

#### 1) Create Database

```
CREATE DATABASE retail_store;
```

```
USE retail_store;
```

Create Suppliers Table

```
CREATE TABLE Suppliers (  
    SupplierID INT AUTO_INCREMENT PRIMARY KEY,  
    SupplierName VARCHAR(100),  
    ContactNumber VARCHAR(20)  
);
```

Create Products Table

```
CREATE TABLE Products (  
    ProductID INT AUTO_INCREMENT PRIMARY KEY,  
    ProductName VARCHAR(100),  
    Price DECIMAL(10,2),  
    StockQuantity INT,  
    SupplierID INT,  
    FOREIGN KEY (SupplierID) REFERENCES Suppliers(SupplierID)  
);
```

Create Sales Table

```
CREATE TABLE Sales (  
    SaleID INT AUTO_INCREMENT PRIMARY KEY,  
    ProductID INT,  
    QuantitySold INT,  
    SaleDate DATE,  
    FOREIGN KEY (ProductID) REFERENCES Products(ProductID)  
);
```

---

#### 2) Add Category column

```
ALTER TABLE Products ADD Category VARCHAR(50);
```

---

#### 3) Remove Category column

```
ALTER TABLE Products  
DROP COLUMN Category;
```

---

#### 4) Modify ContactNumber

```
ALTER TABLE Suppliers  
MODIFY ContactNumber VARCHAR(15);
```

---

#### 5) Add NOT NULL constraint

```
ALTER TABLE Products  
MODIFY ProductName VARCHAR(100) NOT NULL;
```

---

6.

a) Insert Supplier

```
INSERT INTO Suppliers (SupplierName, ContactNumber)
VALUES ('FreshFoods', '01001234567');
```

b) Insert Products

```
INSERT INTO Products (ProductName, Price, StockQuantity, SupplierID)
VALUES
('Milk', 15.00, 50, 1),
('Bread', 10.00, 30, 1),
('Eggs', 20.00, 40, 1);
```

c) Insert Sale

```
INSERT INTO Sales (ProductID, QuantitySold, SaleDate)
VALUES (1, 2, '2025-05-20');
```

---

7) Update Bread price

```
UPDATE Products
SET Price = 25.00
WHERE ProductName = 'Bread';
```

8) Delete Eggs product

```
DELETE FROM Products
WHERE ProductName = 'Eggs';
```

---

9) Total quantity sold per product

```
SELECT p.ProductName, SUM(s.QuantitySold) AS TotalSold
FROM Products p
LEFT JOIN Sales s ON p.ProductID = s.ProductID
GROUP BY p.ProductName;
```

---

10) Product with highest stock

```
SELECT ProductName, StockQuantity
FROM Products
ORDER BY StockQuantity DESC LIMIT 1;
```

---

11) Suppliers starting with F

```
SELECT * FROM Suppliers
WHERE SupplierName LIKE 'F%';
```

---

12) Products never sold

```
SELECT p.ProductName
FROM Products p
LEFT JOIN Sales s ON p.ProductID = s.ProductID
WHERE s.ProductID IS NULL;
```

---

13) Sales with product name and date

```
SELECT p.ProductName, s.QuantitySold, s.SaleDate  
FROM Sales s  
JOIN Products p ON s.ProductID = p.ProductID;
```

---

14) Create user and grant permissions

```
CREATE USER 'store_manager'@'localhost' IDENTIFIED BY '1234';
```

```
GRANT SELECT, INSERT, UPDATE  
ON retail_store.*  
TO 'store_manager'@'localhost';
```

---

15) Revoke UPDATE permission

```
REVOKE UPDATE  
ON retail_store.*  
FROM 'store_manager'@'localhost';
```

---

16) Grant DELETE on Sales only

```
GRANT DELETE  
ON retail_store.Sales  
TO 'store_manager'@'localhost';
```

---