-- CREATE THE TABLES:

-- Address table

CREATE TABLE Address (

AddressID *NUMBER*(5) PRIMARY KEY,

StreetNumber *VARCHAR2*(10),

StreetName *VARCHAR2*(100),

City *VARCHAR2*(50),

Province *VARCHAR2*(50),

Country *VARCHAR2*(50),

PostalCode *VARCHAR2*(10)

);

-- Customer table

CREATE TABLE Customer (

CustomerID *NUMBER*(5) PRIMARY KEY,

Username *VARCHAR2*(50) NOT NULL,

Passwd *VARCHAR2*(50) NOT NULL,

Email *VARCHAR2*(100),

FirstName *VARCHAR2*(50),

LastName *VARCHAR2*(50),

PhoneNumber *VARCHAR2*(20),

AddressID *NUMBER*(5) REFERENCES Address(AddressID)

);

-- Product table

CREATE TABLE Product (

ProductID *NUMBER*(5) PRIMARY KEY,

ProductName *VARCHAR2*(100) NOT NULL,

ProductDesc *VARCHAR2*(1000),

Price *NUMBER*(10, 2) NOT NULL,

Stock *NUMBER*(5) NOT NULL,

ImageURL *VARCHAR2*(255)

);

-- Category table

CREATE TABLE CategoryTable (

CategoryID *NUMBER*(5) PRIMARY KEY,

CategoryName *VARCHAR2*(100) NOT NULL

);

-- ProductCategory table

CREATE TABLE ProductCategory (

ProductCategoryID *NUMBER*(5) PRIMARY KEY,

ProductID *NUMBER*(5) REFERENCES Product(ProductID),

CategoryID *NUMBER*(5) REFERENCES CategoryTable(CategoryID)

);

-- Order table

CREATE TABLE OrderTable (

OrderID *NUMBER*(5) PRIMARY KEY,

CustomerID *NUMBER*(5) REFERENCES Customer(CustomerID),

AddressID *NUMBER*(5) REFERENCES Address(AddressID),

OrderDate *DATE* NOT NULL,

OrderTime *TIMESTAMP* NOT NULL,

TotalPrice *NUMBER*(10, 2) NOT NULL

);

-- OrderItem table

CREATE TABLE OrderItem (

OrderItemID *NUMBER*(5) PRIMARY KEY,

OrderID *NUMBER*(5) REFERENCES OrderTable(OrderID),

ProductID *NUMBER*(5) REFERENCES Product(ProductID),

Quantity *NUMBER*(5) NOT NULL,

Subtotal *NUMBER*(10, 2) NOT NULL

);

-- Create the ShoppingCart table

CREATE TABLE ShoppingCart (

CustomerID *NUMBER*(5) PRIMARY KEY,

CreationDate *DATE* NOT NULL,

CreationTime *TIMESTAMP* NOT NULL

);

-- CartProduct table

CREATE TABLE CartProduct (

CartProductID *NUMBER*(5) PRIMARY KEY,

CustomerID *NUMBER*(5) REFERENCES ShoppingCart(CustomerID),

ProductID *NUMBER*(5) REFERENCES Product(ProductID),

Quantity *NUMBER*(5) NOT NULL

);

-- POPULATE THE TABLES:

-- Insert data into the Address table

INSERT INTO Address (AddressID, StreetNumber, StreetName, City, Province, Country, PostalCode)

VALUES (1, '123', 'Main St', 'Toronto', 'Ontario', 'CANADA', 'P7H0A8');

INSERT INTO Address (AddressID, StreetNumber, StreetName, City, Province, Country, PostalCode)

VALUES (2, '456', 'Oak Avenue', 'New York', 'New York', 'USA', '10001');

INSERT INTO Address (AddressID, StreetNumber, StreetName, City, Province, Country, PostalCode)

VALUES (3, '789', 'Cedar Lane', 'Los Angeles', 'California', 'USA', '90001');

INSERT INTO Address (AddressID, StreetNumber, StreetName, City, Province, Country, PostalCode)

VALUES (4, '1010', 'Maple Street', 'Chicago', 'Illinois', 'USA', '60601');

INSERT INTO Address (AddressID, StreetNumber, StreetName, City, Province, Country, PostalCode)

VALUES (5, '234', 'Pine Avenue', 'Houston', 'Texas', 'USA', '77001');

-- Insert data for Customer table

INSERT INTO Customer (CustomerID, Username, Passwd, Email, FirstName, LastName, PhoneNumber, AddressID)

VALUES (1, 'user1', 'password1', 'user1@example.com', 'John', 'Doe', '657-123-4567', 1);

INSERT INTO Customer (CustomerID, Username, Passwd, Email, FirstName, LastName, PhoneNumber, AddressID)

VALUES (2, 'user2', 'password2', 'user2@example.com', 'Alice', 'Smith', '987-654-3210', 2);

INSERT INTO Customer (CustomerID, Username, Passwd, Email, FirstName, LastName, PhoneNumber, AddressID)

VALUES (3, 'user3', 'password3', 'user3@example.com', 'Bob', 'Johnson', '555-123-4567', 3);

INSERT INTO Customer (CustomerID, Username, Passwd, Email, FirstName, LastName, PhoneNumber, AddressID)

VALUES (4, 'user4', 'password4', 'user4@example.com', 'Emily', 'Brown', '444-789-0123', 4);

INSERT INTO Customer (CustomerID, Username, Passwd, Email, FirstName, LastName, PhoneNumber, AddressID)

VALUES (5, 'user5', 'password5', 'user5@example.com', 'Grace', 'Lee', '111-222-3333', 5);

-- Insert data forProduct table

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (1, 'Product A', 'Description for A', 10.99 , 100, 'product\_a.jpg');

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (2, 'Product B', 'Description for B', 19.99, 50, 'product\_b.jpg');

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (3, 'Product C', 'Description for C', 7.49, 75, 'product\_c.jpg');

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (4, 'Product D', 'Description for D', 24.95, 30, 'product\_d.jpg');

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (5, 'Product E', 'Description for E', 15.99, 90, 'product\_e.jpg');

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (6, 'Product F', 'Description for F', 12.50, 60, 'product\_f.jpg');

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (7, 'Product G', 'Description for G', 29.99, 25, 'product\_g.jpg');

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (8, 'Product H', 'Description for H', 8.99, 120, 'product\_h.jpg');

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (9, 'Product I', 'Description for I', 14.75, 70, 'product\_i.jpg');

INSERT INTO Product (ProductID, ProductName, ProductDesc, Price, Stock, ImageURL)

VALUES (10, 'Product J', 'Description for J', 17.49, 55, 'product\_j.jpg');

-- Insert data for the CategoryTable

INSERT INTO CategoryTable (CategoryID, CategoryName)

VALUES (1, 'Category 1');

INSERT INTO CategoryTable (CategoryID, CategoryName)

VALUES (2, 'Category 2');

INSERT INTO CategoryTable (CategoryID, CategoryName)

VALUES (3, 'Category 3');

INSERT INTO CategoryTable (CategoryID, CategoryName)

VALUES (4, 'Category 4');

INSERT INTO CategoryTable (CategoryID, CategoryName)

VALUES (5, 'Category 5');

-- Insert data ProductCategory table

INSERT INTO ProductCategory (ProductCategoryID, ProductID, CategoryID)

VALUES (1, 1, 1);

INSERT INTO ProductCategory (ProductCategoryID, ProductID, CategoryID)

VALUES (2, 2, 1);

INSERT INTO ProductCategory (ProductCategoryID, ProductID, CategoryID)

VALUES (3, 3, 2);

INSERT INTO ProductCategory (ProductCategoryID, ProductID, CategoryID)

VALUES (4, 4, 2);

INSERT INTO ProductCategory (ProductCategoryID, ProductID, CategoryID)

VALUES (5, 5, 3);

INSERT INTO ProductCategory (ProductCategoryID, ProductID, CategoryID)

VALUES (6, 6, 4);

-- Insert data for OrderTable

INSERT INTO OrderTable (OrderID, CustomerID, AddressID, OrderDate, OrderTime, TotalPrice)

VALUES (1, 1, 1, TO\_DATE('2023-09-25', 'YYYY-MM-DD'), CURRENT\_TIMESTAMP, 10.99);

INSERT INTO OrderTable (OrderID, CustomerID, AddressID, OrderDate, OrderTime, TotalPrice)

VALUES (2, 2, 2, TO\_DATE('2023-09-26', 'YYYY-MM-DD'), CURRENT\_TIMESTAMP, 39.99);

INSERT INTO OrderTable (OrderID, CustomerID, AddressID, OrderDate, OrderTime, TotalPrice)

VALUES (3, 3, 3, TO\_DATE('2023-09-27', 'YYYY-MM-DD'), CURRENT\_TIMESTAMP, 17.49);

INSERT INTO OrderTable (OrderID, CustomerID, AddressID, OrderDate, OrderTime, TotalPrice)

VALUES (4, 4, 4, TO\_DATE('2023-09-28', 'YYYY-MM-DD'), CURRENT\_TIMESTAMP, 24.95);

INSERT INTO OrderTable (OrderID, CustomerID, AddressID, OrderDate, OrderTime, TotalPrice)

VALUES (5, 5, 5, TO\_DATE('2023-09-29', 'YYYY-MM-DD'), CURRENT\_TIMESTAMP, 35.99);

-- Insert data into the OrderItem table

INSERT INTO OrderItem (OrderItemID, OrderID, ProductID, Quantity, Subtotal)

VALUES (1, 1, 1, 2, 21.98);

INSERT INTO OrderItem (OrderItemID, OrderID, ProductID, Quantity, Subtotal)

VALUES (2, 1, 2, 3, 59.97);

INSERT INTO OrderItem (OrderItemID, OrderID, ProductID, Quantity, Subtotal)

VALUES (3, 2, 3, 1, 7.49);

INSERT INTO OrderItem (OrderItemID, OrderID, ProductID, Quantity, Subtotal)

VALUES (4, 2, 4, 2, 49.90);

INSERT INTO OrderItem (OrderItemID, OrderID, ProductID, Quantity, Subtotal)

VALUES (5, 3, 5, 4, 63.96);

-- Insert data into the ShoppingCart table

INSERT INTO ShoppingCart (CustomerID, CreationDate, CreationTime)

VALUES (1, TO\_DATE('2023-09-25', 'YYYY-MM-DD'), CURRENT\_TIMESTAMP);

INSERT INTO ShoppingCart (CustomerID, CreationDate, CreationTime)

VALUES (2, TO\_DATE('2023-09-26', 'YYYY-MM-DD'), CURRENT\_TIMESTAMP);

INSERT INTO ShoppingCart (CustomerID, CreationDate, CreationTime)

VALUES (3, TO\_DATE('2023-09-27', 'YYYY-MM-DD'), CURRENT\_TIMESTAMP);

-- Insert data into the CartProduct table

INSERT INTO CartProduct (CartProductID, CustomerID, ProductID, Quantity)

VALUES (1, 1, 1, 3);

INSERT INTO CartProduct (CartProductID, CustomerID, ProductID, Quantity)

VALUES (2, 1, 2, 2);

INSERT INTO CartProduct (CartProductID, CustomerID, ProductID, Quantity)

VALUES (3, 2, 3, 1);

-- MAKE SIMPLE QUERIES:

-- Get customer information for a specific customer using their CustomerID:

SELECT \* FROM Customer WHERE CustomerID = 1;

-- Get a list of all products:

SELECT \* FROM Product;

-- Get a list of categories:

SELECT \* FROM CategoryTable;

-- Get product details for a specific product by its ProductID:

SELECT \* FROM Product WHERE ProductID = 1;

-- Get orders placed by a specific customer:

SELECT \* FROM OrderTable WHERE CustomerID = 1;

-- Get order items for a specific order by its OrderID:

SELECT \* FROM OrderItem WHERE OrderID = 1;

-- Retrieve the products in a shopping cart for a specific customer:

SELECT \* FROM CartProduct WHERE CustomerID = 1;

-- Get total price of a specific order by its OrderID:

SELECT TotalPrice FROM OrderTable WHERE OrderID = 1;

-- Get address details for a specific address by its AddressID:

SELECT \* FROM Address WHERE AddressID = 1;

-- Drop the tables

-- Order Does not matter for these tables as they do not have foreign key constraints

DROP TABLE CartProduct;

DROP TABLE ProductCategory;

DROP TABLE ShoppingCart;

DROP TABLE OrderItem;

-- Later Drop these in Order

DROP TABLE OrderTable;

DROP TABLE CategoryTable;

DROP TABLE Product;

DROP TABLE Customer;

DROP TABLE Address;