Car Rental Database Management System
Customers (CustomerID, Name, Email, Phone, City)
Cars (CarID, Model, Brand, Year, RentalPricePerDay, AvailabilityStatus)
Rentals (RentalID, CustomerID, CarID, StartDate, EndDate, TotalAmount)
Write queries for the following questions:

1. Create a Payments table with attributes: PaymentID, RentalID (FK), PaymentDate, AmountPaid, and PaymentMethod.
2. Update AvailabilityStatus of a car to 'Rented' for a specific CustomerID and CarID.
3. Retrieve Customer Name, Car Model, and Rental StartDate for rentals where RentalPricePerDay is above 1000.
4. Calculate the total rental amount collected per Car Brand.
5. Find the top 3 customers who have spent the most on rentals.

```
CREATE TABLE Customers (
    CustomerID INT PRIMARY KEY AUTO_INCREMENT,
    Name VARCHAR(50),
    Email VARCHAR(100),
    Phone VARCHAR(15),
    City VARCHAR(50)
);

CREATE TABLE Cars (
    CarID INT PRIMARY KEY AUTO_INCREMENT,
    Model VARCHAR(50),
    Brand VARCHAR(50),
    Year INT,
    RentalPricePerDay DECIMAL(10, 2),
    AvailabilityStatus VARCHAR(20)
);

CREATE TABLE Rentals (
    RentalID INT PRIMARY KEY AUTO_INCREMENT,
    CustomerID INT,
    CarID INT,
    StartDate DATE,
    EndDate DATE,
    TotalAmount DECIMAL(10, 2),
    FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID),
    FOREIGN KEY (CarID) REFERENCES Cars(CarID)
);

-- Customers
INSERT INTO Customers (Name, Email, Phone, City) VALUES
('Amit', 'amit@gmail.com', '9876543210', 'Delhi'),
('Sneha', 'sneha@gmail.com', '9876543211', 'Mumbai'),
('Rahul', 'rahul@gmail.com', '9876543212', 'Bangalore'),
('Priya', 'priya@gmail.com', '9876543213', 'Chennai');
```

```
-- Cars
INSERT INTO Cars (Model, Brand, Year, RentalPricePerDay, AvailabilityStatus) VALUES
('Swift', 'Maruti', 2021, 900, 'Available'),
('XUV500', 'Mahindra', 2022, 1200, 'Available'),
('City', 'Honda', 2023, 1100, 'Available'),
('Fortuner', 'Toyota', 2023, 1500, 'Available');

-- Rentals
INSERT INTO Rentals (CustomerID, CarID, StartDate, EndDate, TotalAmount) VALUES
(1, 2, '2024-03-01', '2024-03-05', 4800),  -- Amit rented Mahindra XUV500
(2, 3, '2024-03-10', '2024-03-15', 5500),  -- Sneha rented Honda City
(3, 4, '2024-03-20', '2024-03-25', 7500),  -- Rahul rented Toyota Fortuner
(4, 1, '2024-04-01', '2024-04-03', 1800);  -- Priya rented Swift

-- 1. Create a Payments table with attributes: PaymentID, RentalID (FK),
PaymentDate, AmountPaid, and PaymentMethod.
CREATE TABLE Payments (
    PaymentID INT PRIMARY KEY AUTO_INCREMENT,
    RentalID INT,
    PaymentDate DATE,
    AmountPaid DECIMAL(10,2),
    PaymentMethod VARCHAR(50),
    FOREIGN KEY (RentalID) REFERENCES Rentals(RentalID)
);

-- Payments
INSERT INTO Payments (RentalID, PaymentDate, AmountPaid, PaymentMethod) VALUES
(1, '2024-03-05', 4800, 'Card'),
(2, '2024-03-15', 5500, 'UPI'),
(3, '2024-03-25', 7500, 'Cash'),
(4, '2024-04-03', 1800, 'Card');

-- 2. Update AvailabilityStatus of a car to 'Rented' for specific CustomerID and
CarID
UPDATE Cars
SET AvailabilityStatus = 'Rented'
WHERE CarID = (
        SELECT CarID FROM Rentals
    WHERE CustomerID = 1 AND CarID = 2
    LIMIT 1
);

-- 3. Retrieve Customer Name, Car Model, and Rental StartDate where
RentalPricePerDay > 1000
SELECT c.Name, ca.Model, r.StartDate
FROM Rentals r
JOIN Customers c ON r.CustomerID = c.CustomerID
JOIN Cars ca ON r.CarID = ca.CarID
WHERE ca.RentalPricePerDay > 1000;
```

```
-- 4. Calculate Total Rental Amount Collected per Car Brand
SELECT ca.Brand, SUM(r.TotalAmount) AS TotalRevenue
FROM Rentals r
JOIN Cars ca On r.CarID = ca.CarID
GROUP BY ca.Brand;

-- 5. Top 3 Customers Who Spent the Most on Rentals
SELECT cu.Name, SUM(r.TotalAmount) AS TotalSpent
FROM Rentals r
JOIN Customers cu ON r.CustomerID = r.CustomerID
GROUP BY cu.CustomerID
ORDER BY TotalSpent DESC
LIMIT 3;
```