Krushnakumar Homraj Patle

1. Update the daily rate for a Mercedes car to 68.

```
104 •  UPDATE Vehicle
105    SET dailyRate = 68.00
106    WHERE make = 'Mercedes';
107
108 •  SELECT * FROM Vehicle;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Cont

vehicleID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity
1	Toyota	Camry	2022	50.00	available	5	2.50
2	Honda	Civic	2023	48.00	available	4	1.80
3	Ford	Focus	2022	55.00	available	4	2.00
4	Nissan	Altima	2023	54.00	notAvailable	5	2.50
5	Chevrolet	Malibu	2022	49.00	available	5	1.50
6	Hyundai	Sonata	2023	52.00	available	4	2.40
7	BMW	3 Series	2022	58.00	available	5	2.00
8	Audi	A4	2023	55.00	available	4	2.00
9	Lexus	ES	2022	54.00	available	5	3.50
10	Mercedes	C-Class	2023	68.00	available	5	3.00
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

2. Delete a specific customer and all associated leases and payments

```
110 •  DELETE FROM Lease
111    WHERE customerID = 3;
112
113 •  DELETE FROM Payment
114    WHERE leaseID IN (SELECT leaseID FROM Lease WHERE customerID = 3);
115
116 •  DELETE FROM Customer
117    WHERE customerID = 3;
118 •  SELECT * FROM Customer;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

customerID	firstName	lastName	email	phoneNumber
1	John	Doe	johndoe@example.com	555-555-5555
2	Jane	Smith	janesmith@example.com	555-123-4567
4	Sarah	Brown	sarah@example.com	555-456-7890
5	David	Lee	david@example.com	555-987-6543
6	Laura	Hall	laura@example.com	555-234-5678
7	Michael	Davis	michael@example.com	555-876-5432
8	Emma	Wilson	emma@example.com	555-432-1098
9	William	Taylor	william@example.com	555-321-6547
10	Olivia	Adams	olivia@example.com	555-765-4321
NULL	NULL	NULL	NULL	NULL

3. Rename the "paymentDate" column in the Payment table to "transactionDate"

```
120 •  ALTER TABLE Payment
121    RENAME COLUMN paymentDate TO transactionDate;
122
123 •  SELECT * FROM Payment;
124
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

paymentID	leaseID	transactionDate	amount
1	1	2023-01-03	200.00
2	2	2023-02-20	1000.00
3	3	2023-03-12	75.00
4	4	2023-04-25	900.00
5	4	2023-05-07	60.00
6	6	2023-06-18	1200.00
7	7	2023-07-03	40.00
8	8	2023-08-14	1100.00
9	8	2023-09-09	80.00
10	8	2023-10-25	1500.00
NULL	NULL	NULL	NULL

4. Find a specific customer by email.

```
125 •  SELECT *
126    FROM Customer
127    WHERE email = 'johndoe@example.com';
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

customerID	firstName	lastName	email	phoneNumber
1	John	Doe	johndoe@example.com	555-555-5555
NULL	NULL	NULL	NULL	NULL

5. Get active leases for a specific customer.

```
129 •  SELECT *
130    FROM Lease
131    WHERE customerID = 5 AND endDate >= '2023-12-10';
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

leaseID	vehicleID	customerID	startDate	endDate	type
NULL	NULL	NULL	NULL	NULL	NULL

6. Find all payments made by a customer with a specific phone number.

```
133 •  SELECT *
134    FROM Payment
135    INNER JOIN Lease ON Lease.leaseID = Payment.leaseID
136    INNER JOIN Customer ON Customer.customerID = Lease.customerID
137    WHERE Customer.phoneNumber = '555-123-4567';
138
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

paymentID	leaseID	transactionDate	amount	leaseID	vehicleID	customerID	startDate	endDate	type	customerID	firstName	lastName	email
2	2	2023-02-20	1000.00	2	2	2	2023-02-15	2023-02-28	Monthly	2	Jane	Smith	janesmith@example.com

7. Calculate the average daily rate of all available cars

```
139 •  SELECT AVG(dailyRate)
140    FROM Vehicle
141    WHERE status = 'available';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

AVG(dailyRate)
54.333333

8. Find the car with the highest daily rate

```
143 •  SELECT *
144    FROM Vehicle
145    ORDER BY dailyRate DESC
146    LIMIT 1;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Fetc

vehicleID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity
10	Mercedes	C-Class	2023	68.00	available	5	3.00
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

9. Retrieve all cars leased by a specific customer.

```
148 •  SELECT *
149    FROM Vehicle
150    INNER JOIN Lease ON Lease.vehicleID = Vehicle.vehicleID
151    WHERE Lease.customerID = 3;
152
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

vehicleID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity	leaseID	vehicleID	customerID	startDate	endDate	type

10. Find the details of the most recent lease.

```
153 •  SELECT *
154    FROM Lease
155    ORDER BY leaseID DESC
156    LIMIT 1;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: | Fetch rows:

leaseID	vehicleID	customerID	startDate	endDate	type
10	2	7	2023-09-07	2023-10-10	Monthly
NULL	NULL	NULL	NULL	NULL	NULL

11. List all payments made in the year 2023

```
158 •  SELECT *
159    FROM Payment
160    WHERE YEAR(transactionDate) = 2023;
161
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

paymentID	leaseID	transactionDate	amount
1	1	2023-01-03	200.00
2	2	2023-02-20	1000.00
3	3	2023-03-12	75.00
4	4	2023-04-25	900.00
5	4	2023-05-07	60.00
6	6	2023-06-18	1200.00
7	7	2023-07-03	40.00
8	8	2023-08-14	1100.00
9	8	2023-09-09	80.00
10	8	2023-10-25	1500.00
NULL	NULL	NULL	NULL

12. Retrieve customers who have not made any payments

```
162 •  SELECT *
163    FROM Customer
164    WHERE customerID NOT IN (SELECT customerID FROM Lease);
165
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

customerID	firstName	lastName	email	phoneNumber
8	Emma	Wilson	emma@example.com	555-432-1098
9	William	Taylor	william@example.com	555-321-6547
10	Olivia	Adams	olivia@example.com	555-765-4321
NULL	NULL	NULL	NULL	NULL

13. Retrieve Car Details and Their Total Payments

```
167 •  SELECT v.model, v.make, v.dailyRate, SUM(p.amount) AS total_payments
168    FROM Vehicle v
169    INNER JOIN Lease l ON l.vehicleID = v.vehicleID
170    INNER JOIN Payment p ON p.leaseID = l.leaseID
171    GROUP BY v.model, v.make, v.dailyRate;
172
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

model	make	dailyRate	total_payments
Camry	Toyota	50.00	200.00
Civic	Honda	48.00	1000.00
Altima	Nissan	54.00	960.00
3 Series	BMW	58.00	40.00
A4	Audi	55.00	2680.00

14. Calculate Total Payments for Each Customer.

```
173 •  SELECT c.firstName, c.lastName, SUM(p.amount) AS total_payments
174    FROM Customer c
175    INNER JOIN Lease l ON l.customerID = c.customerID
176    INNER JOIN Payment p ON p.leaseID = l.leaseID
177    GROUP BY c.firstName, c.lastName;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

firstName	lastName	total_payments
John	Doe	1160.00
Jane	Smith	1000.00
Sarah	Brown	40.00
David	Lee	2680.00

15. List Car Details for Each Lease

```
179 •  SELECT l.startDate, l.endDate, v.model, v.make, v.dailyRate
180    FROM Lease l
181    INNER JOIN Vehicle v ON v.vehicleID = l.vehicleID;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

startDate	endDate	model	make	dailyRate
2023-01-01	2023-01-05	Camry	Toyota	50.00
2023-02-15	2023-02-28	Civic	Honda	48.00
2023-04-20	2023-04-30	Altima	Nissan	54.00
2023-05-05	2023-05-10	Malibu	Chevrolet	49.00
2023-07-01	2023-08-12	3 Series	BMW	58.00
2023-07-10	2023-08-15	A4	Audi	55.00
2023-09-07	2023-09-10	Camry	Toyota	50.00
2023-09-07	2023-10-10	Civic	Honda	48.00

16. Retrieve Details of Active Leases with Customer and Car Information.

```
182
183 •  SELECT l.startDate, l.endDate, c.firstName, c.lastName, v.model, v.make, v.dailyRate
184    FROM Lease l
185    INNER JOIN Vehicle v ON v.vehicleID = l.vehicleID
186    INNER JOIN Customer c ON c.customerID = l.customerID
187    WHERE l.endDate >= '2023-12-10';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

startDate	endDate	firstName	lastName	model	make	dailyRate

17. Find the Customer Who Has Spent the Most on Leases

```
188
189 •  SELECT c.firstName, c.lastName, SUM(p.amount) AS total_spent
190    FROM Customer c
191    INNER JOIN Lease l ON l.customerID = c.customerID
192    INNER JOIN Payment p ON p.leaseID = l.leaseID
193    GROUP BY c.firstName, c.lastName
194    ORDER BY total_spent DESC
195    LIMIT 1;
196
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

firstName	lastName	total_spent
David	Lee	2680.00

18. List All Cars with Their Current Lease Information

```
196
197 •  SELECT v.model, v.make, v.dailyRate, l.startDate, l.endDate, c.firstName, c.lastName
198    FROM Vehicle v
199    LEFT JOIN Lease l ON l.vehicleID = v.vehicleID
200    LEFT JOIN Customer c ON c.customerID = l.customerID
201    WHERE l.endDate >= '2023-12-10';
202
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

model	make	dailyRate	startDate	endDate	firstName	lastName