VIJAY SALES SHOP

Database Management System

Overview:-

Vijay Sales Shop is a retail business specializing in electronic products and home appliances. To effectively manage its operations, The Raw data of a SQL Database Management System (DBMS) is designed to handle essential aspects such as product inventory, sales transactions, customer data, supplier details, and purchase records.

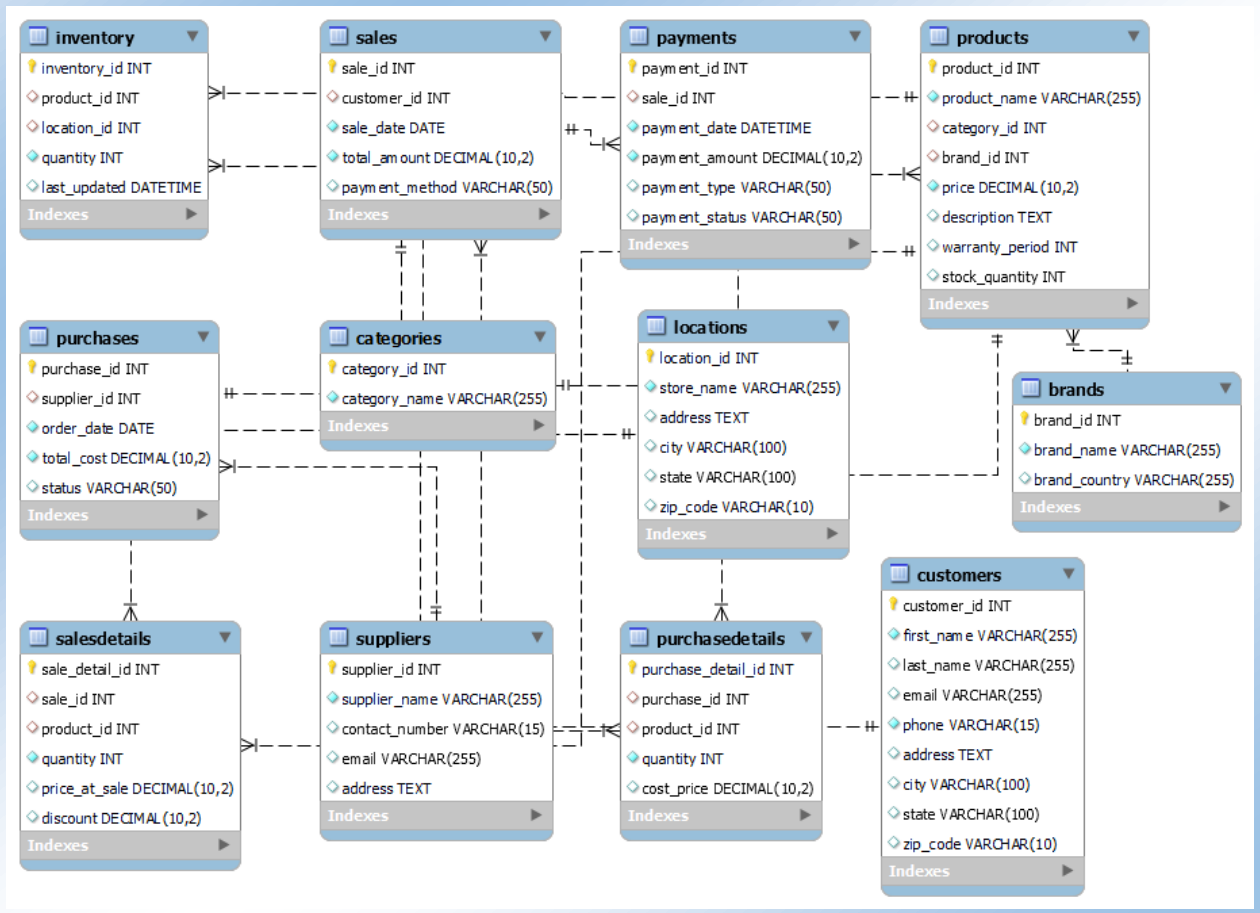
The Vijay Sales database structure includes tables for:

1. **Products** - Details of all available products, their categories, brands, prices, and stock levels.
2. **Categories** - Classification of products for easy navigation and inventory organization.
3. **Brands** - Information about various brands and their origins.
4. **Customers** - Records of customer information for tracking purchases and enhancing customer service.
5. **Sales** - Transactional data for sales, including total amounts and payment methods.
6. **SalesDetails** - Breakdown of each sale, showing product quantity, sale price, and discounts.
7. **Inventory** - Tracks product availability across different store locations.
8. **Locations** - Information about each store location, including addresses.
9. **Suppliers** - Details of suppliers providing products, including contact and ordering information.
10. **Purchases** - Purchase orders from suppliers, including costs and order status.
11. **PurchaseDetails** - Specific details for each purchase order, such as product quantity and price.
12. **Payments** - Records of customer payments for sales and their statuses.

The SQL DBMS enables Vijay Sales Shop to maintain smooth operations by accurately tracking inventory, processing transactions efficiently, and managing supplier relations. This structure helps ensure real-time data availability for decision-making, improves customer service, and supports inventory control.

Raw Diagram

ER Diagram



Create Tables: -

CReate database **vijay_sales_shop**;

use **vijay_sales_shop**;

```
-- 1. Products
CREATE TABLE Products (
    product_id INT PRIMARY KEY AUTO_INCREMENT,
    product_name VARCHAR(255) NOT NULL,
    category_id INT,
    brand_id INT,
    price DECIMAL(10, 2) NOT NULL,
    description TEXT,
    warranty_period INT,
    stock_quantity INT,
    FOREIGN KEY (category_id) REFERENCES Categories(category_id),
    FOREIGN KEY (brand_id) REFERENCES Brands(brand_id)
);

-- 2. Categories
CREATE TABLE Categories (
    category_id INT PRIMARY KEY AUTO_INCREMENT,
    category_name VARCHAR(255) NOT NULL
);
```

```
-- 3. Brands
CREATE TABLE Brands (
    brand_id INT PRIMARY KEY AUTO_INCREMENT,
    brand_name VARCHAR(255) NOT NULL,
    brand_country VARCHAR(255)
);

-- 4. Customers
CREATE TABLE Customers (
    customer_id INT PRIMARY KEY AUTO_INCREMENT,
    first_name VARCHAR(255) NOT NULL,
    last_name VARCHAR(255),
    email VARCHAR(255) UNIQUE,
    phone VARCHAR(15) NOT NULL,
    address TEXT,
    city VARCHAR(100),
    state VARCHAR(100),
    zip_code VARCHAR(10)
);

-- 5. Sales
CREATE TABLE Sales (
    sale_id INT PRIMARY KEY AUTO_INCREMENT,
    customer_id INT,
```

```
    sale_date DATE NOT NULL,
    total_amount DECIMAL(10, 2) NOT NULL,
    payment_method VARCHAR(50),
    FOREIGN KEY (customer_id) REFERENCES Customers(customer_id)
);

-- 6. SalesDetails
CREATE TABLE SalesDetails (
    sale_detail_id INT PRIMARY KEY AUTO_INCREMENT,
    sale_id INT,
    product_id INT,
    quantity INT NOT NULL,
    price_at_sale DECIMAL(10, 2),
    discount DECIMAL(10, 2),
    FOREIGN KEY (sale_id) REFERENCES Sales(sale_id),
    FOREIGN KEY (product_id) REFERENCES Products(product_id)
);

-- 7. Inventory
CREATE TABLE Inventory (
    inventory_id INT PRIMARY KEY AUTO_INCREMENT,
    product_id INT,
    location_id INT,
    quantity INT NOT NULL,
```

```
    last_updated DATETIME,
    FOREIGN KEY (product_id) REFERENCES Products(product_id),
    FOREIGN KEY (location_id) REFERENCES Locations(location_id)
);

-- 8. Locations
CREATE TABLE Locations (
    location_id INT PRIMARY KEY AUTO_INCREMENT,
    store_name VARCHAR(255) NOT NULL,
    address TEXT,
    city VARCHAR(100),
    state VARCHAR(100),
    zip_code VARCHAR(10)
);

-- 9. Suppliers
CREATE TABLE Suppliers (
    supplier_id INT PRIMARY KEY AUTO_INCREMENT,
    supplier_name VARCHAR(255) NOT NULL,
    contact_number VARCHAR(15),
    email VARCHAR(255) UNIQUE,
    address TEXT
);
```

```
-- 10. Purchases
CREATE TABLE Purchases (
    purchase_id INT PRIMARY KEY AUTO_INCREMENT,
    supplier_id INT,
    order_date DATE NOT NULL,
    total_cost DECIMAL(10, 2) NOT NULL,
    status VARCHAR(50),
    FOREIGN KEY (supplier_id) REFERENCES Suppliers(supplier_id)
);

-- 11. PurchaseDetails
CREATE TABLE PurchaseDetails (
    purchase_detail_id INT PRIMARY KEY AUTO_INCREMENT,
    purchase_id INT,
    product_id INT,
    quantity INT NOT NULL,
    cost_price DECIMAL(10, 2),
    FOREIGN KEY (purchase_id) REFERENCES Purchases(purchase_id),
    FOREIGN KEY (product_id) REFERENCES Products(product_id)
);

-- 12. Payments
CREATE TABLE Payments (
    payment_id INT PRIMARY KEY AUTO_INCREMENT,
```

```
    sale_id INT,
    payment_date DATETIME NOT NULL,
    payment_amount DECIMAL(10, 2) NOT NULL,
    payment_type VARCHAR(50),
    payment_status VARCHAR(50),
    FOREIGN KEY (sale_id) REFERENCES Sales(sale_id)
);
```

Insert Values of all Tables

- **Products**

INSERT INTO **Products** (product_id, product_name, category_id, brand_id, price, description, warranty_period, stock_quantity)

VALUES

(1, 'Samsung LED TV 43"', 1, 1, 29999.99, '43-inch LED TV with Full HD resolution', 24, 10),

(2, 'iPhone 14', 2, 2, 79999.99, '128GB, Midnight Black', 12, 15),

(3, 'Dell Inspiron Laptop', 3, 3, 45999.99, 'Core i5, 8GB RAM, 512GB SSD', 12, 8),

(4, 'Sony Headphones WH-1000XM4', 4, 4, 19999.99, 'Noise-canceling wireless headphones', 12, 20),

(5, 'LG Refrigerator 190L', 5, 5, 15999.99, '190L single-door refrigerator with smart inverter compressor', 24, 12),

(6, 'HP Pavilion Laptop 14"', 3, 6, 60999.99, 'Core i7, 16GB RAM, 1TB SSD', 12, 7),

(7, 'Canon EOS 1500D DSLR Camera', 6, 7, 35999.99, '24.1MP DSLR camera with dual-lens kit', 12, 5),

(8, 'Philips Air Fryer HD9216', 7, 8, 8499.99, 'Rapid Air Technology for healthier frying', 12, 18),

(9, 'Sony Bravia 55" LED TV', 1, 9, 54999.99, '4K UHD Smart LED TV with HDR and Android OS', 24, 15),

(10, 'Samsung Galaxy S21', 2, 2, 69999.99, '128GB storage, 8GB RAM, Exynos 2100', 12, 20),

(11, 'Dell Inspiron 15"', 3, 10, 48999.99, 'Core i5, 8GB RAM, 512GB SSD, Windows 10', 12, 10),

(12, 'Whirlpool Washing Machine 6.5kg', 5, 11, 17999.99, '6.5kg fully automatic front-load', 24, 8),

(13, 'Nikon D5600 DSLR Camera', 6, 12, 44999.99, '24.2MP DSLR with 18-55mm lens', 12, 5),

(14, 'Bajaj Microwave Oven 20L', 7, 13, 5999.99, 'Convection microwave with digital display', 12, 12);

- **Categories**

INSERT INTO **Categories** (category_id, category_name)

VALUES

(1, 'Television'),

(2, 'Mobile Phones'),

(3, 'Laptops'),

(4, 'Headphones'),

(5, 'Refrigerators'),

(6, 'Cameras'),

(7, 'Kitchen Appliances'),

(8, 'Microwaves'),

(9, 'Washing Machines');

- **Brands**

INSERT INTO **Brands** (brand_id, brand_name, brand_country)

VALUES

(1, 'Samsung', 'South Korea'),

(2, 'Apple', 'United States'),

(3, 'Dell', 'United States'),

(4, 'Sony', 'Japan'),

(5, 'LG', 'South Korea'),

(6, 'HP', 'United States'),

(7, 'Canon', 'Japan'),

(8, 'Philips', 'Netherlands'),

(9, 'Sony', 'Japan'),

(10, 'Dell', 'United States'),

(11, 'Whirlpool', 'United States'),

(12, 'Nikon', 'Japan'),

(13, 'Bajaj', 'India');

- **Customers**

INSERT INTO **Customers** (customer_id, first_name, last_name, email, phone, address, city, state, zip_code)

VALUES

(1, 'Ravi', 'Sharma', 'ravi.sharma@gmail.com', '9123456789', '123 Main Street', 'Mumbai', 'Maharashtra', '400001'),

(2, 'Anita', 'Verma', 'anita.verma@gmail.com', '9234567890', '456 Park Avenue', 'Pune', 'Maharashtra', '411001'),

(3, 'Raj', 'Patel', 'raj.patel@gmail.com', '9345678901', '789 Hill Road', 'Surat', 'Gujarat', '395007'),

(4, 'Priya', 'Kumar', 'priya.kumar@gmail.com', '9456123456', 'Apartment 42, Sector 22', 'Noida', 'Uttar Pradesh', '201301'),

(5, 'Amit', 'Singh', 'amit.singh@gmail.com', '9561234567', 'Bungalow 19, Shivaji Nagar', 'Nagpur', 'Maharashtra', '440010'),

(6, 'Neha', 'Joshi', 'neha.joshi@gmail.com', '9671234568', 'Flat 13B, Race Course Road', 'Indore', 'Madhya Pradesh', '452001'),

(7, 'Rajesh', 'Patel', 'rajesh.patel@gmail.com', '9876543210', 'House 29, MG Road', 'Pune', 'Maharashtra', '411001'),

(8, 'Suman', 'Sharma', 'suman.sharma@gmail.com', '9765432189', 'Apartment 4A, South City', 'Kolkata', 'West Bengal', '700047'),

(9, 'Akhil', 'Verma', 'akhil.verma@gmail.com', '8896541234', 'Building 21, Banjara Hills', 'Hyderabad', 'Telangana', '500034');

- **Sales**

INSERT INTO **Sales** (sale_id, customer_id, sale_date, total_amount, payment_method)

VALUES

(1, 1, '2024-10-01', 109999.97, 'Credit Card'),

(2, 2, '2024-10-02', 79999.99, 'Debit Card'),

(3, 3, '2024-10-03', 29999.99, 'Cash'),

(4, 4, '2024-10-04', 15999.99, 'UPI'),

(5, 5, '2024-10-05', 60999.99, 'Credit Card'),

(6, 6, '2024-10-06', 8499.99, 'Debit Card'),

(7, 7, '2024-10-07', 54999.99, 'Credit Card'),

(8, 8, '2024-10-08', 69999.99, 'UPI'),

(9, 9, '2024-10-09', 17999.99, 'Cash');

- **SalesDetails**

INSERT INTO **SalesDetails** (sale_detail_id, sale_id, product_id, quantity, price_at_sale, discount)

VALUES

(1, 1, 1, 1, 29999.99, 0),

(2, 1, 2, 1, 79999.99, 0),

(3, 2, 2, 1, 79999.99, 0),

(4, 3, 1, 1, 29999.99, 0),

(5, 4, 5, 1, 15999.99, 500),

(6, 5, 6, 1, 60999.99, 0),

(7, 6, 8, 1, 8499.99, 200),

(8, 7, 9, 1, 54999.99, 0),

(9, 8, 10, 1, 69999.99, 2000),

(10, 9, 12, 1, 17999.99, 500);

- **Inventory**

INSERT INTO **Inventory** (inventory_id, product_id, location_id, quantity, last_updated)

VALUES

(1, 1, 1, 10, '2024-10-01'),

(2, 2, 1, 15, '2024-10-01'),

(3, 3, 2, 8, '2024-10-01'),

(4, 4, 2, 20, '2024-10-01'),

(5, 5, 1, 12, '2024-10-04'),

(6, 6, 1, 7, '2024-10-05'),

(7, 7, 2, 5, '2024-10-06'),

(8, 8, 2, 18, '2024-10-06'),

(9, 9, 3, 15, '2024-10-07'),

(10, 10, 2, 20, '2024-10-08'),

(11, 11, 1, 10, '2024-10-09'),

(12, 12, 2, 8, '2024-10-09');

- **Locations**

INSERT INTO **Locations** (location_id, store_name, address, city, state, zip_code)

VALUES

(1, 'Vijay Sales - Andheri', 'Plot 21, Andheri West', 'Mumbai', 'Maharashtra', '400053'),

(2, 'Vijay Sales - Bandra', 'Shop No. 10, Linking Road', 'Mumbai', 'Maharashtra', '400050'),

(3, 'Vijay Sales - Thane', 'Shop No. 22, Ghodbunder Road', 'Thane', 'Maharashtra', '400601'),

(4, 'Vijay Sales - Vashi', 'Plot 5, Sector 17', 'Navi Mumbai', 'Maharashtra', '400703'),

(5, 'Vijay Sales - Andheri', 'Plot No. 9, Andheri West', 'Mumbai', 'Maharashtra', '400058'),

(6, 'Vijay Sales - Kandivali', 'Station Road, Kandivali East', 'Mumbai', 'Maharashtra', '400101');

- **Suppliers**

INSERT INTO **Suppliers** (supplier_id, supplier_name, contact_number, email, address)

VALUES

(1, 'Samsung Electronics', '9876543210', 'contact@samsung.com', 'Seoul, South Korea'),

(2, 'Apple Inc.', '9765432109', 'sales@apple.com', 'Cupertino, CA, USA'),

(3, 'Dell India', '9654321098', 'info@dell.com', 'Bangalore, Karnataka, India'),

(4, 'LG Electronics', '9988776655', 'lg@lgelectronics.com', 'Seoul, South Korea'),

(5, 'HP India', '9876543212', 'info@hp.com', 'Bengaluru, Karnataka, India'),

(6, 'Canon India', '9765432107', 'support@canon.in', 'Noida, Uttar Pradesh, India'),

(7, 'Philips India', '9654321096', 'service@philips.com', 'Gurgaon, Haryana, India'),

(8, 'Sony India', '9898989898', 'support@sony.co.in', 'Tokyo, Japan'),

(9, 'Whirlpool India', '9797979797', 'contact@whirlpool.com', 'Pune, Maharashtra, India'),

(10, 'Nikon India', '9696969696', 'service@nikon.in', 'Tokyo, Japan'),

(11, 'Bajaj Electricals', '9595959595', 'support@bajajelectricals.com', 'Mumbai, Maharashtra, India');

- **Purchases**

INSERT INTO **Purchases** (purchase_id, supplier_id, order_date, total_cost, status)

VALUES

(1, 1, '2024-09-01', 250000.00, 'Ordered'),

(2, 2, '2024-09-10', 500000.00, 'Received'),

(3, 3, '2024-09-15', 150000.00, 'Ordered'),

(4, 4, '2024-10-04', 120000.00, 'Ordered'),

(5, 5, '2024-10-05', 250000.00, 'Received'),

(6, 6, '2024-10-06', 180000.00, 'Ordered'),

(7, 8, '2024-10-07', 400000.00, 'Ordered'),

(8, 9, '2024-10-08', 150000.00, 'Received'),

(9, 10, '2024-10-09', 250000.00, 'Pending');

- **PurchaseDetails**

INSERT INTO **PurchaseDetails** (purchase_detail_id, purchase_id, product_id, quantity, cost_price)

VALUES

(1, 1, 1, 10, 25000.00),

(2, 2, 2, 5, 75000.00),

(3, 3, 3, 3, 50000.00),

(4, 4, 5, 10, 12000.00),

(5, 5, 6, 5, 50000.00),

(6, 6, 7, 3, 60000.00),

(7, 7, 9, 8, 45000.00),

(8, 8, 12, 6, 12000.00),

(9, 9, 13, 4, 40000.00);

- **Payments**

INSERT INTO **Payments** (payment_id, sale_id, payment_date, payment_amount, payment_type, payment_status)

VALUES

(1, 1, '2024-10-01', 109999.97, 'Credit Card', 'Completed'),

(2, 2, '2024-10-02', 79999.99, 'Debit Card', 'Completed'),

(3, 3, '2024-10-03', 29999.99, 'Cash', 'Completed'),

(4, 4, '2024-10-04', 15999.99, 'UPI', 'Completed'),

(5, 5, '2024-10-05', 60999.99, 'Credit Card', 'Completed'),

(6, 6, '2024-10-06', 8499.99, 'Debit Card', 'Completed'),

(7, 7, '2024-10-07', 54999.99, 'Credit Card', 'Completed'),

(8, 8, '2024-10-08', 69999.99, 'UPI', 'Completed'),

(9, 9, '2024-10-09', 17999.99, 'Cash', 'Completed');

***** Select & Desc *****

```
mysql> use Vijay_Sales_Shop;
Database changed
mysql> show tables;
+----------------------------+
| Tables_in_vijay_sales_shop |
+----------------------------+
| brands                     |
| categories                 |
| customers                  |
| inventory                  |
| locations                  |
| payments                   |
| products                   |
| purchasedetails            |
| purchases                  |
| sales                      |
| salesdetails               |
| suppliers                  |
+----------------------------+
```

select * from **Products**;

```
mysql> select * from products;
+------------+-----------------------------------+-------------+----------+----------+-----------------------------------------------------------------------+----------------+----------------+
| product_id | product_name                      | category_id | brand_id | price    | description                                                           | warranty_period | stock_quantity |
+------------+-----------------------------------+-------------+----------+----------+-----------------------------------------------------------------------+----------------+----------------+
|          1 | Samsung LED TV 43"                |           1 |        1 | 29999.99 | 43-inch LED TV with Full HD resolution                                |              24 |             10 |
|          2 | iPhone 14                         |           2 |        2 | 79999.99 | 128GB, Midnight Black                                                 |              12 |             15 |
|          3 | Dell Inspiron Laptop              |           3 |        3 | 45999.99 | Core i5, 8GB RAM, 512GB SSD                                           |              12 |              8 |
|          4 | Sony Headphones WH-1000XM4        |           4 |        4 | 19999.99 | Noise-canceling wireless headphones                                   |              12 |             20 |
|          5 | LG Refrigerator 190L              |           5 |        5 | 15999.99 | 190L single-door refrigerator with smart inverter compressor          |              24 |             12 |
|          6 | HP Pavilion Laptop 14"            |           3 |        6 | 60999.99 | Core i7, 16GB RAM, 1TB SSD                                            |              12 |              7 |
|          7 | Canon EOS 1500D DSLR Camera       |           6 |        7 | 35999.99 | 24.1MP DSLR camera with dual-lens kit                                 |              12 |              5 |
|          8 | Philips Air Fryer HD9216          |           7 |        8 |  8499.99 | Rapid Air Technology for healthier frying                             |              12 |             18 |
|          9 | Sony Bravia 55" LED TV            |           1 |        9 | 54999.99 | 4K UHD Smart LED TV with HDR and Android OS                           |              24 |             15 |
|         10 | Samsung Galaxy S21                |           2 |        2 | 69999.99 | 128GB storage, 8GB RAM, Exynos 2100                                   |              12 |             20 |
|         11 | Dell Inspiron 15"                 |           3 |       10 | 48999.99 | Core i5, 8GB RAM, 512GB SSD, Windows 10                               |              12 |             10 |
|         12 | Whirlpool Washing Machine 6.5kg   |           5 |       11 | 17999.99 | 6.5kg fully automatic front-load                                      |              24 |              8 |
|         13 | Nikon D5600 DSLR Camera           |           6 |       12 | 44999.99 | 24.2MP DSLR with 18-55mm lens                                         |              12 |              5 |
|         14 | Bajaj Microwave Oven 20L          |           7 |       13 |  5999.99 | Convection microwave with digital display                             |              12 |             12 |
+------------+-----------------------------------+-------------+----------+----------+-----------------------------------------------------------------------+----------------+----------------+
```

select * from **Categories**;

```
mysql> select * from categories;
+-------------+--------------------+
| category_id | category_name      |
+-------------+--------------------+
|           1 | Television         |
|           2 | Mobile Phones      |
|           3 | Laptops            |
|           4 | Headphones         |
|           5 | Refrigerators      |
|           6 | Cameras            |
|           7 | Kitchen Appliances |
|           8 | Microwaves         |
|           9 | Washing Machines   |
+-------------+--------------------+
```

select * from **Brands**;

```
mysql> select * from brands;
+----------+------------+----------------+
| brand_id | brand_name | brand_country  |
+----------+------------+----------------+
|        1 | Samsung    | South Korea    |
|        2 | Apple      | United States  |
|        3 | Dell       | United States  |
|        4 | Sony       | Japan          |
|        5 | LG         | South Korea    |
|        6 | HP         | United States  |
|        7 | Canon      | Japan          |
|        8 | Philips    | Netherlands    |
|        9 | Sony       | Japan          |
|       10 | Dell       | United States  |
|       11 | Whirlpool  | United States  |
|       12 | Nikon      | Japan          |
|       13 | Bajaj      | India          |
+----------+------------+----------------+
```

select * from **Customers**;

```
mysql> select * from customers;
+-------------+------------+-----------+----------------------+------------+---------------------------+-----------+----------------+----------+
| customer_id | first_name | last_name | email                | phone      | address                   | city      | state          | zip_code |
+-------------+------------+-----------+----------------------+------------+---------------------------+-----------+----------------+----------+
|           1 | Ravi       | Sharma    | ravi.sharma@gmail.com | 9123456789 | 123 Main Street           | Mumbai    | Maharashtra    | 400001   |
|           2 | Anita      | Verma     | anita.verma@gmail.com | 9234567890 | 456 Park Avenue           | Pune      | Maharashtra    | 411001   |
|           3 | Raj        | Patel     | raj.patel@gmail.com   | 9345678901 | 789 Hill Road             | Surat     | Gujarat        | 395007   |
|           4 | Priya      | Kumar     | priya.kumar@gmail.com | 9456123456 | Apartment 42, Sector 22   | Noida     | Uttar Pradesh  | 201301   |
|           5 | Amit       | Singh     | amit.singh@gmail.com  | 9561234567 | Bungalow 19, Shivaji Nagar | Nagpur    | Maharashtra    | 440010   |
|           6 | Neha       | Joshi     | neha.joshi@gmail.com  | 9671234568 | Flat 13B, Race Course Road | Indore    | Madhya Pradesh | 452001   |
|           7 | Rajesh     | Patel     | rajesh.patel@gmail.com | 9876543210 | House 29, MG Road         | Pune      | Maharashtra    | 411001   |
|           8 | Suman      | Sharma    | suman.sharma@gmail.com | 9765432189 | Apartment 4A, South City  | Kolkata   | West Bengal    | 700047   |
|           9 | Akhil      | Verma     | akhil.verma@gmail.com | 8896541234 | Building 21, Banjara Hills | Hyderabad | Telangana      | 500034   |
+-------------+------------+-----------+----------------------+------------+---------------------------+-----------+----------------+----------+
```

select * from **Sales**;

```
mysql> select * from sales;
+---------+-------------+------------+--------------+----------------+
| sale_id | customer_id | sale_date  | total_amount | payment_method |
+---------+-------------+------------+--------------+----------------+
|       1 |           1 | 2024-10-01 |    109999.97 | Credit Card    |
|       2 |           2 | 2024-10-02 |     79999.99 | Debit Card     |
|       3 |           3 | 2024-10-03 |     29999.99 | Cash           |
|       4 |           4 | 2024-10-04 |     15999.99 | UPI            |
|       5 |           5 | 2024-10-05 |     60999.99 | Credit Card    |
|       6 |           6 | 2024-10-06 |      8499.99 | Debit Card     |
|       7 |           7 | 2024-10-07 |     54999.99 | Credit Card    |
|       8 |           8 | 2024-10-08 |     69999.99 | UPI            |
|       9 |           9 | 2024-10-09 |     17999.99 | Cash           |
+---------+-------------+------------+--------------+----------------+
```

select * from **SalesDetails**;

```
mysql> select * from salesdetails;
+----------------+---------+------------+----------+---------------+----------+
| sale_detail_id | sale_id | product_id | quantity | price_at_sale | discount |
+----------------+---------+------------+----------+---------------+----------+
|              1 |       1 |          1 |        1 |      29999.99 |     0.00 |
|              2 |       1 |          2 |        1 |      79999.99 |     0.00 |
|              3 |       2 |          2 |        1 |      79999.99 |     0.00 |
|              4 |       3 |          1 |        1 |      29999.99 |     0.00 |
|              5 |       4 |          5 |        1 |      15999.99 |   500.00 |
|              6 |       5 |          6 |        1 |      60999.99 |     0.00 |
|              7 |       6 |          8 |        1 |       8499.99 |   200.00 |
|              8 |       7 |          9 |        1 |      54999.99 |     0.00 |
|              9 |       8 |         10 |        1 |      69999.99 |  2000.00 |
|             10 |       9 |         12 |        1 |      17999.99 |   500.00 |
+----------------+---------+------------+----------+---------------+----------+
```

select * from **Inventory**;

```
mysql> select * from inventory;
+--------------+------------+-------------+----------+---------------------+
| inventory_id | product_id | location_id | quantity | last_updated        |
+--------------+------------+-------------+----------+---------------------+
|            1 |          1 |           1 |       10 | 2024-10-01 00:00:00 |
|            2 |          2 |           1 |       15 | 2024-10-01 00:00:00 |
|            3 |          3 |           2 |        8 | 2024-10-01 00:00:00 |
|            4 |          4 |           2 |       20 | 2024-10-01 00:00:00 |
|            5 |          5 |           1 |       12 | 2024-10-04 00:00:00 |
|            6 |          6 |           1 |        7 | 2024-10-05 00:00:00 |
|            7 |          7 |           2 |        5 | 2024-10-06 00:00:00 |
|            8 |          8 |           2 |       18 | 2024-10-06 00:00:00 |
|            9 |          9 |           3 |       15 | 2024-10-07 00:00:00 |
|           10 |         10 |           2 |       20 | 2024-10-08 00:00:00 |
|           11 |         11 |           1 |       10 | 2024-10-09 00:00:00 |
|           12 |         12 |           2 |        8 | 2024-10-09 00:00:00 |
+--------------+------------+-------------+----------+---------------------+
```

select * from **Locations**;

```
mysql> select * from locations;
+-------------+-------------------------+-----------------------------+-------------+-------------+----------+
| location_id | store_name              | address                     | city        | state       | zip_code |
+-------------+-------------------------+-----------------------------+-------------+-------------+----------+
|           1 | Vijay Sales - Andheri   | Plot 21, Andheri West       | Mumbai      | Maharashtra | 400053   |
|           2 | Vijay Sales - Bandra    | Shop No. 10, Linking Road   | Mumbai      | Maharashtra | 400050   |
|           3 | Vijay Sales - Thane     | Shop No. 22, Ghodbunder Road| Thane       | Maharashtra | 400601   |
|           4 | Vijay Sales - Vashi     | Plot 5, Sector 17           | Navi Mumbai | Maharashtra | 400703   |
|           5 | Vijay Sales - Andheri   | Plot No. 9, Andheri West    | Mumbai      | Maharashtra | 400058   |
|           6 | Vijay Sales - Kandivali | Station Road, Kandivali East| Mumbai      | Maharashtra | 400101   |
+-------------+-------------------------+-----------------------------+-------------+-------------+----------+
```

select * from **Suppliers**;

```
mysql> select * from suppliers;
+-------------+--------------------+----------------+-----------------------------+-----------------------------+
| supplier_id | supplier_name      | contact_number | email                       | address                     |
+-------------+--------------------+----------------+-----------------------------+-----------------------------+
|           1 | Samsung Electronics | 9876543210     | contact@samsung.com         | Seoul, South Korea          |
|           2 | Apple Inc.         | 9765432109     | sales@apple.com             | Cupertino, CA, USA          |
|           3 | Dell India         | 9654321098     | info@dell.com               | Bangalore, Karnataka, India |
|           4 | LG Electronics     | 9988776655     | lg@lgelectronics.com        | Seoul, South Korea          |
|           5 | HP India           | 9876543212     | info@hp.com                 | Bengaluru, Karnataka, India |
|           6 | Canon India        | 9765432107     | support@canon.in            | Noida, Uttar Pradesh, India |
|           7 | Philips India      | 9654321096     | service@philips.com         | Gurgaon, Haryana, India     |
|           8 | Sony India         | 9898989898     | support@sony.co.in          | Tokyo, Japan                |
|           9 | Whirlpool India    | 9797979797     | contact@whirlpool.com       | Pune, Maharashtra, India    |
|          10 | Nikon India        | 9696969696     | service@nikon.in            | Tokyo, Japan                |
|          11 | Bajaj Electricals  | 9595959595     | support@bajajelectricals.com | Mumbai, Maharashtra, India |
+-------------+--------------------+----------------+-----------------------------+-----------------------------+
```

select * from **Purchases**;

```
mysql> select * from purchases;
+-------------+-------------+------------+------------+-----------+
| purchase_id | supplier_id | order_date | total_cost | status    |
+-------------+-------------+------------+------------+-----------+
|           1 |           1 | 2024-09-01 |  250000.00 | Ordered   |
|           2 |           2 | 2024-09-10 |  500000.00 | Received  |
|           3 |           3 | 2024-09-15 |  150000.00 | Ordered   |
|           4 |           4 | 2024-10-04 |  120000.00 | Ordered   |
|           5 |           5 | 2024-10-05 |  250000.00 | Received  |
|           6 |           6 | 2024-10-06 |  180000.00 | Ordered   |
|           7 |           8 | 2024-10-07 |  400000.00 | Ordered   |
|           8 |           9 | 2024-10-08 |  150000.00 | Received  |
|           9 |          10 | 2024-10-09 |  250000.00 | Pending   |
+-------------+-------------+------------+------------+-----------+
```

select * from **PurchaseDetails**;

```
mysql> select * from purchasedetails;
+--------------------+-------------+------------+----------+-------------+
| purchase_detail_id | purchase_id | product_id | quantity | cost_price |
+--------------------+-------------+------------+----------+-------------+
|                  1 |           1 |          1 |       10 |   25000.00 |
|                  2 |           2 |          2 |        5 |   75000.00 |
|                  3 |           3 |          3 |        3 |   50000.00 |
|                  4 |           4 |          5 |       10 |   12000.00 |
|                  5 |           5 |          6 |        5 |   50000.00 |
|                  6 |           6 |          7 |        3 |   60000.00 |
|                  7 |           7 |          9 |        8 |   45000.00 |
|                  8 |           8 |         12 |        6 |   12000.00 |
|                  9 |           9 |         13 |        4 |   40000.00 |
+--------------------+-------------+------------+----------+-------------+
```

select * from **Payments**;

```
mysql> select * from payments;
+------------+---------+---------------------+----------------+--------------+----------------+
| payment_id | sale_id | payment_date        | payment_amount | payment_type | payment_status |
+------------+---------+---------------------+----------------+--------------+----------------+
|          1 |       1 | 2024-10-01 00:00:00 |      109999.97 | Credit Card  | Completed      |
|          2 |       2 | 2024-10-02 00:00:00 |       79999.99 | Debit Card   | Completed      |
|          3 |       3 | 2024-10-03 00:00:00 |       29999.99 | Cash         | Completed      |
|          4 |       4 | 2024-10-04 00:00:00 |       15999.99 | UPI          | Completed      |
|          5 |       5 | 2024-10-05 00:00:00 |       60999.99 | Credit Card  | Completed      |
|          6 |       6 | 2024-10-06 00:00:00 |        8499.99 | Debit Card   | Completed      |
|          7 |       7 | 2024-10-07 00:00:00 |       54999.99 | Credit Card  | Completed      |
|          8 |       8 | 2024-10-08 00:00:00 |       69999.99 | UPI          | Completed      |
|          9 |       9 | 2024-10-09 00:00:00 |       17999.99 | Cash         | Completed      |
+------------+---------+---------------------+----------------+--------------+----------------+
```

DESC

DESC **Products**;

```
mysql> desc products;
+-----------------+---------------+------+-----+---------+----------------+
| Field           | Type          | Null | Key | Default | Extra          |
+-----------------+---------------+------+-----+---------+----------------+
| product_id      | int           | NO   | PRI | NULL    | auto_increment |
| product_name    | varchar(255)  | NO   |     | NULL    |                |
| category_id     | int           | YES  | MUL | NULL    |                |
| brand_id        | int           | YES  | MUL | NULL    |                |
| price           | decimal(10,2) | NO   |     | NULL    |                |
| description     | text          | YES  |     | NULL    |                |
| warranty_period | int           | YES  |     | NULL    |                |
| stock_quantity  | int           | YES  |     | NULL    |                |
+-----------------+---------------+------+-----+---------+----------------+
```

DESC **Categories**;

```
mysql> desc categories;
+---------------+--------------+------+-----+---------+----------------+
| Field         | Type         | Null | Key | Default | Extra          |
+---------------+--------------+------+-----+---------+----------------+
| category_id   | int          | NO   | PRI | NULL    | auto_increment |
| category_name | varchar(255) | NO   |     | NULL    |                |
+---------------+--------------+------+-----+---------+----------------+
```

DESC **Brands**;

```
mysql> desc brands;
+---------------+--------------+------+-----+---------+----------------+
| Field         | Type         | Null | Key | Default | Extra          |
+---------------+--------------+------+-----+---------+----------------+
| brand_id      | int          | NO   | PRI | NULL    | auto_increment |
| brand_name    | varchar(255) | NO   |     | NULL    |                |
| brand_country | varchar(255) | YES  |     | NULL    |                |
+---------------+--------------+------+-----+---------+----------------+
```

DESC **Customers**;

```
mysql> desc customers;
+-------------+--------------+------+-----+---------+----------------+
| Field       | Type         | Null | Key | Default | Extra          |
+-------------+--------------+------+-----+---------+----------------+
| customer_id | int          | NO   | PRI | NULL    | auto_increment |
| first_name  | varchar(255) | NO   |     | NULL    |                |
| last_name   | varchar(255) | YES  |     | NULL    |                |
| email       | varchar(255) | YES  | UNI | NULL    |                |
| phone       | varchar(15)  | NO   |     | NULL    |                |
| address     | text         | YES  |     | NULL    |                |
| city        | varchar(100) | YES  |     | NULL    |                |
| state       | varchar(100) | YES  |     | NULL    |                |
| zip_code    | varchar(10)  | YES  |     | NULL    |                |
+-------------+--------------+------+-----+---------+----------------+
```

DESC **Sales**;

```
mysql> desc sales;
+----------------+---------------+------+-----+---------+----------------+
| Field          | Type          | Null | Key | Default | Extra          |
+----------------+---------------+------+-----+---------+----------------+
| sale_id        | int           | NO   | PRI | NULL    | auto_increment |
| customer_id    | int           | YES  | MUL | NULL    |                |
| sale_date      | date          | NO   |     | NULL    |                |
| total_amount   | decimal(10,2) | NO   |     | NULL    |                |
| payment_method | varchar(50)   | YES  |     | NULL    |                |
+----------------+---------------+------+-----+---------+----------------+
```

DESC **SalesDetails**;

```
mysql> desc salesdetails;
+----------------+---------------+------+-----+---------+----------------+
| Field          | Type          | Null | Key | Default | Extra          |
+----------------+---------------+------+-----+---------+----------------+
| sale_detail_id | int           | NO   | PRI | NULL    | auto_increment |
| sale_id        | int           | YES  | MUL | NULL    |                |
| product_id     | int           | YES  | MUL | NULL    |                |
| quantity       | int           | NO   |     | NULL    |                |
| price_at_sale  | decimal(10,2) | YES  |     | NULL    |                |
| discount       | decimal(10,2) | YES  |     | NULL    |                |
+----------------+---------------+------+-----+---------+----------------+
```

DESC **Inventory**;

```
mysql> desc inventory;
+--------------+----------+------+-----+---------+----------------+
| Field        | Type     | Null | Key | Default | Extra          |
+--------------+----------+------+-----+---------+----------------+
| inventory_id | int      | NO   | PRI | NULL    | auto_increment |
| product_id   | int      | YES  | MUL | NULL    |                |
| location_id  | int      | YES  | MUL | NULL    |                |
| quantity     | int      | NO   |     | NULL    |                |
| last_updated | datetime | YES  |     | NULL    |                |
+--------------+----------+------+-----+---------+----------------+
```

DESC **Locations**;

```
mysql> desc locations;
+-------------+--------------+------+-----+---------+----------------+
| Field       | Type         | Null | Key | Default | Extra          |
+-------------+--------------+------+-----+---------+----------------+
| location_id | int          | NO   | PRI | NULL    | auto_increment |
| store_name  | varchar(255) | NO   |     | NULL    |                |
| address     | text         | YES  |     | NULL    |                |
| city        | varchar(100) | YES  |     | NULL    |                |
| state       | varchar(100) | YES  |     | NULL    |                |
| zip_code    | varchar(10)  | YES  |     | NULL    |                |
+-------------+--------------+------+-----+---------+----------------+
```

DESC **Suppliers**;

```
mysql> desc suppliers;
+----------------+--------------+------+-----+---------+----------------+
| Field          | Type         | Null | Key | Default | Extra          |
+----------------+--------------+------+-----+---------+----------------+
| supplier_id    | int          | NO   | PRI | NULL    | auto_increment |
| supplier_name  | varchar(255) | NO   |     | NULL    |                |
| contact_number | varchar(15)  | YES  |     | NULL    |                |
| email          | varchar(255) | YES  | UNI | NULL    |                |
| address        | text         | YES  |     | NULL    |                |
+----------------+--------------+------+-----+---------+----------------+
```

DESC **Purchases**;

```
mysql> desc purchases;
+-------------+---------------+------+-----+---------+----------------+
| Field       | Type          | Null | Key | Default | Extra          |
+-------------+---------------+------+-----+---------+----------------+
| purchase_id | int           | NO   | PRI | NULL    | auto_increment |
| supplier_id | int           | YES  | MUL | NULL    |                |
| order_date  | date          | NO   |     | NULL    |                |
| total_cost  | decimal(10,2) | NO   |     | NULL    |                |
| status      | varchar(50)   | YES  |     | NULL    |                |
+-------------+---------------+------+-----+---------+----------------+
```

DESC **PurchaseDetails**;

```
mysql> desc purchasedetails;
+--------------------+---------------+------+-----+---------+----------------+
| Field              | Type          | Null | Key | Default | Extra          |
+--------------------+---------------+------+-----+---------+----------------+
| purchase_detail_id | int           | NO   | PRI | NULL    | auto_increment |
| purchase_id        | int           | YES  | MUL | NULL    |                |
| product_id         | int           | YES  | MUL | NULL    |                |
| quantity           | int           | NO   |     | NULL    |                |
| cost_price         | decimal(10,2) | YES  |     | NULL    |                |
+--------------------+---------------+------+-----+---------+----------------+
```

DESC **Payments**;

```
mysql> desc payments;
+----------------+---------------+------+-----+---------+----------------+
| Field          | Type          | Null | Key | Default | Extra          |
+----------------+---------------+------+-----+---------+----------------+
| payment_id     | int           | NO   | PRI | NULL    | auto_increment |
| sale_id        | int           | YES  | MUL | NULL    |                |
| payment_date   | datetime      | NO   |     | NULL    |                |
| payment_amount | decimal(10,2) | NO   |     | NULL    |                |
| payment_type   | varchar(50)   | YES  |     | NULL    |                |
| payment_status | varchar(50)   | YES  |     | NULL    |                |
+----------------+---------------+------+-----+---------+----------------+
```

***** Questions *****

-- How many SHop are in Mumbai?

SELECT store_name, address ,city

FROM locations

WHERE city = 'Mumbai';

```
mysql> SELECT store_name, address ,city
    -> FROM locations
    -> WHERE city = 'Mumbai';
+-------------------------+------------------------------+--------+
| store_name              | address                      | city   |
+-------------------------+------------------------------+--------+
| Vijay Sales - Andheri   | Plot 21, Andheri West        | Mumbai |
| Vijay Sales - Bandra    | Shop No. 10, Linking Road    | Mumbai |
| Vijay Sales - Andheri   | Plot No. 9, Andheri West     | Mumbai |
| Vijay Sales - Kandivali | Station Road, Kandivali East | Mumbai |
+-------------------------+------------------------------+--------+
```

-- How many customers are from Mumbai?

SELECT first_name, last_name ,city,state

FROM Customers

WHERE state = 'Maharashtra';

```
mysql> SELECT first_name, last_name ,city,state
    -> FROM Customers
    -> WHERE state = 'Maharashtra';
+------------+-----------+--------+-------------+
| first_name | last_name | city   | state       |
+------------+-----------+--------+-------------+
| Ravi       | Sharma    | Mumbai | Maharashtra |
| Anita      | Verma     | Pune   | Maharashtra |
| Amit       | Singh     | Nagpur | Maharashtra |
| Rajesh     | Patel     | Pune   | Maharashtra |
+------------+-----------+--------+-------------+
```

-- How many Brands are from Japan?

SELECT Brand_name

FROM Brands

WHERE brand_country = 'Japan'

```
mysql> SELECT Brand_name
    -> FROM Brands
    -> WHERE brand_country = 'Japan';
+------------+
| Brand_name |
+------------+
| Sony       |
| Canon      |
| Sony       |
| Nikon      |
+------------+
```

-- find all products with names that start with "Samsung":

```
SELECT * FROM Products

WHERE product_name LIKE 'Samsung%';
```

```
mysql> SELECT * FROM Products
    -> WHERE product_name LIKE 'Samsung%';
+------------+--------------------+-------------+----------+----------+-----------------------------------+-----------------+----------------+
| product_id | product_name       | category_id | brand_id | price    | description                       | warranty_period | stock_quantity |
+------------+--------------------+-------------+----------+----------+-----------------------------------+-----------------+----------------+
|          1 | Samsung LED TV 43" |           1 |        1 | 29999.99 | 43-inch LED TV with Full HD resolution |              24 |             10 |
|         10 | Samsung Galaxy S21 |           2 |        2 | 69999.99 | 128GB storage, 8GB RAM, Exynos 2100    |              12 |             20 |
+------------+--------------------+-------------+----------+----------+-----------------------------------+-----------------+----------------+
```

-- find all products where the second character in the name is "a":

```
SELECT * FROM Products

WHERE product_name LIKE '_a%';
```

```
mysql> SELECT * FROM Products
    -> WHERE product_name LIKE '_a%';
+------------+--------------------+-------------+----------+----------+-----------------------------------+-----------------+----------------+
| product_id | product_name       | category_id | brand_id | price    | description                       | warranty_period | stock_quantity |
+------------+--------------------+-------------+----------+----------+-----------------------------------+-----------------+----------------+
|          1 | Samsung LED TV 43" |           1 |        1 | 29999.99 | 43-inch LED TV with Full HD resolution |              24 |             10 |
|          7 | Canon EOS 1500D DSLR Camera |           6 |        7 | 35999.99 | 24.1MP DSLR camera with dual-lens kit |              12 |              5 |
|         10 | Samsung Galaxy S21 |           2 |        2 | 69999.99 | 128GB storage, 8GB RAM, Exynos 2100 |              12 |             20 |
|         14 | Bajaj Microwave Oven 20L |           7 |       13 |  5999.99 | Convection microwave with digital display |              12 |             12 |
+------------+--------------------+-------------+----------+----------+-----------------------------------+-----------------+----------------+
```

-- find all products that contain "Laptop" in their name:

```
SELECT * FROM Products

WHERE product_name LIKE '%Laptop%';
```

```
mysql> SELECT * FROM Products
    -> WHERE product_name LIKE '%Laptop%';
+------------+--------------------+-------------+----------+----------+-----------------------------+-----------------+----------------+
| product_id | product_name       | category_id | brand_id | price    | description                 | warranty_period | stock_quantity |
+------------+--------------------+-------------+----------+----------+-----------------------------+-----------------+----------------+
|          3 | Dell Inspiron Laptop |           3 |        3 | 45999.99 | Core i5, 8GB RAM, 512GB SSD |              12 |              8 |
|          6 | HP Pavilion Laptop 14" |           3 |        6 | 60999.99 | Core i7, 16GB RAM, 1TB SSD  |              12 |              7 |
+------------+--------------------+-------------+----------+----------+-----------------------------+-----------------+----------------+
```

-- What are the first names, last names, and email addresses of customers

-- whose first names start with the letter "A"?

```
SELECT first_name, last_name, email

FROM Customers
```

WHERE first_name LIKE 'A%';

```
mysql> SELECT first_name, last_name, email
    -> FROM Customers
    -> WHERE first_name LIKE 'A%';
+------------+-----------+-----------------------+
| first_name | last_name | email                 |
+------------+-----------+-----------------------+
| Anita      | Verma     | anita.verma@gmail.com |
| Amit       | Singh     | amit.singh@gmail.com  |
| Akhil      | Verma     | akhil.verma@gmail.com |
+------------+-----------+-----------------------+
```

-- What is the total revenue generated from sales?

SELECT SUM(total_amount) AS total_revenue

FROM Sales;

```
mysql> SELECT SUM(total_amount) AS total_revenue
    -> FROM Sales;
+---------------+
| total_revenue |
+---------------+
|     448499.89 |
+---------------+
```

-- What is the total number of customers and the total sales amount?

SELECT (SELECT COUNT(*) FROM Customers) AS total_customers,

(SELECT SUM(total_amount) FROM Sales) AS total_sales;

```
mysql> SELECT (SELECT COUNT(*) FROM Customers) AS total_customers,
    ->     (SELECT SUM(total_amount) FROM Sales) AS total_sales;
+-----------------+-------------+
| total_customers | total_sales |
+-----------------+-------------+
|               9 |   448499.89 |
+-----------------+-------------+
```

-- What is the list of all products along with their category, brand, price, and stock quantity?

SELECT

p.product_name,

c.category_name,

b.brand_name,

p.price,

p.stock_quantity

FROM Products p

JOIN Categories c ON p.category_id = c.category_id

JOIN Brands b ON p.brand_id = b.brand_id;

```
mysql> SELECT
    ->     p.product_name,
    ->     c.category_name,
    ->     b.brand_name,
    ->     p.price,
    ->     p.stock_quantity
    -> FROM Products p
    -> JOIN Categories c ON p.category_id = c.category_id
    -> JOIN Brands b ON p.brand_id = b.brand_id;
+--------------------------------+--------------------+------------+----------+----------------+
| product_name                   | category_name      | brand_name | price    | stock_quantity |
+--------------------------------+--------------------+------------+----------+----------------+
| Samsung LED TV 43"             | Television         | Samsung    | 29999.99 |             10 |
| iPhone 14                      | Mobile Phones      | Apple      | 79999.99 |             15 |
| Samsung Galaxy S21             | Mobile Phones      | Apple      | 69999.99 |             20 |
| Dell Inspiron Laptop           | Laptops            | Dell       | 45999.99 |              8 |
| Sony Headphones WH-1000XM4     | Headphones         | Sony       | 19999.99 |             20 |
| LG Refrigerator 190L           | Refrigerators      | LG         | 15999.99 |             12 |
| HP Pavilion Laptop 14"         | Laptops            | HP         | 60999.99 |              7 |
| Canon EOS 1500D DSLR Camera    | Cameras            | Canon      | 35999.99 |              5 |
| Philips Air Fryer HD9216       | Kitchen Appliances | Philips    |  8499.99 |             18 |
| Sony Bravia 55" LED TV         | Television         | Sony       | 54999.99 |             15 |
| Dell Inspiron 15"              | Laptops            | Dell       | 48999.99 |             10 |
| Whirlpool Washing Machine 6.5kg | Refrigerators     | Whirlpool  | 17999.99 |              8 |
| Nikon D5600 DSLR Camera        | Cameras            | Nikon      | 44999.99 |              5 |
| Bajaj Microwave Oven 20L       | Kitchen Appliances | Bajaj      |  5999.99 |             12 |
+--------------------------------+--------------------+------------+----------+----------------+
```

-- Which products are currently below 8 stocks?

SELECT product_name

FROM Products

WHERE stock_quantity < 8;

```
mysql> SELECT product_name
    -> FROM Products
    -> WHERE stock_quantity < 8;
+----------------------------+
| product_name               |
+----------------------------+
| HP Pavilion Laptop 14"     |
| Canon EOS 1500D DSLR Camera |
| Nikon D5600 DSLR Camera    |
+----------------------------+
```

-- What is the total amount spent by each customer?

```
SELECT
    c.first_name,
    c.last_name,
    SUM(s.total_amount) AS total_spent
FROM Sales s
JOIN Customers c ON s.customer_id = c.customer_id
GROUP BY c.customer_id, c.first_name, c.last_name;
```

```
mysql> SELECT
    ->     c.first_name,
    ->     c.last_name,
    ->     SUM(s.total_amount) AS total_spent
    -> FROM Sales s
    -> JOIN Customers c ON s.customer_id = c.customer_id
    -> GROUP BY c.customer_id, c.first_name, c.last_name;
+------------+-----------+-------------+
| first_name | last_name | total_spent |
+------------+-----------+-------------+
| Ravi       | Sharma    |   109999.97 |
| Anita      | Verma     |    79999.99 |
| Raj        | Patel     |    29999.99 |
| Priya      | Kumar     |    15999.99 |
| Amit       | Singh     |    60999.99 |
| Neha       | Joshi     |     8499.99 |
| Rajesh     | Patel     |    54999.99 |
| Suman      | Sharma    |    69999.99 |
| Akhil      | Verma     |    17999.99 |
+------------+-----------+-------------+
```

-- What is the total quantity sold and total revenue for each product?

```
SELECT
    p.product_name,
    SUM(sd.quantity) AS total_quantity_sold,
    SUM(sd.price_at_sale * sd.quantity) AS total_revenue
FROM SalesDetails sd
JOIN Products p ON sd.product_id = p.product_id
```

GROUP BY p.product_name;

```
mysql> SELECT
    ->     p.product_name,
    ->     SUM(sd.quantity) AS total_quantity_sold,
    ->     SUM(sd.price_at_sale * sd.quantity) AS total_revenue
    -> FROM SalesDetails sd
    -> JOIN Products p ON sd.product_id = p.product_id
    -> GROUP BY p.product_name;
+---------------------------------+----------------------+---------------+
| product_name                    | total_quantity_sold | total_revenue |
+---------------------------------+----------------------+---------------+
| Samsung LED TV 43"              |                    2 |      59999.98 |
| iPhone 14                       |                    2 |     159999.98 |
| LG Refrigerator 190L            |                    1 |      15999.99 |
| HP Pavilion Laptop 14"          |                    1 |      60999.99 |
| Philips Air Fryer HD9216        |                    1 |       8499.99 |
| Sony Bravia 55" LED TV          |                    1 |      54999.99 |
| Samsung Galaxy S21              |                    1 |      69999.99 |
| Whirlpool Washing Machine 6.5kg |                    1 |      17999.99 |
+---------------------------------+----------------------+---------------+
```

-- Who are the top 5 customers based on total purchase amount?

SELECT

c.first_name,

c.last_name,

SUM(s.total_amount) AS total_spent

FROM Sales s

JOIN Customers c ON s.customer_id = c.customer_id

GROUP BY c.customer_id, c.first_name, c.last_name

ORDER BY total_spent DESC

LIMIT 5;

```
mysql> SELECT
    ->     c.first_name,
    ->     c.last_name,
    ->     SUM(s.total_amount) AS total_spent
    -> FROM Sales s
    -> JOIN Customers c ON s.customer_id = c.customer_id
    -> GROUP BY c.customer_id, c.first_name, c.last_name
    -> ORDER BY total_spent DESC
    -> LIMIT 5;
+------------+-----------+-------------+
| first_name | last_name | total_spent |
+------------+-----------+-------------+
| Ravi       | Sharma    |   109999.97 |
| Anita      | Verma     |    79999.99 |
| Suman      | Sharma    |    69999.99 |
| Amit       | Singh     |    60999.99 |
| Rajesh     | Patel     |    54999.99 |
+------------+-----------+-------------+
```

-- What is the inventory count for each product across all store locations?

```
SELECT
    l.store_name,
    p.product_name,
    i.quantity AS stock_quantity
FROM Inventory i
JOIN Products p ON i.product_id = p.product_id
JOIN Locations l ON i.location_id = l.location_id;
```

```
mysql> SELECT
    ->     l.store_name,
    ->     p.product_name,
    ->     i.quantity AS stock_quantity
    -> FROM Inventory i
    -> JOIN Products p ON i.product_id = p.product_id
    -> JOIN Locations l ON i.location_id = l.location_id;
+----------------------+----------------------------------+----------------+
| store_name           | product_name                     | stock_quantity |
+----------------------+----------------------------------+----------------+
| Vijay Sales - Andheri | Samsung LED TV 43"              |             10 |
| Vijay Sales - Andheri | iPhone 14                       |             15 |
| Vijay Sales - Bandra  | Dell Inspiron Laptop            |              8 |
| Vijay Sales - Bandra  | Sony Headphones WH-1000XM4      |             20 |
| Vijay Sales - Andheri | LG Refrigerator 190L            |             12 |
| Vijay Sales - Andheri | HP Pavilion Laptop 14"          |              7 |
| Vijay Sales - Bandra  | Canon EOS 1500D DSLR Camera     |              5 |
| Vijay Sales - Bandra  | Philips Air Fryer HD9216        |             18 |
| Vijay Sales - Thane   | Sony Bravia 55" LED TV          |             15 |
| Vijay Sales - Bandra  | Samsung Galaxy S21              |             20 |
| Vijay Sales - Andheri | Dell Inspiron 15"               |             10 |
| Vijay Sales - Bandra  | Whirlpool Washing Machine 6.5kg |              8 |
+----------------------+----------------------------------+----------------+
```

-- How much revenue is generated by each payment method?

```
SELECT
    payment_method,
    SUM(total_amount) AS total_revenue
FROM Sales
GROUP BY payment_method;
```

```
mysql> SELECT
    ->     payment_method,
    ->     SUM(total_amount) AS total_revenue
    -> FROM Sales
    -> GROUP BY payment_method;
+----------------+---------------+
| payment_method | total_revenue |
+----------------+---------------+
| Credit Card    |     225999.95 |
| Debit Card     |      88499.98 |
| Cash           |      47999.98 |
| UPI            |      85999.98 |
+----------------+---------------+
```

-- What is the average discount offered on each product?

```
SELECT
    p.product_name,
    AVG(sd.discount) AS average_discount
FROM SalesDetails sd
JOIN Products p ON sd.product_id = p.product_id
GROUP BY p.product_name;
```

```
mysql> SELECT
    ->     p.product_name,
    ->     AVG(sd.discount) AS average_discount
    -> FROM SalesDetails sd
    -> JOIN Products p ON sd.product_id = p.product_id
    -> GROUP BY p.product_name;
+---------------------------------+------------------+
| product_name                    | average_discount |
+---------------------------------+------------------+
| Samsung LED TV 43"              |         0.000000 |
| iPhone 14                       |         0.000000 |
| LG Refrigerator 190L            |       500.000000 |
| HP Pavilion Laptop 14"          |         0.000000 |
| Philips Air Fryer HD9216        |       200.000000 |
| Sony Bravia 55" LED TV          |         0.000000 |
| Samsung Galaxy S21              |      2000.000000 |
| Whirlpool Washing Machine 6.5kg |       500.000000 |
+---------------------------------+------------------+
```

-- List the suppliers and the status of their latest purchase orders.

```
SELECT s.supplier_name,
    p.order_date,
    p.status
FROM Purchases p
JOIN Suppliers s ON p.supplier_id = s.supplier_id
ORDER BY s.supplier_name, p.order_date DESC;
```

```
mysql> SELECT
    ->     s.supplier_name,
    ->     p.order_date,
    ->     p.status
    -> FROM Purchases p
    -> JOIN Suppliers s ON p.supplier_id = s.supplier_id
    -> ORDER BY s.supplier_name, p.order_date DESC;
+--------------------+------------+-----------+
| supplier_name      | order_date | status    |
+--------------------+------------+-----------+
| Apple Inc.         | 2024-09-10 | Received  |
| Canon India        | 2024-10-06 | Ordered   |
| Dell India         | 2024-09-15 | Ordered   |
| HP India           | 2024-10-05 | Received  |
| LG Electronics     | 2024-10-04 | Ordered   |
| Nikon India        | 2024-10-09 | Pending   |
| Samsung Electronics | 2024-09-01 | Ordered   |
| Sony India         | 2024-10-07 | Ordered   |
| Whirlpool India    | 2024-10-08 | Received  |
+--------------------+------------+-----------+
```

-- Which products have stock below 10 units?

```
SELECT
   product_name,
   stock_quantity
FROM Products
WHERE stock_quantity < 10;
```

```
mysql> SELECT
    ->     product_name,
    ->     stock_quantity
    -> FROM Products
    -> WHERE stock_quantity <   10;
+--------------------------------+----------------+
| product_name                   | stock_quantity |
+--------------------------------+----------------+
| Dell Inspiron Laptop           |              8 |
| HP Pavilion Laptop 14"         |              7 |
| Canon EOS 1500D DSLR Camera    |              5 |
| Whirlpool Washing Machine 6.5kg |              8 |
| Nikon D5600 DSLR Camera        |              5 |
+--------------------------------+----------------+
```

-- What are the sales made between specific dates?

```
SELECT sale_id, customer_id, sale_date, total_amount
FROM Sales
WHERE sale_date BETWEEN '2024-10-01' AND '2024-10-31';
```

```
mysql> SELECT
    ->     sale_id,
    ->     customer_id,
    ->     sale_date,
    ->     total_amount
    -> FROM Sales
    -> WHERE sale_date BETWEEN '2024-10-01' AND '2024-10-31';
+---------+-------------+-----------+--------------+
| sale_id | customer_id | sale_date | total_amount |
+---------+-------------+-----------+--------------+
|       1 |           1 | 2024-10-01 |    109999.97 |
|       2 |           2 | 2024-10-02 |     79999.99 |
|       3 |           3 | 2024-10-03 |     29999.99 |
|       4 |           4 | 2024-10-04 |     15999.99 |
|       5 |           5 | 2024-10-05 |     60999.99 |
|       6 |           6 | 2024-10-06 |      8499.99 |
|       7 |           7 | 2024-10-07 |     54999.99 |
|       8 |           8 | 2024-10-08 |     69999.99 |
|       9 |           9 | 2024-10-09 |     17999.99 |
+---------+-------------+-----------+--------------+
```

-- What products has a specific customer purchased?

```
SELECT
    c.first_name,
    c.last_name,
    p.product_name,
    sd.quantity,
    sd.price_at_sale
FROM SalesDetails sd
JOIN Sales s ON sd.sale_id = s.sale_id
JOIN Customers c ON s.customer_id = c.customer_id
JOIN Products p ON sd.product_id = p.product_id
WHERE c.customer_id = 1;
```

```
mysql> SELECT
    ->     c.first_name,
    ->     c.last_name,
    ->     p.product_name,
    ->     sd.quantity,
    ->     sd.price_at_sale
    -> FROM SalesDetails sd
    -> JOIN Sales s ON sd.sale_id = s.sale_id
    -> JOIN Customers c ON s.customer_id = c.customer_id
    -> JOIN Products p ON sd.product_id = p.product_id
    -> WHERE c.customer_id = 1;
+------------+-----------+--------------------+----------+---------------+
| first_name | last_name | product_name       | quantity | price_at_sale |
+------------+-----------+--------------------+----------+---------------+
| Ravi       | Sharma    | Samsung LED TV 43" |        1 |      29999.99 |
| Ravi       | Sharma    | iPhone 14          |        1 |      79999.99 |
+------------+-----------+--------------------+----------+---------------+
```

-- What are the contact details of all customers?

SELECT first_name, last_name, email, phone FROM Customers;

```
mysql> SELECT
    ->     first_name,
    ->     last_name,
    ->     email,
    ->     phone
    -> FROM Customers;
+------------+-----------+-----------------------+------------+
| first_name | last_name | email                 | phone      |
+------------+-----------+-----------------------+------------+
| Ravi       | Sharma    | ravi.sharma@gmail.com | 9123456789 |
| Anita      | Verma     | anita.verma@gmail.com | 9234567890 |
| Raj        | Patel     | raj.patel@gmail.com   | 9345678901 |
| Priya      | Kumar     | priya.kumar@gmail.com | 9456123456 |
| Amit       | Singh     | amit.singh@gmail.com  | 9561234567 |
| Neha       | Joshi     | neha.joshi@gmail.com  | 9671234568 |
| Rajesh     | Patel     | rajesh.patel@gmail.com| 9876543210 |
| Suman      | Sharma    | suman.sharma@gmail.com| 9765432189 |
| Akhil      | Verma     | akhil.verma@gmail.com | 8896541234 |
+------------+-----------+-----------------------+------------+
```

-- Which products have generated the highest revenue?

SELECT p.product_name,

SUM(sd.price_at_sale * sd.quantity) AS total_revenue

FROM SalesDetails sd

JOIN Products p ON sd.product_id = p.product_id

GROUP BY p.product_name

ORDER BY total_revenue DESC;

```
mysql> SELECT
    ->     p.product_name,
    ->     SUM(sd.price_at_sale * sd.quantity) AS total_revenue
    -> FROM SalesDetails sd
    -> JOIN Products p ON sd.product_id = p.product_id
    -> GROUP BY p.product_name
    -> ORDER BY total_revenue DESC;
+---------------------------------+---------------+
| product_name                    | total_revenue |
+---------------------------------+---------------+
| iPhone 14                       |     159999.98 |
| Samsung Galaxy S21              |      69999.99 |
| HP Pavilion Laptop 14"          |      60999.99 |
| Samsung LED TV 43"              |      59999.98 |
| Sony Bravia 55" LED TV          |      54999.99 |
| Whirlpool Washing Machine 6.5kg |      17999.99 |
| LG Refrigerator 190L            |      15999.99 |
| Philips Air Fryer HD9216        |       8499.99 |
+---------------------------------+---------------+
```

-- How many sales were made each month?

```
SELECT DATE_FORMAT(sale_date, '%Y-%m') AS month,
   COUNT(sale_id) AS total_sales
FROM Sales
GROUP BY month
ORDER BY month;
```

```
mysql> SELECT
    ->     DATE_FORMAT(sale_date, '%Y-%m') AS month,
    ->     COUNT(sale_id) AS total_sales
    -> FROM Sales
    -> GROUP BY month
    -> ORDER BY month;
+---------+-------------+
| month   | total_sales |
+---------+-------------+
| 2024-10 |           9 |
+---------+-------------+
```

-- What is the total sales amount for each product category?

```
SELECT c.category_name,
   SUM(s.total_amount) AS total_sales
FROM Sales s
JOIN SalesDetails sd ON s.sale_id = sd.sale_id
JOIN Products p ON sd.product_id = p.product_id
JOIN Categories c ON p.category_id = c.category_id
GROUP BY c.category_name;
```

```
mysql> SELECT
    ->     c.category_name,
    ->     SUM(s.total_amount) AS total_sales
    -> FROM Sales s
    -> JOIN SalesDetails sd ON s.sale_id = sd.sale_id
    -> JOIN Products p ON sd.product_id = p.product_id
    -> JOIN Categories c ON p.category_id = c.category_id
    -> GROUP BY c.category_name;
+--------------------+-------------+
| category_name      | total_sales |
+--------------------+-------------+
| Television         |   194999.95 |
| Mobile Phones      |   259999.95 |
| Refrigerators      |    33999.98 |
| Laptops            |    60999.99 |
| Kitchen Appliances |     8499.99 |
+--------------------+-------------+
```

-- How many purchases has each customer made?

```
SELECT
   c.first_name,
   c.last_name,
   COUNT(s.sale_id) AS purchase_count
FROM Customers c
LEFT JOIN Sales s ON c.customer_id = s.customer_id
GROUP BY c.customer_id;
```

```
mysql> SELECT
    ->     c.first_name,
    ->     c.last_name,
    ->     COUNT(s.sale_id) AS purchase_count
    -> FROM Customers c
    -> LEFT JOIN Sales s ON c.customer_id = s.customer_id
    -> GROUP BY c.customer_id;
+------------+-----------+----------------+
| first_name | last_name | purchase_count |
+------------+-----------+----------------+
| Ravi       | Sharma    |              1 |
| Anita      | Verma     |              1 |
| Raj        | Patel     |              1 |
| Priya      | Kumar     |              1 |
| Amit       | Singh     |              1 |
| Neha       | Joshi     |              1 |
| Rajesh     | Patel     |              1 |
| Suman      | Sharma    |              1 |
| Akhil      | Verma     |              1 |
+------------+-----------+----------------+
```

-- Which products are currently being offered at a discount?

```
SELECT
    p.product_name,
    sd.discount
FROM SalesDetails sd
JOIN Products p ON sd.product_id = p.product_id
WHERE sd.discount > 0;
```

```
mysql> SELECT
    ->     p.product_name,
    ->     sd.discount
    -> FROM SalesDetails sd
    -> JOIN Products p ON sd.product_id = p.product_id
    -> WHERE sd.discount > 0;
+---------------------------------+----------+
| product_name                    | discount |
+---------------------------------+----------+
| LG Refrigerator 190L            |   500.00 |
| Philips Air Fryer HD9216        |   200.00 |
| Samsung Galaxy S21              |  2000.00 |
| Whirlpool Washing Machine 6.5kg |   500.00 |
+---------------------------------+----------+
```

-- What is the total revenue generated each month?

```
SELECT DATE_FORMAT(s.sale_date, '%Y-%m') AS month,
    SUM(s.total_amount) AS total_revenue
FROM Sales s
GROUP BY month
ORDER BY month;
```

```
mysql> SELECT
    ->     DATE_FORMAT(s.sale_date, '%Y-%m') AS month,
    ->     SUM(s.total_amount) AS total_revenue
    -> FROM Sales s
    -> GROUP BY month
    -> ORDER BY month;
+---------+---------------+
| month   | total_revenue |
+---------+---------------+
| 2024-10 |     448499.89 |
+---------+---------------+
```

-- Which suppliers have pending purchase orders?

```
SELECT
    s.supplier_name,
    p.order_date,
    p.status
FROM Purchases p
JOIN Suppliers s ON p.supplier_id = s.supplier_id
WHERE p.status = 'Pending';
```

```
mysql> SELECT
    ->     s.supplier_name,
    ->     p.order_date,
    ->     p.status
    -> FROM Purchases p
    -> JOIN Suppliers s ON p.supplier_id = s.supplier_id
    -> WHERE p.status = 'Pending';
+---------------+------------+---------+
| supplier_name | order_date | status  |
+---------------+------------+---------+
| Nikon India   | 2024-10-09 | Pending |
+---------------+------------+---------+
```

-- What is the total sales amount for each brand?

```
SELECT
    b.brand_name,
    SUM(s.total_amount) AS total_sales
FROM Sales s
JOIN SalesDetails sd ON s.sale_id = sd.sale_id
JOIN Products p ON sd.product_id = p.product_id
JOIN Brands b ON p.brand_id = b.brand_id
GROUP BY b.brand_name;
```

```
mysql> SELECT
    ->     b.brand_name,
    ->     SUM(s.total_amount) AS total_sales
    -> FROM Sales s
    -> JOIN SalesDetails sd ON s.sale_id = sd.sale_id
    -> JOIN Products p ON sd.product_id = p.product_id
    -> JOIN Brands b ON p.brand_id = b.brand_id
    -> GROUP BY b.brand_name;
+------------+-------------+
| brand_name | total_sales |
+------------+-------------+
| Samsung    |   139999.96 |
| Apple      |   259999.95 |
| LG         |    15999.99 |
| HP         |    60999.99 |
| Philips    |     8499.99 |
| Sony       |    54999.99 |
| Whirlpool  |    17999.99 |
+------------+-------------+
```

-- Which products have the highest number of sales?

```
SELECT
    p.product_name,
    COUNT(sd.sale_id) AS number_of_sales
FROM SalesDetails sd
JOIN Products p ON sd.product_id = p.product_id
GROUP BY p.product_name
ORDER BY number_of_sales DESC;
```

```
mysql> SELECT
    ->     p.product_name,
    ->     COUNT(sd.sale_id) AS number_of_sales
    -> FROM SalesDetails sd
    -> JOIN Products p ON sd.product_id = p.product_id
    -> GROUP BY p.product_name
    -> ORDER BY number_of_sales DESC;
+--------------------------------+-----------------+
| product_name                   | number_of_sales |
+--------------------------------+-----------------+
| Samsung LED TV 43"             |               2 |
| iPhone 14                      |               2 |
| LG Refrigerator 190L           |               1 |
| HP Pavilion Laptop 14"         |               1 |
| Philips Air Fryer HD9216       |               1 |
| Sony Bravia 55" LED TV         |               1 |
| Samsung Galaxy S21             |               1 |
| Whirlpool Washing Machine 6.5kg |               1 |
+--------------------------------+-----------------+
```

-- What is the average order value across all sales?

```
SELECT AVG(total_amount) AS average_order_value
FROM Sales;
```

```
mysql> SELECT AVG(total_amount) AS average_order_value
    -> FROM Sales;
+---------------------+
| average_order_value |
+---------------------+
|        49833.321111 |
+---------------------+
```

-- What is the spending trend of customers over the last six months?

```
SELECT
   DATE_FORMAT(s.sale_date, '%Y-%m') AS month,
   SUM(s.total_amount) AS total_spent
FROM Sales s
WHERE s.sale_date >= DATE_SUB(CURDATE(), INTERVAL 6 MONTH)
GROUP BY month
ORDER BY month;
```

```
mysql> SELECT
    ->     DATE_FORMAT(s.sale_date, '%Y-%m') AS month,
    ->     SUM(s.total_amount) AS total_spent
    -> FROM Sales s
    -> WHERE s.sale_date >= DATE_SUB(CURDATE(), INTERVAL 6 MONTH)
    -> GROUP BY month
    -> ORDER BY month;
+---------+-------------+
| month   | total_spent |
+---------+-------------+
| 2024-10 |   448499.89 |
+---------+-------------+
```

-- What is the total value of stock for each product?

```
SELECT
   p.product_name,
   (p.price * p.stock_quantity) AS total_stock_value
FROM Products p;
```

```
mysql> SELECT
    ->     p.product_name,
    ->     (p.price * p.stock_quantity) AS total_stock_value
    -> FROM Products p;
+--------------------------------+--------------------+
| product_name                   | total_stock_value  |
+--------------------------------+--------------------+
| Samsung LED TV 43"             |          299999.90 |
| iPhone 14                      |         1199999.85 |
| Dell Inspiron Laptop           |          367999.92 |
| Sony Headphones WH-1000XM4     |          399999.80 |
| LG Refrigerator 190L           |          191999.88 |
| HP Pavilion Laptop 14"         |          426999.93 |
| Canon EOS 1500D DSLR Camera    |          179999.95 |
| Philips Air Fryer HD9216       |          152999.82 |
| Sony Bravia 55" LED TV         |          824999.85 |
| Samsung Galaxy S21             |         1399999.80 |
| Dell Inspiron 15"              |          489999.90 |
| Whirlpool Washing Machine 6.5kg |          143999.92 |
| Nikon D5600 DSLR Camera        |          224999.95 |
| Bajaj Microwave Oven 20L       |           71999.88 |
+--------------------------------+--------------------+
```

Conclusion : -

The **Vijay Sales** SQL Database Management System (DBMS) provides a structured and efficient way to manage the essential operations of a retail business specializing in electronics and home appliances. By organizing data into well-defined tables—such as Products, Categories, Brands, Customers, Sales, Inventory, Locations, Suppliers, Purchases, and Payments—the database facilitates streamlined management of inventory, customer transactions, supplier relations, and financial records.

This robust system allows for real-time tracking of product availability, detailed sales analysis, customer insights, and efficient handling of supplier orders. The database enables Vijay Sales to make data-driven decisions, improving operational efficiency, customer service, and profitability. Additionally, with easy access to comprehensive transaction data and inventory control, Vijay Sales can respond quickly to market demands and customer needs, positioning it well for continued growth and success in a competitive retail environment.

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***** THE END *****

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