



# OMIS 452 – KISHEN'S CARS

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# CONTENTS + PROJECT STATEMENT

## Why Are We Working With Kishen's Cars?

Kishen's Cars must store data on payrolls, purchases, employees, customers, and repairs for efficient operations and accurate financial reporting for growth tracking and investor transparency.

This is why the company is moving to update its database system in order to increase the efficiency of each individual KCD, and maintain its position in the market.

01

### Project Description

Background of our project, detailing our company and its business model.

02

### Entities

A list of data objects and their relationships between each other.

03

### ER Diagram

A flowchart that illustrates the entities and their relationships.

04

### Tables and Queries on SQL

Entities with their rows of data, as well as 4-5 queries.

05

### Open Forum

A chance to answer questions.

# COMPANY BACKGROUND

- Kishen's Cars is a national car dealership, which was founded in 2021 and based in Long Beach, California.
- 20 dealership locations all over the nation, spanning from West Coast to East Coast.
- Kishen's Cars prides themselves on selling cars using a genuine, down-to-earth, selling approach.
- Each dealership houses 10 employees, totaling 200 employees nationwide.
  - 1 Manager, 4 salesmen, 4 mechanics, and 1 mechanic team lead.
- Each dealership has 20 cars in their lot, ready to sell.
  - The company recently expanded to include FREE repairs for loyal customers.
- Each customer is also available to leave reviews on their car (score out of 5) as well as a description, which is optional.



# MAIN BUSINESS MODEL

- As stated in the previous slide, each Kishen's Cars dealership houses 20 cars (various makes and models).
  - The number of cars sold each day is replaced at the end of the day, so every new day starts with 20 cars.
- Each car is identified by:
  - Vehicle Identification Number (VIN)
  - Customer ID
  - Car Purchase ID
  - Make
  - Model
  - Color
  - Dealership it is stored in
- Car payments can be paid in full or through payment plans.
  - Payment plans are tracked with a table.
  - Each separate payment is given a unique ID alongside the date in which the payment was made.





# MECHANIC MODEL

- Kishen's Cars recently expanded to also hire and provide mechanics for customers (introduced in 2023).
  - After a customer purchases a car, they are given free simple maintenance for the car's lifetime (wow)!
  - The repairs are limited to small jobs such as oil changes, tire repairs, and headlight cleaning.
- For a repair to be made, the customer must book an appointment with their nearest KC Dealership.
  - Once booked, a mechanic will be assigned to the appointment.
    - All KCD mechanics can work with any type of car.
  - Mechanic Team Leads buy parts necessary for the appointment, which are free of charge to the customer.



# PAYROLL

- The manager takes care of the payroll, which is comprised of tables for each position.
- Each manager at a KC Dealership would only have to worry about 10 unique employees and their hours.
  - 1 manager, 4 salesmen, 4 mechanics, and 1 mechanic team lead
- The payrolls are sent to the CFO, who reports the hourly pay and records it in the National KC Dealership balance sheet.
- Attached to the right is a sample of the payroll.

## Employee Payroll Report (01 Jul-15 Jul)

[Employees](#) > Employee Payroll Report

Pay Period:

[Refresh](#)

[Recalculate commissions now](#)

Report was refreshed on 7/5/2014 at 10:21:53 PM

CODE	NAME	SALARY	TOTAL HOURLY PAY	COMMISSION
SB010	<a href="#">Aaron King</a>	\$ 500.00	\$ 0.00	\$ 250.00
SB023	<a href="#">Acor Carter</a>	\$ 450.00	\$ 0.00	\$ 123.10
SB009	<a href="#">Albert Martinez</a>	\$ 500.00	\$ 0.00	\$ 322.25
SB023	<a href="#">Ralph Lauren</a>	\$ 475.00	\$ 0.00	\$ 255.33
SB027	<a href="#">Julie Tasma</a>	\$ 600.00	\$ 0.00	\$ 101.50
SB045	<a href="#">Brittany Hobs</a>	\$ 460.00	\$ 0.00	\$ 411.67
SB006	<a href="#">Harry Bright</a>	\$ 300.00	\$ 0.00	\$ 150.00
SB001	<a href="#">Harry Kim</a>	\$ 525.00	\$ 0.00	\$ 121.67
SB011	<a href="#">Iain Horne</a>	\$ 600.00	\$ 0.00	\$ 150.00



# ENTITIES

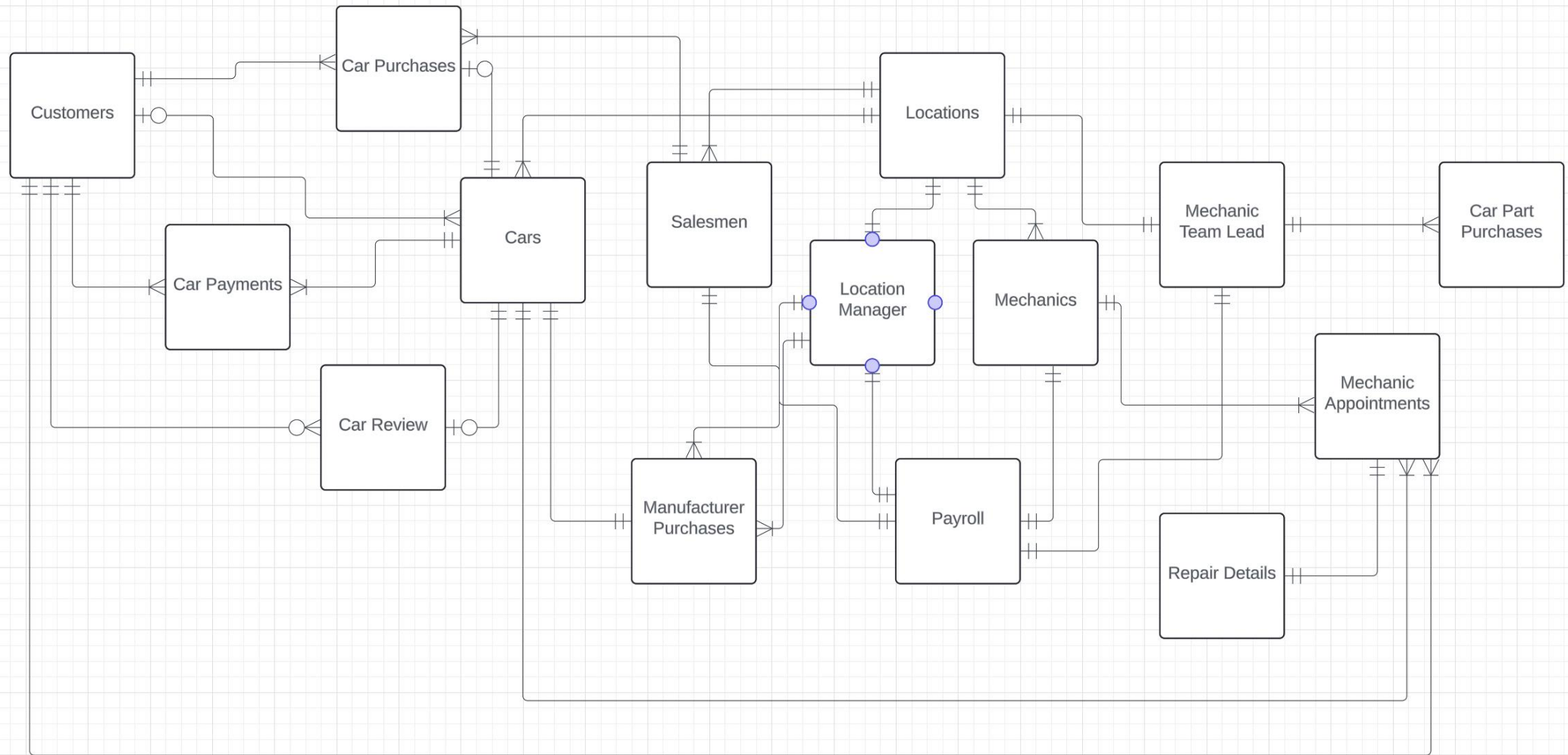
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- After discussing the company background and logistics, we can move onto the databases.
- Listed below are 15 entities, all related to the business surrounding the company.

Payroll   Salesmen   Cars   Customers   Car Purchases  
Manufacturer Purchases   Car Payments   Locations   Mechanics  
Appointments   Mechanic Team Lead   Repair Details   Location  
Manager   Car Part Purchases   Car Review

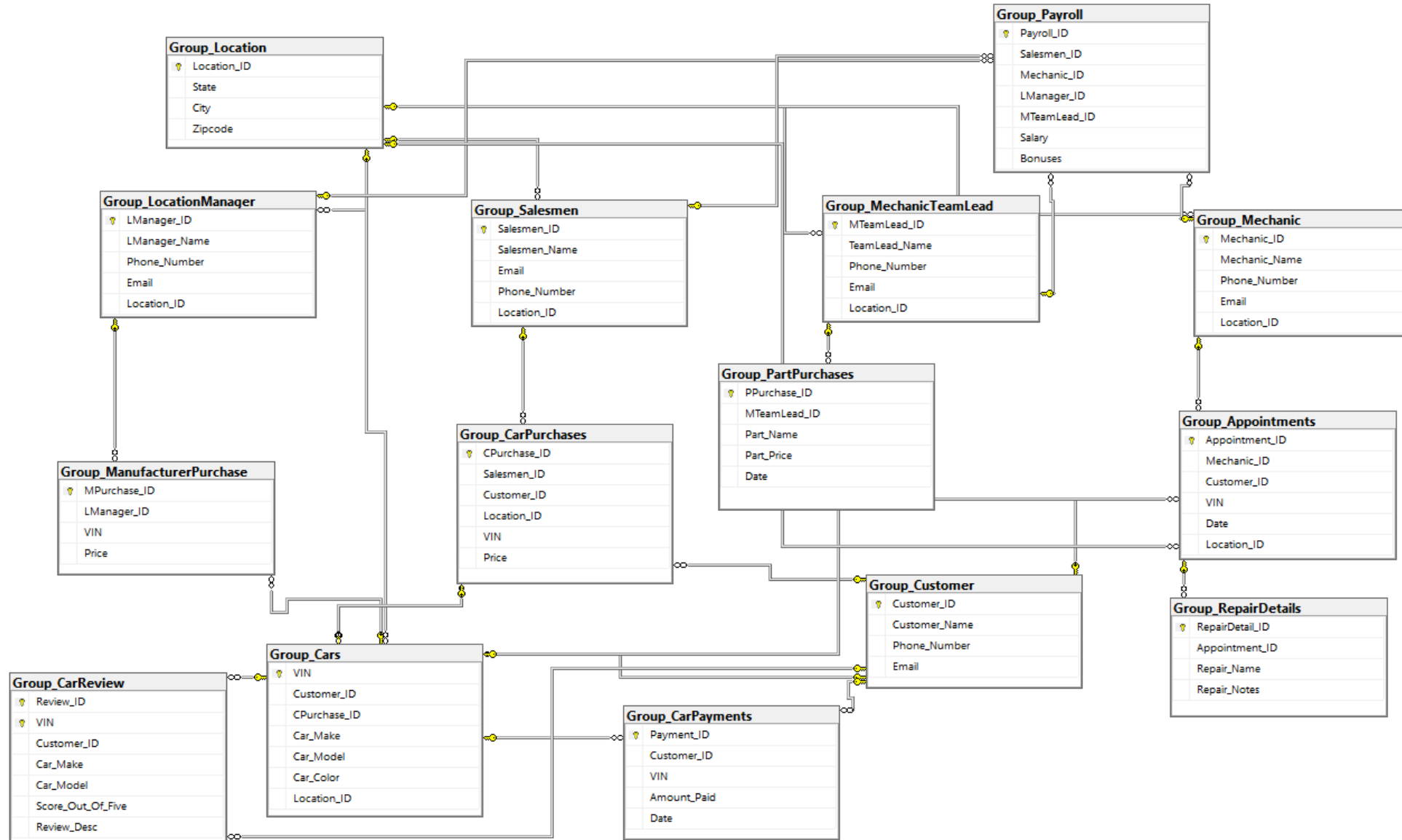
- We will discuss their relationships further, as well as basic queries.

# ER DIAGRAM





# DATABASE DIAGRAM



# QUERIES

```
SELECT Mechanic_Name FROM Group_Mechanic WHERE Mechanic_ID IN (SELECT Mechanic_ID FROM Group_Appointments WHERE VIN = '1J8GR48K38C188128')  
SELECT VIN, Car_Make, Car_Model FROM Group_Cars WHERE VIN NOT IN (SELECT VIN FROM Group_CarPurchases)  
SELECT LManager_Name FROM Group_LocationManager WHERE LManager_ID IN (SELECT LManager_ID FROM Group_Payroll WHERE Salary > 5000)  
SELECT s.Salesmen_Name, p.Salary, p.Bonuses, (p.Salary + p.Bonuses) AS Full_Income FROM Group_Payroll p, Group_Salesmen s WHERE s.Salesmen_ID = p.Salesmen_ID
```

100 %

Results Messages

	Mechanic_Name
1	Coby White
2	Zach Lavine



# QUERIES

```
SELECT Mechanic_Name FROM Group_Mechanic WHERE Mechanic_ID IN (SELECT Mechanic_ID FROM Group_Appointments WHERE VIN = '1J8GR48K38C188128')
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```

100 %

Results Messages

	VIN	Car_Make	Car_Model
1	1C3BC4FGXBN588656	Lamborghini	Veneno
2	3HSCNAPR75N056872	McLaren	F1

# QUERIES

```
SELECT Mechanic_Name FROM Group_Mechanic WHERE Mechanic_ID IN (SELECT Mechanic_ID FROM Group_Appointments WHERE VIN = '1J8GR48K38C188128')
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```

100 %

Results Messages

	LManager_Name
1	Dennis Huang



# QUERIES

```
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```

100 %

Results Messages

	Salesmen_Name	Salary	Bonuses	Full_Income
1	Anthony Edwards	5000	1000	6000
2	Karl Towns	5000	1500	6500

# OPEN FORUM

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Any Questions?