

# **Software Requirements Specification (SRS)**

## **Web Based E-commerce**

Version<4.0>

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## Revision History

Name	Date	Reason For Changes	Version

# **1. Introduction:**

E-commerce is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing web sites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is becoming commonplace. From a bigger perspective, every website on the internet is the ecommerce Website. It can be the platform, it can be a marketplace, it can be a portal, it can be apps, and it can be an entertainment website, shopping website, online courses website and online degree college. Electronic commerce is an emerging model of new selling and merchandising tools in which buyers are able to participate in all phases of a purchase decision, while stepping through those processes electronically rather than in a physical store or by phone.

## **1.1 Purpose:**

The purpose of the document is to collect and analyze all assorted ideas that have come up to define the system, its requirements with respect to consumers. Also, we shall predict and sort out how we hope this product will be used in order to gain a better understanding of the project,

The objective of this project is to develop a general-purpose e-commerce store where any product (such as books, computers, mobile phones, electronic items, and home appliances) can be bought from the comfort of home through the Internet. An online store is a virtual store on the Internet where customers can browse the catalog and select products of interest. The selected items 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.

In short, the purpose of this SRS document is to provide a detailed overview of our software product, its parameters and goals. This document describes the project's target audience and its user interface, hardware and software requirements. It defines how our client, team and audience see the product and its functionality.

## **1.2 Document Conventions:**

Specific terminology is used throughout the specification of the system.

User Profile: stands for the profile of the customer (person) opened in the software.

One person can have multiple profiles using different emails. A profile can be linked to none. Account: defines an entity that enables the user to operate throughout the perform purchases. Payment: defines an entity that enables an account to perform a payment transaction using one of alternative methods.

Purchase: defines an entity that encapsulates a purchase object. A purchase is specified by a unique number and status thus using the Status class.

Cart: stands for a container that holds selected products during the session and is included by a purchase. Cart Products: as the name itself defines an entity that makes possible operations of addition, deletion, and selection of products in and from the cart. Bank Transfer: stands for a payment method when using a basic plan.

### **1.3 Intended Audience and Reading Suggestions:**

The system is worth using by an audience that is interested on buying online products and benefit from facilities offered in such a case. Facilities are: saving time, saving money by selecting the best offer, comfort circumstances, safety of money transactions etc.

### **1.4 Product Scope:**

The scope of this project is to design and develop a system that is necessary to shops when they need to operate online, sell products online. The ecommerce can keep an electronic history of all purchases and transactions. This gives more control over the operations that the company offers. The system can be adapted to a range of shops from simple small ones to big markets. A shop can outsource the function of shipping to another external company or can handle it itself.

Project scope also includes financial transactions that call for other third party services like Bkash. Project scope from customer perspective, limits the range of customers to only those who have internet connection and have a bank account in hand.

The aim of this project is to promote an efficient, user friendly, time efficient, safe way for customers to buy and receive products without being physically at a shop instead using virtual money.

- User can easily buy their product.
- One place for everything.
- Selling can be focused to the global customer
- Pre-sales, subcontracts, supply
- Commercial transactions: ordering, delivery, payment
- Product service and maintenance
- Co-operative product development
- Distributed co-operative working
- Use of public and private services

- Transport and logistics
- Automatic trading of digital goods
- Accounting

## **1.5 References:**

- [1] <https://www.export.gov/article?id=Bangladesh-ECommerce>.
- [2] <https://brainstation-23.com/e-commerce-business-scenario-in-bangladesh-2006-to-2018/>.
- [3] <https://brainstation-23.com/top-e-commerce-sites-bangladesh-according-alexa/>.
- [4] <https://www.rokomari.com/book>
- [5] <https://www.daraz.com.bd/>
- [6] <https://chaldal.com/>

## **Overall Description:**

We are going to build a web-based multi-vendor E-commerce that will provide very useful services to the users.

## **2.1 Product Perspective:**

This is a standalone project created from scratch using Java and its framework Spring-Boot to demonstrate its ability to develop quick and easy to configure and deploy web sites which are not only functional but also extendable to include many other products and modules.

## **2.2 Product Functions:**

- Website to browse the products
- add products
- Remove products
- Signup and Login
- Order

### **2.3 User Classes and Characteristics:**

Most of the people which will use this product will either be common users which would use this to purchase the product offered and the other group would be the ones who provide the product which will be available on the website.

### **2.4 Operating Environment:**

The product will be deployed over a server which can be running on any hardware platform since the project is written in java which is cross- platform language. Like the hardware any type of database can be used as long as it is supported by Hibernate framework.

### **2.5 Design and Implementation Constraints:**

The only constraint with this kind of implementation is that since the project is developed over a framework only the functions allowed by the said framework can be used. If the developer needs any additional functions he has to develop them entirely on their own and no help from the framework can be leveraged from the framework.

### **2.6 User Documentation:**

A User Guide will be given with the product which will contain details about all the software needed to run the product as well as how to set them up.

### **2.7 Assumptions and Dependencies:**

Since the product uses Hibernate to maintain the database, any problem caused by the Hibernate cannot be resolved if it is very complex since we don't know what it is trying to do behind the function call.

## **External Interface Requirements:**

### **3.1 User Interfaces:**

The GUI part of our product follows the guideline defined over the web and support all the protocol which are necessary to develop the website. The website is a pure HTML base website so it has a normal user interface to provide the user all the necessary information about the product they are trying to access.

### **3.2 Hardware Interfaces:**

The hardware constraints are only one that Tomcat server has to be installed, an IDE with spring support should also be available, and system should have Java 8 JDK 1.8 installed on the computer. Other than this any modern browser will work to display the deployed website.

### **3.3 Software Interfaces:**

The product contains following dependencies

- Java JDK 1.8
- Tomcat Server
- Spring Version 5+
- Spring-Boot version 2+
- IDE with spring support
- MySQL database

### **3.4 Communications Interfaces:**

The product generates an email for some functions so it requires the clients email address and password.

## **4 System Features:**

The popularity of ecommerce websites in Bangladesh is significantly rising. However, only a few of them are unique and able to pull customers attention. By having an ecommerce website, we can easily convert our local physical shop into an online shop. Many people are buying products and services online these days. So, investing in an e-commerce website will boost our sales and revenue efficiently and quickly. Responsiveness and user experience are vital to attracting visitors to the website and gradually converting them to loyal customers. We create an engaging and attractive ecommerce website with user-friendly navigation and easy check-out to provide our target customers with a better experience. We add essential features of an e-commerce site like consumer reviews, promotion and discount code system, newsletter signup form, live chat integration, and much more, depending on our requirements. Our ecommerce websites are responsive and well optimized for desktop, mobile, and tablets.

### **4.1 Description and Priority:**

E-commerce is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. The user has the ability to create new account and the admin have the authority to add new products to the catalog of the products available on the website.

### **4.2 Stimulus/Response Sequences:**

- ❖ \*The user can create new account by going to new account
- ❖ \*Admin can add new products to the site by accessing the admin portal
- ❖ \*User can browse the catalog on the website



- ❖ \*User can add the products to his shopping cart on the product page
- ❖ \*User can pay from the products by going to the checkout page

### **4.3 Functional Requirements:**

Major feature of our E-commerce solution is pointed out below to give a clearer view why our E-Commerce is going to be better than any other E-Commerce system ever introduced in our country.

#### **Login and Registration:**

Both Business and general user will have separate login and registration system. They will have to provide their Email, First Name, Last Name, Phone Number, and Password to signup first and then their data will be collected in our database permanently. So, whenever they login again, they will directly be taken to the main homepage of the website.

#### **Homepage:**

The homepage will consist of navigation bars that will contain links of other pages linked to homepage. User can get a primary overview from the homepage what the website is about and which facilities it is providing.

#### **Product Uploading:**

Business Users will have the option to upload products. While uploading products, they can add product name, category, short description, picture, price tags etc.

#### **Searching Products:**

General Users will go through these products and select the ones they prefer according to their choice and budget. The products will be categorized and shown from price variation to most popular which will make it easy for them to take decisions.

### **Cart:**

Products will be added to General users' cart. Every general user gets a specific ID after signing up in our database. According to that ID and after cross matching with their cart ID's, they will proceed to checkout. Before checking out they will see their total amount of money they need to pay adding additional delivery charges.

### **Checkout and Payment:**

They can then give their payment method here. How they want to pay and also address for their home delivery. Payment can be done through payment gateway system which will provide services of payment through visa or master card. Manual payment can also be done on our cash on delivery system.

### **Comments:**

General users will be able to make review of products through comments so that they can share their experience with other customers and encourage them to buy those products.

## **5. Other Nonfunctional Requirements:**

### **5.1 Performance Requirements:**

Response time should not be too long and it should be as short as possible. Response to any kind of interaction must take no longer than 3 seconds to appear on the screen. The website should allow a lot of people to use it at a time.

## **5.2 Safety Requirements:**

This website will not influence information put away the exterior of its server nor will it influence any other web applications. It cannot cause any harm to the phone and computer or its inner components. The as it were potential security concern related to this application applies to essentially all components. These sites ought to not be utilized while working a vehicle or in any other circumstance where the user's consideration must be centered somewhere else.

## **5.3 Security Requirements:**

- System will secure the private information of the customer, owner and deliveryman.
- System will secure maintain payment information.
- Except customer himself and the owner, no one should be allowed to see the customer's purchase history.
- System will use a secure database.
- Normal users can just read or write information but they cannot edit or modify existing information. Ethical Requirements:
- Customers have to get their deserved products without any change.
- Every customer should get their desired product in time.

## **5.4 Software Quality Attributes:**

This program is simple to utilize for both designers and clients. A few critical properties of our project are that it is secured, usable, accessible, well performed. A few other traits that we worked on are adaptability, strength, operability, viability. We emphasized more on straightforwardness instead of predominance so that common individuals discover it simple to utilize.

## **5.5 Business Rules:**

Our program will be built in such a way that it'll be reliable to all. Security is our fundamental concern so that it doesn't make any mistake and in case of a blunder, it'll have a framework so that our clients can get a discount. We'll moreover, guarantee that our clients and sales representatives both can effortlessly unravel an exchange mistake

## 6. Other Requirements:

Need some budget and investment.

## Appendix A:

### Glossary:

Acronym	Definition
B2B	Business-to-Business
B2C	Business-to-Consumer
BPM	Business Process Management
C2C	Consumer-to-Consumer
D	Deliverable
QoS	Quality of Service
SoF	Sign-Off
SiN	Sign-In
Barcode	A unique identifier assigned to single items
C2B	Consumer to Business
B2E	Business to Employee
Checkout	The process a Customer goes through to purchase an Item
Customer Item Item	A person that is a user of the system but has created an account An individual entity in the inventory which has several descriptive  An individual entity in the inventory which has several descriptive attribute

Member	A person that is a customer of the system and has requested to be sent promotions
Manager	A single person that has the ability to create, retrieve, update and delete items in the store. This person cannot simultaneously act as a Customer and Manager.
SRS	Software Requirements Specification
Promotion	An item-wide percentage-off price discount applied to a Member's shopping cart
Session	The time which a User is actively using the system
Shopping Cart	An object that lists a Customer's selected Items, their applied promotions and gives them an option to check out
User	The person who operate the software product
Stock	The quantity of any particular item the inventory has on hand
Transaction	The information related to a customer's purchase that is logged

## Appendix C: To Be Determined List

- Tracking
- Piracy issue
- Vendor engagement
- Fake product determine.