***SOFTWARE REQUIREMENTS SPECIFICATION(SRS)***

***ONLINE SHOPPING SYSTEM(OSS)***

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* Standard template for writing SRS

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*SOFTWARE REQUIREMENTS SPECIFICATION(SRS)*

*ONLINE SHOPPING SYSTEM(OSS)*

1. **INTRODUCTION**
   1. **Purpose:**

These Documentation is for gathering and understanding the requirements of Online Shopping System. Here we will see about the different types of requirements that is needed to make a Sustainable and User-Friendly system for users. These Document will guide the whole team including Developers, Testers, Modifier and many more employees which will be the part of these project. As well as these will also helpful for the client for each these systems are going to established as it clears all his/her needs or expectation which is needed from developer side.

These SRS will give the perfect path for whole team to gain development in Systematic and disciplined way. It will help members of team to get sorted out with clear Time Periods and schedule of getting done things. Through It Client will be get satisfied by Development team as it provides very event in disciplined and on time.

* 1. **Document Conventions:**

Here we have divided SRS into Few Main Categories written in Big Capital letters in BOLD letter. And under that main category there many sub categories which is expanding their Respected Main category which is in Bold letters and in the sequence which should be followed to make Document understandable.

* 1. **Intended Audience and Reading Suggestions:**

These SRS Document is for the users which want to shop online, this system is for those who doesn’t have time for getting out and shop small things like household, electronics items etc.

Targeted audience are those type of people you have Job or old age people. So readers will be mostly the non-technical persons so it should be clear and understandable. We Suggest to read the document as Sequence wise to be understand perfectly.

* 1. **Project Scope:**

This project is about online shopping system which serves consumers to shop online easily by just seating at anywhere as per there comfort zone. It gives all features and facilities to the consumer that makes online shopping system. It serves eco- friendly system for every type of consumers to operate it. Developer’s moto is to make it very safe and secure for users in the way of transaction and Privacy policy.

1. **Overall description** 
   1. **Product perspective:**

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

formalities. It’s easy way to get things just by searching the product with some specification of product which exactly you are seeking for. It’s convenient for Seller and buyer both because it reduces the cost of transportation, warehouse rent, reduces man power.

* 1. **Product Features:**

OSS should support this use case diagram:

LOGIN

Manage Customer Database

Browse category

Add/Remove Item from cart

View/Delete Guest Book Entries

Add/Remove/Update item category

Payment

Approve/Reject Shop Creation Request

Cash

Giving Feedback

Shipping Order

Log Out

View Account Detail

Visit Page

Create New Account

Cancel Order Before Shipping

* 1. **User Classes and Characteristics:**

User class of the system should be able to get data of all Shopping system of all products with all types of Filters and specific description from the database.

System is used by the three types of people Owner, buyer and seller.

* Buyer will have access to all functions allotted to customer regarding products.
* Seller will have access to functions related to selling their own products and also few customer details which will buy their products for delivery point of view.
* Owner will have full access regarding about buyer and seller both all the activities, functions will get accessed by owner side.

The Main overview of functions are:

* Search The Products
* Comparing the products with each other
* Add to wish-list
* Add to cart
* Remove from cart
* Payment options
* Delivery Modes
* Cancel the order
* Reviewing the products

These are the customer point of view functions it may differ for Seller and owner they will have some different functions too.

For Seller:

* Updating the price
* Issuing The Discounts
* Update in quantity of stocks
* Any update in Specification of product
* Cancelling order from their side due to some problem

For Owner:

* Tracking the Seller quality
* Reviewing The seller
* Analyzing the product sell
  1. **Operating Environment:**

Operating Environment means the environment in which online shopping system will get established with its Front-end, back-end and Designs:

* Distributed Database

For Saving and securing customer personal and confidential data for long time.

* Customer/Owner Server System

Where We will describe functionalities for Buyer, seller and owner.

* Operating System: Windows

Coding and algorithms will be set in Windows OS but can be accessed in any OS like Linux, Mac etc.

* Database: SQL+

Here We will store main data about Online Shopping System.

* Platform: Java EE/PHP/HTML, CSS, Java script

For Different purpose we will use different type of platform for example we will use java and php for backend. And for frontend we will use HTML Java script for web designing.

* 1. **Design and Implementation Constraints:**

Designs Constraints:

* It should be attractive design of web page with convenient colors, fonts, and Images so customer should get attracted towards and get interested for using it .
* It should be Eco Friendly and Easy operating system so any type of people can easily use it.
* It should be very convenient for user that after seeing the web page or web site he/she easily get to understand how it works.
* Mechanisms should be set according to customer that he/she doesn’t get asked to many fields to fill up.

Implementation Constraints:

* These System will be used in multiple cities and states at the same time so it should be capable to handle that load.
* Database should be capable to take all data at once without losing it for long years.
* Database should be secure and trustable that third party can’t leak any information of customers publicly.
* Maintenance should be taken of all serves, apps, software and databases which are used in developing the Online shopping system.
* As per agility changes should me without disturbing running version work should be done.
  1. **User Documentation:**

We will provide all types of documents and reports to client for which we are developing this system. There will be the Schedule for providing the documentation to client and company. Some of required documentation will be provided at the mid of the process and some will provide after the competition of the process.

Documents like Required products, Ppts, reports of analyses, Upgradation Report, Test Cases, Test Suites, Issues Report and Bugs Reports, Design, well maintained software etc.

We will provide instruction for customer and client like manual as in the form of software, animations as a Tutorial and small text box for sets of instruction that makes Easy use. So for client or users or customers documentation will be as animated tutorial.

For the user documentation any one person will be in charge of that will keep all the records of papers and files as per requirement and needed time.

* 1. **Assumption and Dependencies:**

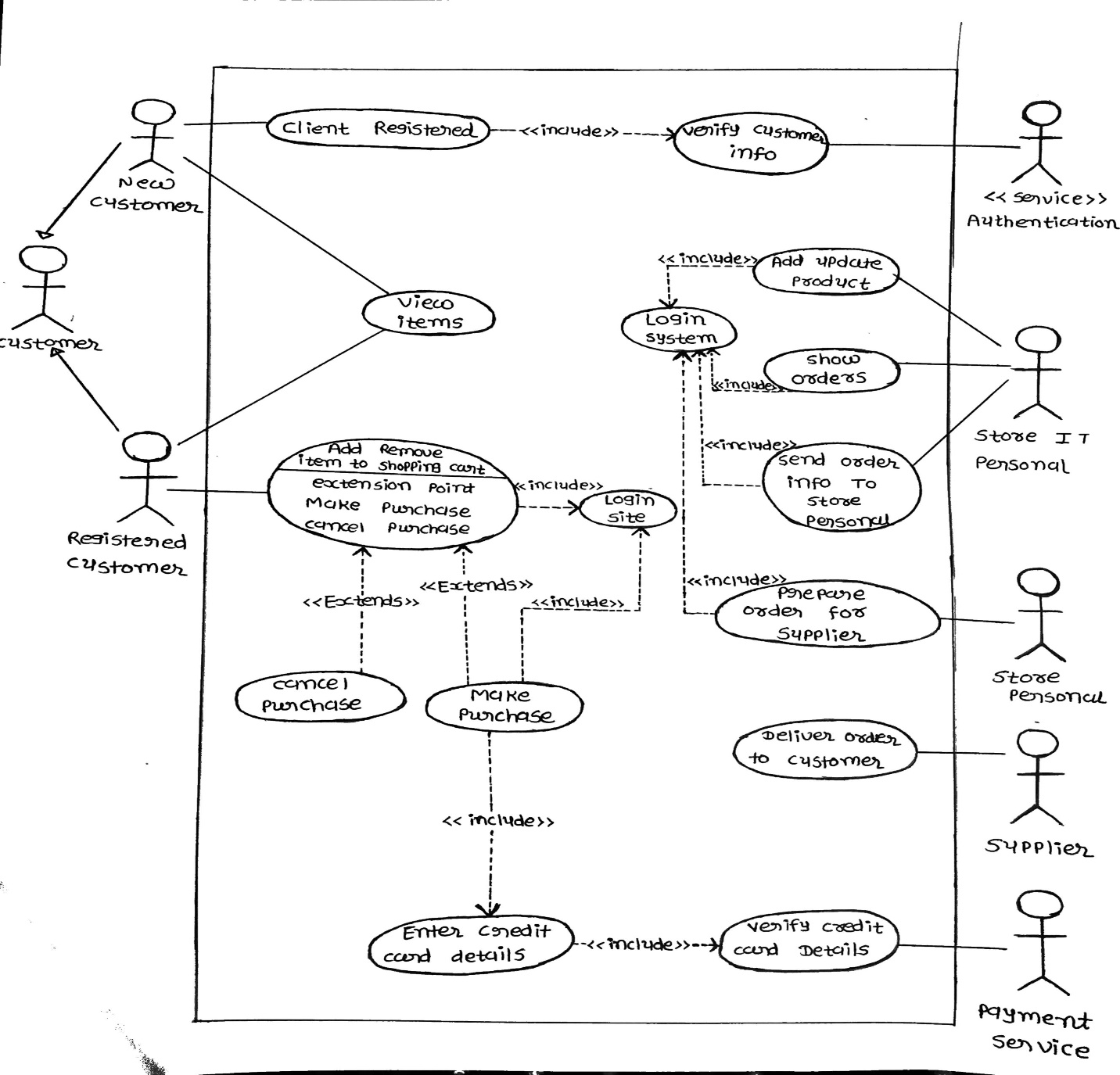
Assumption will be made about the software to get some positive approaches.

After the completion of software development and website will be successfully developed it will be easy for buyer and seller to access it easily for any type of task. It will be smooth and interesting for users to surf for online shopping system. We will make it perfectly synchronized and perfectly set of all the threads of software that any two tasks don’t get implemented at the same time.

We will need the expert team of developers, testers, full stack developer, Project manager, Documentation handler, coder and Front-end developer. Software will depend on these expert’s team. On the another hand we will need Exclusive and premium Components for the best development like Fast Internet, fast computers and supportable versions for all type of amenities which doesn’t compromise the development at the any end.

1. **System Feature:**

Basic Use case diagram of the online shopping system how it will work and all the features that will be you get to use.



* 1. **System Feature 1:**

**Description of feature:** Add, Remove and Update products by Seller as per requirements.

Description & Priority:

Seller can add new product or can edit old product specification or after stock clearance it can be removed from the page by the seller.

Its high priority. The problem to be solved at first place is that it has the advantage that the degree of benefit is high. Therefore, the cost and risk are relatively high automatically.

Stimulus/Response Sequences:

* Seller has access to add remove or edit the product.
* If seller want to add any product, he/she will add all the specification of the particular product to database via interface
* If seller wants to remove any product, due to end of stock seller will have access to database so it can be removed by webpage.
* If seller want to update, they have retrieved that data first from database and then he/she have to change property that should be updated.

Functional Requirements:

* Use Case name:

Add, remove and update products.

Actors: Seller

* Triggers:

Seller wants to add product.

Seller wants to remove product.

Seller wants to update product.

* Pre-requisite:

Software is running.

Seller has a unique username and password to access all functionality of seller.

* Situations:

Seller products have been successfully added, updated and removed from the database without any problem.

* Normal flow:

Enter seller use rid and password in the system.

Seller enters the system.

The username and password are verified by the system.

Enter seller menu.

The menu item will display show products, add products and update products.

Seller will make changes.

Changes will save in database.

Use Case.

* Alternate Flow:

Invalid username or password entered by seller.

An error message will be displayed on the screen.

The system will display a message that it should try again.

Return step 2.

Seller entered incorrect username or password after 3 times.

The system will block the account.

The system will notify the person that they should communicate with that system admin with a warning message.

Use case end.

Seller selects “show products”.

Instead of searching, it enters the product ID for the product it wants to review.

Seller examines the selected products.

Continues step ff.

Seller select “add products”.

The system creates an automatic ID for the product.

The system enters other information of the product into the system.

Seller click the “add” button.

Continue step 7.

Seller select “product remove”.

Seller enters the product ID for the product to be deleted.

The system displays the products in the user interface to seller.

Seller click “delete” button.

The system will give you the message that you are sure you want to delete this product.

Seller click “I am sure” button.

The system assigns this deleted product information to the table of deleted products in the database.

The product is deleted from the products table in the database.

Continue step 7.

Seller click “I am not sure” button.

Continue 6.3.

Seller click “update product information” button.

Seller enters the product ID for the product to be updated.

The system displays the product in the user interface to seller.

Seller click “Update” button.

The system will give you the message that “You are sure” you want to update this product.

Seller click “I am sure” button.

Continue step 7.

Seller click “Transaction cancellation” button.

System returns to its original state.

Continue step ff.

* 1. **System Feature 2:**

**Description of Feature:** Buyer’s Purchase Transaction. It is a high priority.

Description & Priority:

It is the highest priority of the system to make Safe and secure payment for buyer through different types of modes of transaction by card, atm, net banking, upi and COD. The Seller Service is one of the visions of Online Shopping system. In this feature risk level is very high. Main moto is to make Tension free transactions by buyer.

Stimulus/Response Sequences

The Buyer Log in to the Website.

The Buyer can view the all the products.

The buyer will search the products with specification.

The Buyer will add the product to cart.

System will verify that user is registered or not.

If user is not registered, System will Notified for registration.

Buyer will go to cart than proceed to check out.

Then buyer will get option of payment modes.

Then Buyer will receive the Notification of Done Payment.

Order will be placed.

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Functional Requirements:

Online shopping system allows buyer to obtain online order from their system. This use case starts when buyer want to buy products. The Buyer adds the desired products to add to cart and places the order. Then Buyer will enter details of credit card and placed the payment. If the payment gets done order will be placed or if some problems occur authentication problem payment will be automatically will transferred to buyer account back which makes it safer.

Use Case Name: Make Purchase

Actors:

* Any Bank Customer
* Authentication Service
* Supplier

Triggers:

* The buyers want to buy something from Online Shopping System.

Preconditions:

* The buyer sells register and login into Online Shopping System.
* The buyer must have something for online payment.

Post Conditions:

* The buyer has received their products.

Normal Flow:

1. The Buyer log in the online shopping system.
2. The authentication verifies that the buyer information is valid information
3. The online shopping system shows tha all products.
4. The buyer adds products to the cart.
5. The buyer confirms the order.
6. The buyer enters the details of online payment options.
7. The Payment system confirms the details and enough money.
8. The Seller Deliver order to buyer with product and bill.
9. Use case ends.

Alternate Flow:

1. The buyer entered invalid password.
2. The system will show invalid password message.
3. The system will record log.
4. The system will ask to buyer try again password.
5. The system will check how many try again.
6. The use case will return to step 1 and continues.

The Customer exceeded the number of passwords try:

1. The system will show blocked the account message.
2. The system will record log and send to system.
3. The system will send a message to buyer.
4. The Use case ends.

The Buyer has entered invalid cards details. The system will show error message.

1. The system will show error message: “Incorrect Details”
2. The system will ask to buyer try enter card details.
3. The use case will return to step 6 and continues.

The Buyer’s bank doesn’t have enough money. The system will show error message.

1. The system will show error message: “Insufficient Balance”.
2. The Buyer update the shopping cart.
3. The use case ends.

EXCEPTION FLOW: The system will out of order due to network failure.

1. **External Interface Requirements**
   1. **User Interface:** Various interfacefor the product is: -
      * 1. **Login Page:**

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” page and a “Forgot Password” option in case a user forgets the password. If the password entered is correct the Main User Interface opens up else an error message is displayed.

**Registration Interface**:

The user will enter his personal details like Name, User Name, Password, Date Birth, Address, Registration Type, etc. Users will be given disclaimer of any wrong entry as per your requirement. When user will save the all fields it will it get save in consumer database directly.

**Personal Data Editing:**

If any user wants to edit or change his/her personal information he/she can enter the His Account by clicking on profile symbol. He/she will get first old details than he/she will change particularly what he/she wants.

**Search for products:**

The User can enter the details of search that exactly they want by company specification or type of product or any type of another specification which is related to desired product.

User can search products by also filtering some terms like High to low price, Low to high price, Avaiblility, popularity etc.

User can also use advance search options like search by image or some special QR code etc.

**Add as favorites:**

The User can shortlist his/her favorite item as a list for future interest.

**Cart:**

When user is confident about buying some specific product, he/she can simply add those products with fix amount of quantity to cart. He/she can add multiply products in the cart and It will give sum of prices of how many products is added.

**Payment:**

The User will get different types of mode of payments like Credit cards, Debits Cards, UPI Payment, Net Banking, also new feature has been developed of Pay Later or At EMIs through your bank account. System will verify the bank details with bank authentication.

**Support:**

The User can get support or any type of help with Us through Emails, calls or via messages. User can also read some basic FAQs in the support section.

* 1. **Interface For Seller:**

Seller Will be provided Different Id and password for login page using which he can access his account that contains All functionalities related to seller interface to contact buyer and also the OSS owner.

The Following things will be accessed to seller:

* Requesting owner to set up his online products on Website.
* Setting up his products with all required and necessary specification of product and upload it to Website.
* Add/Remove the product from the website.
* Templates for marketing.
* Creating the report of sales and accounts of total cost.
  1. **Sales manager Interface:**

The sales manager will have a different log in id using it can access the sales and contacting the whole seller.

This Interface will give allowance of some of the features are as follow:

* Maintain the products database so that same type of product get maintained properly with their unique id, so when it is purchased any confusion or inconvenience doesn’t occur.
* Generate the tracking system of the order status.
* Promotes sales by issuing products with offers and discounts.
* Contacts the seller.
  1. **Interface for Accounts Manager:**

The Accounts manager will have a unique id and using which it can access his interface to manage various transaction and accounts.

The Following features are included:

* Keep tracks of payments done by customer online.
* Keeps Friendly relationship with all banks.
* Reports the failed transaction and solved it.
* Contact Seller and Buyer.
  1. **Purchase Manager Interface:**

The purchase manager will have also different login id using which he can access his features of the interface where he/she can see the requirements and purchase.

The Following features are included:

* Purchase manager will set the critical value of stocks, if the stocks will go below that critical value system will give alert to him.
* After getting alert purchase manager can give list of requirements to vendor and can purchase.
  1. **Customer Care Interface:**

User can contact the seller or owner thorough customer care Interface for that call center will be established and employee have their own unique id for login.

The following features will as follow:

* Read feedbacks from particular user and let the owner get known about it.
* Provide answers to the queries posted by the users.
* Contact owner.
  1. **Administrator Interface:**

The owner 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 user database.
* Access and view the database of vendors, go through their requests for shop creation and reply them back with acceptance of their request.
* Access and view the employee database and manage them.
* Make the catalog, taking the design of corresponding shop owners in consideration.
* Grant purchase permit to purchase manager.
* Manage employee salary.
* Contact employees.

**4.8 Communication Interface:**

* + - 1. The two parties should be connected by LAN or WAN for the communication purpose.

Communication

SENDER

RECIVER

**4.9 Hardware Interface:**

Here We will define the hardware requirements to establish Strong and Succusfull Online Shopping system.

* Compatible Desktops and CPU: Strong one needed to handle the load of coding, designing and data base handling.
* Servers: Strong and long-lasting serves are needed to keep data and every team member connected through it.

**4.10 Software Interfaces:**

We will need different types of software for developing the Online shopping system.

* Operating System: Windows 11 (But System will run in any OS Like Linux, Mac, etc.)
* Development Software:

For Front-End – HTML, CSS and JavaScript

For Back-End – Java

For Designing Template – Canva

* Database: My SQL

1. **Other Non-functional Requirements**
   1. **Performance Requirements**

* The system shall accommodate high number of items and users without any fault.
* Response to view information shall take no longer than 5 seconds to appear on the screen.
* Data should be store in database when running software any entry is done by any type of user owner, seller.
* Designs should be attractive and according to performance of the software.
* We have to develop the performance and fox the bugs because system performance is not enough.
* Database could need to be normalization
  1. **Safety Requirements:**
* System use shall not cause any harm to human users.
* When software is used, it doesn’t get interrupted by malware functions.
* Designs should be eco-friendly that doesn’t make any headache to see.
  1. **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.
  1. **Software Quality Attributes:**
* Software should be passed from all the SQA’s factors.
* It should follow the procedure of all the SQA’s methods and as per the given order.
* All the recommendation made by the SQA team should be at high priority.
* Design and code should be according to the factors that SQA has provided to make it.

**LEVEL O DFD Level 1 DFD**

Bill Details

Product List

ADMINISTRATOR

CUSTOMER

ADMINISTRATOR

CUSTOMER

Bill Details

Order Confirmation

Payment

Change/Update Product List

ADMINISTRATOR

CUSTOMER

ADMINISTRATOR

CUSTOMER

BILL DETAILS

ADMINISTRATOR

PAYMENT DETAILS

Change/Update

Product List

Select Item

BILL DETAILS

BILL DETAILS

Payment

Order Confirmation

Item Details

Selected Items Detailed