

# **SOFTWARE REQUIREMENTS SPECIFICATION**

FOR

## **E-COMMERCE WEBSITE**

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# 1. INTRODUCTION

## 1.1 Purpose

- The E-Commerce Website (ECW) web application is supposed to provide complete solutions for customers as well as administrators through a single platform using the internet as a sole medium. It will enable customers to purchase online products without visiting the shop physically. They can choose product to add to cart and wish list. The administration module will enable a system administrator to approve and reject requests for new orders by the customer of (ECW) and maintain various lists of items in categories.
- This document is meant to discuss the features of (ECW), so as to serve as a guide to the developers on one hand and a software validation document for the prospective client on the other.

## 1.2 Scope

Initial functional requirements will be:

- Secure registration and profile management facilities for users and customers.
- Browsing through the E-store to see the items that are there in each category of products like Men's, Women's, Electronics and sports.
- Adequate searching mechanisms for easy and quick access to particular products and services.
- Shop owners maintain the records of the items that are popular in each category.
- Maintaining and monitoring the database of regular customers for different needs.

Initial nonfunctional requirements will be:

We assure security for confidential data (user's details).

We are available 24/7 to facilitate our web and customers.

We have Better component design to get better performance at peak time

We have Advertisement space to effectively catch the customer's attention and as a source of revenue. ECW also allow customers filter searching.

In addition to the above mentioned points, the following are planned to be delivered if deemed necessary:

Dynamic price model by which prices can be changed based on demand

And supply

This list is by no means, a final one. The final list will be dictated by implementation constraints, market forces and most importantly, by end user demands.

## 1.3 Audience Definitions, Acronyms and Abbreviations

### 1.3.1 Audience Definitions

The intended readers of this document are the developers of the site, testers, website owners, managers and coordinators.

### 1.3.2 Acronyms and Abbreviations

Acronym	Meaning
ECW	E-Commerce Website
C#	C#.Net MVC 5
SQL	SQL Server 2012
HTTP	Hypertext Transfer Protocol

## 1.4 References

- IEEE 830-1998 standard for writing SRS document.
- *Fundamentals of Software Engineering*

## 1.5 TECHNOLOGIES TO BE USED

Programming languages:

C#: C#.Net is a programming platform— part of the MVC 5 framework for developing and running distributed multi-tier architecture web application

HTML, XML: Hyper Text Markup Language and Extensible markup Language are the predominant markup languages for web pages. It provides a means to describe the structure of text-based information in a document and to supplement that text with interactive forms, embedded images, and other objects.

SQL Server: SQL server is used to create Database **Tools & Development Environment**

Microsoft Visual Studio: Microsoft Visual Studio is a toolkit which is designed for the creation of complex projects, providing fully dynamic web application.

## 1.6 Overview

The rest of this SRS is organized as follows:

- Section 2 gives an overall description of the software. It gives what level of proficiency is expected of the user, some general constraints while making the software and some assumptions and dependencies that are assumed.
- Section 3 gives specific requirements which the software is expected to deliver. Functional requirements are given by the use case.
- Section 4 describes the various interfaces and possible scenarios.

## 2. Overall Description

### 2.1 Product Perspective

- ECW is aimed towards the vendors who want to reach out to the

maximum cross-section of customer and common people who can be potential customer. This project envisages bridging the gap between the seller, the retailer and the customer. ECW should be user-friendly, 'quick to learn' and reliable software for the above purpose. ECW are intended to be a stand-alone product and should not depend on the availability of other software. It should run on both UNIX and Windows based platform.

## 2.2 Product Functions

- User: Administrator
- Functions: The Administrator is the super user and has complete control over all the activities that can be performed. The application notifies the administrator of all customer order requests, and the administrator can then approve or hand over the order to the supplier. The administrator also manages the list of available product categories.
- User: Customer/Guests
- Functions: A Customer can browse through the shops and choose products to place orders according to the categories present in the website.
- To place an order, the customer is prompted to login.
- User: Employees
- Functions: Purchase department under a Purchase manager to overlook purchasing activities if warehousing needs arise.
- Functions: Sales department under a Sales manager who will look after the sale of products and services, the most important activity.
- Functions: Accounts department under an Accounts manager to look after the accounting activities of the enterprise

## 2.3 User Characteristics

- The user should be familiar with the E-Commerce web related terminology like Sign out/Transaction etc.
- The user should be familiar with the Internet.

## 2.4 Constraints

- There is maintainability of back up so availability will get affected.
- Limited to HTTP/HTTPS.
- Real-life credit card validation and Banking system is not implemented.
- No multilingual support

## 2.5 Operating Environment

- The ECW is a website that shall operate in all famous browsers, for a model we are taking Microsoft Internet Explorer versions 7.0, 8.0 and 9.0 .And Google Chrome

# 3. Specific Requirements

## 3.1 Functional Requirements

### **1. Administrator:**

- **Database Management:** Control the database and keep track of all records of customers, orders, products and employee details.
- **Buying From Vendors:** Contact with the vendors and buy products from them to sell products under the site after testing the product's quality.
- **View all details:** View the details of all employees and control the whole site.



- **Advertising the Site:** Advertisement is not included.

## **2. Customers:**

- **Login:** Customers must have a valid login id to enter into the site.
- **Registration:** New users can sign up by creating new ID.
- **View and edit Own Details:** Can view/edit his personal details, payment details.
- **Choosing and comparing products:** Can view all available products and can compare them and make a choice for purchasing products.
- **Purchasing:** Can purchase any product through valid credit card.(not implemented)
- **Giving Feedback to Customer Care:** Can give feedback to the 24X7 Customer Care Service center about their impression for the site and services.
- **Logout:** Customer must logout of the site after purchasing products.

## **3. Visitors:**

- **Visiting the Site:** Can only visit the site without registration.

## **4. Administrator:**

- **Rejection of Orders:**  
Admin can reject orders in case of any disruption.
- **Consulting with Administrator:**  
User can consult with the Administrator regarding product's quality and orders through email.

## **5. Sales Manager:**

- **View customer details:**  
View the personal details of the customer.
- **Managing Sales to Customers:**  
Responsible for properly allocating the selected product according to the customer's choice and delivering product to the customer.

➤ **View Product Stocks:**

**Administrator** keeps track of each product item's stocks for selling purpose through website.

➤ **Contacting with Administrator:**

Responsible for informing administrator when any product item's stock goes under the minimum level.

## **6. Purchase Manager:**

➤ **Consulting with Administrator:**

Taking permission from the Administrator for the product to be purchased from vendor.

➤ **Product Stock Management:**

Responsible for managing stocks of each product items.

## **7. Accounts Manager:**

➤ **Regulating Payments:** Keep track of all the payment transactions made by the customers and update the payment information.

➤ **Consulting with Banks:** Responsible for contacting the banks for the validation of the a/c number provided by the customer while purchasing and make the transaction from the given a/c.(not implemented)

➤ **Consulting with Administrator:** Consult with the Administrator about the payment details of the customers for the updating of the database.

## **8. Customer Care:**

➤ **Getting Feedback from the Customers:**

Responsible for receiving complaints, queries and feedback from the customers.

➤ **Providing Solutions to Customers:**

Provide feasible solutions to the customers on their complaints and queries.

## 3.2 Non-functional Requirements

### 3.2.1 Performance Requirements

- The system shall accommodate high number of items and users without any fault.

Responses to view information shall take no longer than 5 seconds to appear on the screen.

### 3.2.2 Safety Requirements

System use shall not cause any harm to human users.

### 3.2.3 Security Requirements

- System will use secured database.
- Normal users can just read information but they cannot edit or modify anything except their personal and some other information.
- System will have different types of users and every user has access constraints.

### 3.2.4 Error handling

- ECW shall handle expected and non-expected errors in ways that prevent loss in information and long downtime period.

## 4. Interfaces Possible Scenarios

### 4.1 Customer's Interface:

#### 4.1.1 Login:

- This interface will consist of two compulsory fields namely, "User Name" and "Password". There will also be options for

“New User’s Registration” which will redirect to “Registration”  
If the password entered is correct the Main User Interface  
opens up else an error message is displayed.

### 4.1.2 Registration Interface

- The user will enter his personal details like Name, User Name, Email, Password, Contact, Address, Registration Type etc.
- Users will be warned about any mistakes on data format or any other constraints by validation notes and error messages.
- When the button "save" button is clicked, the server will check if the username or email is already taken and alert the user.
- If everything is entered correctly and saved a new user will be created.

### 4.1.3 Personal Data Editing

If any member wants to change his personal information he can enter his profile by clicking on Account title at the top of the main page and he will be directed to the personal details editing page.

### 4.1.4. Search

- The customer can enter the type of item he is looking for and the specifications he is interested in them he can click on “Search”.  
User can also use advanced search for more options.

### 4.1.5 Add as Wish List

The user can shortlist his/her favorite item as a wish list for future reference.

### 4.1.6. Shopping Cart

This will be a space for the customer where he/she can store the items he/she wishes to buy. The user can also remove items from cart prior to checkout. Once the user decides to buy the items it cart, the user is directed to the payment page for making payment.

### 4.1.7 Payment

The user given options with various modes of payment (online payment through credit/debit cards, via net or mobile banking or cash on delivery) out of which he chooses one. The chose mode of transaction is carried therefore by proper verification and authentication of bank details. (Not implemented)

### 4.1.8 Support

The user can contact with the customer care via phone call or via messages. User can ask for assistance or can give feedback on a particular aspect. (not implemented) Customer can contact only through email.

## 4.2 Interface for Shop Owner

- The Admin will have a different login id using which he can access his account that contains a control panel that allows him to maintain shop etc.

This control panel will allow the shop owner to do the following things:

- Add/Remove/Update products, suppliers, categories and vendor.
- Edit his own profile.
- Add/Remove items. The corresponding changes will be done in the database by the Admin.
- Check Orders.
- Generate a sales report.

- Change the theme of website.
- Discontinue the shop.

### 4.3 Interface for sales manager

- The sales manager will have a different login id using which he can access his account that contains a control panel that allows him to contact the administrator and manage sales.

This control panel will allow the sales manager to do the following things:

- Maintain the product database so that the same or different kinds of products are properly maintained with their unique id, so that when a customer orders a product, the same product gets allocated without causing any inconsistency to the database.
- Generate current order shipping status and upload it time to time and provide an expected delivery date. In case a user cancels a particular order, the same is taken care of by the sales manager and proper order status is changed and reflected back.
- Promote sales by associating products with offers and discounts.
- Contact the admin.

### 4.4 Interface for Accounts manager

- The Accounts manager will have a different login id using which he can access his account that contains a control panel that allows him to contact the administrator and manage various transactions and accounts.

This control panel will allow the Accounts manager to do the following things:

- Keep track of payment transactions differentiated by their unique id and associated with corresponding user and update payment information.

- Contact the bank for account validation.(not implemented)
- Contact Administrator.

## 4.5 Interface for purchase manager

- The Purchase manager will have a different login id using which he can access his account that contains a control panel that allows him to contact the administrator and manage various purchases for the warehouse.

This control panel will allow the Purchase manager to do the following things:

- Whenever the stocks in warehouse goes under a critical value, the system alerts the purchase manager about it and he contacts the administrator seeking permission to make a purchase from a particular vendor.
- Contact a vendor for making a purchase.

## 4.6 Interface for customer care

- A customer care employee will have a different login id using which he can access his account that contains a control panel that allows him to contact the administrator and manage various queries and feedbacks from the customer.

This control panel will allow a customer care employee to do the following things:

- Read feedbacks from a particular customer and let the administrator know about it.
- Provide solutions to the queries posted by the customer.
- Contact administrator.

## 4.7 Interfaces for Administrator

- The administrator will have a different login id using which he can access his account that contains a control panel that allows him to contact each and every aspect of the system.

This control panel will allow the administrator to do the following things:

- Access and view the customer database.
  - Access and view the database of vendors go through their requests for shop creation and reply them back with acceptance /dismissal of their request.
  - Access and view the employee database and manage them.
  - Make the catalog (that is visible to the customers), taking the design of corresponding shop owners in consideration.
  - Grant/ Reject purchase permit to purchase manager.
  - Manage employee salary.
  - Contact employees.
  - Can add category to the web.
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