**CODING CHALLENGE 4**

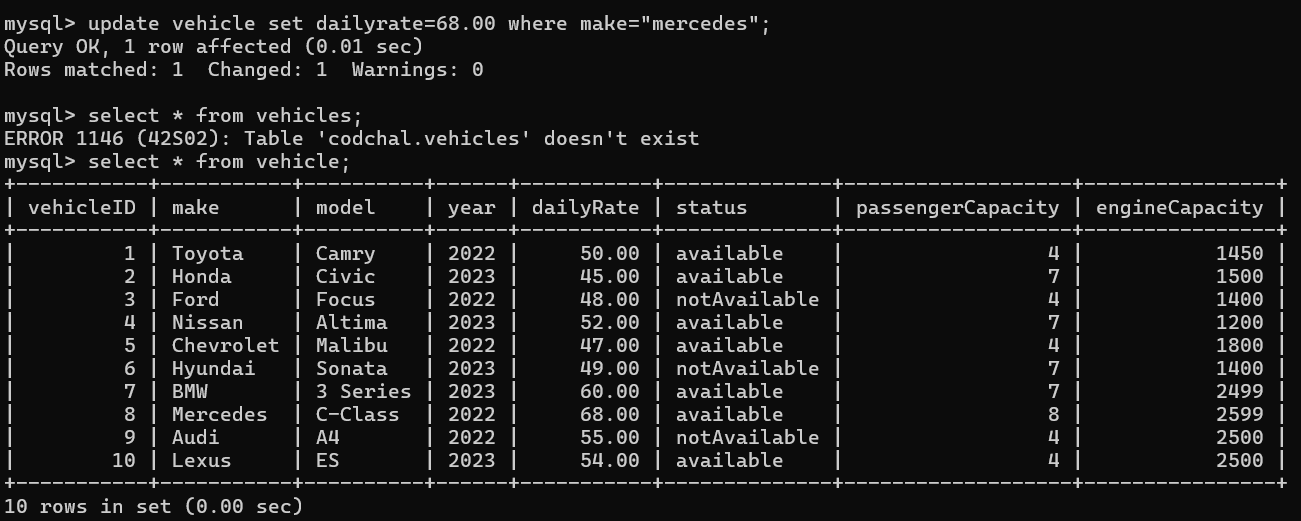
1. **1. Update the daily rate for a Mercedes car to 68.**

**Query:** update vehicle

set dailyrate=68.00

where make="mercedes";

**Output:**



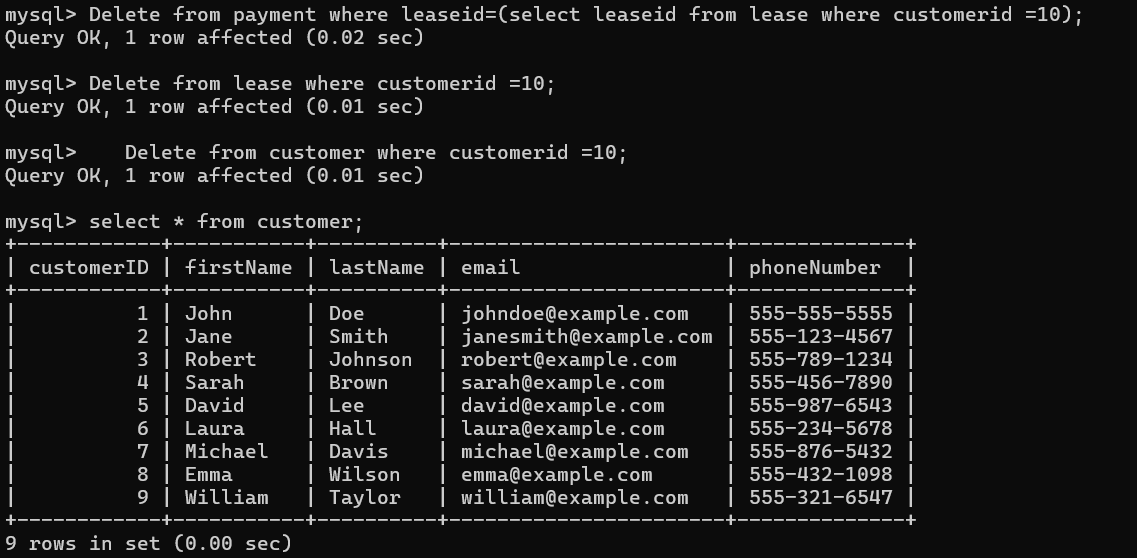
1. **Delete a specific customer and all associated leases and payments.**

**Query:** i) Delete from payment where leaseid=(select leaseid from lease where customerid =10);

ii) Delete from lease where customerid =10;

iii) Delete from customer where customerid =10;

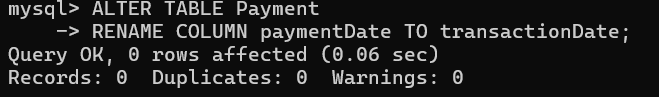
**Output:**

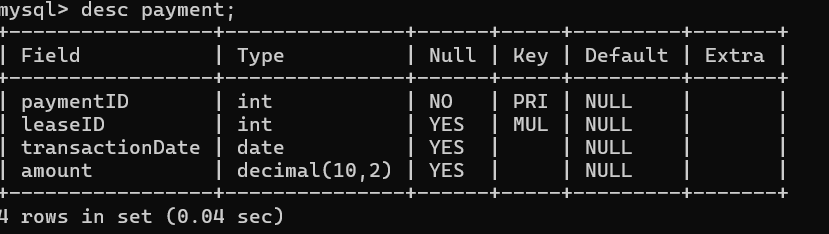
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**3) Rename the "paymentDate" column in the Payment table to "transactionDate".**

**Query:** alter table payment rename column "paymentDate" to "transactionDate";

**Output:**

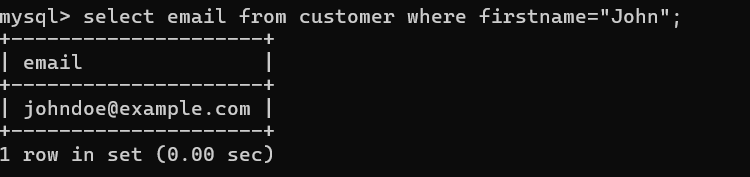




1. **Find a specific customer by email.**

**Query:** select email from customer where firstname="John";

**Output:**

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1. **Get active leases for a specific customer.**

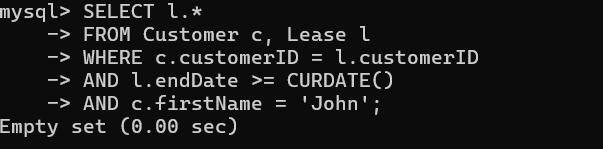
**Query:** select l.\* from customer c, lease l

where c.customerid = l.customerid

and l.enddate >= curdate()

and c.firstname = 'john';

**Output:**

****

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

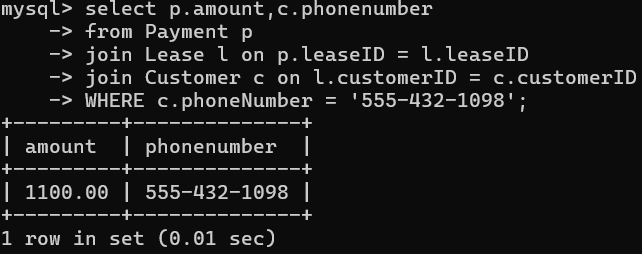
**Query:** select p.amount,c.phonenumber from Payment p

join Lease l on p.leaseID = l.leaseID

join Customer c on l.customerID = c.customerID

WHERE c.phoneNumber = '555-432-1098';

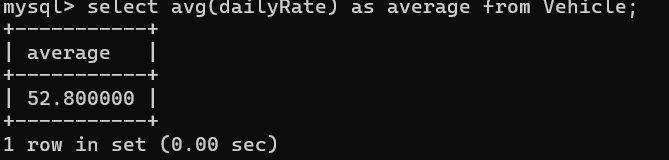
**Output:**

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1. **Calculate the average daily rate of all available cars**

**Query:** select avg(dailyrate) as average from Vehicle;

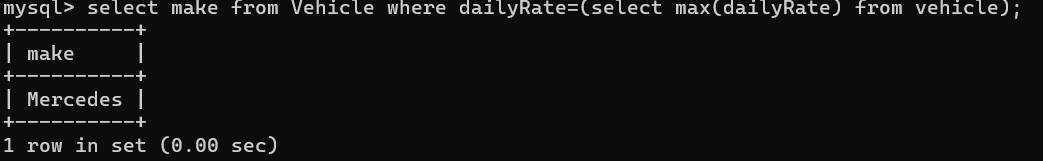
**Output:**

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1. **Find the car with the highest daily rate.**

**Query:** select make from Vehicle where dailyRate=(select max(dailyRate) from vehile);

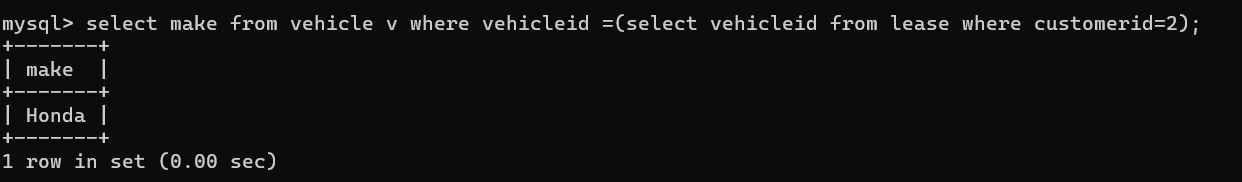
**Output:**

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1. **Retrieve all cars leased by a specific customer.**

**Query:** select make from vehicle v where vehicleid =(select vehicleid from lease where customerid=2);

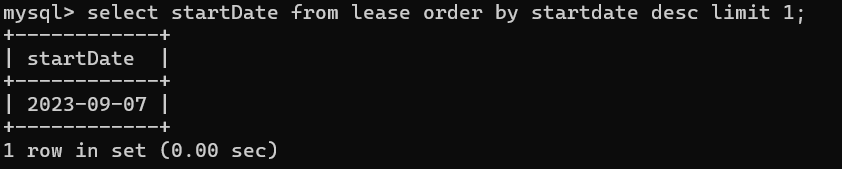
**Output:**

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1. **Find the details of the most recent lease**

**Query:** select startdate from lease order by startdate desc limit 1;

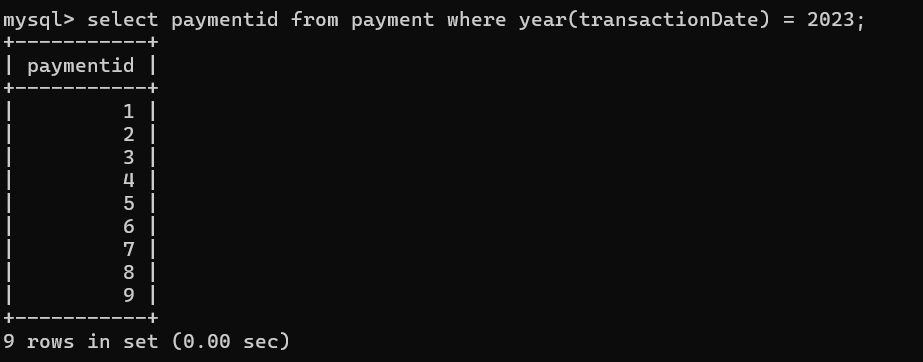
**Output:**

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1. **List all payments made in the year 2023.**

**Query:** select paymentid from payment where year(transactiontDate) = 2023;

**Output:**

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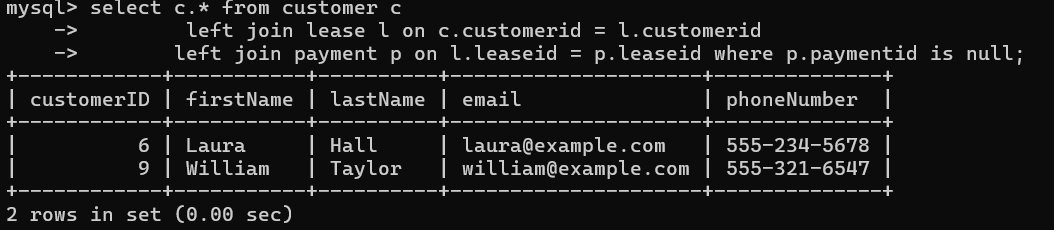
1. **Retrieve customers who have not made any payments.**

**Query:** select c.\* from customer c

left join lease l on c.customerid = l.customerid

left join payment p on l.leaseid = p.leaseid where p.paymentid is null;

**Output:**

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1. **. Retrieve Car Details and Their Total Payments.**

**Query:** select v.\*, sum(p.amount)as total\_payments

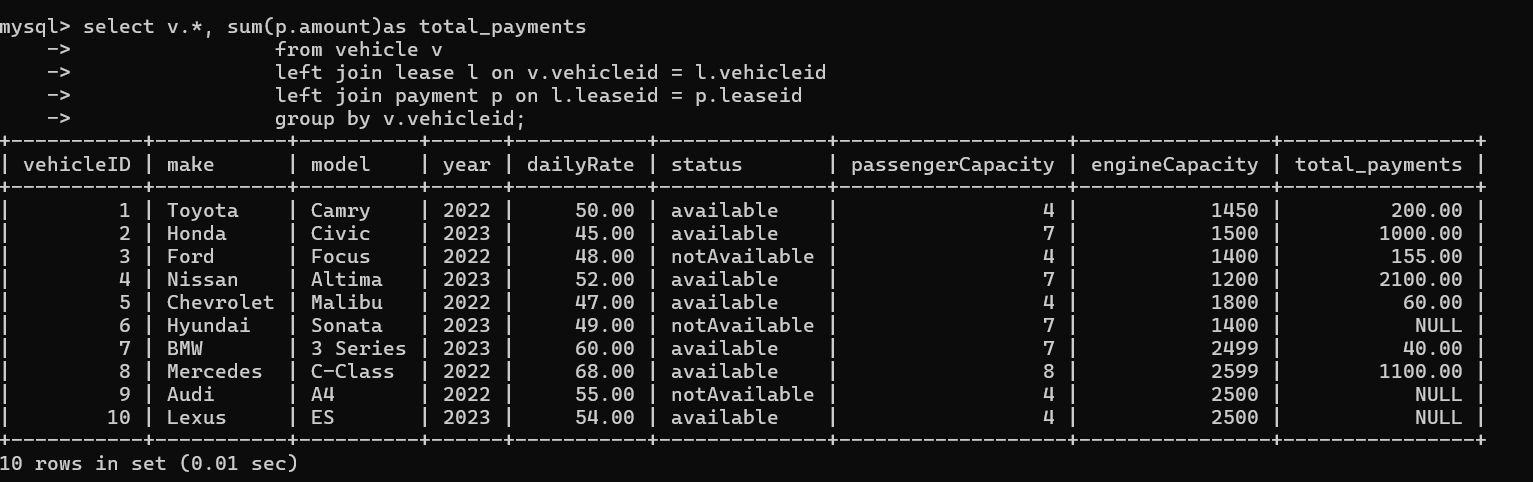
from vehicle v

left join lease l on v.vehicleid = l.vehicleid

left join payment p on l.leaseid = p.leaseid

group by v.vehicleid;

**Output:**

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1. **Calculate Total Payments for Each Customer**

**Query:** select c.\*, sum(p.amount)

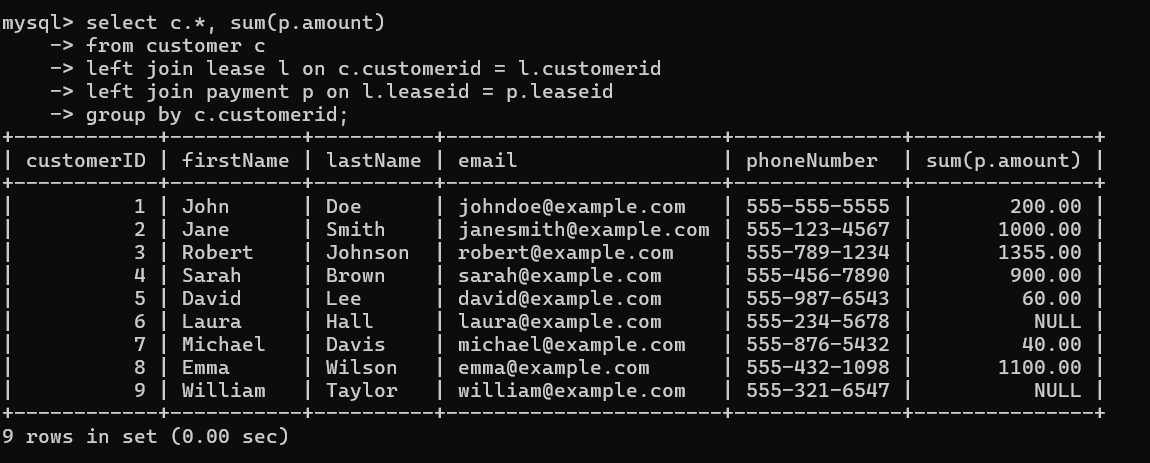
from customer c

left join lease l on c.customerid = l.customerid

left join payment p on l.leaseid = p.leaseid

group by c.customerid;

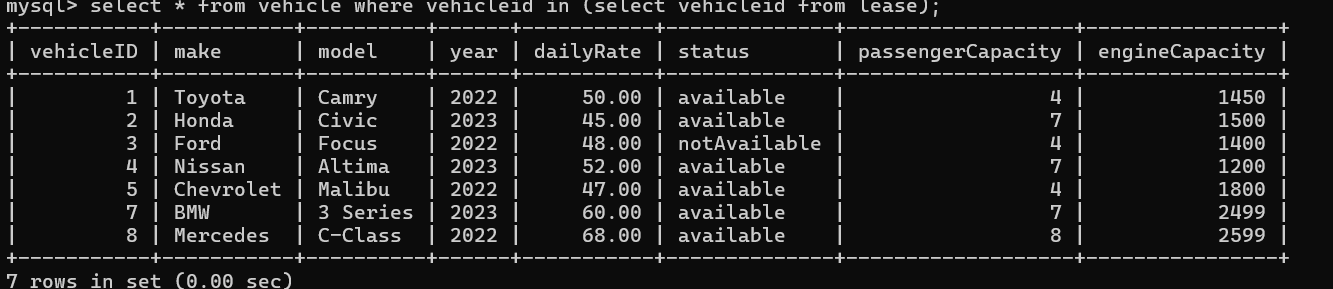
**Output:**

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1. **. List Car Details for Each Lease.**

**Query:** select \* from vehicle where vehicleid in (select vehicleid from lease);

**Output:**

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1. **. Retrieve Details of Active Leases with Customer and Car Information.**

**Query:** select \* from vehicle where vehicleid in(select vehicleid from leases where endDate >= curdate());

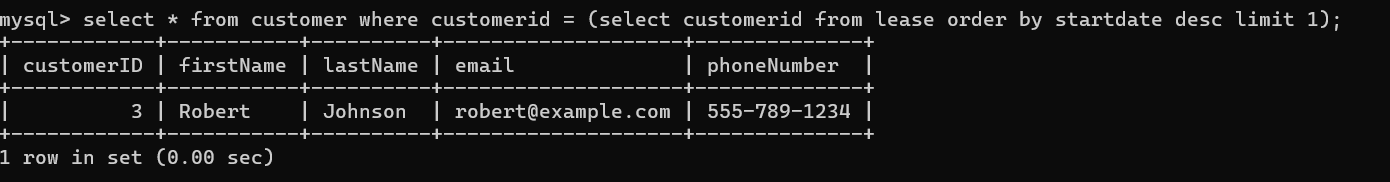
**Output:**

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

**Query:** select \* from customer where customerid = (select customerid from lease order by startdate desc limit 1);

**Output:**

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1. **List All Cars with Their Current Lease Information**

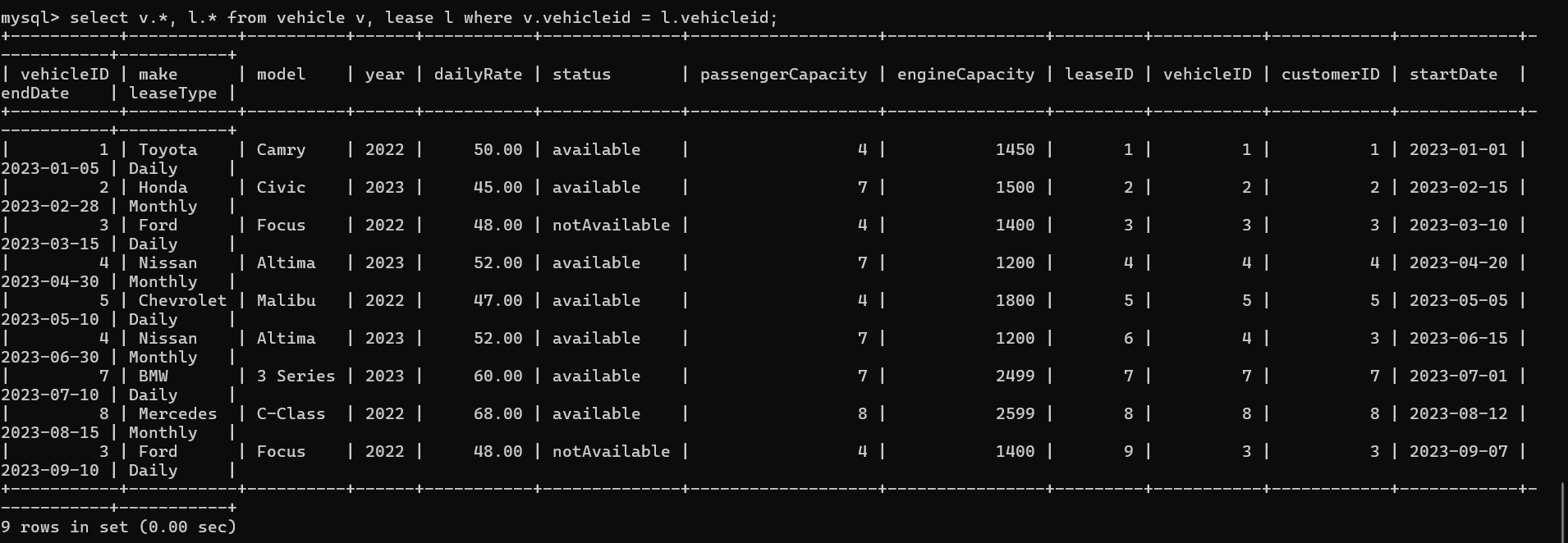
**Query**: select v.\*, l.\* from vehicle v, lease l where v.vehicleid = l.vehicleid;

**(or)**

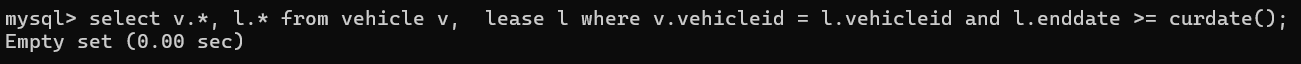
select v.\*, l.\* from vehicle v, lease l where v.vehicleid = l.vehicleid

and l.enddate >= curdate() ;

**Output:**

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**(or)**

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