

# **MAJOR PROJECT**

## **Online Retail Application Database:**

### **CODE:**

#### **-- Table to store user information**

```
CREATE TABLE Users (  
    UserID INT AUTO_INCREMENT PRIMARY KEY,  
    Username VARCHAR(50) NOT NULL UNIQUE,  
    PasswordHash VARCHAR(255) NOT NULL,  
    Email VARCHAR(100) NOT NULL UNIQUE,  
    CreatedAt TIMESTAMP DEFAULT CURRENT_TIMESTAMP);
```

```
INSERT INTO Users (Username, PasswordHash, Email) VALUES ('john_doe',  
'hashed_password_here', 'john.doe@example.com');
```

```
SELECT * from Users;
```

#### **-- Table to store product details**

```
CREATE TABLE Products (  
    ProductID INT AUTO_INCREMENT PRIMARY KEY,  
    ProductName VARCHAR(100) NOT NULL,  
    Description TEXT,  
    Price DECIMAL(10, 2) NOT NULL,  
    Stock INT NOT NULL,  
    Discount DECIMAL(5, 2) DEFAULT 0.00,  
    CreatedAt TIMESTAMP DEFAULT CURRENT_TIMESTAMP );
```

```
INSERT INTO Products (ProductName, Description, Price, Stock, Discount) VALUES  
('Laptop', 'High-performance laptop', 1500.00, 10, 10.00);
```

```
SELECT * from Products;
```

**-- Table to store orders**

```
CREATE TABLE Orders (  
    OrderID INT AUTO_INCREMENT PRIMARY KEY,  
    UserID INT NOT NULL,  
    OrderDate TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
    TotalAmount DECIMAL(10, 2) NOT NULL,  
    FOREIGN KEY (UserID) REFERENCES Users(UserID) ON DELETE CASCADE);
```

```
INSERT INTO Orders (UserID, TotalAmount) VALUES (1, 2700.00);
```

```
SELECT * from Orders;
```

**-- Table to store order items (relation between orders and products)**

```
CREATE TABLE OrderItems (  
    OrderItemID INT AUTO_INCREMENT PRIMARY KEY,  
    OrderID INT NOT NULL,  
    ProductID INT NOT NULL,  
    Quantity INT NOT NULL,  
    Price DECIMAL(10, 2) NOT NULL,  
    Discount DECIMAL(5, 2) NOT NULL,  
    Subtotal DECIMAL(10, 2) AS (Quantity * (Price - (Price * Discount / 100)))  
STORED, FOREIGN KEY (OrderID) REFERENCES Orders(OrderID) ON DELETE  
CASCADE, FOREIGN KEY (ProductID) REFERENCES Products(ProductID) ON  
DELETE CASCADE);
```

```
INSERT INTO OrderItems (OrderID, ProductID, Quantity, Price, Discount)  
VALUES (1, 1, 2, 1500.00, 10.00);
```

```
SELECT * from OrderItems;
```

-- Table to store billing information

```
CREATE TABLE Bills (  
    BillID INT AUTO_INCREMENT PRIMARY KEY,  
    OrderID INT NOT NULL,  
    BillDate TIMESTAMP DEFAULT CURRENT_TIMESTAMP,  
    TotalAmount DECIMAL(10, 2) NOT NULL,  
    FOREIGN KEY (OrderID) REFERENCES Orders(OrderID) ON DELETE CASCADE);  
  
INSERT INTO Bills (OrderID, TotalAmount) VALUES (1, 2700.00);  
  
SELECT * from Bills;
```

**OUTPUT:**

Output:

UserID	Username	PasswordHash	Email	CreatedAt
1	john_doe	hashed_password_here	john.doe@example.com	2024-12-06 12:55:48

ProductID	ProductName	Description	Price	Stock	Discount	CreatedAt
1	Laptop	High-performance laptop	1500.00	10	10.00	2024-12-06 12:55:48

OrderID	UserID	OrderDate	TotalAmount
1	1	2024-12-06 12:55:48	2700.00

OrderItemID	OrderID	ProductID	Quantity	Price	Discount	Subtotal
1	1	1	2	1500.00	10.00	2700.00

BillID	OrderID	BillDate	TotalAmount
1	1	2024-12-06 12:55:48	2700.00