

HEXAWARE CODING CHALLENGE

DONE BY – AMBATI SESA SAI SAHITHYA

GITHUB sql file link:

https://github.com/sahithya007/HEXAWARE_ASSIGNMENT/blob/main/SQLQuery8_CODING_CHALLENGE.sql

TASK -1

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

```
UPDATE Vehicle
SET dailyRate = 68
WHERE make = 'Mercedes' AND model = 'C-Class';
```

	vehicleID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity
1	1	Toyota	Camry	2022	50.00	available	4	1450
2	2	Honda	Civic	2023	45.00	available	7	1500
3	3	Ford	Focus	2022	48.00	notAvailable	4	1400
4	4	Nissan	Altima	2023	52.00	available	7	1200
5	5	Chevrolet	Malibu	2022	47.00	available	4	1800
6	6	Hyundai	Sonata	2023	49.00	notAvailable	7	1400
7	7	BMW	3 Series	2023	60.00	available	7	2499
8	8	Mercedes	C-Class	2022	68.00	available	8	2599
9	9	Audi	A4	2022	55.00	notAvailable	4	2500
10	10	Lexus	ES	2023	54.00	available	4	2500

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

```
DELETE FROM Payment WHERE leaseID IN (SELECT leaseID FROM Lease WHERE customerID = 1);
DELETE FROM Lease WHERE customerID = 1;
DELETE FROM Customer WHERE customerID = 1;
```

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

```
EXEC sp_rename 'Payment.paymentDate', 'transactionDate', 'COLUMN';
```

%

Messages

Caution: Changing any part of an object name could break scripts and stored procedures.

Completion time: 2024-09-19T17:33:35.1026185+05:30

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

4. Find a specific customer by email.

```
SELECT * FROM Customer WHERE email = 'olivia@example.com';
```

Results

Messages

	customerID	firstName	lastName	email	phoneNumber
1	10	Olivia	Adams	olivia@example.com	555-765-4321

5. Get active leases for a specific customer.

```
-- Define the customer ID you want to query
DECLARE @CustomerID INT = 3; -- Replace with the specific customerID you want

-- Get the current date
DECLARE @CurrentDate DATE = CAST(GETDATE() AS DATE);

-- Query to retrieve active leases for the specified customer
SELECT C.customerID, C.firstName, C.lastName, C.email, C.phoneNumber,
       V.vehicleID, V.make, V.model, V.year, V.dailyRate, V.status,
       L.leaseID, L.startDate, L.endDate, L.type AS leaseType
FROM Lease L
JOIN Customer C ON L.customerID = C.customerID
JOIN Vehicle V ON L.vehicleID = V.vehicleID
WHERE C.customerID = @CustomerID
AND L.endDate >= @CurrentDate;
```

	customerID	firstName	lastName	email	phoneNumber	vehicleID	make	model	year	dailyRate	status	leaseID	startDate	endDate	leaseType
1	3	Robert	Johnson	robert@example.com	555-789-1234	3	Ford	Focus	2022	48.00	notAvailable	3	2023-03-10	2025-03-19	Daily
2	3	Robert	Johnson	robert@example.com	555-789-1234	4	Nissan	Altima	2023	52.00	available	6	2023-06-15	2025-03-19	Monthly
3	3	Robert	Johnson	robert@example.com	555-789-1234	3	Ford	Focus	2022	48.00	notAvailable	9	2023-09-07	2025-03-19	Daily

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

```
SELECT P.*
FROM Payment P
JOIN Lease L ON P.leaseID = L.leaseID
JOIN Customer C ON L.customerID = C.customerID
WHERE C.phoneNumber = '555-765-4321';
```

	paymentID	leaseID	transactionDate	amount
1	10	10	2023-10-25	1500.00

7. Calculate the average daily rate of all available cars.

```
SELECT AVG(dailyRate) AS AvgDailyRate
FROM Vehicle
WHERE status = 'available';
```

Results Messages

	AvgDailyRate
1	53.714285

8. Find the car with the highest daily rate.

```
SELECT TOP 1 *
FROM Vehicle
ORDER BY dailyRate DESC;
```

Results Messages

	vehicleID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity
1	8	Mercedes	C-Class	2022	68.00	available	8	2599

9. Retrieve all cars leased by a specific customer.

```
SELECT V.*
FROM Vehicle V
JOIN Lease L ON V.vehicleID = L.vehicleID
WHERE L.customerID = 3;
```

100 %

Results Messages

	vehicleID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity
1	3	Ford	Focus	2022	48.00	notAvailable	4	1400
2	4	Nissan	Altima	2023	52.00	available	7	1200
3	3	Ford	Focus	2022	48.00	notAvailable	4	1400

10. Find the details of the most recent lease.

```
SELECT TOP 1 *  
FROM Lease  
ORDER BY endDate DESC;
```

100 %

Results Messages

	leaseID	vehicleID	customerID	startDate	endDate	type
1	10	10	10	2023-10-10	2023-10-31	Monthly

11. List all payments made in the year 2023.

```
SELECT * FROM Payment  
WHERE YEAR(transactionDate) = 2023;
```

100 %

Results Messages

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

12. Retrieve customers who have not made any payments.

```
SELECT * FROM Customer C  
WHERE C.customerID NOT IN (SELECT L.customerID FROM Lease L  
JOIN Payment P ON L.leaseID = P.leaseID);
```

100 %

Results Messages

	customerID	firstName	lastName	email	phoneNumber
1	6	Laura	Hall	laura@example.com	555-234-5678
2	9	William	Taylor	william@example.com	555-321-6547

13. Retrieve Car Details and Their Total Payments.

```

SELECT V.vehicleID, V.make, V.model, V.year, V.dailyRate, V.status, V.passengerCapacity, V.engineCapacity,
       SUM(P.amount) AS totalPayments
FROM Vehicle V
JOIN Lease L ON V.vehicleID = L.vehicleID
JOIN Payment P ON L.leaseID = P.leaseID
GROUP BY V.vehicleID, V.make, V.model, V.year, V.dailyRate, V.status, V.passengerCapacity, V.engineCapacity;

```

	vehicleID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity	totalPayments
1	2	Honda	Civic	2023	45.00	available	7	1500	1000.00
2	3	Ford	Focus	2022	48.00	notAvailable	4	1400	155.00
3	4	Nissan	Altima	2023	52.00	available	7	1200	2100.00
4	5	Chevrolet	Malibu	2022	47.00	available	4	1800	60.00
5	7	BMW	3 Series	2023	60.00	available	7	2499	40.00
6	8	Mercedes	C-Class	2022	68.00	available	8	2599	1100.00
7	10	Lexus	ES	2023	54.00	available	4	2500	1500.00

14. Calculate Total Payments for Each Customer.

```

SELECT C.customerID, C.firstName, C.lastName, SUM(P.amount) AS totalPayments
FROM Customer C
JOIN Lease L ON C.customerID = L.customerID
JOIN Payment P ON L.leaseID = P.leaseID
GROUP BY C.customerID, C.firstName, C.lastName;

```

	customerID	firstName	lastName	totalPayments
1	2	Jane	Smith	1000.00
2	3	Robert	Johnson	1355.00
3	4	Sarah	Brown	900.00
4	5	David	Lee	60.00
5	7	Michael	Davis	40.00
6	8	Emma	Wilson	1100.00
7	10	Olivia	Adams	1500.00

15. List Car Details for Each Lease.

```

SELECT L.leaseID, V.*
FROM Lease L
JOIN Vehicle V ON L.vehicleID = V.vehicleID;

```

	leaseID	vehicleID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity
1	2	2	Honda	Civic	2023	45.00	available	7	1500
2	3	3	Ford	Focus	2022	48.00	notAvailable	4	1400
3	4	4	Nissan	Altima	2023	52.00	available	7	1200
4	5	5	Chevrolet	Malibu	2022	47.00	available	4	1800
5	6	4	Nissan	Altima	2023	52.00	available	7	1200
6	7	7	BMW	3 Series	2023	60.00	available	7	2499
7	8	8	Mercedes	C-Class	2022	68.00	available	8	2599
8	9	3	Ford	Focus	2022	48.00	notAvailable	4	1400
9	10	10	Lexus	ES	2023	54.00	available	4	2500

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

SQLQuery8.sql - s...HYA\SAHITHYA (65)* SQLQuery7.sql - not connected* Sahithya.SISDB - Diagram_1* SQLQuery6.sql - not connected*

```

DECLARE @CurrentDate DATE = CAST(GETDATE() AS DATE);

-- Retrieve details of active leases with customer and car information
SELECT
    C.customerID,
    C.firstName,
    C.lastName,
    C.email,
    C.phoneNumber,
    V.vehicleID,
    V.make,
    V.model,
    V.year,
    V.dailyRate,
    V.status,
    L.leaseID,
    L.startDate,
    L.endDate,
    L.type AS leaseType
FROM Lease L
JOIN Customer C ON L.customerID = C.customerID
JOIN Vehicle V ON L.vehicleID = V.vehicleID
WHERE L.endDate >= @CurrentDate;

```

100 %

Results Messages

	customerID	firstName	lastName	email	phoneNumber	vehicleID	make	model	year	dailyRate	status	leaseID	startDate	endDate	leaseType
1	2	Jane	Smith	janesmith@example.com	555-123-4567	2	Honda	Civic	2023	45.00	available	2	2023-02-15	2025-03-19	Monthly
2	3	Robert	Johnson	robert@example.com	555-789-1234	3	Ford	Focus	2022	48.00	notAvailable	3	2023-03-10	2025-03-19	Daily
3	4	Sarah	Brown	sarah@example.com	555-456-7890	4	Nissan	Altima	2023	52.00	available	4	2023-04-20	2025-03-19	Monthly
4	5	David	Lee	david@example.com	555-987-6543	5	Chevrolet	Malibu	2022	47.00	available	5	2023-05-05	2025-03-19	Daily
5	3	Robert	Johnson	robert@example.com	555-789-1234	4	Nissan	Altima	2023	52.00	available	6	2023-06-15	2025-03-19	Monthly
6	7	Michael	Davis	michael@example.com	555-876-5432	7	BMW	3 Series	2023	60.00	available	7	2023-07-01	2025-03-19	Daily
7	8	Emma	Wilson	emma@example.com	555-432-1098	8	Mercedes	C-Class	2022	68.00	available	8	2023-08-12	2025-03-19	Monthly
8	3	Robert	Johnson	robert@example.com	555-789-1234	3	Ford	Focus	2022	48.00	notAvailable	9	2023-09-07	2025-03-19	Daily
9	10	Olivia	Adams	olivia@example.com	555-765-4321	10	Lexus	ES	2023	54.00	available	10	2023-10-10	2025-03-19	Monthly

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

```

SELECT TOP 1 C.customerID, C.firstName, C.lastName, SUM(P.amount) AS totalSpent
FROM Customer C
JOIN Lease L ON C.customerID = L.customerID
JOIN Payment P ON L.leaseID = P.leaseID
GROUP BY C.customerID, C.firstName, C.lastName
ORDER BY totalSpent DESC;

```

100 %

Results Messages

	customerID	firstName	lastName	totalSpent
1	10	Olivia	Adams	1500.00

18. List All Cars with Their Current Lease Information.

```

SELECT V.vehicleID, V.make, V.model, V.year, V.dailyRate, V.status, V.passengerCapacity, V.engineCapacity,
    L.leaseID, L.customerID, L.startDate, L.endDate, L.type AS leaseType
FROM Vehicle V
LEFT JOIN Lease L ON V.vehicleID = L.vehicleID AND L.endDate >= GETDATE();

```

100 %

Results Messages

	vehicleID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity	leaseID	customerID	startDate	endDate	leaseType
1	1	Toyota	Camry	2022	50.00	available	4	1450	NULL	NULL	NULL	NULL	NULL
2	2	Honda	Civic	2023	45.00	available	7	1500	NULL	NULL	NULL	NULL	NULL
3	3	Ford	Focus	2022	48.00	notAvailable	4	1400	NULL	NULL	NULL	NULL	NULL
4	4	Nissan	Altima	2023	52.00	available	7	1200	NULL	NULL	NULL	NULL	NULL
5	5	Chevrolet	Malibu	2022	47.00	available	4	1800	NULL	NULL	NULL	NULL	NULL
6	6	Hyundai	Sonata	2023	49.00	notAvailable	7	1400	NULL	NULL	NULL	NULL	NULL
7	7	BMW	3 Series	2023	60.00	available	7	2499	NULL	NULL	NULL	NULL	NULL
8	8	Mercedes	C-Class	2022	68.00	available	8	2599	NULL	NULL	NULL	NULL	NULL
9	9	Audi	A4	2022	55.00	notAvailable	4	2500	NULL	NULL	NULL	NULL	NULL
10	10	Lexus	ES	2023	54.00	available	4	2500	NULL	NULL	NULL	NULL	NULL