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Name of the Experiment: ebay Application

Project Report about ebay website.

1. Introduction :-About ebay:-

ebay is a global E-commerce platform founded in 1995 by Pierre Omidyar. It is an online market place where individuals and business can buy and sell a wide range of goods & services.

Main Aim of ebay:-

To create a global online marketplace connecting shoppers and dealers.

Principle features of ebay:-

- * Auction and Buy it now
- * Global Reach
- * Wide variety of product categories
- * Secure Transactions.

System Requirements:-Software Requirements:-

Backend : Java, C++, Perl

Frontend : HTML, CSS, and Java script

Hardware Requirements:-

High end computers, Webservers, storage and backup units, web developers and Graphic designers etc...

Name of the Experiment :

2. Software Requirement Specification (SRS) Document :-

Introduction:-

Purpose: It outlines the functionalities, performance & constraints of the system.

Scope: The ebay platform is designed to facilitate buying and selling goods online through auction & fixed price list.

References: ebay platform, Google, AT & internet.

Overall Description:

Product perception

Development Environment:

Perl, java, java script and node.js, scala, python and so on ...

Product Functions: user registration, product listing, bidding, buying and payment etc.

Specific Requirement:-

Functional Requirements

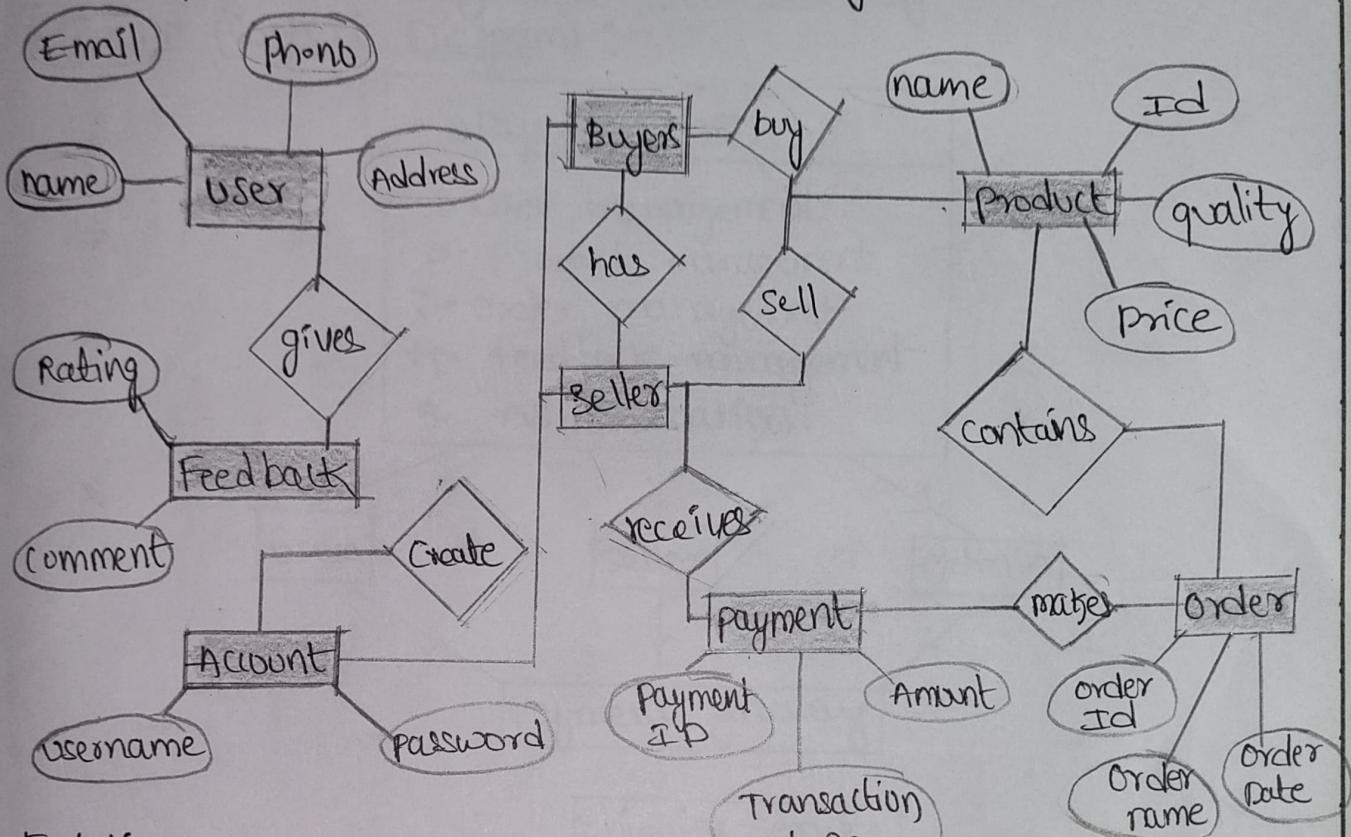
Detailed features and functionalities

- user Registration
- product listing & management
- Search and Browse
- payment integration
- order tracking
- user feedback and rating.

Non-functional requirement

Performance, usability, security and scalability.

3. Entity-Relationship Diagram of ebay :-



Entities, Attributes & Relationships:-

1. **User** (User ID, Name, Email, password, Address)
User can buy, sell, create account and gives feedback.

2. **Buyer** ()
Buying the products and patie payments, give feedbacks.
and place orders.

3. **Seller** ()
Seller sell the products, receive payments

4. **Feedback** (Comments, Rating)
Comments and Ratings are given by buyers

5. **Account** (Username, Password)
Buyer & seller has separate accounts.

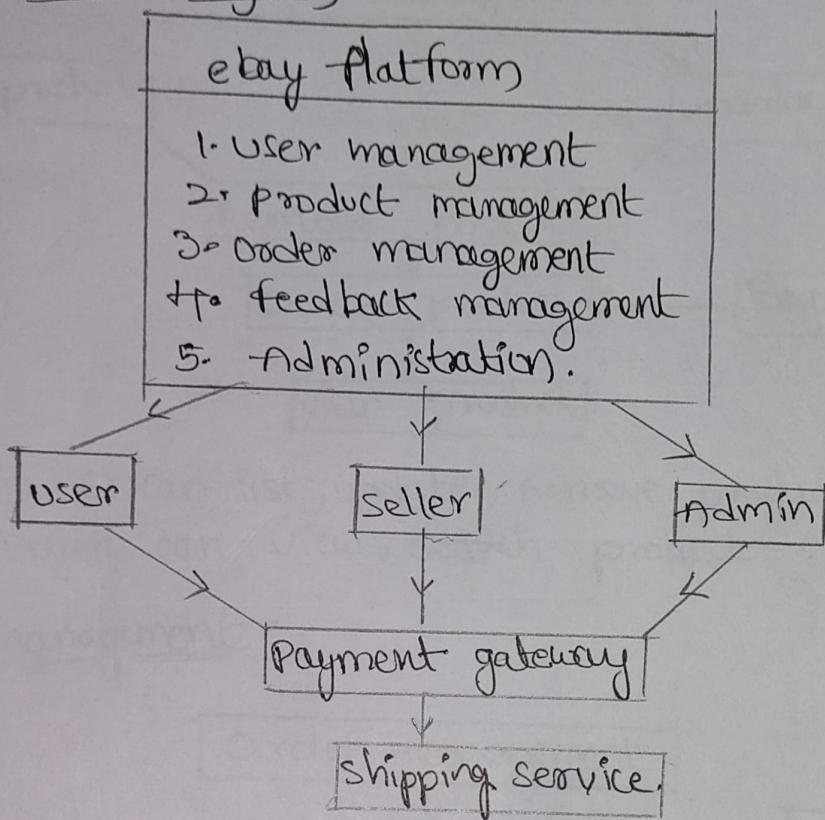
6. **Product** (product Id, name, price, quality)

7. **order** (order Id, Date, name).

Name of the Experiment:

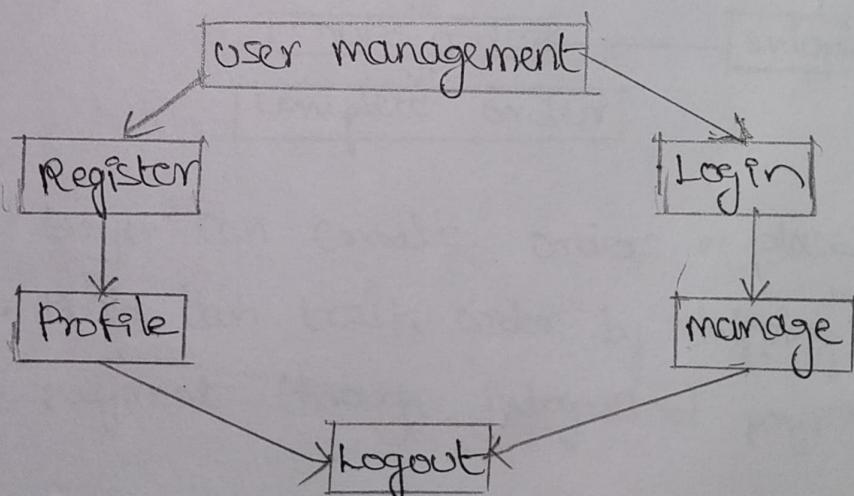
4. Data flow Diagrams (DFD) of eBay:-

level 0 (Context Diagram) :-



level 1 Decomposition :-

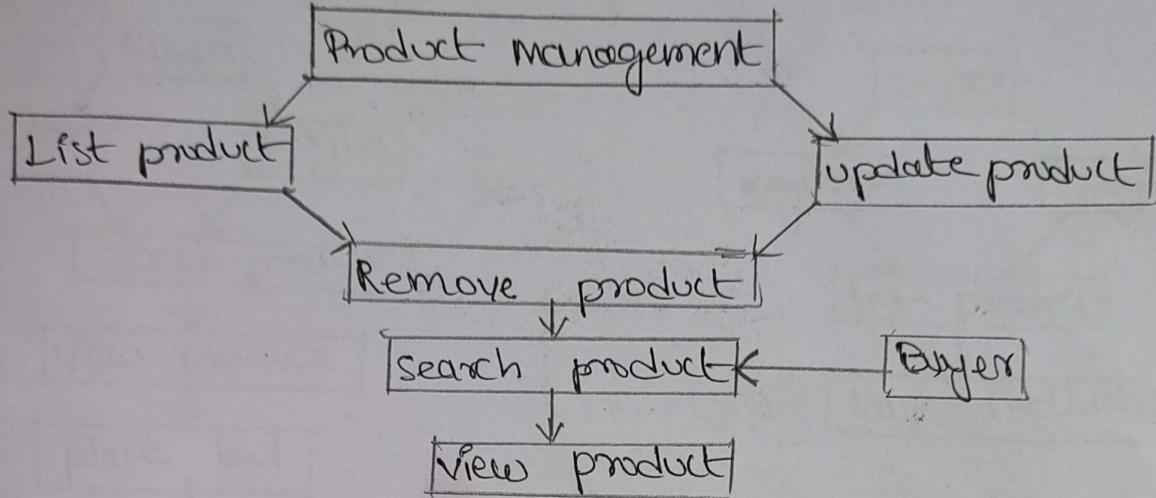
1. user management :-



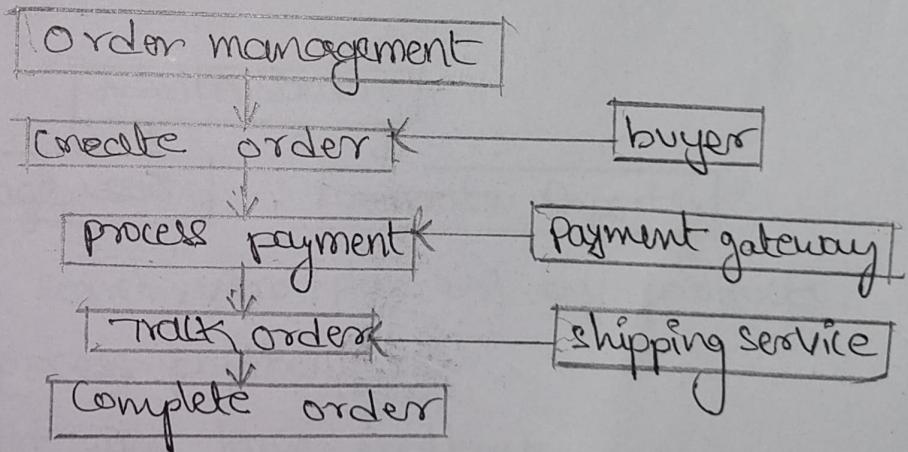
Process :-

- User can create, login, Register and logout profile.
- User can manage their profile details.

Name of the Experiment :

2. Product management :-

Process :- Seller can list, update, Remove product
 • Buyers can view, search product.

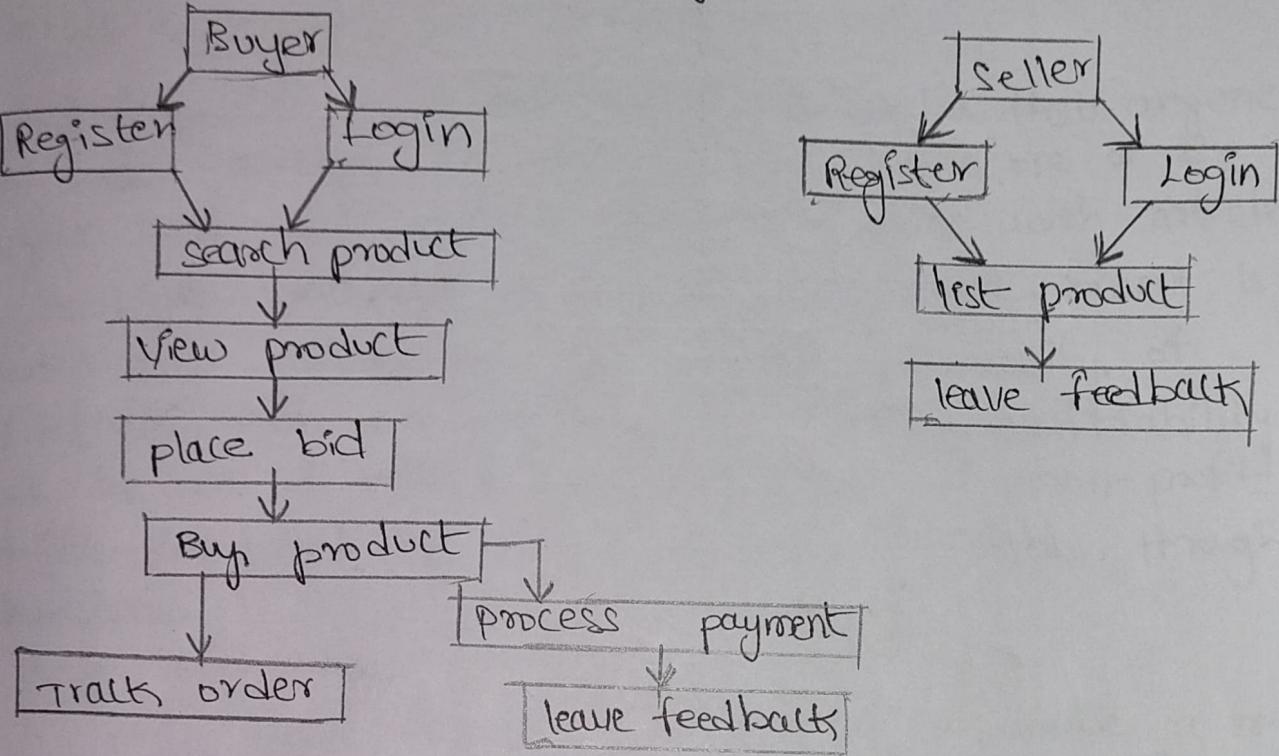
3. Order management :-

Process :-
 • Buyer can create orders or place it.
 • Buyer can track order by shipping service.
 • Payment through integrated payment gateways

These are the Data flow Diagrams for the ebay website or Application.

Name of the Experiment:

5. Use Case Diagram for ebay:-



- Buyer : • Buyer can search , view , place and buy products .
 - User can process payment
 - Track order and leave feedback,
- Seller : • Seller can list , update and sell products
- Administrator :
 - Admin manage users account
 - Admin generate Reports about the application.

1. Introduction :-

About Wikipedia :-

Wikipedia is a free, online encyclopedia that anyone can edit. Launched in 2001, it has become one of the largest and most popular reference websites, with articles in multiple languages on virtually every topic. Content is created and maintained by a global community of volunteers, with an emphasis on neutrality, verifiability, and the use of reliable resources. It is a non-profit project, supported by the Wikimedia Foundation through donations.

Main Aim :-

The main aim of Wikipedia is to provide a free, openly accessible, and collaboratively edited encyclopedia of accurate and reliable information.

Features:-

- * Anyone with an internet can access Wikipedia for free
- * Wikipedia is edited by volunteers from all over the world.
- * Articles are written from a neutral perspective, aiming to present information objectively and without bias.
- * All content must be verify.
- * Wikipedia is a dynamic site.

Name of the Experiment :

2. Software Requirement specification (SRS) Document :-

Introduction :-

Purpose :- This document describes the software requirements for wikipedia.

Scope :- Wikipedia enables users to create, edit, and access articles.

References :- Wikipedia application, internet & AI.

Overall Description :-

Product perspective :- Wikipedia is a global encyclopedia developed with Java script, html, sql and mediawiki.

Product functions :- Includes Article, user, content management.

System Features :-

- User Registration and Authentication.
- Article management
- Content moderation
- Search functionality
- Discuss tools
- Internationalization.

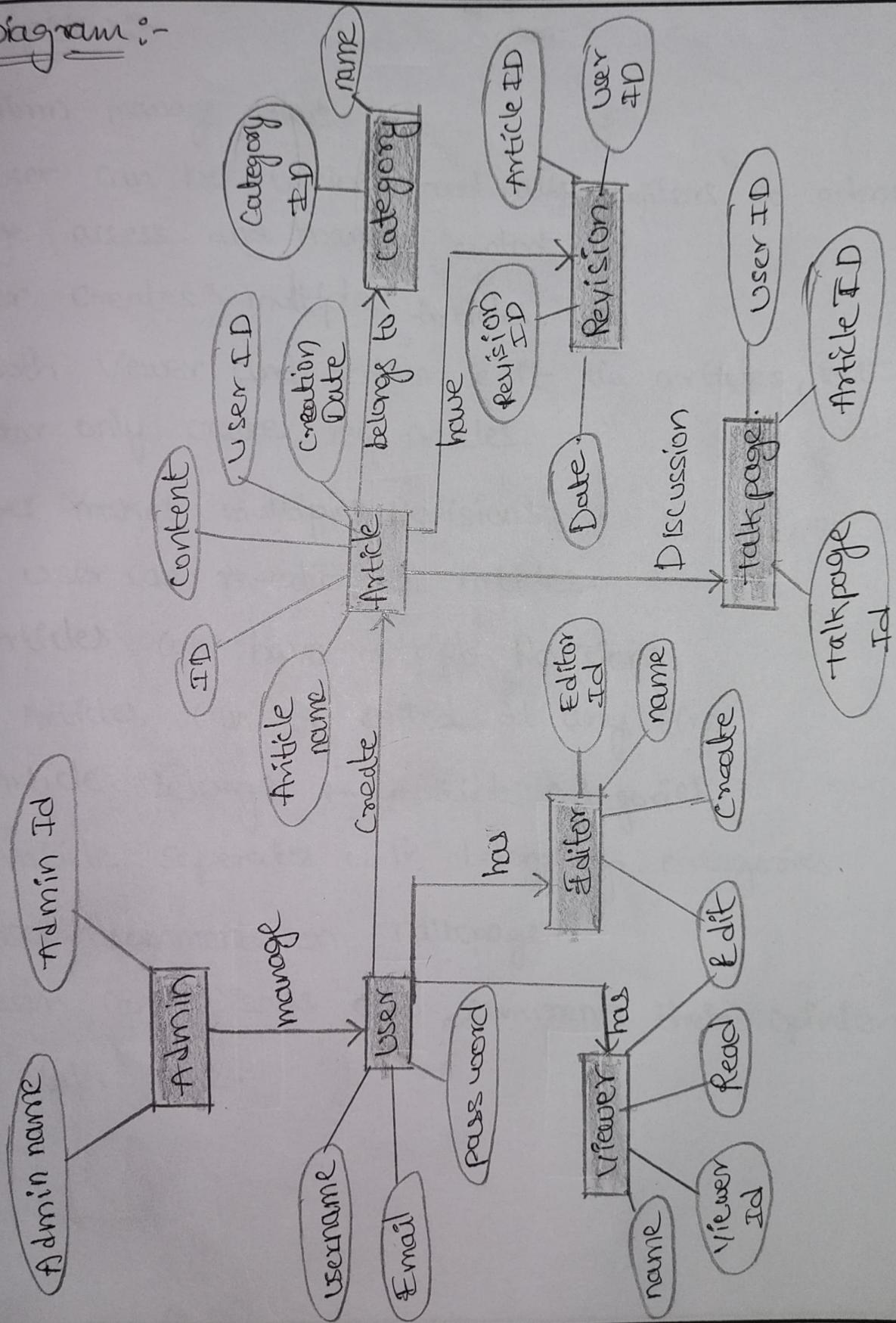
System Requirements :-

- * Editing, managing content
- * Performance, security and usability criteria.

Security Requirements :-

- * Data Security
- * Content Security.

ER Diagram :-



Name of the Experiment:

Description:-

1. Admin manage users

→ user can be viewers and also editors so admin manage access and manage content

2. User creates multiple Articles

→ Both viewer and Editor edit the articles, But Editor only create new articles.

3. User makes multiple Revisions

→ user can re-edit the articles.

4. Articles can have multiple Revisions

→ Articles can be edited at any time.

5. Article belongs to multiple categories

→ Article separates with belonging categories

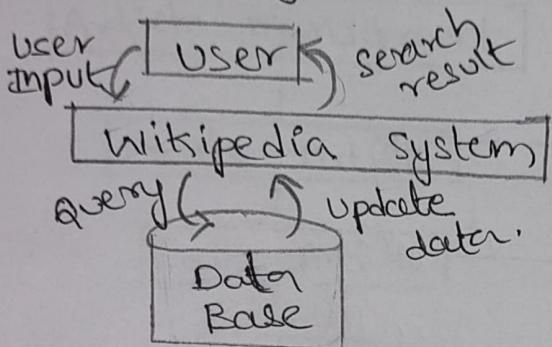
6. user comments on Talkpage.

→ user can discuss and comments their opinion in talk page.

Name of the Experiment:

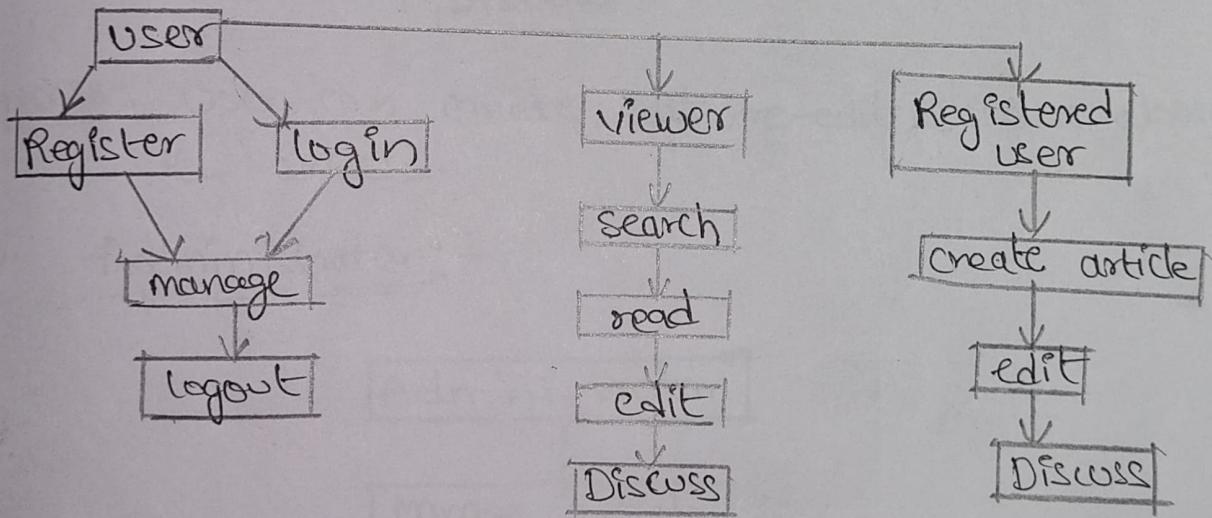
A. Data flow Diagrams (DFD) :-

- level 0 :- context Diagram



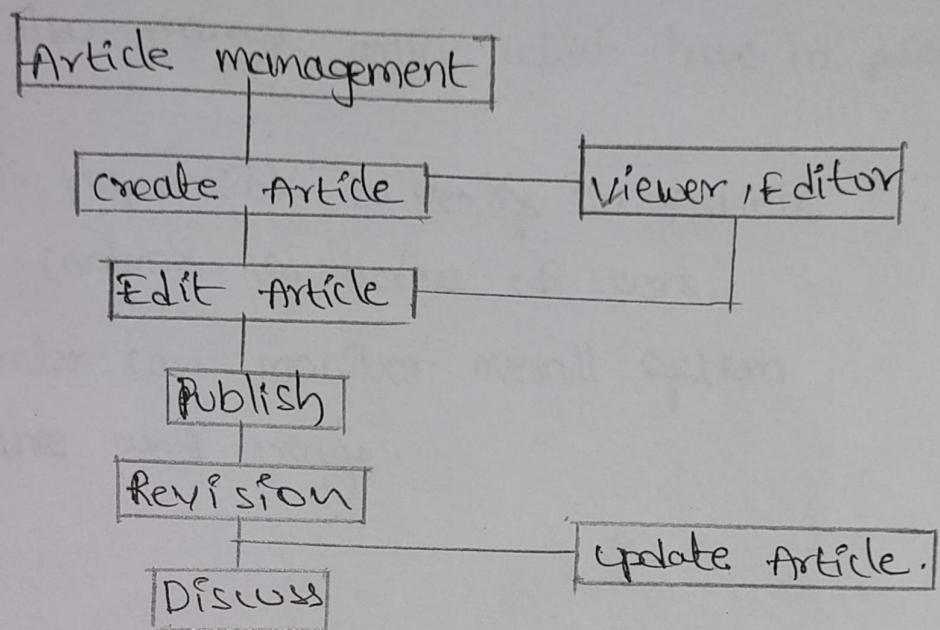
- Level 1 :- Decomposition

- User management :-

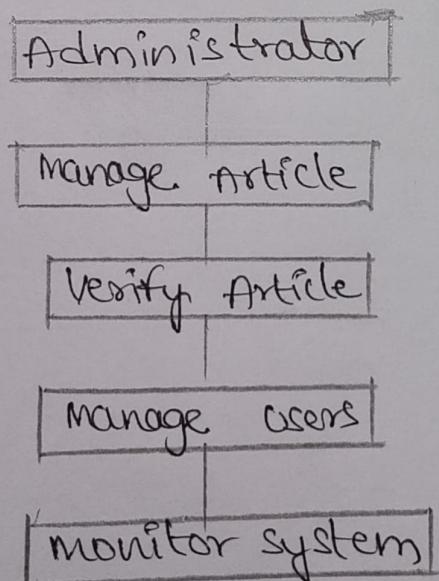
Process :-

- * User can Register, login, manage, logout their profile
- * User can view, search, read the articles
- * Registered user can edit the article.

Name of the Experiment :

2. Article management:-

Process: User can create, edit, re-edit, Discuss about the article.

3. Administrator:-

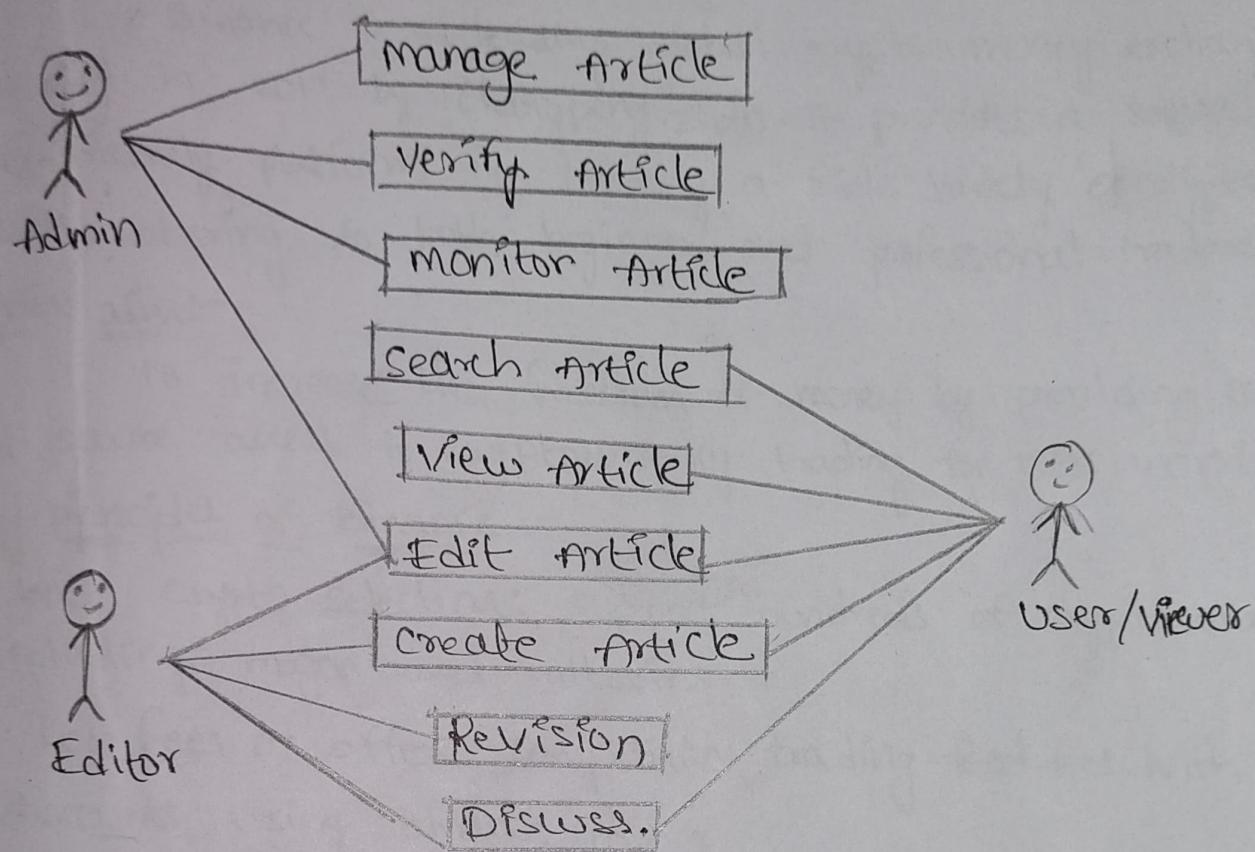
Name of the Experiment :

Process :-

- * Admin also manage article, which have to publish or remove
- * Admin is responsible to verify the Article
- * He can controls the access of users.
- * Administrator can monitor overall system performance and usage.

Name of the Experiment :

5. Use Case Diagram for Wikipedia :-



Use Cases:-

Search Article: user can search for article.

Read Article: user can read article

Edit Article: Editor & viewer can edit article

Create Article: Register user can create article

Discuss Article: users can participate in discussion

Manage User Role: Administrator can manage user roles.

I. Introduction:-

Binance is a leading global cryptocurrency exchange, founded in 2017 by Changpeng Zhao. It provides a secure, user-friendly platform for trading a wide variety of digital assets, catering to both beginner and professional traders.

Main aim:-

To increase the freedom of money by providing easy and secure access to cryptocurrency trading for users worldwide.

Key principles of Binance :-

1. Wide crypto selection: supports hundreds of cryptocurrencies, including major and altcoins.
2. Low fees :- offers competitive trading fees with discounts using Binance coin
3. Security :- utilizes advanced security measures, including two-factor authentication and insurance funds.
4. Blockchain Integration :- leverages blockchain technology for decentralized finance, smart contracts and digital payments.
5. Global Reach:- Accessible globally with localized services, multilanguage support, and a strong international presence.

2. Software Requirement Specification (SRS) Document :-

Introduction :-

Purpose: It outlines the system's specification, including the architectural design, functional and non-functional requirements, and external interfaces.

Scope: The scope of this document covers the core trading platform, user management, security features, and APIs.

System overview :-

Binance enables users to:

- Buy, sell, and trade cryptocurrencies.
- Access market data in real time.
- Securely store digital assets in wallets.
- Use features such as spot trading, margin trading, and futures trading.

Software & Hardware requirements :-

Hardware Requirements for Binance :-

- High performance servers: For real time trading and transaction processing.
- Scalable Infrastructure: To accommodate growing user demand.
- Data storage: High capacity storage with redundancy for secure backups.

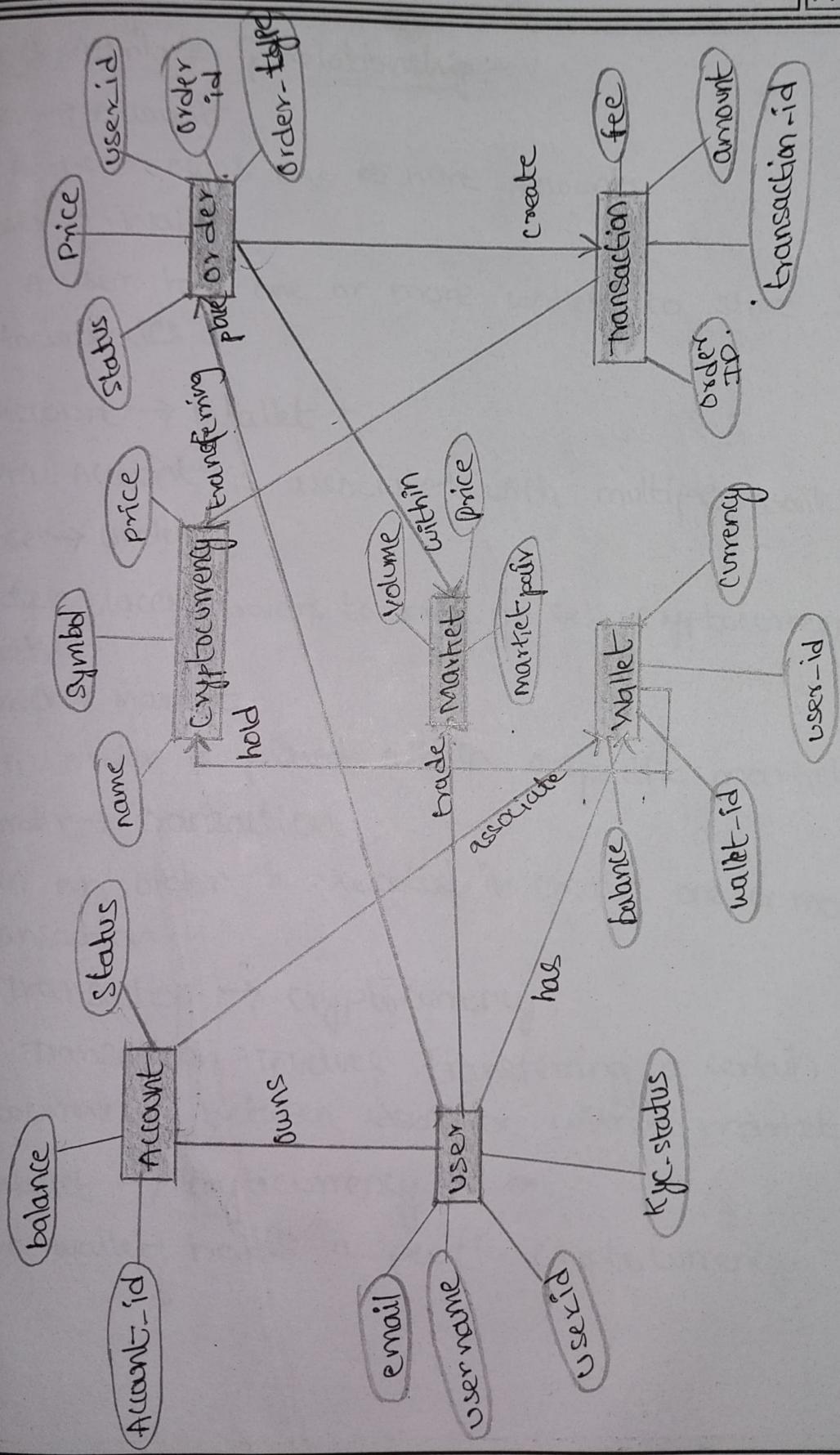
Name of the Experiment :

Software Requirements for Binance :-

- Blockchain Integration: Support Bitcoin (BTC), Ethereum, Binance smart chain.
- Order matching Engine: Fast, real time order execution.
- Security software: Two factor Authentication, encryption, firewalls, anti fraud systems.
- Database Management: High speed DBMS
- APIs: Secure Application programming interfaces for trading and integrations.

Name of the Experiment :

S. Entity Relationship Diagram for Finance :-



Name of the Experiment :

Entities, Attributes & Relationship :-

1. User → Account

A user owns one or more accounts.

2. User → Wallet

A user has one or more wallets to store different cryptocurrencies.

3. Account → Wallet

An account is associated with multiple wallets.

4. User → Order

A user places orders to buy or sell cryptocurrencies in market.

5. Order → Market.

An order is placed within a specific market.

6. Order → Transaction

When an order is executed, it creates one or more transaction.

7. Transaction → Cryptocurrency.

A transaction involves transferring a certain cryptocurrency between users or within market.

8. Wallet → Cryptocurrency.

A wallet holds a specific cryptocurrency.

Name of the Experiment :

Data Flow Diagrams of Binance:-

Context level DFD (Level 0) :-

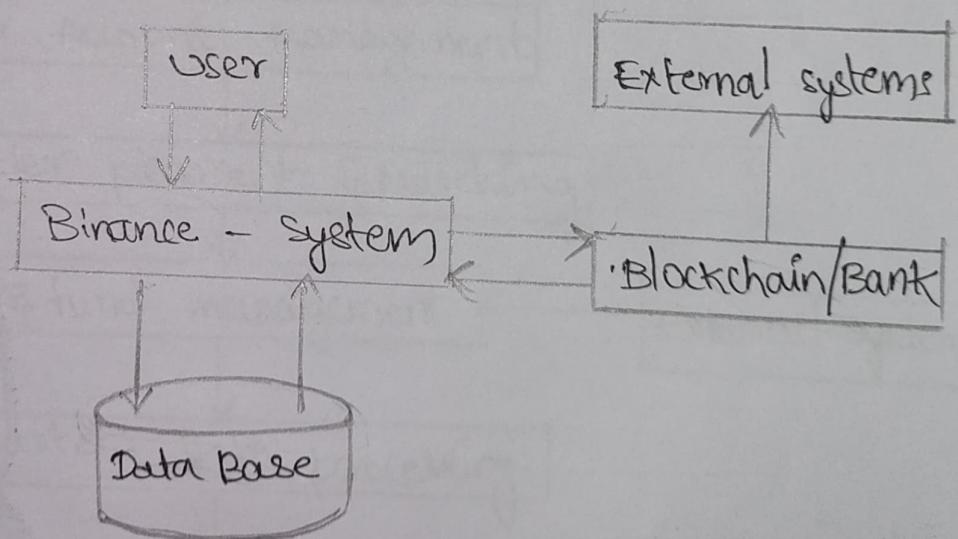
Entities & Processes :-

User: places buy/sell orders, view account balance, and withdraw / deposits funds.

Binance System: Process all the user requests, matched orders, and updates account balances.

External system: Banks for fiat transaction, blockchain networks for cryptocurrency transaction.

Database: stores the data of the user.



Level 1 (Decomposition Diagram) :-

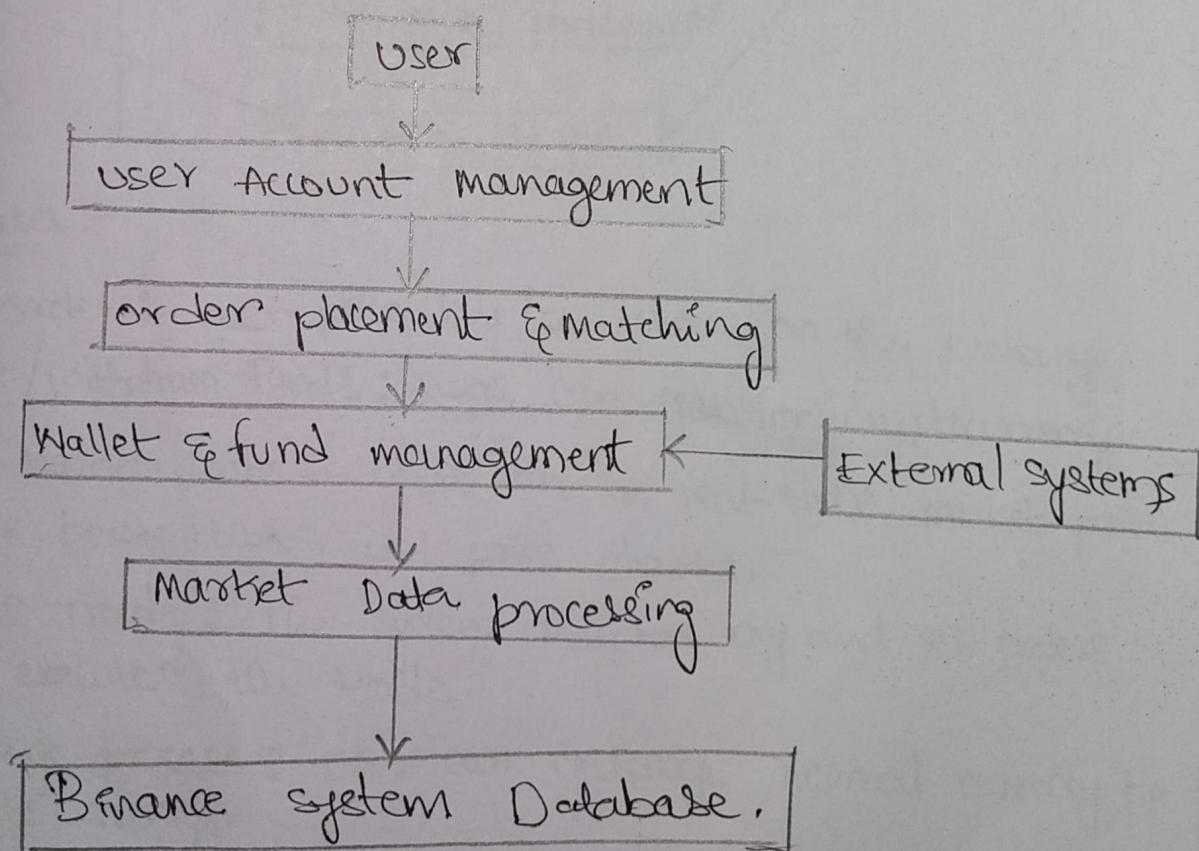
At this level, we dive deeper into the Binance system and break it down into its main

Name of the Experiment :

process.

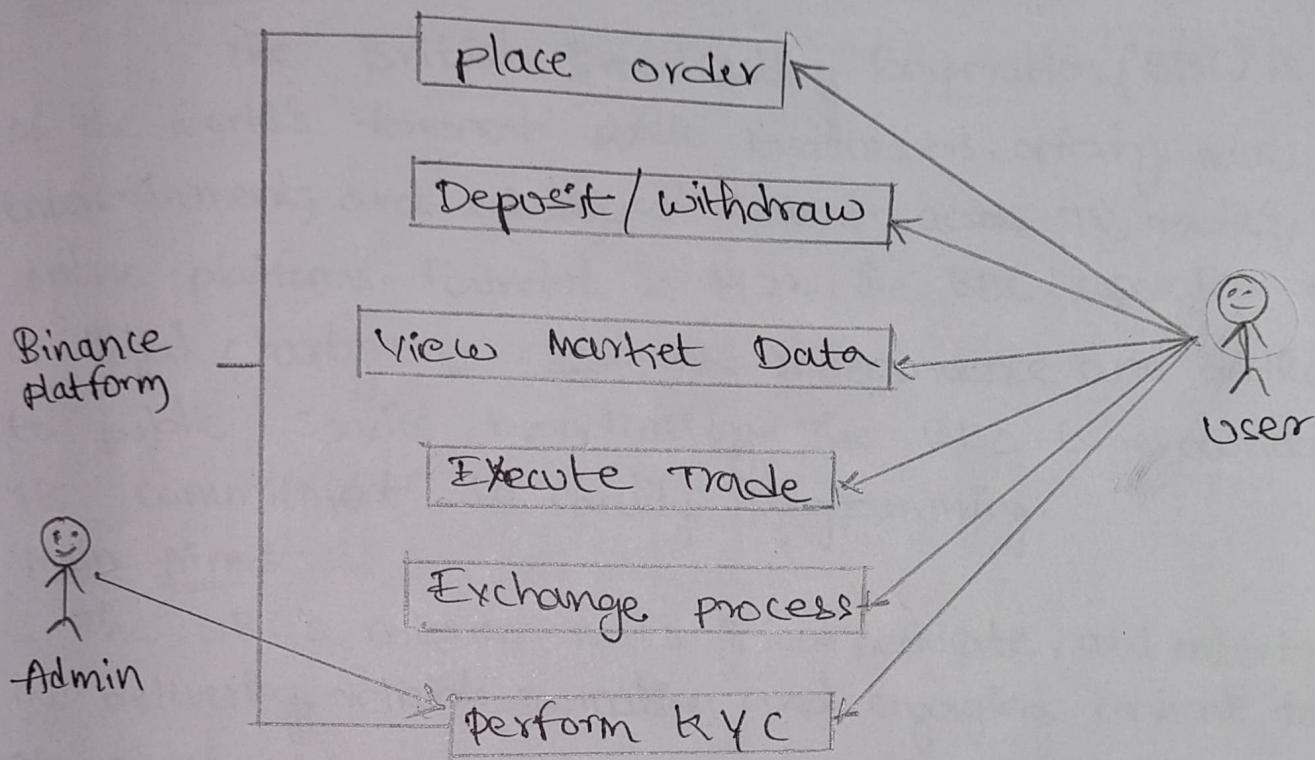
Main process :-

1. User Account Management : Handles user registration, login, KYC, and account details.
2. Order placement & Matching : User places orders to buy/sell, and the system matches them.
3. Wallet & Fund management : Manages users' wallets, deposits, and withdrawals.
4. Market Data processing : Fetches and updates price information, market depth, etc..



Name of the Experiment :

5. Use Case Diagram for Binance :-



Use cases :-

- Place order : user place buy / sell orders on the exchange
- Deposit / withdraw funds : users can transfer cryptocurrency
- View market Data : users can see real-time market price, order book data, and price charts.
- Execute Trade : The system matches buy and sell orders and executes the trade.
- Exchange process : user can exchange normal currency to cryptocurrency.
- Perform KYC : New users must complete identity verification.

I. Introduction :-

About BBC :-

The British Broadcasting Corporation (BBC) is one of the world's foremost public broadcasters, offering news, entertainment, and educational content across TV, radio, and online platforms. Founded in 1922, the BBC operates under a Royal Charter to ensure its independence and dedication to public service broadcasting. The BBC is renowned for its commitment to quality programming.

Main Aim :-

The BBC's mission is to inform, educate, and entertain by delivering reliable journalism and engaging content for all audiences.

Key Principles of BBC :-

1. Fair and Accurate: Delivering balanced, truthful information without bias.
2. Independent: Free from government or political pressure.
3. Serving the public: Working in the interest of the audience.
4. Creative and innovative: Constantly exploring new ideas in media.
5. Inclusive: Representing diverse perspectives and backgrounds.

Name of the Experiment :

2. SRS Document for BBC :-

Introduction :-

Purpose : The purpose of this document is to outline the requirements for BBC website / application.

Scope : The BBC website serves as a comprehensive source for news, sports, live events and documentaries.

System overview :-

1. provides news, entertainment, and educational content to users worldwide.
2. support multimedia content such as videos, articles, and live streams.
3. offers user interactivity, including comments, personalization, and saved preferences.
4. Ensures security, scalability, and accessibility across devices and platforms.

Software and Hardware requirements :-

1. Secure, high-speed internet connection
2. Scalable and reliable servers.
3. Backup and disaster recovery system

Name of the Experiment :

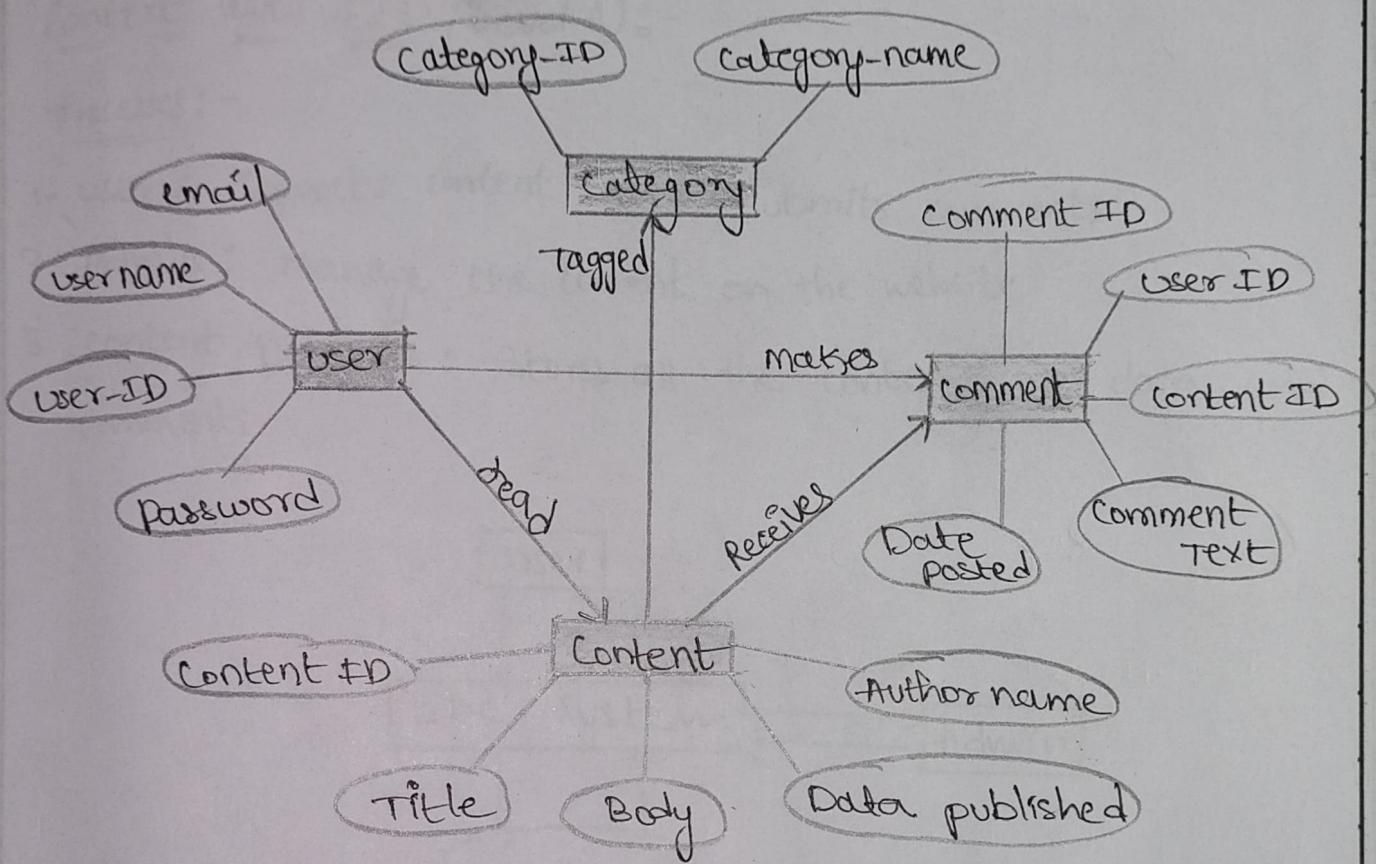
Hardware requirements for BBC :-

1. High performance servers with data redundancy.
2. Load balancers to manage heavy traffic.
3. Secure network infrastructure and firewalls.

Software requirements for BBC :-

1. Web server : Manages user requests and serves website content.
2. Database management system (DBMS) : stores and retrieves user data.
3. Content management system (CMS) : Enables efficient content creation and updates.
4. Security software : protects data and user privacy through encryption and firewalls.
5. Responsive Design framework : Ensures the site is accessible on all device types.

3. Entity Relationship Diagram :-



Description :-

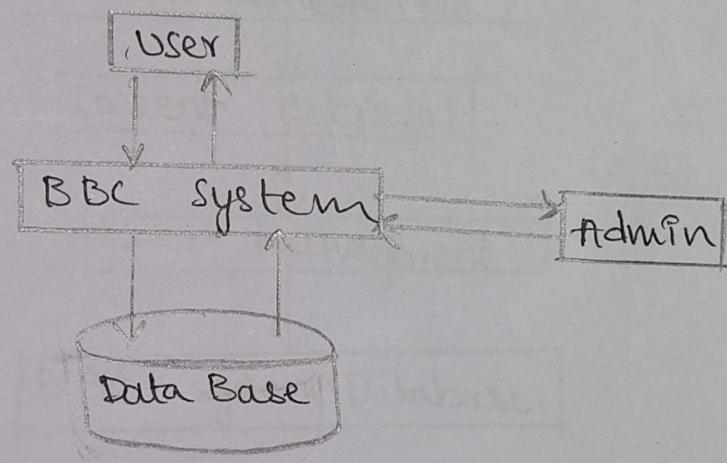
1. User - comment : A user makes comments.
2. Content - comment : Content receives comments.
3. Content - category : Content is tagged with a category.
4. User - content : A user reads content.

This structure ensures that users can interact with content by commenting, while content can be organized into categories for easy navigation.

Name of the Experiment :

4. Data Flow Diagrams of BBC :-Context level DFD (Level 0) :-Processes :-

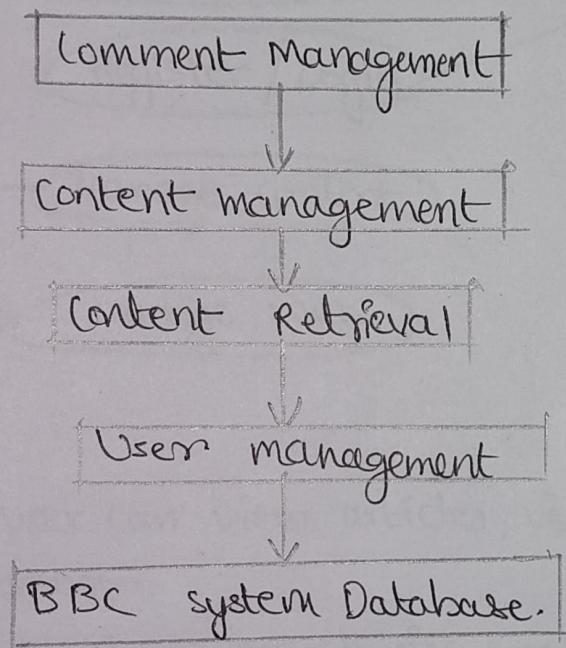
1. user : Requests content and submits comments.
2. Admin : Manage the content on the website
3. content Database : Stores all the content, user data, and comments.

Level 1 (Decomposition Diagram) :-Main process :-

1. Content Management : Allows admins to add, edit and delete content within the website.
2. Content Retrieval : Handles users' requests to view and browse content.

3. User Management : Manages user registration, login, and account settings.

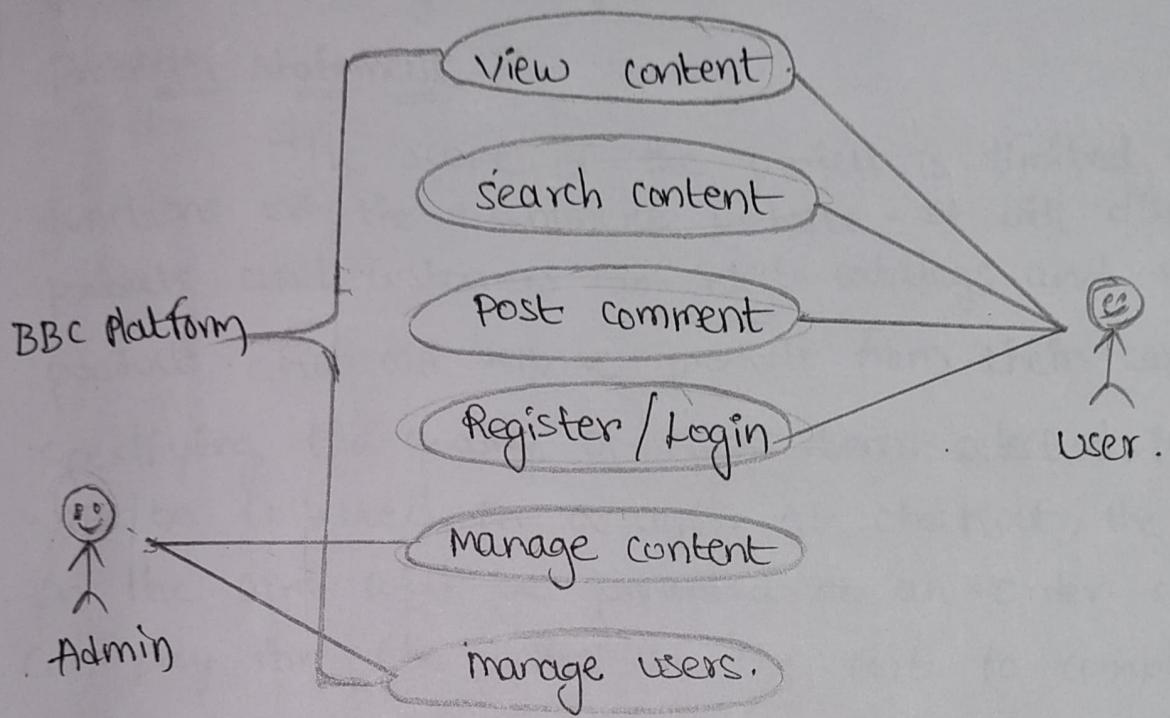
4. Comment Management : Handles user comments, allowing users to post comments on articles and moderators to manage them.



These are the clear data flow diagrams for BBC platforms and it shows how the data flow from one to another.

Name of the Experiment :

5. Use Case Diagram for BBC :-



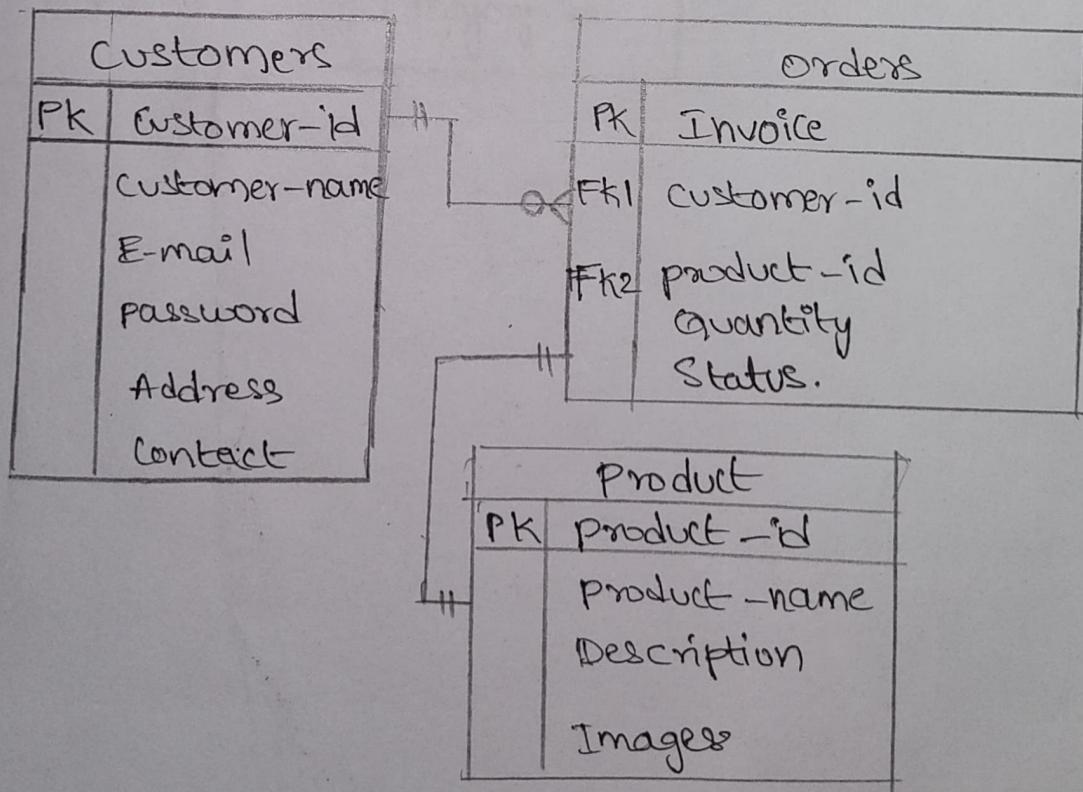
Use cases :-

- **View content**: User can view articles, videos, and other content.
- **Search content**: User can search for specific articles or categories.
- **Register/Login**: New users can register, and existing users can log in.
- **Post comment**: Registered users can post comments on articles.
- **Manage Content**: Admins can add, update, or delete content.
- **Manage users**: Admin can manage user accounts.

Name of the Experiment: E-commerce management system:-

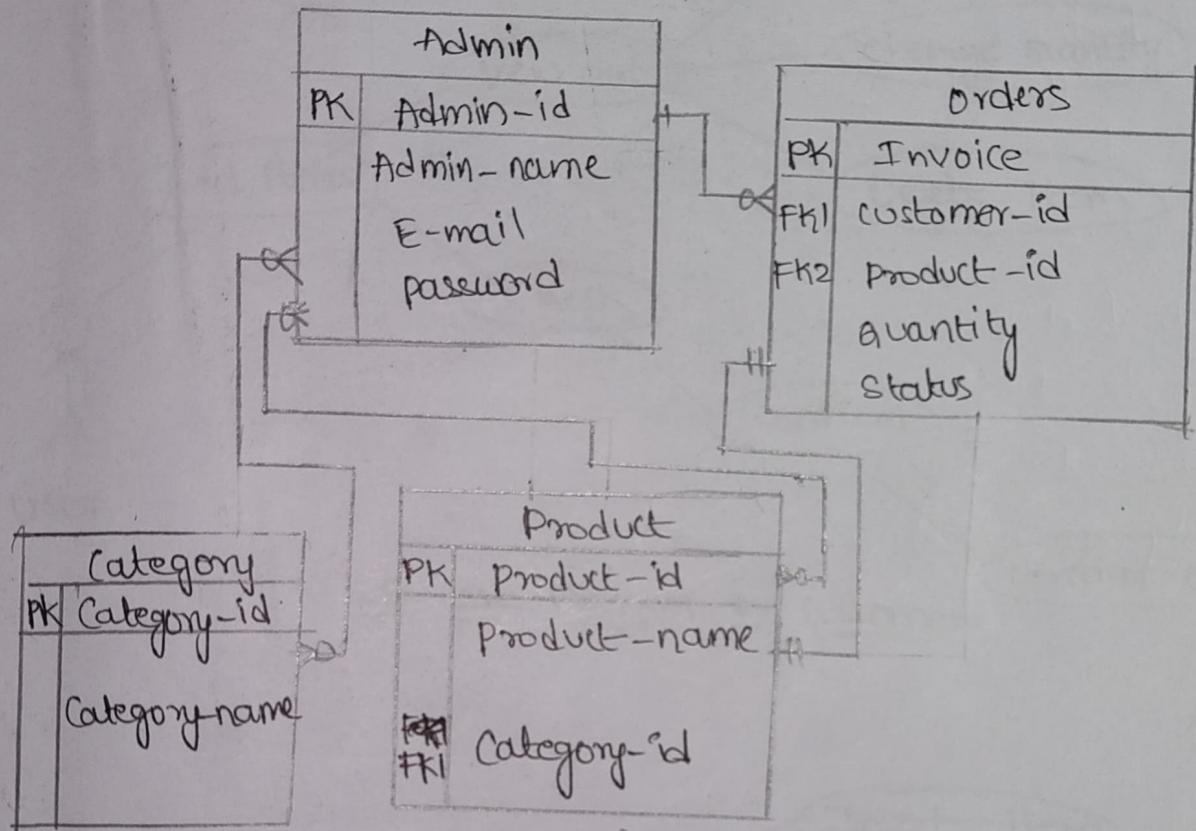
E-commerce Management system:-Problem statement:-

The scope of the project is limited to some functions of the e-commerce website. It will display products, and customers can select catalogs and select products and can remove products from their cart specifying the quantity of each item. Selected items will be collected in a cart. At checkout, the items on the card will be presented as an order. Customers can pay for the items in the cart to complete an order.

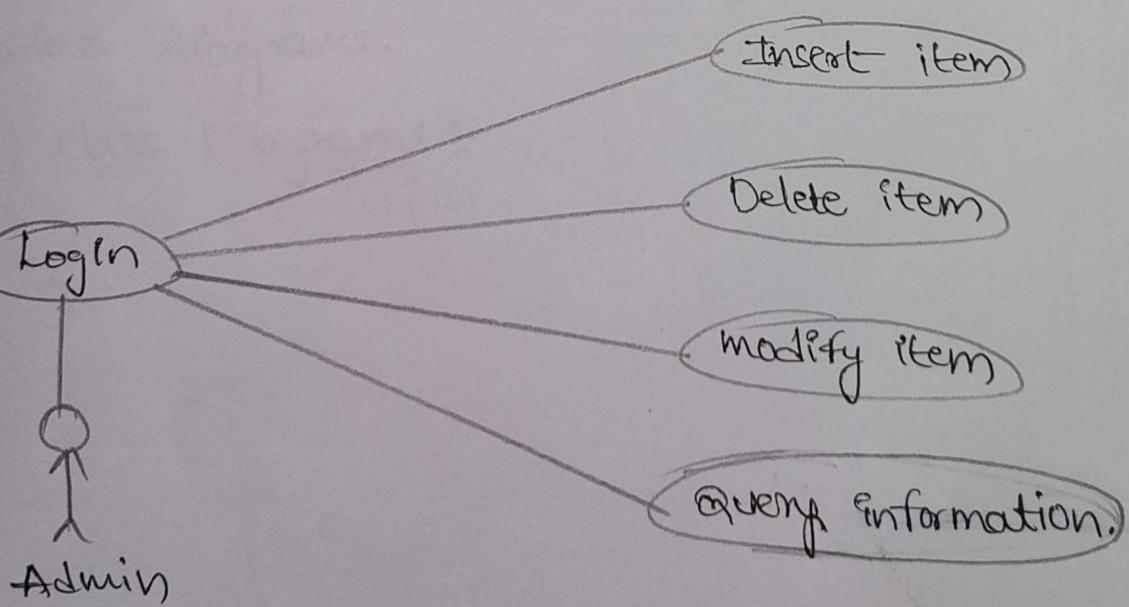
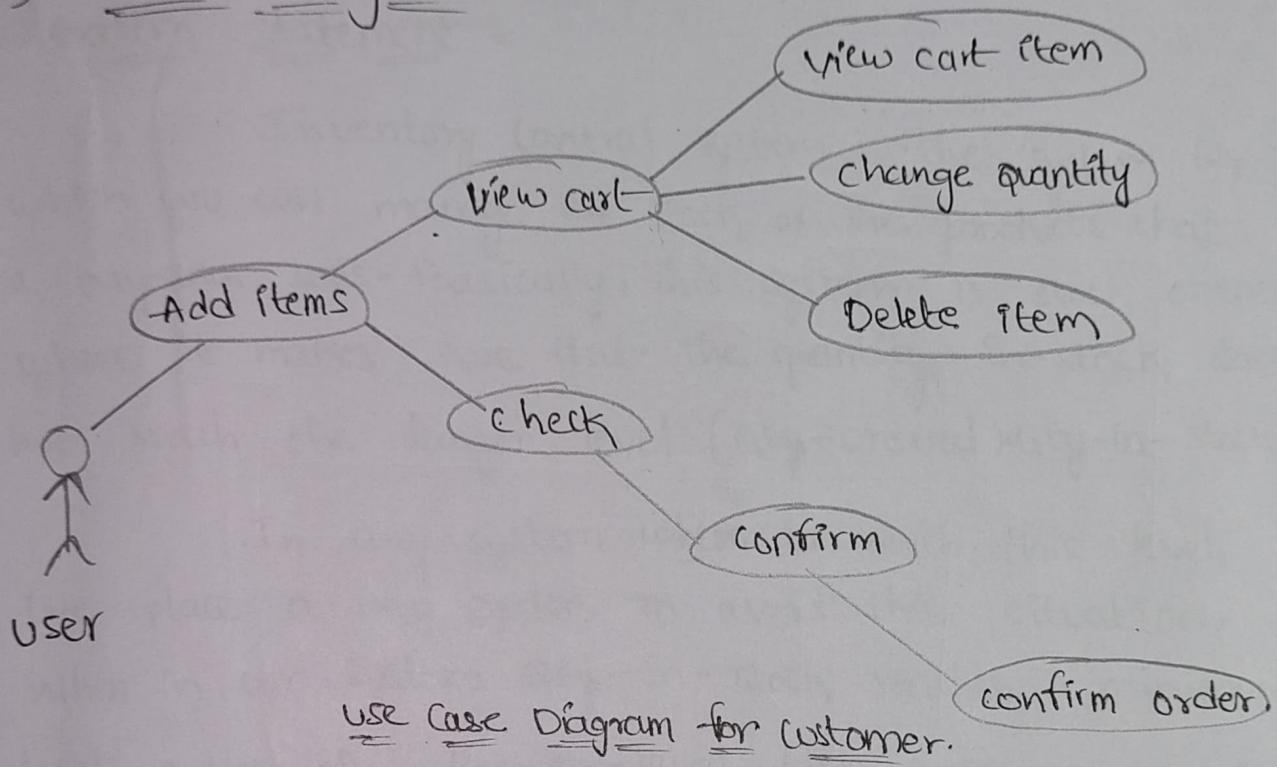
a) ER Diagram: ER-Diagram for customer.

Name of the Experiment :

ER-Diagram for Customer Admin :-



b) use case Diagram:



use case Diagram for Admin

Name of the Experiment: Inventory Control System.

Inventory Control system:

> Problem Statement :-

Inventory control system is the system in which you can manage the stock of the products that a company sells. Basically, this system is stock oriented where it makes sure that the quantity-in-stock does not reach the danger level ($\text{Qty.-ordered} > \text{Qty.-in-stock}$).

In any system when we reach this level, we place a new order. To avoid this situation, when in our system Qty.-in-stock reaches a minimum level called the Reorder-level- then a new order is placed. Here, in this case study, you will see various diagrams.

(C) class Diagrams :-

Name of the Experiment :

Supplier

Supplier-id
 Supplier-name
 Supp-address
 Supp-city
 supp-state
 supp-pincode
 supp-status
 supp-contact NO 1
 supp-phone. 2

ADD
 MODIFY
 DELETE
 VIEW

Customer

customer-id
 cust-name
 cust-address
 cust-city
 cust-state
 cust-pincode
 cust-contact-no

ADD
 MODIFY
 DELETE
 VIEW

Products

product-id
 name-of-product
 category-id
 Description price
 Qty-in-stock
 Danger-level
 last-modification-date
 manufacturing-data.

ADD
 MODIFY
 DELETE
 VIEW

Orders

order-id
 Description No-of items
 Product-id order date

NEW ()
 EXISTING()

Name of the Experiment :

Page No.: 35

Date:

Practical No.:

Invoice

Invoice-no
Invoice-date
Invoice-customer-id
Supplier-id
Payment-status

Generate ()
View ()

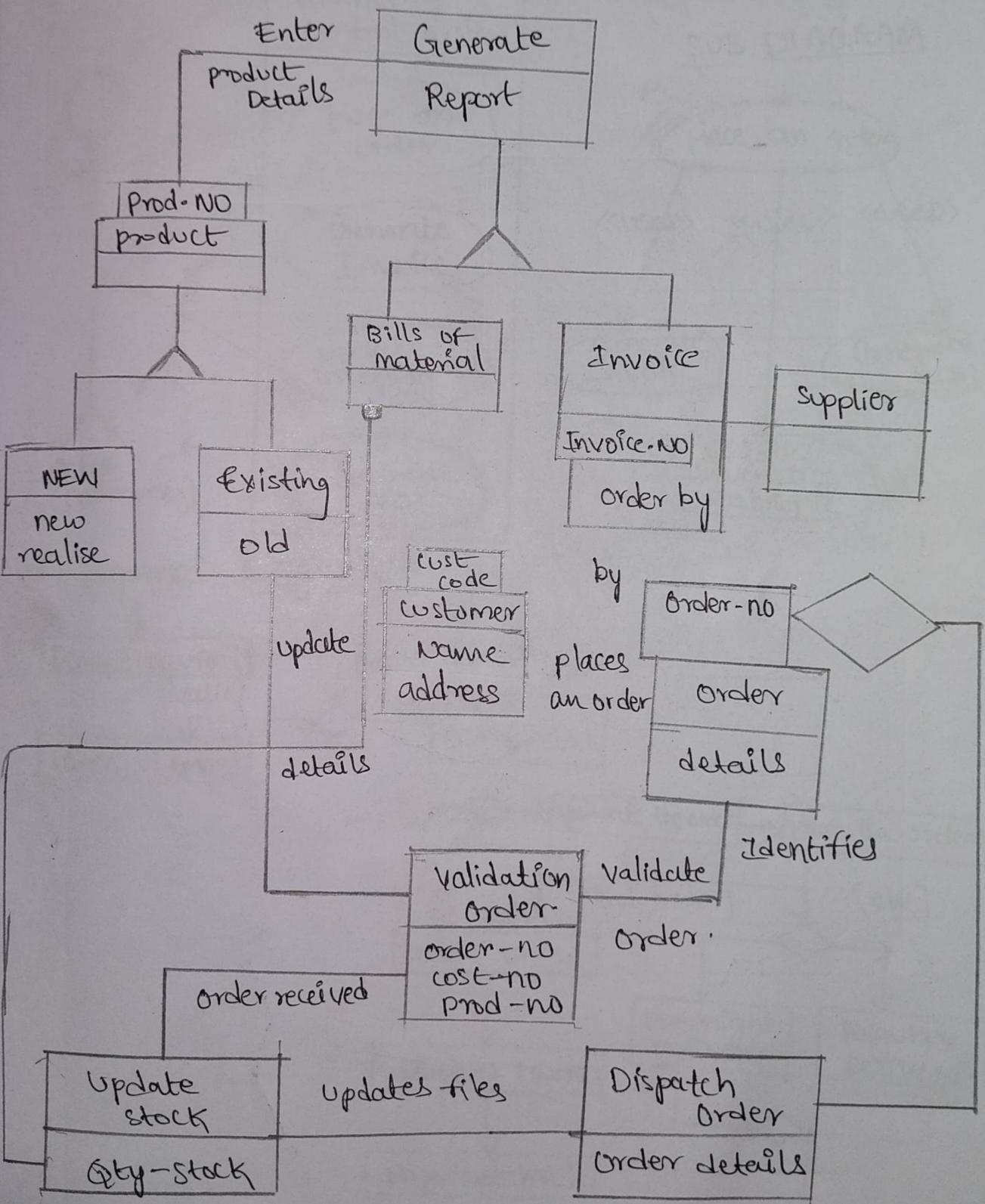
Sale

Receipt-no
Sale-of-sale

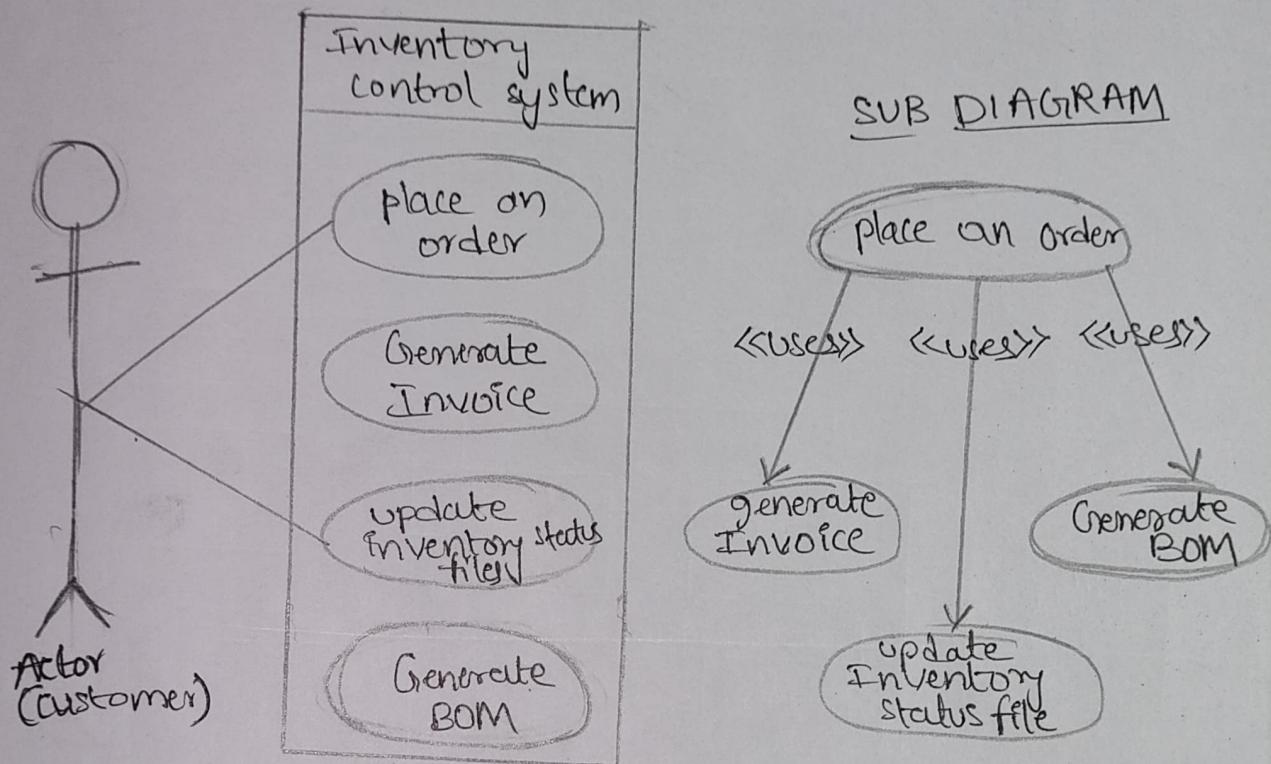
Qty-sold

Detailed item sale ()
Daily Report sale ()
Generate ()
View ()

Name of the Experiment :

(b) Object Diagram:

Name of the Experiment :

(c) use case Diagram :-(d) Sequence Diagram :-