Software Requirements Specification

for

Online Shopping System

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1. Purpose

The aim of this document is to gather and analyze and give an in-depth insight of the complete **Online Shopping software system** by defining the problem statement in detail. The project aims to develop a web-based application to improve the service to the customers and merchant which in turn increases the sales and profit in "online shopping". The detailed requirements of the **Online Shopping System** are provided in this document.

1.2. Document Conventions

This document follows MLA Format. Bold-faced text has been used to emphasize section and sub-section headings. Italicized text is used to label and recognize diagrams.

1.3. Intended Audience and Reading Suggestions

This document is to be read by the developer and the concerned staff. They might review the document to learn about the project and to understand the requirements.

Overall Description – Marketing staff have to become accustomed to the various product
features in order to effectively advertise the product.

System features – Testers need an understanding of the system features to develop meaningful test cases and give useful feedback to the developers.

External Interface Requirements – The hardware developers need to know the requirements of the device they need to build. The marketing staff also needs to understand the external interface requirements to sell the product.

Nonfunctional and Functional Requirements – The hardware developers.

1.4. Product Scope

This system allows the customers' to maintain their cart by adding or removing the product. It allows online sales, distribution and marketing of goods.

1.5. References

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications. IEEE Computer Society, 1998.

2. Overall Description

2.1. *Product Perspective*

The online shopping system should provide the facility of 'Buying' of items. Online transaction should take place if the item is available and the amount should be taken from the customer account by using their credit card number.

This product aimed towards people who wish to save time and energy by not going to the shop instead ordering for products sitting at home. Also some products may not be available in the store a person visits; the proposed system is a solution to carry out buying/selling products online.

2.2. *Product Functions*

- Access to the online shopping system for the administration and the customer is provided with individual login.
- Username will be individual customer id and each set their own password.
- Only the administer can perform all kinds of actions.
- Customer can only view the item details and pay for the items that they choose to buy.

The system allows the user to buy/sell products online.

2.3. *User Classes and Characteristics*

There are 2 kinds of users for the proposed system.
- Administrators: Administrators are the ones who adds or administers the categories for the products.
- End Users/Customers: The end user will be the one who visits the website and buys products online from the ones added by the Vendors/Sellers.

2.4. *Operating Environment*

Hardware Requirements
A PC with proper speed and memory.
Software Requirements
Front End: PHP : Hypertext Pre-processor, JavaScript, Ajax,
Back End: SQL Database

2.5. *Design and Implementable Constraints*

- The main constraint here would be the checking the genuineness of the buyer, which is not always possible. There can be security risks involved.
- The developed system should run under any platform (Unix, Linux, Mac, Windows etc..) that contains a web browser which supports PHP, JavaScript and AJAX.
- Internet connection is required.
- Real life credit card verification and banking system is not implemented.

2.6. *User Documents*

Currently no such documents have been created.

2.7. *Assumptions and Dependencies*

Administrator is created in the system already. The manager cannot be a customer. Any user cannot edit their account information. The details related to the product, customer, payment and service transaction provided manually. Roles and tasks are predefined.

3. External Interface Requirements

3.1. *User Interfaces*

Each part of the user interface intends to be as user friendly as possible. The fonts and buttons used will be intended to be very fast and easy to load on web pages. The pages will be kept light in space so that it won't take a long time for the page to load.

The starting page will be the home page regarding the store and a number of buttons with the specific category of the products sold. The customer will be given an option to search for a product or a category through the search engine provided in the website.

3.2. *Hardware Interfaces*

Since the application runs over the internet, all the hardware shall require to connect to the internet by either Modem, WAN-LAN, Ethernet Cross-Cable.

3.3. *Software Interfaces*

The following are needed requirements.
    Operating System : Unix, Linux, Mac, Windows etc..
    Development tool : PHP, JavaScript, Ajax
    Application: XAMPP application
    Data Base : MySQL Database Server

3.4. *Communication Interfaces*

The system shall use HTTP protocol for communication over the internet.

4. System Features

4.1. *Register and Log in*

4.1.1   Description and Priority

This features creates an account for a new user in the system. For a user to be able to buy any item he/she must have an account and must be logged into it. This feature enlists the user details in the database. This is an important feature so it has high priority.

4.1.2   Stimulus/Response Sequences

Customer first clicks on the button or link to initiate registration process. The system then prompts the customer to fill out his/her first name, last name, billing address, shipping address, email address, and their password. Customer enters fields. System validates the customer's information and creates a new account for the Customer.

Once a Customer registers he/she clicks on the log in button to initiate the login process. The system prompts the customer for his/her email and password and verifies the information. After verification the system displays account home page to the Customer.

4.1.3   Functional Requirements

REQ-1: A button for register and log in must be available
REQ-2: A table in the database must be created for all users.

4.2. *Search Product*

4.2.1   Description and Priority

This feature enables for a user to browse through different categories sold in the website like clothes, electronics etc.

4.2.2   Stimulus/Response Sequences

Customer clicks on a category of the product he/she wishes to buy. The system displays the page of the product category.

4.2.3   Functional Requirements

REQ-1: A button for different categories.
REQ-2: A table in the database must be created having all the product available and each product's details must be present.

4.3. *Confirm Order and Payment*

4.3.1   Description and Priority

This feature confirms the order placed by the customer i.e now the customer has brought the product. Card payment is available.

4.3.2 Stimulus/Response Sequences

Customer clicks the button or link to initiate the confirmation process. System presents the customer with the account details. Customer confirms account details and the order. System stores order confirmation and order details once payment is done.

4.3.3 Functional Requirements

REQ-1: A template/window dealing with payment must be created.
REQ-2: The table dealing with the products must be updated i.e the quantity of the product bought must be decreased by one once payment is successful.

4.4. Add Products

4.4.1 Description and Priority

This feature is available only for the administrator. Only the administrator can add products and update details of the product in the database.

4.4.2 Stimulus/Response Sequences

Administrator clicks the button to initiate Add Product process. The system prompts the administrator to fill out product details. System validates the new product information and adds it to the database.

4.4.3 Functional Requirements

REQ-1: A separate log in for the administrator must be created.
REQ-2: An administrator cannot buy a product.

5. Other Nonfunctional Requirements

5.1. *Performance Requirements*

Maximum possible quick response to the orders is required, also should provide fast updation of records. The changes if any made should be reflected automatically in the next screens.

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*

The application is password protected and also any updation of new product entries and order processing is done by only privileged users.

5.3. *Software Quality Attributes*

The necessary qualities of software products are
3.5.1 Security:
The application is password protected and also any updation of new product entries and order processing is done by only privileged users.
3.5.2 Maintainability:
The application is to be designed so that it is easily maintained. Also it should allow incorporating new requirements in any module of system.
3.5.3 Reliability:
3.5.4 Portability
The application will be easily portable on any window based system.

5.4. *Business Rules*

Only the admin can add products in the database. The user can only search and buy for the products added by the admin. The admin cannot buy products.

Appendix A: Glossary

HTTP   Hyper Text Transfer Protocol
SQL   Structured Query Language
GUI   Graphical User Interface
SRS   Software Requirements Specification
CSS   Cascading Style Sheet
PHP   a server-side scripting language designed for web development (Hypertext
         Pre-processor)

Appendix B: Analysis Models

Not yet done as still in requirement phase.

Appendix C: To Be Determined List

- References
- User Documentation
- Safety Requirements
- Analysis Models