**Part 1: Simple Queries:**

INSERT INTO Locations (Location\_Name, Address, Phone\_Number)

VALUES ('Downtown Branch', '123 Main St, Cityville', '555-1234');

INSERT INTO Locations (Location\_Name, Address, Phone\_Number)

VALUES ('Airport Branch', '456 Airport Rd, Cityville', '555-5678');

ALTER TABLE Cars

ADD Location\_ID NUMBER REFERENCES Locations(Location\_ID);

ALTER TABLE Rental\_Transactions

ADD Location\_ID NUMBER REFERENCES Locations(Location\_ID);

INSERT INTO Cars (Make, Model, Year, License\_Plate, VIN, Daily\_Rental\_Price, Availability\_Status, Location\_ID)

VALUES ('Toyota', 'Camry', 2020, 'ABC123', '1HGBH41JXMN109186', 45.00, 'Available', 1); -- assuming 1 is Downtown Branch

INSERT INTO Cars (Make, Model, Year, License\_Plate, VIN, Daily\_Rental\_Price, Availability\_Status, Location\_ID)

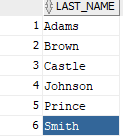
VALUES ('Toyota', 'Camry', 2020, 'ABC123', '1HGBH41JXMN109186', 45.00, 'Available', 1); -- assuming 1 is Downtown Branch

## **1. Select All Distinct Last Names**

SELECT DISTINCT Last\_Name

FROM Customers

ORDER BY Last\_Name;



## **2. Number of Available Cars by Make**:

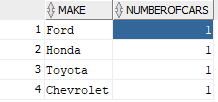
SELECT Make, COUNT(\*) AS NumberOfCars

FROM Cars

WHERE Availability\_Status = 'Available'

GROUP BY Make

ORDER BY NumberOfCars DESC;



## **3. Count of Rental Transactions by Status**:

SELECT Status, COUNT(\*) AS TotalRentals

FROM Rental\_Transactions

GROUP BY Status

ORDER BY Status;



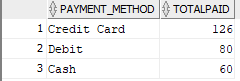
## **4. Total Payment Amount by Payment Method**:

SELECT Payment\_Method, SUM(Payment\_Amount) AS TotalPaid

FROM Payments

GROUP BY Payment\_Method

ORDER BY TotalPaid DESC;



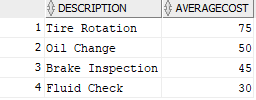
## **5. Average Maintenance Cost by Description**:

SELECT Description, AVG(Maintenance\_Cost) AS AverageCost

FROM Car\_Maintenance

GROUP BY Description

ORDER BY AverageCost DESC;

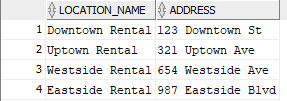


## **6. Unique Location Names and Addresses**:

SELECT DISTINCT Location\_Name, Address

FROM Locations

ORDER BY Address;



## **7. Total Rentals per Customer**:

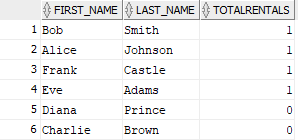
SELECT c.First\_Name, c.Last\_Name, COUNT(r.Rental\_ID) AS TotalRentals

FROM Customers c

LEFT JOIN Rental\_Transactions r ON c.Customer\_ID = r.Customer\_ID

GROUP BY c.First\_Name, c.Last\_Name

ORDER BY TotalRentals DESC;



## **8. Maintenance Count per Car Make and Model**:

SELECT c.Make, c.Model, COUNT(cm.Maintenance\_ID) AS MaintenanceCount

FROM Cars c

LEFT JOIN Car\_Maintenance cm ON c.Car\_ID = cm.Car\_ID

GROUP BY c.Make, c.Model

ORDER BY MaintenanceCount DESC;

