

E-Commerce Management System

Software Requirements Specification

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1. Purpose

The main objective of the document is to illustrate the requirements of the E-Commerce Management System. The document gives us a detailed description of both functional and non-functional requirements of the system.

1.1. Scope

- The Scope of this software is to make buying and selling more transparent via providing an effective platform which requires less processing power and is feasible for all types of users.
- Using this software buyers can directly make contact with sellers without any involvement of a third party. Also, one can save time by receiving the product of their choice and from the genuine seller without moving a step.

1.2. Overview

E-Commerce Management System would be able to provide the ways with which one can easily buy or sell the products.

Nowadays, we have a common problem that we need to go to different shops to buy different items of different categories which is very time consuming as well as costly. But by using this Software you can have hundreds of 100% secure and trusted shops in your hands and within a single click from you can order multiple products without any hassle.

2. Overall Description

2.1 Product Perspective

The proposed system will provide business to any local sellers anywhere in India. We specialize in solving queries between seller and buyer also providing them an interface to connect. All of our services can be customized to fit the way you do business.

2.2 Product Functionality/Features

The system will have users such as:

- Buyer
- Administrator
- Seller

Major functionality of system will include:

- Special pick-up times and delivery times.
- Appointment deliveries
- Automated billing
- On-line shipping system
- On-line shipping tracking
- Computerized dispatch
- Allow any user to become buyer
- Payment at the time of pick-up or else at the time of product delivery.
- Choosing the transportation way by which products can be transferred.
- product to be transferred in time-sensitive functionality, hence fast service

2.3 User Characteristics

The users who will be using this system must have a login ID and password. Also the users must have knowledge of the internet.

There will be three different users who will be using this system:

- Buyer
- Administrator
- Seller

2.4 Constraints

The product will be supported only by the below mentioned browsers and operating systems.

- Supported Web browsers
 - Internet Explorer
 - Google Chrome
 - Mozilla Firefox
- Supported Operating System
 - Windows XP, 7, 8, 10, 11

2.5 Assumptions and Dependencies

The proposed system needs an internet connection on the buyer as well as seller side. It needs the following third party products on the server side:

- SQL Server (Database)
- Python Framework (Django)
- IIS

3. Specific Requirements

3.1 Functional Requirements

3.1.1 Buyer's Requirements

3.1.1.1 Login

3.1.1.1.1 To login into the system, the following details are required:

3.1.1.1.1.1 Email Address – must be a valid email address

3.1.1.1.1.2 Password – Must have at least 8 characters with at least 1 special character, the text field must be in password mode.

3.1.1.2 Create Account

3.1.1.2.1 The buyers can register themselves for the E-Commerce site.

3.1.1.2.2 For registering, the following information are required:

3.1.1.2.2.1 Email address –must be a valid email address

3.1.1.2.2.2 Password – Must have at least 8 characters with at least 1 special character, the text field must be in password mode.

3.1.1.2.2.3 **Contact Details**

3.1.1.2.2.3.1 Name

3.1.1.2.2.3.2 Current Location

3.1.1.2.2.3.3 Mobile Number

3.1.1.2.2.3.4 Mailing Address

3.1.1.2.2.3.5 Age

3.1.1.2.2.3.6 Sex

Upon successful registration, this information will be stored in the database.

3.1.1.3 Updating Profile

3.1.1.3.1 The buyers can update their profile information whenever required.

3.1.1.3.2 All the fields mentioned above will be updatable except the email address.

3.1.1.3.3 This changed information will be updated to the database on successful updation.

3.1.1.4 Search for a type of product

3.1.1.4.1 The buyers can search for the different categories of product they need.

3.1.1.4.2 The products can be searched by type of products listed.

3.1.1.4.3 Some filters can also be applied while browsing through the products.

3.1.1.5 Search for seller profiles

3.1.1.5.1 The buyer can search for the seller which are selling different categories of products

3.1.1.5.2 The buyer can open the seller profiles from the products the buyer want to buy

3.1.1.6 Add the product to carts

3.1.1.6.1 The buyers can add single/multiple product/s to the cart.

3.1.1.6.2 The date of delivery should be shown after placing the order

3.1.1.6.3 buyers can specify some specific functionality like time-sensitive service i.e. fast delivery or specific date and/or time for delivery

3.1.1.6.4 buyers will get an Order ID which is a unique number for every order placed through the platform.

3.1.1.7 Comparing the product

3.1.1.7.1 The buyer can also compare between more than one product while browsing through it.

3.1.1.7.2 The buyer can compare the products by price, discount, seller, rating and reviews.

3.1.1.8 Search for Order

3.1.1.8.1 The Order ID obtained while placing the order can be used to track the status of the delivery.

3.1.1.8.2 The buyer can view the status of the order like whether it's packed, dispatched, delivered etc.

3.1.1.9 Payment Service

3.1.1.9.1 After placing the order, the buyer will be directed to payment options.

3.1.1.9.2 The buyer can select the modes of payments like credit card, debit card, online banking, UPI or cash on delivery.

3.1.1.10 Forgot password/ Change password

3.1.1.10.1 The buyers can retrieve their passwords in case they forget it. The users will be asked to submit their email address and the password will be sent to this email address.

3.1.1.10.2 The user can change their passwords as per their requirement. For this, they will have to enter their old password and new password. The new password also must be at least 8 characters in length.

3.1.1.11 View Order history

3.1.1.11.1 The buyer can view the order history of all the orders till now added by the buyer.

3.1.1.11.2 The buyer can sort out the product history with the help of product dates, type of product, cost etc.

3.1.1.12 Report a complaint

3.1.1.12.1 The buyer can log a complaint onto the system if some inconvenience is faced by the buyer.

3.1.1.12.2 In accordance with the complaint, a complaint number will be generated which can be used by the buyer to track it.

3.1.1.12.3 The buyer can also close the complaint if the complaint is resolved.

3.1.1 Seller's Requirements

3.1.2.1 Login

3.1.2.1.1 To login into the system, the following details are required:

3.1.2.1.1.1 Email Address – must be a valid email address

3.1.2.1.1.2 Password – Must have at least 8 characters with at least 1 special character, the text field must be in password mode.

3.1.2.2 Create Account

- 3.1.2.2.1 The buyers can register themselves for the E-Commerce site.
- 3.1.2.2.2 For registering, the following information are required:
- 3.1.2.2.3 Email address –must be a valid email address
- 3.1.2.2.4 Password – Must have at least 8 characters with at least 1 special character, the text field must be in password mode
- 3.1.2.2.5 **Contact Details**
 - 3.1.2.2.5.1 Name
 - 3.1.2.2.5.2 Shop Address
 - 3.1.2.2.5.3 GST Number
 - 3.1.2.2.5.4 Mobile Number
 - 3.1.2.2.5.5 Mailing Address
 - 3.1.2.2.5.6 Categories of Product

Upon successful registration, this information will be stored in the database.

3.1.2.3 Updating Profile

- 3.1.2.3.1 The buyers can update their profile information whenever required.
- 3.1.2.3.2 All the fields mentioned above will be updatable except the email address and GST Number.
- 3.1.2.3.3 This changed information will be updated to the database on successful updation.

3.1.2.4 Adding Products and its Detail

- 3.1.2.4.1 The seller can upload Photos of the product and a detailed description about it.
- 3.1.2.4.2 The seller can update the price of his products any time he wants

3.1.2.5 Notify when orders are received

- 3.1.2.5.1 The seller will get notification with product details when buyers(customers) place order
- 3.1.2.5.2 The seller will get notified when the buyer requests for the replacement/refund for the product.

3.1.2.6 View Order history

- 3.1.2.6.1 The seller can view the order history of all the orders till now added by the buyer.
- 3.1.2.6.2 The buyer can sort out the product history with the help of product dates, type of product, cost etc.

3.1.2.7 Payment Details Review

- 3.1.2.7.1 The buyer can check the payment of orders which are received and which are pending

3.1.2 Administrator's Requirements**3.1.3.1 User Management**

The administrator can manage the buyers of the system.

Administrator can:

- 3.1.3.1.1 View the details of the buyers/sellers
- 3.1.3.1.2 Email any particular buyer/seller
- 3.1.3.1.3 Delete any buyer/seller

3.1.3.1.4 Activate/ Deactivate any buyer/seller

3.1.3.2 OrderManagement

3.1.3.2.1 The administrator can update product information.

3.1.3.2.2 It can update the status of the product and send a email to buyer regarding the product status change.

3.1.3.2.3 It can also update the information of crew member working on the particular product and hence a email will be sent to the crew member regarding the allocation/deallocation of the product.

3.1.3.2.4 The administrator can also delete a product.

3.1.3.3 Recommendation Management

3.1.3.3.1 Administrators can manage the advertisements placed on the website.

3.1.3.3.2 Placing the ads and removing them at specific time intervals is the administrator's job.

3.1.3.4 Report Management – Statistics of buyer/seller

Administrator can also view various reports likely:

3.1.3.4.1 Statistics of buyers in the site

3.1.3.4.2 Statistics of orders in the site

3.2 External Interface Requirements

3.2.1 Software Interfaces

- Database Management System: SQL Server
- Python Framework
- PyCharm/Jupyter Notebook
- Technology: Java Script, Django, HTML, CSS

3.2.2 Interface Requirements

- Login Page
- Registration Form
- There will be a screen displaying information about product that the shop has.
- If the customers select the buy button then another screen of the shopping cart will be opened.
- After ordering for the product,the system will sent one copy of the bill to the customer's Email Address

3.3 Design and Implementation Constraints

Database accuracy and data retrieval speed:

The online central database and offline database should be synchronized at particular intervals.

4. Non-Functional Requirements

4.1 Security and Privacy Requirements

4.1.1 Authentication

- Only authenticated users will be allowed to place orders for shipping orders, monitor their orders, make payment online etc.
- The unauthenticated users will only be allowed to browse through the site and can see the services provided by the system.
- The security will be based on the simple password protection.
- There will be captcha if the user forgets the password and the recovery of the password will be sent to the user via link in the backup mail ID.

4.1.2 Authorization

- Security needs to be checked on the applicable pages to prevent URL manipulations.

4.1.3 Privacy

- The orders placed by a particular user can only be seen by the user itself.

4.1.4 Reliability

- We don't share any type of information to other third parties
- The data provided to us will be used for fair use only

4.1.5 Portability

- The application of this software will also be available so that one can use it from anywhere in the world.

4.1.6 Maintainability

- The software require less time for maintenance
- The software goes under maintenance once every month for updating security patches and improving User Interface.

4.2 Computer Resource Requirements

4.2.1 Computer Hardware Requirements

Server side:

- Intel Core i7 11th Gen
- 1TB SSD or higher
- 32GB RAM or higher
- NIC

Client side:

- Intel Core i3 5th Gen or higher

- 2GB RAM or higher
- Internet Connection

4.2.2 Computer Software Requirements

Server side:

- Python Framework
- Windows
- MS SQL 2008

Client side:

- Browser