

E-Commerce Database Relational Schema

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```
CREATE TABLE Customer (  
    customerID INT PRIMARY KEY,  
    name VARCHAR(100),  
    email VARCHAR(100),  
    address VARCHAR(100)  
);  
  
CREATE TABLE CreditCard (  
    cardID INT PRIMARY KEY,  
    customerID INT,  
    cardNumber VARCHAR(25),  
    expDate DATE,  
    FOREIGN KEY (customerID) REFERENCES Customer(customerID)  
);  
  
CREATE TABLE Product (  
    productID INT PRIMARY KEY,  
    name VARCHAR(100),  
    price DECIMAL(10, 2),  
    stock INT  
);  
  
CREATE TABLE Purchase (  
    purchaseID INT PRIMARY KEY,
```

```

customerID INT,
productID INT,
date DATE,
total DECIMAL(10, 2),
FOREIGN KEY (customerID) REFERENCES Customer(customerID),
FOREIGN KEY (productID) REFERENCES Product(productID)
);

CREATE TABLE Shipment (
    shipmentID INT PRIMARY KEY,
    purchaseID INT,
    shipDate DATE,
    carrier VARCHAR(100),
    trackingNumber VARCHAR(50),
    FOREIGN KEY purchaseID REFERENCES Purchase(purchaseID)
);

```

Insert Statement to fill tables with sample data:

```

INSERT INTO Customer (customerID, name, email, address) VALUES
(1, 'Evan Heidenreich', 'heidenen@mail.uc.edu', '123 Maple St, Springfield, IL'),
(2, 'Nick Rigg', 'riggns@mail.uc.edu', '456 Oak Ave, Denver, CO'),
(3, 'Eric Cartman', 'cartet@mail.uc.edu', '789 Pine Rd, Austin, TX');

```

```

INSERT INTO CreditCard (cardID, customerID, cardNumber, expDate) VALUES
(1, 1, '4111111111111111', '2026-12-01'),
(2, 1, '5500000000000004', '2025-08-15'),
(3, 2, '3400000000000009', '2027-03-20'),

```

```
(4, 3, '601100000000000004', '2026-11-05');
```

```
INSERT INTO Product (productID, name, price, stock) VALUES
```

```
(1, 'Laptop', 999.99, 9),
```

```
(2, 'Wireless Mouse', 25.50, 50),
```

```
(3, 'Mechanical Keyboard', 79.99, 25),
```

```
(4, 'Monitor 24-inch', 149.99, 15),
```

```
(5, 'Wireless Headphones', 49.99, 100);
```

```
INSERT INTO Purchase (purchaseID, customerID, productID, date, total) VALUES
```

```
(1, 1, 1, '2025-07-15', 999.99),
```

```
(2, 1, 2, '2025-07-15', 25.50),
```

```
(3, 2, 4, '2025-07-20', 149.99),
```

```
(4, 3, 3, '2025-07-21', 79.99),
```

```
(5, 3, 5, '2025-07-21', 49.99);
```

```
INSERT INTO Shipment (shipmentID, purchaseID, shipDate, carrier, trackingNumber)  
VALUES
```

```
(1, 1, '2025-07-16', 'UPS', '1Z999AA10123456784'),
```

```
(2, 2, '2025-07-16', 'FedEx', '612999123456'),
```

```
(3, 3, '2025-07-21', 'USPS', '940011189922385937'),
```

```
(4, 4, '2025-07-22', 'Amazon', 'JD0146000045738293'),
```

```
(5, 5, '2025-07-22', 'UPS', '1Z999BB10123456890');
```