Software Requirements Specification

for

E-Commerce website

Prepared by
Asher Lopes 9268
Rahul Bothra 9245
Preeti Vasaikar 9299

Dillon Gonsalves 9259

Fr. Conceicao Rodrigues College of Engineering

22nd October 2022

Table of Contents

Table of Contents

2

Revision History

Name	Date	Reason For Changes	Version
Ecommerce website	18.08.22	Diagrams regarding the project were added in Appendix B	Version 1.0

3

1.   Introduction

1.1   Purpose

The aim of this document is to gather and analyze and give an in-depth insight of the complete E-commerce system by defining the problem statement in detail. The project aims to develop a web-based application to improve the service to the customers as well as the sellers to improve the sales of their product. The detailed requirements of the E-commerce 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 to have better sales.

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.The

customers can also view the products in 360 degree view which gives them a

better understanding of the product.

1.5   References

IEEE. IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements
Specifications. IEEE Computer Society, 1998.
2.https://www.researchgate.net/publication/304703920_A_Review_Paper_on_E-
Commerce
3.https://globaljournals.org/GJMBR_Volume16/3-Electronic-Commerce-A-
Study.pdf
4.https://www.ijbmi.org/papers/Vol(5)9/E05902531.pdf

2.   Overall Description

2.1   Product Perspective

The E-commerce system should provide the facility of buying items. There are

online as well as offline modes of payment. Online payment can be done

through Credit/Debit Card or by UPI. Offline payment can be done through

'Cash on Delivery' This system aimed towards people who wish to save time

and energy by shopping as well as selling their goods online rather than going

to the store.It becomes easier for the seller to directly sell their goods to the

admin rather than selling them on their own. 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.

· There will also be a seperate login for the sellers as well as the admin.

· Username will be individual customer id and each set their own password.

· Only the administrator can add or update the database containing the products.

· The admin will verify the quality of the products on the website.

· Customers can only view the item details and order items that they choose to buy.

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

2.3   User Classes and Characteristics

There are 3 kinds of users for the proposed system.

· ● Administrators: Administrators are the ones who adds or administer

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 administrator.

· ● Sellers:The sellers are the ones who will sell their products to the

administrator and their items will be displayed on the website.

2.4   Operating Environment

Hardware Requirements
A PC/Laptop/Mobile.

Software Requirements
Front End: Hypertext Markup Language, JavaScript, CSS.
Back End: PHP, SQL Database.

2.5　Design and Implementation Constraints

- The main constraint here would be the checking the genuineness of the members, 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, Bootstrap and SQL database.
- MySQL should be available on the local host.
- The website is not published on the internet. It is run on the local host itself.
- Real life credit card verification and banking system is not implemented.

2.6　User Documentation

For user documentation please refer to Section 3.

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 is provided manually.

Roles and tasks are predefined.There will be no refund on sale items.

3.　External Interface Requirements

3.1　User Interfaces

Each part of the user interface intends to be as user friendly as possible. The fontsand

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 log-in page for buyer,seller and admin. For buyers login all

the products available are displayed. An 'Add to Cart' button is available which will add

the product by the specified quantity given in the text box to the cart only if the user is

logged into his/her account.

3.2   Hardware Interfaces

Processor: - Pentium I or above.
 RAM: - 128 MB or above.
HD: - 20 GB or above.
 NIC: - For each party

3.3   Software Interfaces

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

3.4   Communications Interfaces

PHP uses session variables to communicate between pages of the website.

4.   System Features

4.1   Register and Log in

4.1.1 Description and Priority

This feature creates an account for a new user in the system. For a user to be able to view the website, 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.

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.

For admin login : admin needs to login after login he/she can manage the website

add advertisement, display a better product on the top , verify the seller.

For seller login : seller first need to register after registering he/she can login after

that he/she will be directed to sellers page where he/she can add products/images,

view sales graph, managing delivery.

4.1.2 Stimulus/Response Sequences

Customer first clicks on the button or link to initiate the registration process. The system then prompts the user to fill out his/her first name, last name, email address, and their password. Users enter the fields. System validates the User's information and creates a new account for the User. Once a User registers he/she clicks on the login 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 the home page to the society member.

4.1.3 Functional Requirements

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

4.2. Add to Cart , View Cart and 360 view
4.2.1 Description and Priority
This feature enables for a user to browse through different products in the home page and add any product to the cart. The user can also specify the quantity he/she wants to add to the cart.
On 'View Cart' the user must be able to see all the items in his/her cart.
360 view is special feature where user can view a product in 360.
4.2.2 Stimulus/Response Sequences
If enough quantity is not available then a message informing the same must be displayed else the item is added to the cart of the user.
4.2.3 Functional Requirements
REQ-1: A button for adding to cart.
REQ-2: A button for viewing items in cart.

REQ-3: A table in the database must be created having all the product available and each product's details must be present.

REQ-4: A table for items added to cart must also be available

REQ-5: 360 pictures must be available

4.3. Confirm Order

4.3.1 Description and Priority

This feature confirms the order placed by the customer i.e now the customer has brought the product. user can make payment through paypal.

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   Security Requirements

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:

The application will be able to handle two orders. When a user confirms his/her order the database will be updated immediately and the next user will not face problems in ordering. 3.5.4 Portability

The application will be easily portable on any window based system.

5.4   Software Quality Attributes

The necessary qualities of software products are
5.3.1 Security:
The application is password protected and also any updation of new members is updated and data/website is done by only privileged members.
5.3.2 Maintainability:
The application is to be designed so that it is easily maintained, also it should allow incorporating new requirements in any module of the system.
5.3.3 Reliability:
The application will be able to handle two payments and logins. When a society member confirms his/her login or registration, the database will be updated immediately and the next member will not face problems.
3.5.4 Portability
The application will be easily portable on any window based system.

5.5   Business Rules

Only the seller can add products in the database. The user can only search and buy

for the products added by the seller.Seller needs to pay certain amount to the admin

and whenever the user makes a payment that amount will be give to seller.The admin

will verify the seller and will look after the website and the admin cannot buy

products.

6.   Other Requirements

Appendix A: Glossary

SRS Software Requirements Specification
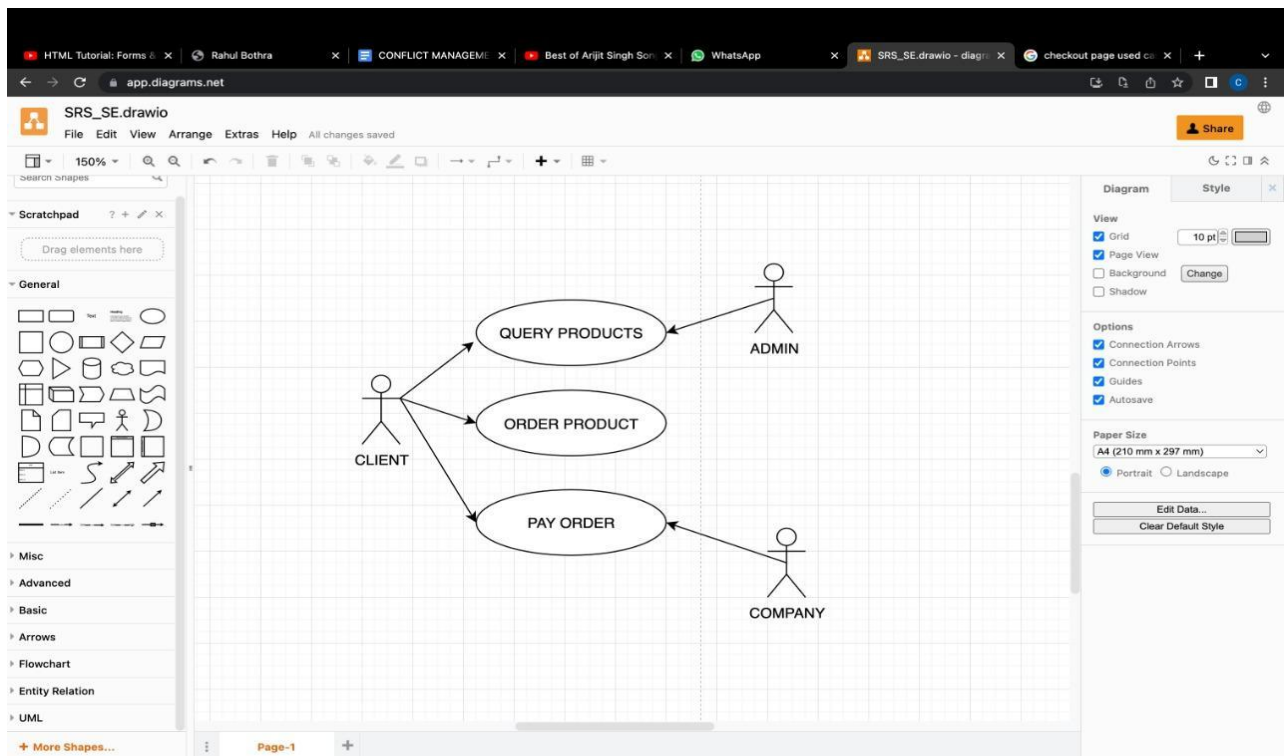HTTP HyperText Transfer Protocol
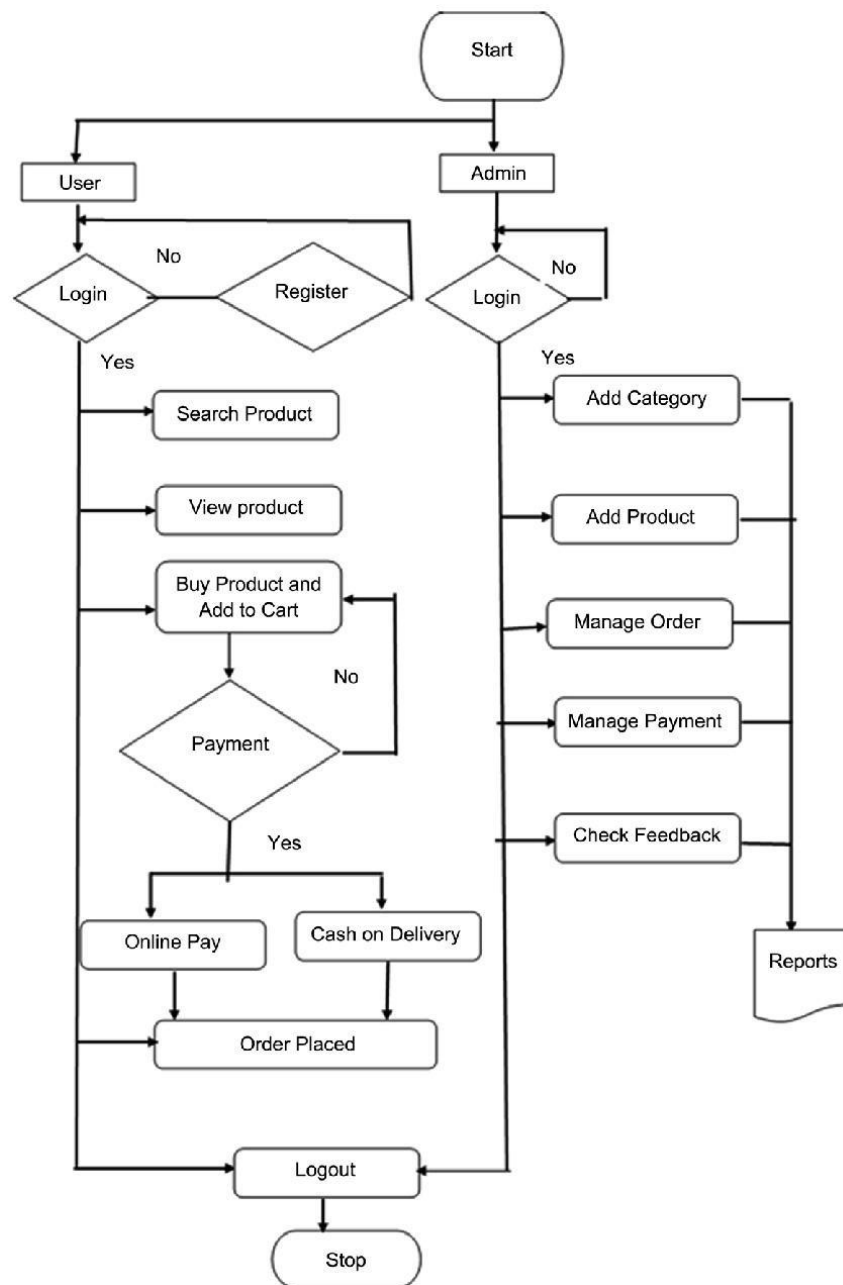SQL Structured Query Language
JS Javascript
CSS Cascading Style Sheet
PHP a server-side scripting language designed for web development (Hypertext Pre-processor)

# Appendix B: Analysis Models

Swim lane

Flowchart

```
                                    ┌─────────┐
                                    │  Start  │
                                    └─────────┘
                                         │
                ┌────────────────────────┤
                │                         │
           ┌─────────┐              ┌─────────┐
           │  User   │              │  Admin  │
           └─────────┘              └─────────┘
```

Start

User → Admin

Login — No — Register   Login — No

Login — Yes   Login — Yes

Search Product   Add Category

View product   Add Product

Buy Product and Add to Cart Manage Order

Payment — No   Manage Payment

Payment — Yes   Check Feedback

Online Pay   Cash on Delivery   Reports

Order Placed

Logout

Stop

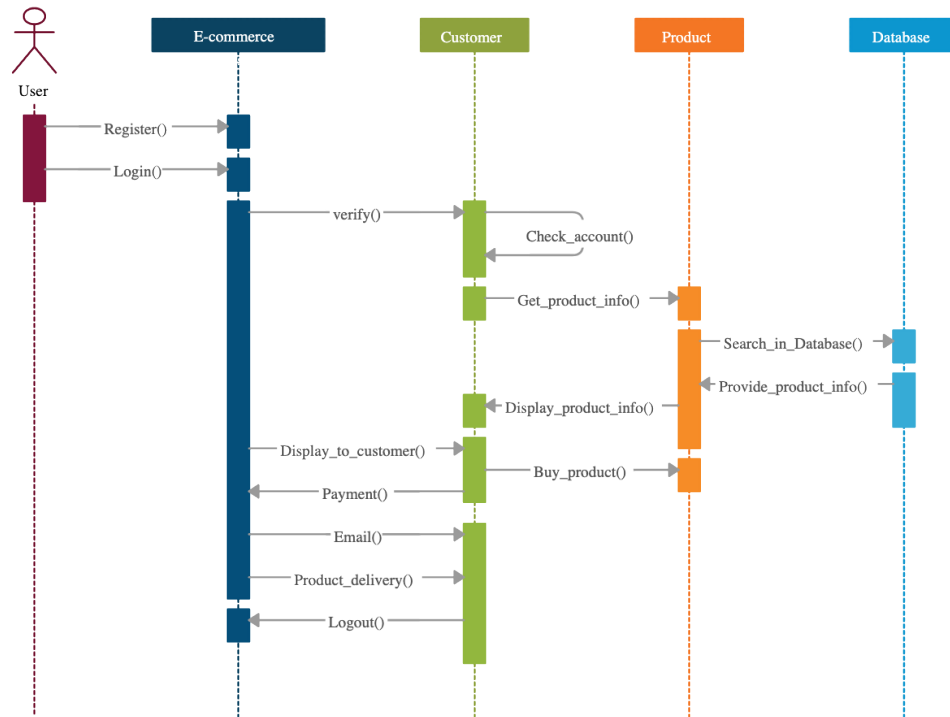| SECTION	FUNCTIONALITY	CHECK
Users	Creating users from the admin panel (different roles)	Compulsory
	Content filtering/sorting using available filters	Compulsory
	User management (editing, deleting)	On request
	Logging user actions in the system (for example, registration, authorization, subscription)	On request
Content	Creating/editing of different types of content (articles, pages, products)	Compulsory
	Displaying content changes when creating/editing by the administrator when using the option to publish/save a draft	Compulsory
	Moderation of changes/comments by admin	Compulsory
	Admin transition to the editing of the site page directly from the page itself	Compulsory
	Content filtering/sorting using available filters	Compulsory
	Gallery (upload of files formats allowed in settings)	Compulsory
	Scripting Content Pages	On request
	Checking the site's Taxonomy (site glossary). Usually checking the possibility of creating sections/pages based on Taxonomy.	On request
General Settings	Integration with the site (transition from the site to the admin panel and vice versa)	Compulsory
	Mailings from the email address specified in the system settings	Compulsory
	Correspondence of the date format in the newsletters and the admin panel to the established and acceptable for the customer (for example, USA 12-hour format with the date mm/dd/yy)	Compulsory
	Checking of the site's Taxonomy (site glossary). Usually a request for reconciliation of relevance and the presence of duplicates.	On request
	Admin themes	On request
Security	Access to pages with limited access by users with different roles, including unauthorized (by direct link, user replacement, changing the role of an authorized user)	Compulsory
	Injection Resistance	On request
	Use of tools like WPscan or any other, typical for a specific CMS	On request

Er diagram
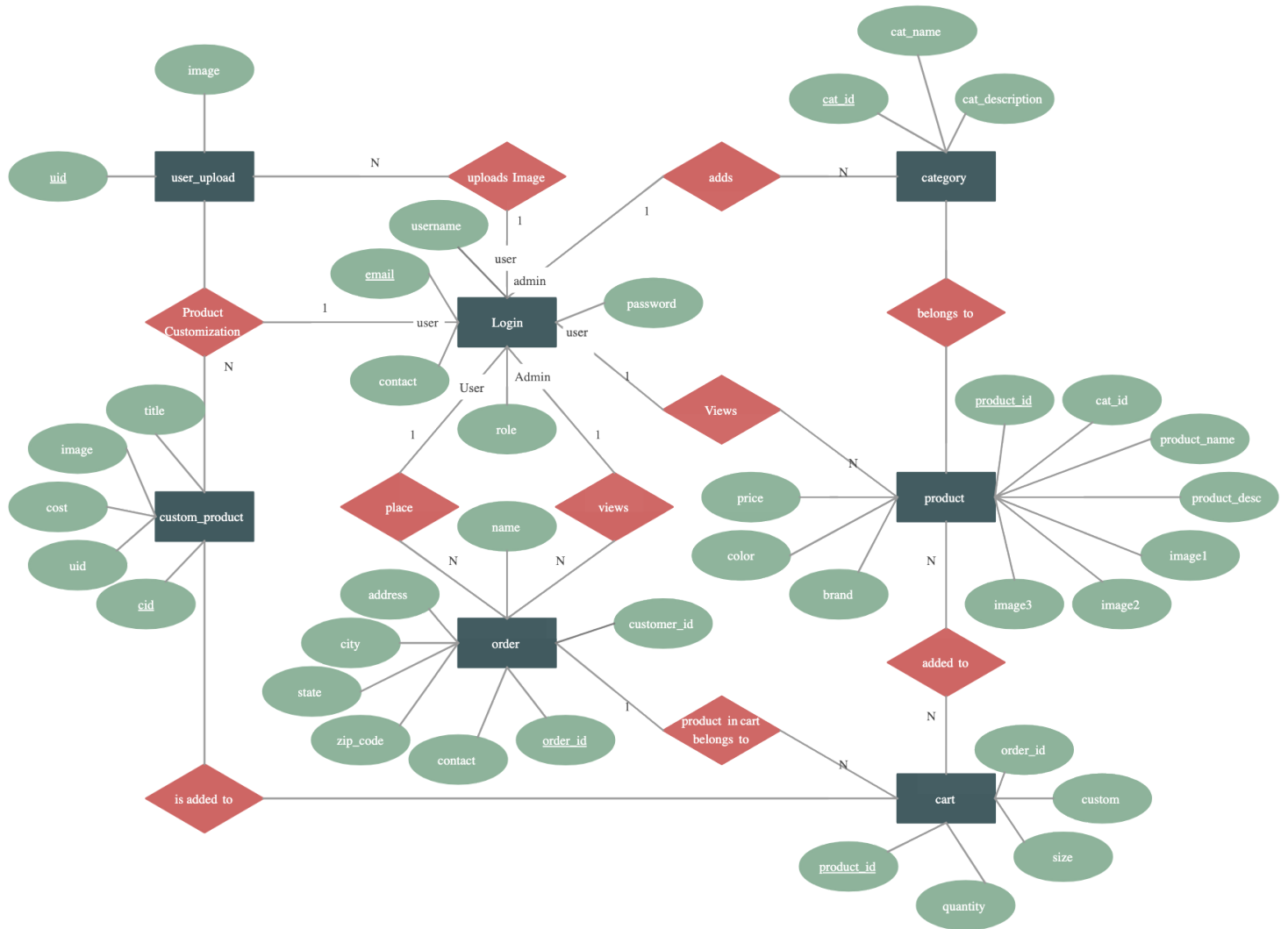
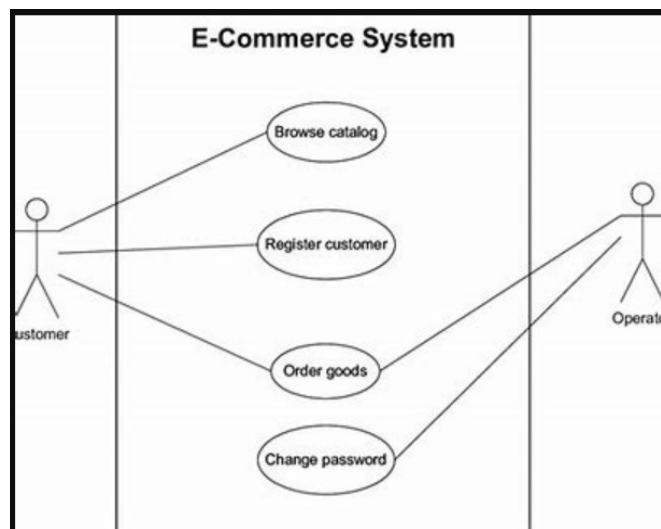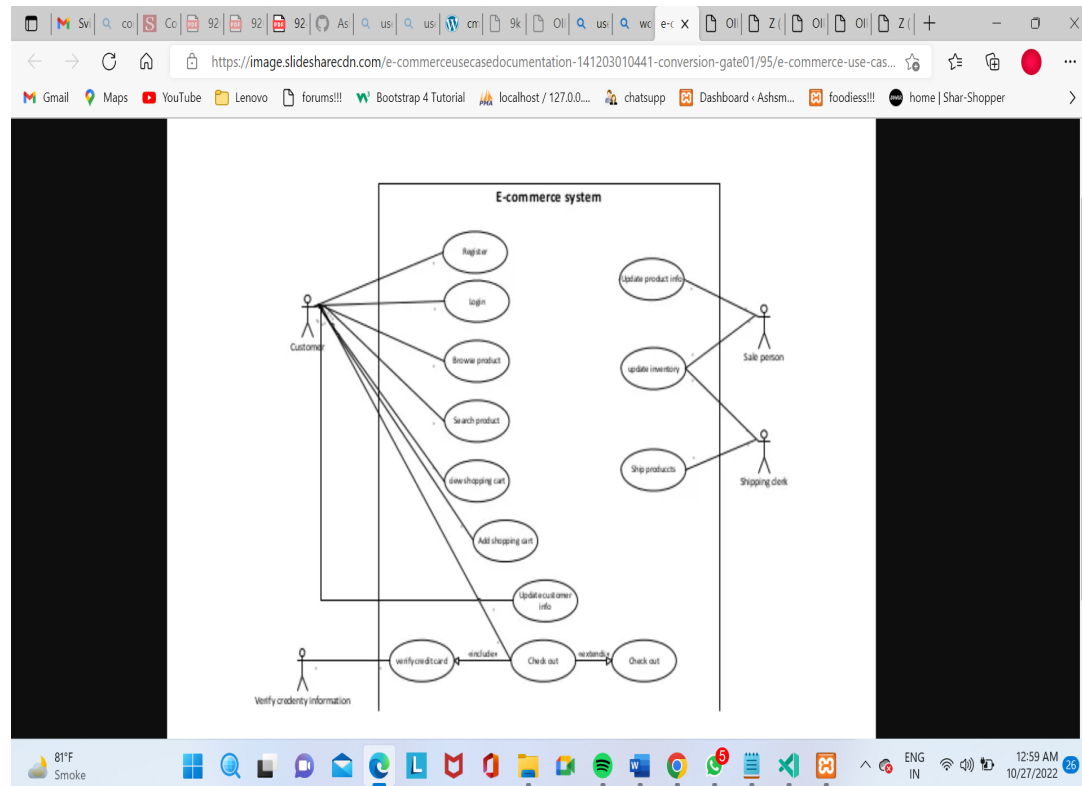# ONLINE SHOPPING SYSTEM
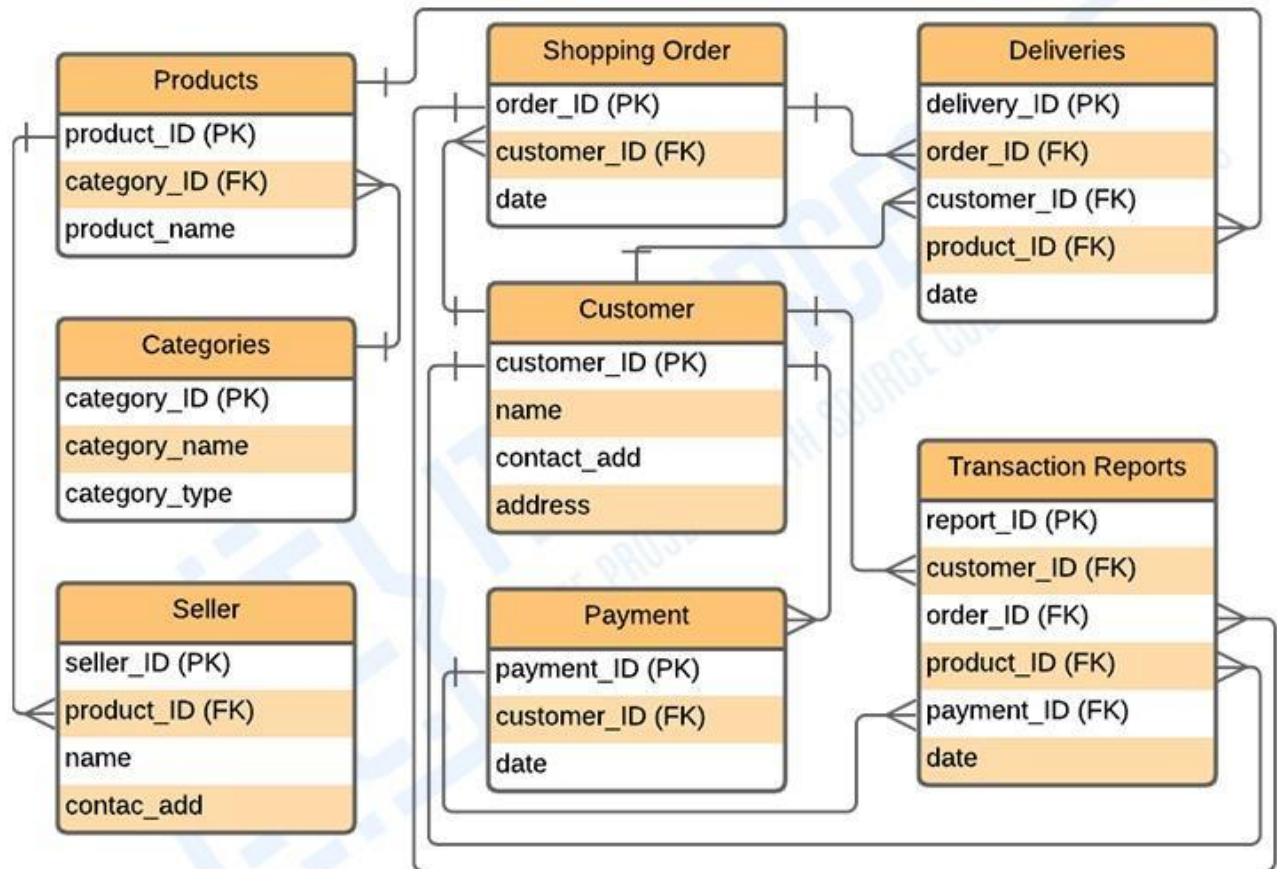
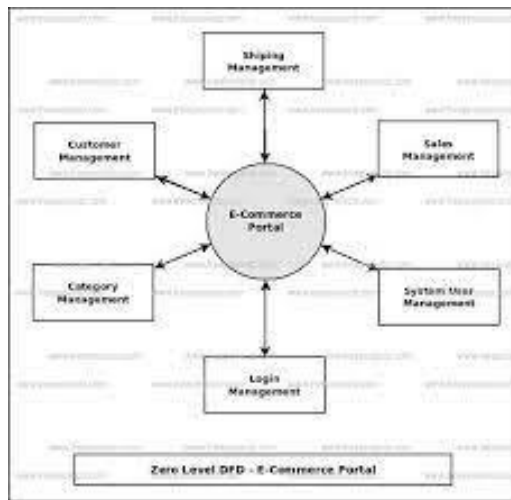# ENTITY RELATIONSHIP DIAGRAM

Sequence diagram
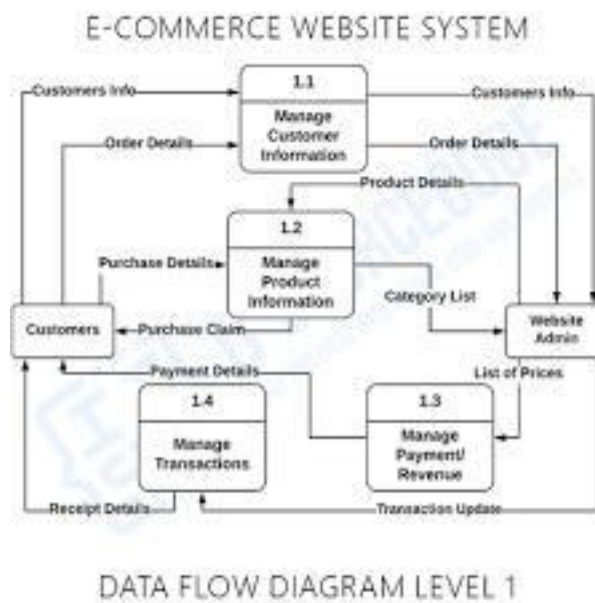

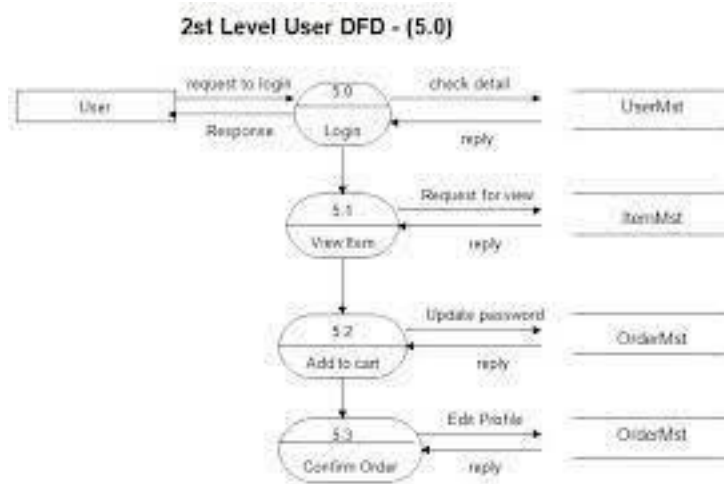Use-case
diagram

B4: Activity Diagram:

Use-case diagram

Data flow level 0

Zero Level DFD - E-Commerce Portal

Data flow level 1

DATA FLOW DIAGRAM LEVEL 1

Data flow level 2

2st Level User DFD - (5.0)

Appendix C: To Be Determined List