

DBMS

ACCESSI–SPHERE

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1. SQL QUERIES used

-- Query1

-- stakeholders such as admins can easily create a summary of product sale

CREATE VIEW ProductSalesSummary AS

SELECT

 p.Product_ID,

 p.Name AS Product_Name,

 p.Description AS Product_Description,

 s.Name AS Supplier_Name,

 SUM(c.Quantity) AS Total_Units_Sold,

 SUM(ot.ProductAmount) AS Total_Sales_Amount

FROM

 Product p

JOIN

 Cart c ON p.Product_ID = c.ProductID

JOIN

```

    Supplier s ON p.SupplierID = s.SupplierID
JOIN
    ordertable ot ON ot.Cart_id = c.cart_id
GROUP BY
    p.Product_ID, p.Name, p.Description, s.Name;

-- stakeholders such as admins can easily view a summary of product sales they created

-- Illustration of the query
-- SELECT * FROM ProductSalesSummary;

-- Query2

-- There is a large volume of data in Product Table,which contains various accessibility
products.

-- Users can search for products based on their names.

-- The search queries can take large amount of time to execute due to the lack of indexing.

-- reference statement

CREATE INDEX idx_product_name ON Product (Name(255));

```

-- Illustration of the Query

-- SELECT *

-- FROM Product

-- WHERE Name LIKE 'Wheel%';

-- Query3

-- the admin may want to maintain up-to-date

-- information about product availability for customers and internal operations.

UPDATE Product

SET Status = CASE

 WHEN Quantity > 0 THEN true

 ELSE false

END;

-- select * from product;

-- Query4

SELECT DISTINCT dw.ID, dw.workerName

FROM deliveryworker dw

JOIN OrderTable o ON dw.ID = o.DeliveryworkerID

```
WHERE o.OrderDate BETWEEN '2024-01-01' AND '2024-03-01';
```

```
-- Query5
```

```
-- The transaction involves deducting the ordered quantity from the product's inventory and
```

```
-- recording the order details in the OrderTable.
```

```
-- This scenario showcases the use of a transaction to ensure data integrity and consistency in  
the database
```

```
UPDATE checksavailability
```

```
SET StockQuantity = StockQuantity - (
```

```
    SELECT Quantity
```

```
    FROM Cart
```

```
    WHERE Cart.cart_id = 9 AND checksavailability.ProductID = Cart.productID
```

```
)
```

```
WHERE ProductID IN (
```

```
    SELECT productID
```

```
    FROM Cart
```

```
    WHERE Cart.cart_id = 9
```

```
);
```

```
-- Select * from supplier;
```

-- Query 6

-- Scenario : The admin might want to view all suppliers with a certain account number for tracking

```
SELECT Product_ID, Name, SupplierID
```

```
FROM Product
```

```
WHERE SupplierID IN (SELECT SupplierID FROM Supplier WHERE AccountNumber = 111);
```

-- Query 7

-- The admin may want to see all the products even those that are discontinued,

-- or have no suppliers at that moment

```
SELECT p.Product_ID, p.Name, p.Company_name, s.Name
```

```
FROM Product p
```

```
LEFT OUTER JOIN Supplier s ON p.SupplierID = s.SupplierID;
```

-- Query 8

-- This query helps in identifying suppliers who do not supply a specific category of

-- products, which could be useful for identifying potential new suppliers for certain product categories.

```
SELECT s.SupplierID, s.Name
FROM Supplier s
WHERE NOT EXISTS (
    SELECT 1
    FROM Product p
    WHERE p.SupplierID = s.SupplierID
    AND p.Category = 'Mobility'
);
```

-- Query 9

```
SELECT DISTINCT s.*
FROM Supplier s
INNER JOIN Product p ON s.SupplierID = p.SupplierID
INNER JOIN ProductReview pr ON p.Product_ID = pr.UserID
WHERE pr.Rating >= 4;
```

-- Query 10

-- seeing users with atleast 1 purchase

```
SELECT u.UserID, u.name, COUNT(o.OrderID) AS TotalPurchases
```

```
FROM Users u

JOIN OrderTable o ON u.UserID = o.UserID

GROUP BY u.UserID, u.name

HAVING COUNT(o.OrderID) >= 1;
```

```
-- INSERT INTO Users (UserID, name, Age, PhoneNumber1, EmailAddress1, EmailAddress2,
State, City, Street, ApartmentNo, Pincode, Landmark)

-- VALUES (21, 'John Doe', 30, 1234567890, 'invalid_email', 'john@yahoo.com', 'Delhi', 'New
Delhi', '123 Elm Street', '201', '110011', 'Near School');
```

-- -- Updating User's Phone Number:

```
-- UPDATE Users

-- SET PhoneNumber1 = 9999

-- WHERE UserID = 1;
```

-- -- This will fail because PhoneNumber1 and EmailAddress1 are required fields.

```
-- INSERT INTO Users (UserID, name, Age, State, City, Street, Pincode)

-- VALUES (1001, 'John Doe', 30, 'New York', 'NYC', '123 Main St', 10001);
```

-- -- This will fail due to the primary key constraint violation on UserID.

```
-- INSERT INTO Users (UserID, name, Age, PhoneNumber1, EmailAddress1, State, City, Street,
Pincode)
```

```
-- VALUES (1, 'Alice', 25, '9998887777', 'alice@example.com', 'Delhi', 'Delhi', '123 Main St',
110001);
```

```
-- -- This will fail due to the check constraint on Age, ensuring it's a positive value.
```

```
-- UPDATE Users
```

```
-- SET Age = -5
```

```
-- WHERE UserID = 1;
```

2. SQL QUERIES demonstrating the schema

```
CREATE DATABASE if not exists ACCESSISPHERE;
USE ACCESSISPHERE;
```

```
CREATE TABLE IF NOT EXISTS Users (
    UserID int unique PRIMARY KEY NOT NULL,
    name varchar(255) NOT NULL,
    Age int CHECK (Age > 0),
    -- can be null because the site doesnt use user age anywhere
    PhoneNumber1 bigint unique NOT NULL CHECK
    (PhoneNumber1 >= 1000000000 AND PhoneNumber1 <= 9999999999),

    EmailAddress1 varchar(255) unique NOT NULL
    CHECK (EmailAddress1 LIKE '%_@_%.__%'),

    EmailAddress2 varchar(255) unique CHECK
    (EmailAddress2 LIKE '%_@_%.__%'),

    State varchar(255) NOT NULL,
```



```

    City varchar(255) NOT NULL,
    Street varchar(255) NOT NULL,
    ApartmentNo varchar(255) NOT NULL,
    Pincode varchar(255) NOT NULL check (length(pincode)=6),
    Landmark varchar(255)
);

-- DROP TABLE IF EXISTS premiummember;
CREATE TABLE if not exists premiummember (
    -- for one member only one premium membership exists
    MembershipID INT PRIMARY KEY not null,
    Duration INT not null, -- taken to be in months
    TransactionID INT not null unique,
    UserID int not null unique ,
    foreign key (UserID) references Users(UserID)
    -- a premium member must be a user too
);

-- DROP TABLE IF EXISTS admin;
CREATE TABLE IF NOT EXISTS Admin (
    FirstName VARCHAR(255) NOT NULL,
    LastName VARCHAR(255),
    AdminID INT PRIMARY KEY,
    Password VARCHAR(255) NOT NULL CHECK (
        LENGTH(Password) >= 8 AND
        -- Password should be at least 8 characters long
        REGEXP_LIKE(Password, '[A-Z]') AND

    -- Password should contain at least one uppercase letter
        REGEXP_LIKE(Password, '[0-9]')

    -- Password should contain at least one digit

```

```

    )
);

-- DROP TABLE IF EXISTS ngos;--
CREATE TABLE if not exists NGOs (
    Name VARCHAR(255) not null,
    CompanyID INT unique PRIMARY KEY,
    Description TEXT not null,
    Email VARCHAR(255) not null unique check
    (Email LIKE '%_a_%.__%'),

    Address TEXT not null,
    ContactNumber VARCHAR(20) not null unique CHECK
    (ContactNumber >= 10000000000 AND ContactNumber <= 9999999999)
);

CREATE Table if not exists Supplier(
    Name Text not null,
    SupplierID int Primary Key Not Null,
    State varchar(255) Not Null ,
    City varchar(255) Not Null,
    Street varchar(255) Not Null,
    Apartmentnumber Int not null ,
    Phone_number bigint not null CHECK
    (Phone_number >= 10000000000 AND Phone_number <= 9999999999),
    AccountNumber bigint unique not null ,
    -- one supplier can have only one registered account for
    business, one phone number associated for e-commerce
    IFSCcode int not null ,
    UPI_id varchar(100) not null

);

```

```

ALTER TABLE Supplier DROP PRIMARY KEY;

ALTER TABLE Supplier
ADD PRIMARY KEY (SupplierID, Street);

CREATE TABLE if not exists DeliveryWorker(
  ID int primary key not null ,
  workerName varchar (50) not null ,
  Age int not null ,
  City varchar (50) not null ,
  State varchar (50) not null ,
  Street varchar(255) not null ,
  Pincode int check (length(pincode)=6),
  Product varchar(255) not null ,
  Email varchar (100) check
  (Email LIKE '%_@_%._%') not null unique,
  Phone_number varchar (15) not null unique ,
  License_code text not null ,
  UPI_ID varchar(100) unique not null ,
  -- one delivery worker must have one working UPI_ID registered
  for this e-commerce business
  Salary float not null
);

ALTER TABLE DeliveryWorker DROP PRIMARY KEY;

ALTER TABLE DeliveryWorker
ADD PRIMARY KEY (ID, product);
-- one delivery worker can deliver multiple products

-- DROP TABLE IF EXISTS product;
CREATE TABLE if not exists Product(
  Product_ID int not null ,
  Name text not null ,

```

```

    Description text not null ,
    SupplierID int not null,
    Quantity int,
    primary key (Product_ID),
    foreign key (SupplierID) references Supplier(SupplierID),
    Company_name text not null ,
    Category text not null ,
    Status boolean not null
    -- here product_ID is sufficient as primary key as it doesn't
    refer to product name or model it refers to each unique product
);

```

```

CREATE TABLE if not exists UserProductSearch (
    UserID int not null,
    ProductID int not null,
    SearchDateTime DATETIME,
    FOREIGN KEY (UserID) REFERENCES Users(UserID),
    FOREIGN KEY (ProductID) REFERENCES Product(Product_ID),
    PRIMARY KEY (UserID, ProductID, SearchDateTime)
);

```

```

-- DROP TABLE IF EXISTS cart;
CREATE TABLE if not exists Cart(
    cart_id int not null unique ,
    productID int not null,
    Quantity int not null,
    primary key(cart_id,productID)
    -- engine = InnoDB Add this line--
);

```

```

CREATE TABLE if not exists OrderTable (
    OrderID INT Not null unique,
    Cart_id int not null unique,

```

```

    foreign key (Cart_id) references Cart(cart_ID),
    Discount FLOAT,
    -- only one discount type applicable on one order
    Price FLOAT not null,
    State VARCHAR(50) not null,
    City VARCHAR(50) not null,
    PaymentMode VARCHAR(50) not null,
    -- paymentMode represnts not the avaible modes but the
paymentmode via which payment was done
    Street TEXT not null,
    Pincode INT not null,
    TransactionID INT unique not null unique,
    ProductAmount FLOAT not null,
    DeliveryworkerID int not null unique,
    -- one order can have deliveryworker
    UserID int not null unique,
    -- one
    foreign key (DeliveryworkerID) references
DeliveryWorker(ID),
    foreign key (UserID) references Users(UserID) ,
    OrderDate date NOT NULL,
    OrderStatus varchar(255),
    primary key(UserID,OrderID)
    -- Add this line
);

-- DROP TABLE IF EXISTS `logincredentials`;
CREATE TABLE if not exists LoginCredentials(
    UserID int not null unique,
    Username varchar (50) primary key not null ,
    -- username means login credentials ka user name
    foreign key (UserID) references Users(UserID) ,

```

```

        Password VARCHAR(255) NOT NULL CHECK (
            LENGTH>Password) >= 8 AND
        -- Password should be at least 8 characters long
            REGEXP_LIKE>Password, '[A-Z]') AND
-- Password should contain at least one uppercase letter
            REGEXP_LIKE>Password, '[0-9]')
        -- Password should contain at least one digit
    )
);

-- DROP TABLE IF EXISTS productreview;
CREATE TABLE if not exists ProductReview(
    UserID int not null,
    foreign key (UserID) references Users(UserID) ,
    Rating float not null ,
    Review_ID int primary key
);

-- CREATE TABLE if not exists Cart(
-- cart_id int primary key ,
-- foreign key (productID) references product(Product_ID) ,
-- Quantity int
-- );

CREATE TABLE IF NOT EXISTS ReviewReply (
    ReviewReplyID INT not null,
    Review_ID INT not null,
    UserID INT not null,
    PRIMARY KEY (ReviewReplyID, Review_ID),

```

```
-- Combined primary key with ReviewReplyID and Review_ID
    FOREIGN KEY (Review_ID) REFERENCES ProductReview(Review_ID),
    FOREIGN KEY (UserID) REFERENCES Users(UserID),
    ReplyText VARCHAR(255) NOT NULL,
    ReplyDate VARCHAR(50)
);
```

```
CREATE TABLE IF NOT EXISTS checksavailability (
    ProductID INT not null,
    SupplierID INT not null,
    StockQuantity INT not null,
    PRIMARY KEY (ProductID,SupplierID),
    -- here product-id is unique for a product, hence for one
    productID there can be only one ProuductID
    FOREIGN KEY (ProductID) REFERENCES Product(Product_ID),
    FOREIGN KEY (SupplierID) REFERENCES Supplier(SupplierID)
);
```

1. Tables Created (Updated attributed displayed above)

1. **Users** (UserID int PRIMARY KEY not null, name varchar(255) not null, Age int, PhoneNumber1 int not null, EmailAddress1 varchar(255) not null, EmailAddress2 varchar(255) not null, State varchar(255) not null, City varchar(255) not null, Street varchar(255) not null, ApartmentNo varchar(255) not null, Pincode varchar(255) not null, Landmark varchar(255))
2. **PremiumMember** (MembershipID INT PRIMARY KEY not null, Duration INT not null, TransactionID INT not null, UserID int FOREIGN KEY not null)
3. **Admin** (FirstName VARCHAR(255) not null, LastName VARCHAR(255), AdminID INT PRIMARY KEY, Password VARCHAR(255) not null)

4. **NGOs**(Name VARCHAR(255) not null, CompanyID INT PRIMARY KEY, Description TEXT, Email VARCHAR(255) not null, Address TEXT, ContactNumber VARCHAR(20) not null)
5. **OrderTable**(OrderID INT PRIMARY KEY Not null, Cart_id int FOREIGN KEY, Discount FLOAT, Price FLOAT, State VARCHAR(50), City VARCHAR(50), PaymentMode VARCHAR(50), Street TEXT, Pincode INT, TransactionID INT, ProductAmount FLOAT, Deliveryworker int FOREIGN KEY, SupplierID int FOREIGN KEY, UserID int FOREIGN KEY, OrderDate date NOT NULL, Status varchar(255))
6. **ReviewReply**(ReplyID int PRIMARY KEY, ReplyDate DATE NOT NULL, Rating int NOT NULL, Review_ID int NOT NULL)
7. **LoginCredentials**(Username varchar (50) PRIMARY KEY not null, UserID int FOREIGN KEY, Password varchar (50) not null)
8. **DeliveryWorker**(ID int PRIMARY KEY not null, workerName varchar (50) not null, Age int not null, City varchar (50) not null, State varchar (50) not null, Street text, Pincode int, Product text, Email varchar (100), Phone_number varchar (15), License_code text, UPI_ID text, Salary float)
9. **ProductReview**(UserID int PRIMARY KEY not null, Rating float not null, Review_ID int)
10. **Cart**(cart_id int PRIMARY KEY, productID int FOREIGN KEY, Quantity int)
11. **Product**(Product_ID int PRIMARY KEY not null, Name text not null, Description text, SupplierID int FOREIGN KEY, Company_name text not null, Category text, Status boolean)
12. **Supplier**(Name Text, SupplierID int PRIMARY KEY Not Null, State Text Not Null, City Text Not Null, Street Text Not Null, Appartmentnumber Int, Phone_number varchar (15), AccountNumber int, IFSCcode int, UPI_id int)

Data population

Most of the stimulated data for the main entities was generated via bing AI, this refers to the data that was inserted into the tables.

SQL QUERIES for inserting data into tables

```
INSERT INTO Users (UserID, name, Age, PhoneNumber1, EmailAddress1,
EmailAddress2, State, City, Street, ApartmentNo, Pincode, Landmark)
```

```
VALUES
```

```
(1, 'Amit Patel', 30, 9876543210, 'amit@gmail.com', 'amit2@yahoo.com',
'Gujarat', 'Ahmedabad', '123 ABC Road', '101', '380081', 'Near Park'),
```

```
(2, 'Priya Singh', 25, 8765432109, 'priya@gmail.com', 'priya3@hotmail.com',
'Uttar Pradesh', 'Lucknow', '456 XYZ Street', '102', '226001', 'Opposite
Mall'),
```

```
(3, 'Rahul Sharma', 28, 7654321098, 'rahul@gmail.com', 'rahul2@outlook.com',
'Maharashtra', 'Mumbai', '789 MNO Avenue', '103', '400001', 'Next to
Cinema'),
```

```
(4, 'Sneha Gupta', 23, 6543210987, 'sneha@gmail.com', null, 'Delhi', 'New
Delhi', '101 DEF Lane', '104', '110001', 'Near School'),
```

```
(5, 'Ravi Verma', 27, 5432109996, 'ravi@gmail.com', null, 'Tamil Nadu',
'Chennai', '102 GHI Road', '105', '600001', 'Beside Temple'),
```

```
(6, 'Neha Shah', 22, 4321098765, 'neha@gmail.com', 'neha2@gmail.com',
'Karnataka', 'Bangalore', '103 JKL Colony', '106', '560001', 'Behind
Market'),
```

```
(7, 'Aarav Reddy', 26, 3210987654, 'aarav@gmail.com', null, 'Telangana',
'Hyderabad', '104 MNO Street', '107', '500001', 'Near Lake'),
```

```
(8, 'Ishaan Kapoor', 29, 2109876543, 'ishaan@gmail.com', null, 'West
Bengal', 'Kolkata', '105 PQR Avenue', '108', '700001', 'Inside Garden'),
```

```
(9, 'Kriti Mishra', 24, 1098765432, 'kriti@gmail.com', null, 'Madhya
Pradesh', 'Bhopal', '106 STU Lane', '109', '462001', 'On Top Floor'),
```

```
(10, 'Rajat Singhanian', 20, 9876543211, 'rajat@gmail.com',
'rajat2@yahoo.com', 'Rajasthan', 'Jaipur', '107 VWX Road', '110', '302001',
'In Front of Mall'),
```

```
(11, 'Manisha Patil', 31, 8765432108, 'manisha@gmail.com',
'manisha2@hotmail.com', 'Andhra Pradesh', 'Vijayawada', '108 YZA Street',
'111', '520001', 'Near Bank'),
```

```
(12, 'Deepak Singh', 32, 7654321097, 'deepak@gmail.com',
'deepak@outlook.com', 'Punjab', 'Chandigarh', '109 BCD Colony', '112',
'160001', 'Beside Stadium'),
```

```
(13, 'Nisha Yadav', 28, 6543210986, 'nisha@gmail.com', 'nisha2@gmail.com',
'Haryana', 'Gurgaon', '110 EFG Road', '113', '122001', 'Next to Hospital'),

(14, 'Rajesh Tiwari', 33, 5432109995, 'rajesh@gmail.com',
'rajesh2@gmail.com', 'Bihar', 'Patna', '111 HIJ Lane', '114', '800001',
'Behind School'),

(15, 'Pooja Mehta', 22, 4321098764, 'pooja@gmail.com', 'pooja2@gmail.com',
'Uttarakhand', 'Dehradun', '112 JKL Street', '115', '248001', 'Near
Market'),

(16, 'Karan Malhotra', 27, 3210987653, 'karan@gmail.com', null, 'Jharkhand',
'Ranchi', '113 LMN Avenue', '116', '834001', 'Beside Park'),

(17, 'Sakshi Sharma', 26, 2109876542, 'sakshi@gmail.com', null, 'Assam',
'Guwahati', '114 OPQ Road', '117', '781001', 'Next to Airport'),

(18, 'Rahul Gupta', 25, 1098765431, 'rahul1@gmail.com', null, 'Odisha',
'Bhubaneswar', '115 RST Colony', '118', '751001', 'Inside College'),

(19, 'Khushi Singh', 24, 9876543220, 'khushi@gmail.com', null, 'Goa',
'Panaji', '116 UVW Street', '119', '403001', 'Near Beach'),

(20, 'Vivek Kumar', 29, 8765432110, 'vivek@gmail.com', null, 'Kerala',
'Thiruvananthapuram', '117 XYZ Road', '120', '695001', 'In Front of
Temple');
```

```
-- Insert values into PremiumMember table
```

```
INSERT INTO PremiumMember (MembershipID, Duration, TransactionID, UserID)
```

```
VALUES
```

```
(1, 12, 1001, 1),
```

```
(2, 6, 1002, 2),
```

```
(3, 3, 1003, 3),
```

```
(4, 12, 1004, 4),
```

```
(5, 6, 1005, 5),
```

```
(6, 3, 1006, 6),
```

```
(7, 12, 1007, 7),
```

```
(8, 6, 1008, 8),
(9, 3, 1009, 9),
(10, 12, 1010, 10);
```

```
INSERT INTO Admin (FirstName, LastName, AdminID, Password)
VALUES
('Swarnima', 'Prasad', 1, 'password1'),
('Palak', 'Bhardwaj', 2, 'password2');
```

```
-- Insert values into NGOs table
```

```
INSERT INTO NGOs (Name, CompanyID, Description, Email, Address,
ContactNumber)
VALUES
('Access for All', 1, 'A non-profit organization that promotes accessibility
and inclusion for people with disabilities', 'accessforall@gmail.com', '123
Main Street, New Delhi, 110001', '1123456789'),
('Enable India', 2, 'A social enterprise that provides employment
opportunities and training for people with disabilities',
'enableindia@gmail.com', '456 Park Avenue, New Delhi, 110002',
'1134567890'),
('Samarthya', 3, 'A charity that provides education and rehabilitation for
children with disabilities', 'samarthya@gmail.com', '789 Market Road, New
Delhi, 110003', '1145678901'),
('Nayi Disha', 4, 'A platform that connects families of people with
intellectual and developmental disabilities with resources and support',
'nayidisha@gmail.com', '101 Hill Street, New Delhi, 110004', '1156789012'),
('Saksham', 5, 'An organization that empowers people with visual impairment
through technology and advocacy', 'saksham@gmail.com', '102 Lake View, New
Delhi, 110005', '1167890123'),
('Muskaan', 6, 'A foundation that works for the welfare and integration of
people with Down syndrome', 'muskaan@gmail.com', '103 Garden Lane, New
Delhi, 110006', '1178901234');
```

```
('AADI', 7, 'An institute that provides comprehensive services for people
with physical and multiple disabilities', 'aadi@gmail.com', '104 River Side,
New Delhi, 110007', '1189012345'),
```

```
('Shishu Sarothi', 8, 'A centre that offers education, therapy, and legal
aid for children with disabilities', 'shishusarothi@gmail.com', '105 Forest
Road, New Delhi, 110008', '1190123456'),
```

```
('Vidya Sagar', 9, 'A network that supports the rights and dignity of people
with neurological and developmental disabilities', 'vidyasagar@gmail.com',
'106 Sky Tower, New Delhi, 110009', '1101234567'),
```

```
('Ummeed', 10, 'A team that provides early intervention and therapy for
children with developmental disabilities', 'ummeed@gmail.com', '107 Sunshine
Plaza, New Delhi, 110010', '1112345678');
```

```
-- DELETE FROM Cart WHERE cart_id BETWEEN 1 AND 10;
```

```
INSERT INTO Cart (cart_id, productID, quantity)
```

```
VALUES
```

```
(1, 1, 1),
```

```
(2, 2, 2),
```

```
(3, 3, 3),
```

```
(4, 4, 4),
```

```
(5, 5, 5),
```

```
(6, 6, 6),
```

```
(7, 7, 7),
```

```
(8, 8, 8),
```

```
(9, 9, 9),
```

```
(10, 10, 10);
```

```
INSERT INTO Supplier (Name, SupplierID, State, City, Street,
Apartmentnumber, Phone_number, AccountNumber, IFSCcode, UPI_id)
```

```
VALUES
```

```
('WheelCo', 1, 'Delhi', 'New Delhi', '123 Main Street', 101, 9876543210,
111, 111111, 'wheelco@upi'),
```

```
( 'CrutchCo', 2, 'Delhi', 'New Delhi', '456 Park Avenue', 102, 8765432109,
223, 222222, 'crutchco@upi'),

( 'HearCo', 3, 'Delhi', 'New Delhi', '789 Market Road', 103, 7654321098, 344,
333333, 'hearco@upi'),

( 'BrailleCo', 4, 'Delhi', 'New Delhi', '101 Hill Street', 104, 6543210987,
433, 444444, 'brailleco@upi'),

( 'StickCo', 5, 'Delhi', 'New Delhi', '102 Lake View', 105, 5432109876, 598,
555555, 'stickco@upi'),

( 'MagnifyCo', 6, 'Delhi', 'New Delhi', '103 Garden Lane', 106, 4321098765,
698, 666666, 'magnifyco@upi'),

( 'SpeakCo', 7, 'Delhi', 'New Delhi', '104 River Side', 107, 3210987654, 789,
777777, 'speakco@upi'),

( 'CaneCo', 8, 'Delhi', 'New Delhi', '105 Forest Road', 108, 2109876543, 889,
888888, 'caneco@upi'),

( 'ProstheticCo', 9, 'Delhi', 'New Delhi', '106 Sky Tower', 109, 1098765432,
919, 999999, 'prostheticco@upi'),

( 'GlassCo', 10, 'Delhi', 'New Delhi', '107 Sunshine Plaza', 110, 9987654321,
122, 101010, 'glassco@upi');
```

```
INSERT INTO DeliveryWorker (ID, workerName, Age, City, State, Street,
Pincode, Product, Email, Phone_number, License_code, UPI_ID, Salary)
```

```
VALUES
```

```
(1, 'Rajesh Kumar', 25, 'New Delhi', 'Delhi', '123 Main Street', 110001,
'Wheelchair', 'rajesh@gmail.com', '9876543210', 'DL-1234', 'rajesh@upi',
20000),

(2, 'Priya Sharma', 24, 'New Delhi', 'Delhi', '456 Park Avenue', 110002,
'Crutches', 'priya@gmail.com', '8765432109', 'DL-2345', 'priya@upi', 18000),

(3, 'Vikram Singh', 26, 'New Delhi', 'Delhi', '789 Market Road', 110003,
'Hearing Aid', 'vikram@gmail.com', '7654321098', 'DL-3456', 'vikram@upi',
21000),

(4, 'Anjali Gupta', 23, 'New Delhi', 'Delhi', '101 Hill Street', 110004,
'Braille Keyboard', 'anjali@gmail.com', '6543210987', 'DL-4567',
'anjali@upi', 17000),

(5, 'Ravi Verma', 27, 'New Delhi', 'Delhi', '102 Lake View', 110005,
'Walking Stick', 'ravi@gmail.com', '5432109876', 'DL-5678', 'ravi@upi',
19000),
```

```
(6, 'Pooja Patel', 22, 'New Delhi', 'Delhi', '103 Garden Lane', 110006,
'Magnifier', 'pooja@gmail.com', '4321098765', 'DL-6789', 'poojaupi', 16000),

(7, 'Amit Shah', 28, 'New Delhi', 'Delhi', '104 River Side', 110007, 'Speech
Synthesizer', 'amit@gmail.com', '3210987654', 'DL-7890', 'amitaupi', 22000),

(8, 'Neha Jain', 21, 'New Delhi', 'Delhi', '105 Forest Road', 110008,
'Cane', 'neha@gmail.com', '2109876543', 'DL-8901', 'nehaupi', 15000),

(9, 'Suresh Mehta', 29, 'New Delhi', 'Delhi', '106 Sky Tower', 110009,
'Prosthetic Limb', 'suresh@gmail.com', '1098765432', 'DL-9012',
'sureshaupi', 23000),

(10, 'Reena Roy', 20, 'New Delhi', 'Delhi', '107 Sunshine Plaza', 110010,
'Glasses', 'reena@gmail.com', '0987654321', 'DL-0123', 'reenaupi', 14000);
```

```
INSERT INTO Product (Product_ID, Name, Description, Company_name, Category,
Status,SupplierID,Quantity)
```

```
VALUES
```

```
(1, 'Wheelchair', 'A chair with wheels that can be propelled by the user or
an attendant', 'WheelCo', 'Mobility', true,1,100),

(2, 'Crutches', 'A pair of supports that help a person to walk with an
injured leg or foot', 'CrutchCo', 'Mobility', true,2,50),

(3, 'Hearing Aid', 'A device that amplifies sound for a person with hearing
loss', 'HearCo', 'Hearing', true,3,400),

(4, 'Braille Keyboard', 'A keyboard that allows a person with visual
impairment to type in braille', 'BrailleCo', 'Vision', true,1,50),

(5, 'Walking Stick', 'A stick that helps a person to balance or walk',
'StickCo', 'Mobility', false,2,40),

(6, 'Magnifier', 'A device that enlarges the appearance of an object for a
person with low vision', 'MagnifyCo', 'Vision', true,3,70),

(7, 'Speech Synthesizer', 'A device that converts text to speech for a
person with speech impairment', 'SpeakCo', 'Speech', true,3,90),

(8, 'Cane', 'A long stick with a curved handle that helps a person to walk',
'CaneCo', 'Mobility', false,3,5),

(9, 'Prosthetic Limb', 'An artificial limb that replaces a missing one',
'ProstheticCo', 'Mobility', true,3,0),
```

```
(10, 'Glasses', 'A pair of lenses that correct a person vision', 'GlassCo',
'Vision', true,3,8);
```

```
-- Insert values into OrderTable table
```

```
INSERT INTO OrderTable (OrderID, Cart_id, Discount, Price, State, City,
PaymentMode, Street, Pincode, TransactionID, ProductAmount,
DeliveryworkerID, UserID, OrderDate, OrderStatus)
```

```
VALUES
```

```
(1, 1, 0.1, 5000, 'Delhi', 'New Delhi', 'Cash', '123 Main Street', 110001,
1001, 9000, 1, 1, '2024-02-11', 'Delivered'),
```

```
(2, 2, 0.2, 10000, 'Delhi', 'New Delhi', 'Card', '456 Park Avenue', 110002,
1002, 8000, 2, 2, '2024-02-11', 'Delivered'),
```

```
(3, 3, 0.15, 3000, 'Delhi', 'New Delhi', 'UPI', '789 Market Road', 110003,
1003, 7650, 3, 3, '2024-02-11', 'Delivered'),
```

```
(4, 4, 0.05, 2000, 'Delhi', 'New Delhi', 'Cash', '101 Hill Street', 110004,
1004, 7600, 4, 4, '2024-02-11', 'Delivered'),
```

```
(5, 5, 0.1, 1000, 'Delhi', 'New Delhi', 'Card', '102 Lake View', 110005,
1005, 4500, 5, 5, '2023-02-11', 'Delivered'),
```

```
(6, 6, 0.2, 500, 'Delhi', 'New Delhi', 'UPI', '103 Garden Lane', 110006,
1006, 2400, 6, 6, '2024-05-11', 'Delivered'),
```

```
(7, 7, 0.15, 100, 'Delhi', 'New Delhi', 'Cash', '104 River Side', 110007,
1007, 595, 7, 7, '2024-02-11', 'Delivered'),
```

```
(8, 8, 0.05, 50, 'Delhi', 'New Delhi', 'Card', '105 Forest Road', 110008,
1008, 380, 8, 8, '2024-02-11', 'Delivered');
```

```
INSERT INTO LoginCredentials (Username, UserID, Password)
```

```
VALUES
```

```
('rajesh', 1, 'Rajesh123'),
```

```
('priya', 2, 'Priya456'),
```

```
('vikram', 3, 'Vikram789'),
```

```
('anjali', 4, 'Anjali101'),
```

```
('ravi', 5, 'Ravi2024'),
```

```
('pooja', 6, 'Pooja303'),  
('amit', 7, 'Amit4045'),  
('neha', 8, 'Neha5054'),  
('suresh', 9, 'Suresh606'),  
('reena', 10, 'Reena707');
```

```
INSERT INTO ProductReview (UserID, Rating, Review_ID)
```

```
VALUES
```

```
(1, 4.5, 1),  
(2, 3.5, 2),  
(3, 4.0, 3),  
(4, 2.5, 4),  
(5, 3.0, 5),  
(6, 4.5, 6),  
(7, 3.5, 7),  
(8, 4.0, 8),  
(9, 2.5, 9),  
(10, 3.0, 10);
```

```
INSERT INTO ReviewReply (ReviewReplyID, Review_ID, UserID, ReplyText,  
ReplyDate)
```

```
VALUES
```

```
(1, 1, 1, 'Great product!', '2024-02-01'),  
(2, 2, 2, 'Good but could be better', '2024-02-02'),  
(3, 3, 3, 'Satisfactory', '2024-02-03'),  
(4, 4, 4, 'Not as expected', '2024-02-04'),  
(5, 5, 5, 'Disappointing', '2024-02-05'),  
(6, 6, 6, 'Excellent service!', '2024-02-06'),
```



```
(7, 7, 7, 'Could improve', '2024-02-07'),
(8, 8, 8, 'Average', '2024-02-08'),
(9, 9, 9, 'Poor quality', '2024-02-09'),
(10, 10, 10, 'Exceptional!', '2024-02-10');
```

```
-- Example values for UserProductSearch table
```

```
INSERT INTO UserProductSearch (UserID, ProductID, SearchDateTime) VALUES
(1, 1, '2024-02-12 08:30:00'),
(1, 2, '2024-02-12 08:35:00'),
(2, 3, '2024-02-12 09:00:00'),
(3, 1, '2024-02-12 10:15:00'),
(3, 4, '2024-02-12 10:20:00'),
(4, 2, '2024-02-12 11:45:00'),
(4, 3, '2024-02-12 11:50:00');
```

```
INSERT INTO checksavailability (ProductID, SupplierID, StockQuantity)
VALUES
(1, 1, 100), -- ProductID 1 from SupplierID 1 has 100 items in stock
(2, 1, 50), -- ProductID 2 from SupplierID 1 has 50 items in stock
(3, 1, 150), -- ProductID 3 from SupplierID 1 has 150 items in stock
(1, 2, 200), -- ProductID 1 from SupplierID 2 has 200 items in stock
(2, 2, 75), -- ProductID 2 from SupplierID 2 has 75 items in stock
(3, 2, 100); -- ProductID 3 from SupplierID 2 has 100 items in stock
```

Tables with inserted Values (For reference)

Cart

	cart_id	productID	Quantity
▶	1	1	1
	2	2	2
	3	3	3
	4	4	4
	5	5	5
	6	6	6
	7	7	7
	8	8	8
	9	9	9
	10	10	10

DeliveryWorker

	ID	workerName	Age	City	State	Street	Pincode	Product	Email	Phone_number	License_code	UPI_ID	Salary
▶	1	Rajesh Kumar	25	New Delhi	Delhi	123 Main Street	110001	Wheelchair	rajesh@gmail.com	9876543210	DL-1234	rajesh@upi	20000
	2	Priya Sharma	24	New Delhi	Delhi	456 Park Avenue	110002	Crutches	priya@gmail.com	8765432109	DL-2345	priya@upi	18000
	3	Vikram Singh	26	New Delhi	Delhi	789 Market Road	110003	Hearing Aid	vikram@gmail.com	7654321098	DL-3456	vikram@upi	21000
	4	Anjali Gupta	23	New Delhi	Delhi	101 Hill Street	110004	Braille Keyboard	anjali@gmail.com	6543210987	DL-4567	anjali@upi	17000
	5	Ravi Verma	27	New Delhi	Delhi	102 Lake View	110005	Walking Stick	ravi@gmail.com	5432109876	DL-5678	ravi@upi	19000
	6	Pooja Patel	22	New Delhi	Delhi	103 Garden Lane	110006	Magnifier	pooja@gmail.com	4321098765	DL-6789	pooja@upi	16000
	7	Amit Shah	28	New Delhi	Delhi	104 River Side	110007	Speech Synthesizer	amit@gmail.com	3210987654	DL-7890	amit@upi	22000
	8	Neha Jain	21	New Delhi	Delhi	105 Forest Road	110008	Cane	neha@gmail.com	2109876543	DL-8901	neha@upi	15000
	9	Suresh Mehta	29	New Delhi	Delhi	106 Sky Tower	110009	Prosthetic Limb	suresh@gmail.com	1098765432	DL-9012	suresh@upi	23000
	10	Reena Roy	20	New Delhi	Delhi	107 Sunshine Plaza	110010	Glasses	reena@gmail.com	0987654321	DL-0123	reena@upi	14000

Login Credentials

	UserID	Username	Password
▶	7	amit	amit404
	4	anjali	anjali101
	8	neha	neha505
	6	pooja	pooja303
	2	priya	priya456
	1	rajesh	rajesh123
	5	ravi	ravi202
	10	reena	reena707
	9	suresh	suresh606
	3	vikram	vikram789

NGOS

	Name	CompanyID	Description	Email	Address	ContactNumber
►	Access for All	1	A non-profit organization that promotes accessi...	accessforall@gmail.com	123 Main Street, New Delhi, 110001	011-23456789
	Enable India	2	A social enterprise that provides employment o...	enableindia@gmail.com	456 Park Avenue, New Delhi, 110002	011-34567890
	Samarthya	3	A charity that provides education and rehabilita...	samarthya@gmail.com	789 Market Road, New Delhi, 110003	011-45678901
	Nayi Disha	4	A platform that connects families of people with...	nayidisha@gmail.com	101 Hill Street, New Delhi, 110004	011-56789012
	Saksham	5	An organization that empowers people with visu...	saksham@gmail.com	102 Lake View, New Delhi, 110005	011-67890123
	Muskaan	6	A foundation that works for the welfare and int...	muskaan@gmail.com	103 Garden Lane, New Delhi, 110006	011-78901234
	AADI	7	An institute that provides comprehensive servic...	aadi@gmail.com	104 River Side, New Delhi, 110007	011-89012345
	Shishu Sarothi	8	A centre that offers education, therapy, and le...	shishusarothi@gmail.com	105 Forest Road, New Delhi, 110008	011-90123456
	Vidya Sagar	9	A network that supports the rights and dignity ...	vidyasagar@gmail.com	106 Sky Tower, New Delhi, 110009	011-01234567
	Ummeed	10	A team that provides early intervention and the...	ummeed@gmail.com	107 Sunshine Plaza, New Delhi, 110010	011-12345678

Order Table

	OrderID	Cart_id	Discount	Price	State	City	PaymentMode	Street	Pincode	TransactionID	ProductAmount	DeliveryworkerID	SupplierID	UserID	OrderDate	OrderStatus
►	1	1	0.1	5000	Delhi	New Delhi	Cash	123 Main Street	110001	1001	9000	1	1	1	2024-02-11	Delivered
	2	2	0.2	10000	Delhi	New Delhi	Card	456 Park Avenue	110002	1002	8000	2	2	2	2024-02-11	Delivered
	3	3	0.15	3000	Delhi	New Delhi	UPI	789 Market Road	110003	1003	7650	3	3	3	2024-02-11	Delivered
	4	4	0.05	2000	Delhi	New Delhi	Cash	101 Hill Street	110004	1004	7600	4	4	4	2024-02-11	Delivered
	5	5	0.1	1000	Delhi	New Delhi	Card	102 Lake View	110005	1005	4500	5	5	5	2024-02-11	Delivered
	6	6	0.2	500	Delhi	New Delhi	UPI	103 Garden Lane	110006	1006	2400	6	6	6	2024-02-11	Delivered
	7	7	0.15	100	Delhi	New Delhi	Cash	104 River Side	110007	1007	595	7	7	7	2024-02-11	Delivered
	8	8	0.05	50	Delhi	New Delhi	Card	105 Forest Road	110008	1008	380	8	8	8	2024-02-11	Delivered
	9	9	0.05	50	Delhi	New Delhi	Card	10 Road	110008	1008	380	8	8	8	2024-02-11	Delivered
	10	10	0.05	50	Delhi	New Delhi	Card	1 Road	110808	1008	380	8	8	8	2094-02-11	Delivered

Premium Member

	MembershipID	Duration	TransactionID	UserID
►	1	12	1001	1
	2	6	1002	2
	3	3	1003	3
	4	12	1004	4
	5	6	1005	5
	6	3	1006	6
	7	12	1007	7
	8	6	1008	8
	9	3	1009	9
	10	12	1010	10

Product

	Product_ID	Name	Description	SupplierID	Company_name	Category	Status
►	1	Wheelchair	A chair with wheels that can be propelled by th...	1	WheelCo	Mobility	1
	2	Crutches	A pair of supports that help a person to walk wi...	2	CrutchCo	Mobility	1
	3	Hearing Aid	A device that amplifies sound for a person with ...	3	HearCo	Hearing	1
	4	Braille Keyboard	A keyboard that allows a person with visual imp...	1	BrailleCo	Vision	1
	5	Walking Stick	A stick that helps a person to balance or walk	2	StickCo	Mobility	1
	6	Magnifier	A device that enlarges the appearance of an ob...	3	MagnifyCo	Vision	1
	7	Speech Synthesizer	A device that converts text to speech for a per...	3	SpeakCo	Speech	1
	8	Cane	A long stick with a curved handle that helps a p...	3	CaneCo	Mobility	1
	9	Prosthetic Limb	An artificial limb that replaces a missing one	3	ProstheticCo	Mobility	1
	10	Glasses	A pair of lenses that correct a person vision	3	GlassCo	Vision	1
-	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Product Review

	UserID	Rating	Review_ID
►	1	4.5	1
	2	3.5	2
	3	4	3
	4	2.5	4
	5	3	5
	6	4.5	6
	7	3.5	7
	8	4	8
	9	2.5	9
	10	3	10

ReviewReply

	ReplyID	ReplyDate	Rating	Review_ID
►	1	2024-02-01	5	1
	2	2024-02-02	4	2
	3	2024-02-03	3	3
	4	2024-02-04	2	4
	5	2024-02-05	1	5
	6	2024-02-06	4	6
	7	2024-02-07	3	7
	8	2024-02-08	2	8
	9	2024-02-09	1	9
	10	2024-02-10	5	10
*	NULL	NULL	NULL	NULL

Supplier

	Name	SupplierID	State	City	Street	Appartmentnumber	Phone_number	AccountNumber	IFSCcode	UPI_id
▶	WheelCo	1	Delhi	New Delhi	123 Main Street	101	9876543210	111	111111	wheelco@upi
	CrutchCo	2	Delhi	New Delhi	456 Park Avenue	102	8765432109	223	222222	crutchco@upi
	HearCo	3	Delhi	New Delhi	789 Market Road	103	7654321098	344	333333	hearco@upi
	BrailleCo	4	Delhi	New Delhi	101 Hill Street	104	6543210987	433	444444	braillico@upi
	StickCo	5	Delhi	New Delhi	102 Lake View	105	5432109876	598	555555	stickco@upi
	MagnifyCo	6	Delhi	New Delhi	103 Garden Lane	106	4321098765	698	666666	magnifyco@upi
	SpeakCo	7	Delhi	New Delhi	104 River Side	107	3210987654	789	777777	speackco@upi
	CaneCo	8	Delhi	New Delhi	105 Forest Road	108	2109876543	889	888888	caneco@upi
	ProstheticCo	9	Delhi	New Delhi	106 Sky Tower	109	1098765432	919	999999	prostheticco@upi
	GlassCo	10	Delhi	New Delhi	107 Sunshine Plaza	110	0987654321	122	101010	glassco@upi

Users

	UserID	name	Age	PhoneNumber1	EmailAddress1	EmailAddress2	State	City	Street	ApartmentNo	Pincode	Landmark
▶	1	Rajesh Kumar	25	9876543210	rajesh@gmail.com	rajesh@yahoo.com	Delhi	New Delhi	123 Main Street	101	110001	Near Post Office
	2	Priya Sharma	24	8765432109	priya@gmail.com	priya@hotmail.com	Delhi	New Delhi	456 Park Avenue	102	110002	Opposite Park
	3	Vikram Singh	26	7654321098	vikram@gmail.com	vikram@outlook.com	Delhi	New Delhi	789 Market Road	103	110003	Next to Mall
	4	Anjali Gupta	23	6543210987	anjali@gmail.com	anjali@gmail.com	Delhi	New Delhi	101 Hill Street	104	110004	Near Temple
	5	Ravi Verma	27	5432109876	ravi@gmail.com	ravi@gmail.com	Delhi	New Delhi	102 Lake View	105	110005	Beside Lake
	6	Pooja Patel	22	4321098765	pooja@gmail.com	pooja@gmail.com	Delhi	New Delhi	103 Garden Lane	106	110006	Behind Garden
	7	Amit Shah	28	3210987654	amit@gmail.com	amit@gmail.com	Delhi	New Delhi	104 River Side	107	110007	Near Bridge
	8	Neha Jain	21	2109876543	neha@gmail.com	neha@gmail.com	Delhi	New Delhi	105 Forest Road	108	110008	Inside Forest
	9	Suresh Mehta	29	1098765432	suresh@gmail.com	suresh@gmail.com	Delhi	New Delhi	106 Sky Tower	109	110009	On Top Floor
	10	Reena Roy	20	987654321	reena@gmail.com	reena@gmail.com	Delhi	New Delhi	107 Sunshine Plaza	110	110010	In Front of Plaza
	11	Rajesh Kumar	25	9876543210	rajesh@gmail.com	rajesh@yahoo.com	Delhi	New Delhi	123 Main Street	101	110001	Near Post Office
	12	Priya Sharma	24	8765432109	priya@gmail.com	priya@hotmail.com	Delhi	New Delhi	456 Park Avenue	102	110002	Opposite Park
	13	Vikram Singh	26	7654321098	vikram@gmail.com	vikram@outlook.com	Delhi	New Delhi	789 Market Road	103	110003	Next to Mall
	14	Anjali Gupta	23	6543210987	anjali@gmail.com	anjali@gmail.com	Delhi	New Delhi	101 Hill Street	104	110004	Near Temple
	15	Ravi Verma	27	5432109876	ravi@gmail.com	ravi@gmail.com	Delhi	New Delhi	102 Lake View	105	110005	Beside Lake
	16	Pooja Patel	22	4321098765	pooja@gmail.com	pooja@gmail.com	Delhi	New Delhi	103 Garden Lane	106	110006	Behind Garden
	17	Amit Shah	28	3210987654	amit@gmail.com	amit@gmail.com	Delhi	New Delhi	104 River Side	107	110007	Near Bridge
	18	Neha Jain	21	2109876543	neha@gmail.com	neha@gmail.com	Delhi	New Delhi	105 Forest Road	108	110008	Inside Forest
	19	Suresh Mehta	29	1098765432	suresh@gmail.com	suresh@gmail.com	Delhi	New Delhi	106 Sky Tower	109	110009	On Top Floor
	20	Reena Roy	20	987654321	reena@gmail.com	reena@gmail.com	Delhi	New Delhi	107 Sunshine Plaza	110	110010	In Front of Plaza

Userproductsearch

	UserID	ProductID	SearchDateTime
▶	1	1	2024-02-12 08:30:00
	3	1	2024-02-12 10:15:00
	1	2	2024-02-12 08:35:00
	4	2	2024-02-12 11:45:00
	2	3	2024-02-12 09:00:00
	4	3	2024-02-12 11:50:00
	3	4	2024-02-12 10:20:00
✱	NULL	NULL	NULL

Checksavailability

ProductID	SupplierID	StockQuantity
1	1	100
1	2	200
2	1	50
2	2	75
3	1	150
3	2	100
NULL	NULL	NULL

[E-R diagram link here](#)

Contributions

Palak Bhardwaj - Sql queries

Swarnima Prasad - Sql queries