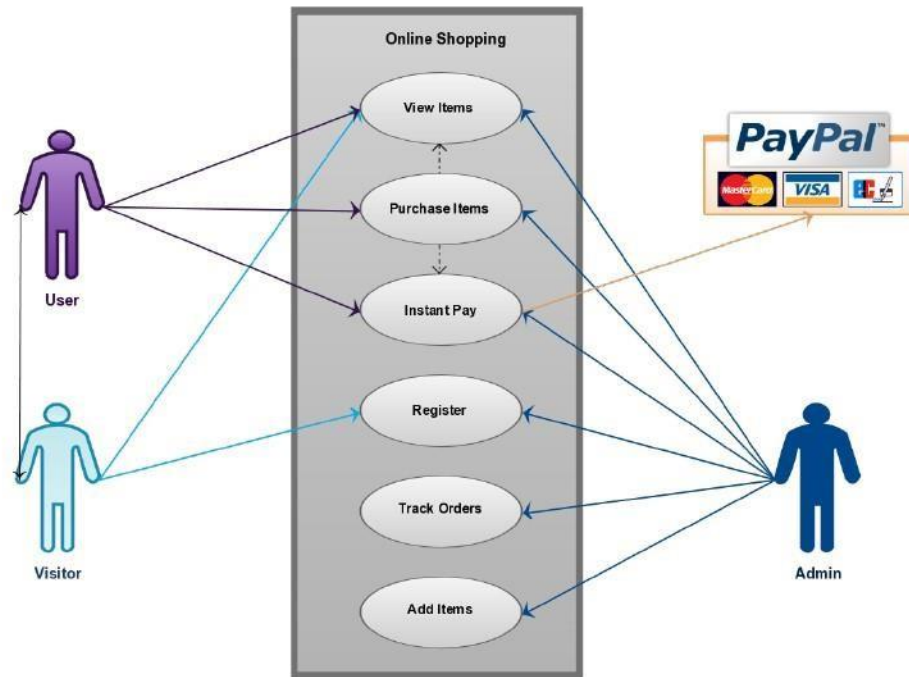
1.8 User Classes and Characteristics

User should be familiar with the terms like login, register, order system etc.

1.9 Operating Environment

Windows.

1.10 Design and Implementation Constraints



1.11 Assumptions and Dependencies

Assumptions are commonly described as "things that are accepted as true or certain, without proof, or still not been approved." They usually refer to events that can be controlled by the people making the organizational change, so they generally refer to events that could affect the change itself. (Dependencies are more commonly used to describe conditions that must be true for the solution to operate after the change is complete. See the next section, "Understanding Dependencies" for more.) In practice, assumptions are not statements of presumed truth that go unquestioned: they are used to identify events that would jeopardize the change the assumption is wrong. In other words, assumptions are poorly stated risks.

System Features

- Detailed Product Description
- Product Customization.
- Cross-selling.
- Promotions.
- Social Marketing.
- Payment System
- Integrated Shipping Solution
-
- Speed and Storage.

2.0 Overall Description

The Online Shopping system (OSS) application enables vendors to set up online shops, customers to browse through the shops, and a system administrator to approve and reject requests for new shops and maintain lists of shop categories. Also the developer is designing an online shopping site to manage the items in the shop and also help customers to purchase them online without visiting the shop physically. The online shopping system will use the internet as the sole method for selling goods to its consumers.

3. System Features

3.1 Description:

This a section provides requirement overview of the system. Various functional modules that can be implemented by the system will be -

3.1.1 Registration

If the customer wants to buy the product, then he/she must be registered, the unregistered user can't go to the shopping cart.

3.1.2 Login

Customer's logins to the system by entering a valid user id and password for the shopping.

3.1.3 Changes to Cart

Changes to cart means the customer after login or registration can make order or cancel order of the product from the shopping cart.

3.1.4 Payment

In this system we are dealing the mode of payment by Cash. We will extend this to credit card,debit card etc in the future.

3.1.5 Logout

After ordering or surfing for the product customer has to logout.

3.1.6 Report Generation

After ordering for the product, the system will send one copy of the bill to the customer's Email-address and another one for the system database.

4. External Interface Requirements**4.1 User Interfaces**

A user interface, commonly referred to as a "UI," is the user-facing design of a webpage or application. User-friendly UI is important for ecommerce merchants to provide intuitive navigation — and a pleasant shopping experience — for customers.

4.2 Hardware Interfaces

Hardware requirements for insurance on the internet will be the same for both parties which are as follows:

Processor: Dual Core

RAM: 2 GB

Hard Disk: 320 GB

NIC: For each party

4.3 Software Interfaces

Operating System: Windows7

Ultimate which supports networking.

4.4 Communications Interfaces

The two parties should be connected by LAN or WAN for the communication purpose.

5. Other Nonfunctional Requirements

Following Non-Functional Requirements will be there in the insurance to the internet:

- (i) Secure access to consumers' confidential data.
- (ii) 24X7 availability.
- (iii) Better component design to get better performance at peak time.
- (iv) Flexible service-based architecture will be highly desirable for future extension. Non-Functional Requirements define system properties and constraints. Various other Non-Functional Requirements are:
 - a. Security
 - b. Reliability
 - c. Maintainability
 - d. Portability
 - e. Extensibility
 - f. Reusability
 - g. Compatibility
 - h. Resource Utilization

5.1 Performance Requirements

In order to maintain an acceptable speed at maximum number of uploads allowed from a particular customer as any number of users can access to the system at any time. Also, the connections to the servers will be based on the attributes of the user like his location and server will be working 24X7 times.

5.2 Safety Requirements

- How Can You Ensure Safe Online Shopping for Customers?
- Consider Fraud-Checking Systems.
- Set Up PCI Compliance for Secure Online Payment.
- Security Requirements
- Install SSL Certificates for Safe Online Shopping.

5.3 Software Quality Attributes

- Utilize Data Encryption for Secure Online Payment.
- Perform Regular Security Audits and System Enhancements.

6. Analysis model

- Use Case Diagram
- Class Diagram
- Object Diagram
- Sequence Diagram
- Activity Diagram

- Collaboration Diagram
- State Transition Diagram
- ERD

7. Tools & Technologies

Programming Languages

HTML, CSS, Tailwind CSS, JavaScript, React.js, Node.js

Databases/Data storages *mongoDB, etc.*

Operating System

Windows.

Appendix A: Glossary

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.>

Appendix B: Check List

| Check List | | Yes | No |
|------------|--|-----|----|
| I. | Starting/Ending Dates | | |
| II. | Project Scope | | |
| III. | Product modules (covering all aspects of scope) | | |
| IV. | System Features (covering scope) | | |
| V. | Interface Requirements | | |
| VI. | Non-Functional Requirements | | |
| VII. | WBS | | |
| VIII. | Tools and Technologies Detail (for implementation) | | |
| IX. | Plagiarism Report | | |

Appendix C: Supervisory Committee

| | |
|--|--|
| For Approval of any two Consultant Teachers | |
| Teacher Consulted Name: _____ Comments: _____ _____ _____ _____ _____ Signature: _____ Designation: _____ _____ _____ | Teacher Consulted Name: _____ Comments: _____ _____ _____ _____ _____ Signature: _____ Designation: _____ _____ _____ |

(For office use only)

Date: _____

☐ Approved

Group ID: _____

☐ Meeting Required: Date: _____ Time: _____ Place: _____

☐ Rejected

Remarks:

Project Title (if Revised):

Project Coordinator
