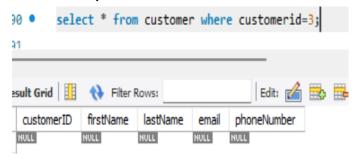
## **SQL CODING CHALLENGE: CAR RENTAL SYSTEM**

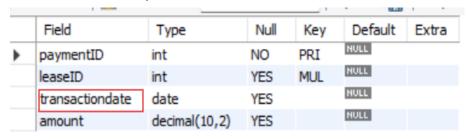
1. Update vehicle set dailyrate=68 where make='Mercedes';



2. Delete p,l,c from customer c left join lease I on c.customerid=l.customerid left join payement p on l.leaseid=p.leaseid where c.customerid=3;



3.Alter table payment rename column paymentdate to transactiondate;



4. Select \* from customer where email='david@example.com';



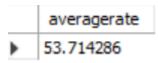
5.Select \* from leases where customerid=7 and enddate>=CURRENT\_DATE;



6.Select p.\* from payment p join lease I on p.leaseid=I.leaseid join customer c on I.customerid=c.customerid where c.phonenumber='555-555-5555';

	paymentID	leaseID	transactiondate	amount
•	1	1	2023-01-03	250.00

7.Select avg(dailyrate) as averagerate from vehicle where available=1;



8.Select \* from vehicle where dailyrate=(select max(dailyrate) from vehicle);

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

9.Select v.\* from vehicle v join lease I on v.vehicleId=I.vehicleid where I.customerid=5;

vehideID	make	model	year	dailyRate	status	passengerCapacity	engineCapacity
5	Chevrolet	Malibu	2022	47.00	available	4	1800

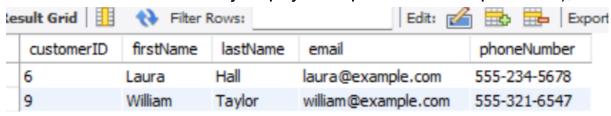
10. Select \* from lease order by enddate desc limit 1;

			_					
	leaseID	vehicleID	customerID	startDate	endDate	type		
•	10	10	10	2023-10-10	2023-10-31	Monthly		

11. Select \* from payment where YEAR(transactiondate)=2023;

	paymentID	leaseID	transactiondate	amount
•	1	1	2023-01-03	250.00
	2	2	2023-02-20	1200.00
	4	4	2023-04-25	1040.00
	5	5	2023-05-07	235.00
	7	7	2023-07-03	600.00

12.Select \* from customers where customerid not in(select Distinct l.customerid from lease l join payment p on l.leaseid=p.leaseid);



13.select v.vehicleid,v.make,v.model,sum(p.amount) as totalpayment from vehicle v join lease I on v.vehicleid=I.vehicleid join payment p on I.leaseid=p.leaseid group by v.vehicleid,v.make,v.model;

			model	totalpayment
•	1	Toyota	Camry	250.00
	2	Honda	Civic	1200.00
	4	Nissan	Altima	1040.00
	5	Chevrolet	Malibu	235.00
	7	BMW	3 Series	600.00

14. Select c.customerid,c.firstname,c.lastname,sum(p.amount) as total from customer c join lease I on c.customerid=I.customerid join payment p on I.leaseid=p.leaseid group by c.customerid,c.firstname,c.lastname;

	customerid	firstname	lastname	total
•	1	John	Doe	250.00
	2	Jane	Smith	1200.00
	4	Sarah	Brown	1040.00
	5	David	Lee	235.00
	7	Michael	Davis	600.00

15. Select I. leaseid, v. make, v. model, I. startdate, I. enddate, I. type from lease I join vehicle v on I. vehicleid=v. vehicleid;

	leaseid	make	model	startdate	enddate	type
٠	1	Toyota	Camry	2023-01-01	2023-01-05	Daily
	2	Honda	Civic	2023-02-15	2023-02-28	Monthly
	4	Nissan	Altima	2023-04-20	2023-04-30	Monthly
	5	Chevrolet	Malibu	2023-05-05	2023-05-10	Daily
	7	BMW	3 Series	2023-07-01	2023-07-10	Daily
Res	ult 22 😾					

16.Select I.leaseid,c.firstname,c.lastname,v.make,v.model, L.startdate,I.enddate from lease I join customer c on I.customerid=c.customerid join vehicle v on I.vehicleid=v.vehicleid where I.enddate>=CURRENT\_DATE;



17.Select c.customerid,c.firstname,c.lastname,sum(p.amount) as expense from customer c join lease I on c.customerid=I.customerid join payment p on I.leaseid=p.leaseid group by c.customerid,c.firstname,c.lastname order by expense desc limit 1;



18. Select v.vehicleid,v.make,v.model,l.leaseid,l.startdate, l.enddate,c.firstname,c.lastname from vehicle v left join lease I on v.vehicleid=I.vehicleid left join customer c on l.customerid=c.customerid where l.enddate>=CURRENT\_DATE or l.leaseid is null;

