Queries:

1. Give the name of the plant head where the Car model **'Accelero Voyager'** is produced.

```
SELECT DISTINCT PH.H_NAME AS Plant_Head_Name
FROM PLANT_HEAD PH
JOIN PLANT_PRODUCES PP ON PH.PLANT_NO = PP.PLANT_NO
JOIN CAR_MODEL CM ON PP.CAR_MODEL_ID = CM.CAR_MODEL_ID
WHERE CM.MODEL_NAME = 'Accelero Voyager';
```

	plant_head_name character varying (20)
1	Subramaniam

2. Give the name and id of the supplier who supplies both '**brake pad and tiers'**.

```
SELECT s.SUPPLIER_ID,s.SUPPLIER_NAME
FROM SUPPLIER s
JOIN SUPPLIES_PARTS sp1 ON s.SUPPLIER_ID = sp1.SUPPLIER_ID
JOIN SUPPLIES_PARTS sp2 ON s.SUPPLIER_ID = sp2.SUPPLIER_ID
JOIN PARTS p1 ON sp1.PART_ID = p1.PART_ID
JOIN PARTS p2 ON sp2.PART_ID = p2.PART_ID
WHERE p1.PART_NAME = 'Brake Pads'
AND p2.PART_NAME = 'Tires';
```

	supplier_id [PK] character varying (20)	supplier_name character varying (50)
1	S02	Jani Traders
2	S05	Lnt Suppliers

3. Give customer ID and name who purchases car which has worth more than 24 lakhs (including the discount).

```
SELECT C.CUSTOMER_ID, C.CUSTOMER_NAME, (ST.CAR_AMOUNT - ST.DISCOUNT_AMOUNT) AS
PAID_AMOUNT
FROM SELLS_TO ST
JOIN CUSTOMER C ON ST.CUSTOMER_ID = C.CUSTOMER_ID
WHERE (ST.CAR_AMOUNT - COALESCE(ST.DISCOUNT_AMOUNT, 0)) > 2400000;
```

	customer_id [PK] character varying (20)	customer_name character varying (50)	paid_amount numeric
1	C003	Arun Kumar	2555000.00
2	C013	PM Jat	2500000.00
3	C015	Anjali Kaur	2670000.00

4. Give the total amount paid by manufacturer by ordering parts from Gujarat for all the cars.

```
SELECT SUM(ot.TOTAL_AMOUNT) AS TOTAL_AMOUNT_PAID
FROM ORDER_TRANSACTIONS ot
JOIN ORDER_OF_MANUFACTURER om ON ot.ORDER_NO = om.ORDER_NO
JOIN MANUFACTURER m ON om.M_ID = m.M_ID
WHERE m.COUNTRY = 'India' AND m.STATE = 'Gujarat'
```

	total_amount_paid numeric
1	3030120.00

5. Find out the average selling price of cars by dealers to customers.

```
SELECT SUM(st.car_amount - st.DISCOUNT_AMOUNT) / COUNT(*) AS
average_selling_price
FROM SELLS_TO st;
```

	average_selling_price numeric
1	2316966.666666666667

6. Find the ID and name of the dealer who sold the most expensive car.

```
SELECT s.DEALER_ID, d.DEALER_NAME
FROM SELLS_TO s
JOIN DEALER d ON s.DEALER_ID = d.DEALER_ID
JOIN (
    SELECT MAX(CAR_AMOUNT) AS MAX_CAR_AMOUNT
    FROM SELLS_TO
) max_amt ON s.CAR_AMOUNT = max_amt.MAX_CAR_AMOUNT;
```

	dealer_id character varying (20)	dealer_name character varying (50)
1	D005	Nirvana Motors

7. Find the name and ID of car models that do not pass all the tests along with the name of the test which the car fails to pass.

```
SELECT cm.CAR_MODEL_ID, cm.MODEL_NAME, ct.TEST_NAME
FROM CAR_MODEL cm
JOIN CAR_TEST ct ON cm.CAR_MODEL_ID = ct.CAR_MODEL_ID
WHERE (cm.CAR_MODEL_ID, ct.TEST_NAME) NOT IN (
    SELECT CAR_MODEL_ID, TEST_NAME
    FROM CAR_TEST
    WHERE RESULT = 'Y'
);
```

	car_model_id character varying (20)	model_name character varying (25)	test_name character varying (20)
1	CM003	Accelero Luxor	Quality Test
2	CM00005	Accelero Aurora	Endurance Test

8. Calculate Total revenue of dealer generated by selling Accelero Avant

```
SELECT SUM(ST.CAR_AMOUNT-ST.DISCOUNT_AMOUNT) AS TOTAL_REVENUE
FROM SELLS_TO ST
JOIN CAR_MODEL CM ON ST.CAR_MODEL_ID = CM.CAR_MODEL_ID
WHERE CM.MODEL_NAME = 'Accelero Avant';
```

	total_revenue numeric
1	8748000.00

9. Give the list of Suppliers with name and ID who do not outsource parts from any other suppliers (i.e., they directly supply to the manufacturer).

```
SELECT DISTINCT s.SUPPLIER_NAME,s.SUPPLIER_ID
FROM SUPPLIER s
```

```
WHERE s.SUPPLIER_ID NOT IN (
    SELECT DISTINCT ORDERING_SUPPLIER
    FROM ORDERS_OF_SUPPLIER
);
```

	supplier_name character varying (50)	supplier_id [PK] character varying (20)
1	Global Imports	S03
2	Delhi Enterprises	S13
3	Chauhan Enterprises	S01
4	Bansi Traders	S14
5	Rajasthan Exports	S15
6	Canada Connections	S09
7	Dynamic Distributors	S04

10. Find the plant number which produced most no of cars before 2022-12-31 also give qty of cars.

```
SELECT PLANT_NO, COUNT(*) AS TOTAL_CARS_PRODUCED
FROM PLANT_PRODUCES
WHERE END_DATE <= '2022-12-31'
GROUP BY PLANT_NO
ORDER BY TOTAL_CARS_PRODUCED DESC
LIMIT 1;
```

	plant_no character varying (20)	total_cars_produced bigint
1	PN01	3

11. Calculate state-wise cars sold by dealer.

```
SELECT C.STATE, COUNT(DISTINCT OBO.CAR_MODEL_ID) AS "Number of Car Models Sold"
FROM ORDER_OF_MANUFACTURER OOM
JOIN ORDER_BASED_ON OBO ON OOM.ORDER_NO = OBO.ORDER_NO
JOIN CAR_MODEL CM ON OBO.CAR_MODEL_ID = CM.CAR_MODEL_ID
JOIN SELLS_TO ST ON CM.CAR_MODEL_ID = ST.CAR_MODEL_ID
JOIN CUSTOMER C ON ST.CUSTOMER_ID = C.CUSTOMER_ID
GROUP BY C.STATE;
```

	state character varying (30)	Number of Car Models Sold bigint
1	Andhra Pradesh	1
2	Delhi	1
3	Goa	1
4	Gujarat	2
5	Karnataka	1
6	Maharashtra	1
7	Meghalaya	1
8	Mizoram	1
9	Punjab	1
10	Rajasthan	1
11	Sikkim	1
12	Tamil Nadu	1
13	Telangana	1
14	Uttar Pradesh	1

12. Give the name and Id of the most profitable dealer for manufacture

```
SELECT d.DEALER_ID, d.DEALER_NAME, SUM(dof.TOTAL_AMOUNT) AS TOTAL_SALES_AMOUNT
FROM DEALER d
JOIN DEALER_ORDER_FOR dof ON d.DEALER_ID = dof.DEALER_ID
WHERE d.DEALS_WITH_M_ID = 'M01'
GROUP BY d.DEALER_ID, d.DEALER_NAME
ORDER BY TOTAL_SALES_AMOUNT DESC
LIMIT 1;
```

	dealer_id [PK] character varying (20)	dealer_name character varying (50)	total_sales_amount numeric
1	D004	Royal Cars	3533820.00

13. Calculate how many orders are required for car_model_id CM1.

```
SELECT COUNT(*) AS order_count
FROM ORDER_BASED_ON
WHERE car_model_id = 'CM1';
```

	order_count bigint
1	11

14. From duration of January 2023 to March 2024 give how many order of seats done by manufacturer and also give the total money spent on it.

```
SELECT SUM(CAST(OFp.QUANTITY AS INTEGER)) AS TOTAL_QUANTITY_ORDERED,
       SUM(CAST(OFp.QUANTITY AS INTEGER) * P.UNIT_PRICE) AS TOTAL_PRICE
FROM ORDER_FOR_PARTS OFp
JOIN ORDER_OF_MANUFACTURER OOM ON OFp.ORDER_NO = OOM.ORDER_NO
JOIN PARTS P ON OFp.PART_ID = P.PART_ID
WHERE P.PART_NAME = 'Car Seats'
AND OOM.PLACING_DATE >= DATE '2023-01-01'
AND OOM.PLACING_DATE < DATE '2024-04-01';
```

	total_quantity_ordered bigint	total_price numeric
1	180	1260000.00

15. Provide the number of cars are sold in 2023 by each car model name.

```
SELECT CAR_MODEL.MODEL_NAME, COUNT(*) AS TotalSales
FROM SELLS_TO
JOIN CAR_MODEL ON SELLS_TO.CAR_MODEL_ID = CAR_MODEL.CAR_MODEL_ID
WHERE EXTRACT(YEAR FROM SELLS_TO.SELLING_DATE) = 2023
GROUP BY CAR_MODEL.MODEL_NAME
ORDER BY TotalSales DESC;
```

	model_name character varying (25)	totalsales bigint
1	Accelero Luxor	3
2	Accelero Apex	2
3	Accelero Urbanite	2
4	Accelero Aurora	1
5	Accelero Avant	1
6	Accelero Voyager	1

16. Give the plant head name and contact no for plant which is located in **'Chennai'.**

```
SELECT PH.H_NAME AS PLANT_HEAD_NAME, PH.CONTACT_NO AS PLANT_HEAD_CONTACT
FROM ASSEMBLY_PLANT AP
JOIN PLANT_HEAD PH ON AP.PLANT_NO = PH.PLANT_NO
WHERE AP.CITY = 'Chennai';
```

	plant_head_name character varying (20)	plant_head_contact character varying (10)
1	Subramaniam	9736562421

17. Give car model name which has highest milage in kmpl.

```
SELECT DISTINCT MODEL_NAME, MILEAGE_IN_KMPL AS HighestMileage
FROM CAR_MODEL
WHERE MILEAGE_IN_KMPL = (
    SELECT MAX(MILEAGE_IN_KMPL)
    FROM CAR_MODEL
);
```

	model_name character varying (25)	highestmileage numeric (10,2)
1	Accelero Luxor	20.00

18. Give the VIN, car model id and car model name which is purchased by PM Jat in Goa.

```sql
SELECT SM.CAR_MODEL_ID, CM.MODEL_NAME, R.VIN
FROM SELLS_TO SM
JOIN CUSTOMER C ON SM.CUSTOMER_ID = C.CUSTOMER_ID
JOIN RTO R ON SM.REGISTRATION_NO = R.REGISTRATION_NO
JOIN CAR_MODEL CM ON SM.CAR_MODEL_ID = CM.CAR_MODEL_ID
WHERE C.CUSTOMER_NAME = 'PM Jat'
AND C.STATE = 'Goa';
```

	car_model_id character varying (20)	model_name character varying (25)	vin character varying (20)
1	CM3	Accelero Avant	VIN567891234

19. Give name of the car model and its quantity which are made before 2022.

```sql
SELECT CM.MODEL_NAME, COUNT(*) AS TotalProduced
FROM CAR_MODEL CM
INNER JOIN PLANT_PRODUCES PP ON CM.CAR_MODEL_ID = PP.CAR_MODEL_ID
WHERE PP.END_DATE <= '2022-12-31'
GROUP BY CM.MODEL_NAME;
```

	model_name character varying (25)	totalproduced bigint
1	Accelero Apex	2
2	Accelero Urbanite	2
3	Accelero Luxor	1
4	Accelero Avant	3

20. Give the name, ID, Start date and End date of insurance of the car model which is purchased by '**Vijay Reddy**'.

```sql
SELECT SM.CAR_MODEL_ID, CM.MODEL_NAME, I.START_DATE AS INSURANCE_START_DATE,
I.END_DATE AS INSURANCE_END_DATE
FROM SELLS_TO SM
JOIN CUSTOMER C ON SM.CUSTOMER_ID = C.CUSTOMER_ID
JOIN INSURANCE I ON C.CUSTOMER_ID = I.CUSTOMER_ID
JOIN CAR_MODEL CM ON SM.CAR_MODEL_ID = CM.CAR_MODEL_ID
WHERE C.CUSTOMER_NAME = 'Vijay Reddy';
```

	car_model_id character varying (20)	model_name character varying (25)	insurance_start_date date	insurance_end_date date
1	CM001	Accelero Luxor	2023-01-15	2024-01-15

21. Give the name of the supplier who provide component material, also give a list of the components that they provide.

```
SELECT S.SUPPLIER_NAME, P.PART_NAME
FROM SUPPLIER S
 JOIN SUPPLIES_PARTS SP ON S.SUPPLIER_ID = SP.SUPPLIER_ID
JOIN PARTS P ON SP.PART_ID = P.PART_ID
WHERE S.SUPPLIER_TYPE = 'C';
```

	supplier_name character varying (50)	part_name character varying (20)
1	Canada Connections	Glass
2	Jani Traders	Brake Pads
3	Lnt Suppliers	Brake Pads
4	Jani Traders	Tires
5	EuroTrade	Tires
6	Lnt Suppliers	Tires
7	Asia Exports	engine
8	South American Imports	engine
9	South American Imports	Spark Plugs
10	Pacific Traders	Car Seats
11	Indian Suppliers Inc.	Steering Wheel
12	Indian Suppliers Inc.	Door Handles
13	Indian Suppliers Inc.	Wheel Bearings
14	Bhanderi Trading Co.	Headlights
15	Bhanderi Trading Co.	Tail Lights
16	Rajasthan Exports	Windshield Wipers

22. Give the supplier name and type who provides parts to another supplier and also give the part name which he supplies.

```
SELECT DISTINCT
    s1.supplier_name AS providing_supplier_name,
    s1.supplier_type AS providing_supplier_type,
    s2.supplier_name AS ordering_supplier_name,
    p.part_name
FROM
    orders_of_supplier os
```

```
 JOIN
    supplier s1 ON os.providing_supplier = s1.supplier_id
JOIN
    supplier s2 ON os.ordering_supplier = s2.supplier_id
 JOIN
    parts p ON os.ordered_part_id = p.part_id
```

	providing_supplier_name character varying (50)	providing_supplier_type character	ordering_supplier_name character varying (50)	part_name character varying (20)
1	Dynamic Distributors	R	Jani Traders	Rubber
2	Canada Connections	C	Bhanderi Trading Co.	Glass
3	Chauhan Enterprises	R	South American Imports	Aluminium
4	Global Imports	R	Asia Exports	Aluminium
5	Chauhan Enterprises	R	Indian Suppliers Inc.	Steel
6	Dynamic Distributors	R	Lnt Suppliers	Rubber
7	Indian Suppliers Inc.	C	EuroTrade	Wheel Bearings
8	Chauhan Enterprises	R	South American Imports	Steel
9	Indian Suppliers Inc.	C	Jani Traders	Wheel Bearings
10	South American Imports	C	Asia Exports	Spark Plugs
11	Dynamic Distributors	R	Pacific Traders	Lather
12	Global Imports	R	Lnt Suppliers	Steel
13	Dynamic Distributors	R	Indian Suppliers Inc.	Lather
14	Chauhan Enterprises	R	Jani Traders	Steel
15	Global Imports	R	Asia Exports	Steel
16	Dynamic Distributors	R	EuroTrade	Rubber
17	Indian Suppliers Inc.	C	Lnt Suppliers	Wheel Bearings

23. Give plant head name, contact no, and car model name for which car is not ready to sell.

```
SELECT DISTINCT PH.H_NAME AS PLANT_HEAD_NAME, PH.CONTACT_NO, CM.MODEL_NAME AS
CAR_MODEL_NAME
FROM PLANT_PRODUCES PP
JOIN PLANT_HEAD PH ON PP.PLANT_NO = PH.PLANT_NO
JOIN CAR_MODEL CM ON PP.CAR_MODEL_ID = CM.CAR_MODEL_ID
WHERE PP.END_DATE IS NULL;
```

	plant_head_name character varying (20)	contact_no character varying (10)	car_model_name character varying (25)
1	Subramaniam	9736562421	Accelero Voyager

24. Give the name and receiving date of the part which is ordered in March 2022.

```
SELECT P.PART_NAME, OM.RECEIVING_DATE,OM.PLACING_DATE as ordering_date
FROM ORDER_FOR_PARTS O
JOIN PARTS P ON O.PART_ID = P.PART_ID
JOIN ORDER_OF_MANUFACTURER OM ON O.ORDER_NO = OM.ORDER_NO
WHERE EXTRACT(YEAR FROM OM.PLACING_DATE) = 2022
AND EXTRACT(MONTH FROM OM.PLACING_DATE) = 3;
```

	part_name character varying (20)	receiving_date date	ordering_date date
1	Glass	2022-03-07	2022-03-05
2	Steel	2022-03-11	2022-03-08
3	Aluminium	2022-03-11	2022-03-08
4	Air Filters	2022-03-14	2022-03-11
5	Brake Pads	2022-03-17	2022-03-13
6	Tires	2022-03-17	2022-03-13
7	engine	2022-03-17	2022-03-15
8	Car Seats	2022-03-21	2022-03-18
9	Wheel Bearings	2022-03-22	2022-03-20
10	Windshield Wipers	2022-03-22	2022-03-20
11	Door Handles	2022-03-25	2022-03-22
12	Steering Wheel	2022-03-25	2022-03-22
13	Headlights	2022-03-27	2022-03-25
14	Tail Lights	2022-03-27	2022-03-25
15	Starter Motors	2022-03-29	2022-03-27
16	Oil Filters	2022-03-29	2022-03-27
17	Fuel Injectors	2022-03-29	2022-03-27
18	Exhaust Pipes	2022-03-30	2022-03-28
19	Radiator Hoses	2022-03-30	2022-03-28

25. Give the ID, name of car model which was produced in the least time and also provide its production start date and end date and the plant number where it is produced.

```
SELECT
    PP.PLANT_NO,
    CM.CAR_MODEL_ID,
    CM.MODEL_NAME,
    PP.START_DATE,
    PP.END_DATE,
    (PP.END_DATE - PP.START_DATE) AS DURATION_DAYS
FROM
    PLANT_PRODUCES PP
JOIN
```

```
    CAR_MODEL CM ON PP.CAR_MODEL_ID = CM.CAR_MODEL_ID
ORDER BY
    DURATION_DAYS ASC
LIMIT 5;
```

	plant_no character varying (20)	car_model_id character varying (20)	model_name character varying (25)	start_date date	end_date date	duration_days integer
1	PN04	CM0002	Accelero Urbanite	2022-07-16	2022-10-29	105
2	PN02	CM02	Accelero Apex	2022-05-01	2022-08-23	114
3	PN02	CM04	Accelero Apex	2022-11-01	2023-03-01	120
4	PN01	CM3	Accelero Avant	2022-07-18	2022-11-23	128
5	PN02	CM01	Accelero Apex	2022-03-01	2022-07-31	152

26. Give Top 3 dealer's ID, name and qty of the cars ordered which were ordered from manufacturer between 2022-2023.

```
SELECT
    don.DEALER_ID,
    D.DEALER_NAME,
    COUNT(*) AS TOTAL_ORDERS
FROM
    DEALER_ORDER_FOR AS don
JOIN
    DEALER AS D ON don.DEALER_ID = D.DEALER_ID
WHERE
    EXTRACT(YEAR FROM don.ORDERING_DATE) BETWEEN 2022 AND 2023
GROUP BY
    don.DEALER_ID,
    D.DEALER_NAME
ORDER BY
    TOTAL_ORDERS DESC
LIMIT 3;
```

	dealer_id character varying (20)	dealer_name character varying (50)	total_orders bigint
1	D001	Surya Motors	5
2	D002	Shree Automobiles	5
3	D003	Pragati Motors	4

27. Find car model ID which has the highest cost to make it.

```
WITH TotalCostPerCarModel AS (
```

```
    SELECT OB.CAR_MODEL_ID, SUM(OT.TOTAL_AMOUNT) AS TOTAL_COST
    FROM ORDER_BASED_ON OB
    JOIN ORDER_TRANSACTIONS OT ON OB.ORDER_NO = OT.ORDER_NO
    GROUP BY OB.CAR_MODEL_ID
)
SELECT CM.CAR_MODEL_ID, CM.MODEL_NAME, TC.TOTAL_COST
FROM TotalCostPerCarModel TC
JOIN CAR_MODEL CM ON TC.CAR_MODEL_ID = CM.CAR_MODEL_ID
ORDER BY TC.TOTAL_COST DESC
LIMIT 1;
```

	car_model_id [PK] character varying (20)	model_name character varying (25)	total_cost numeric
1	CM000001	Accelero Voyager	774940.00

28. Give supplier ID and name who provides engine.

```
 SELECT
    S.SUPPLIER_ID,
    S.SUPPLIER_NAME
FROM
    SUPPLIER S
JOIN
    SUPPLIES_PARTS SP ON S.SUPPLIER_ID = SP.SUPPLIER_ID
JOIN
    PARTS P ON SP.PART_ID = P.PART_ID
WHERE
    P.PART_NAME = 'engine';
```

	supplier_id [PK] character varying (20)	supplier_name character varying (50)
1	S08	Asia Exports
2	S10	South American Imports

29. Give the supplier ID, name, country and part name of foreign suppliers that provides parts to manufacturer.

```
SELECT DISTINCT
    S.SUPPLIER_ID,
    S.SUPPLIER_NAME,
    P.PART_NAME,
    S.COUNTRY
FROM
    SUPPLIER S
```

```
JOIN
    SUPPLIES_PARTS SP ON S.SUPPLIER_ID = SP.SUPPLIER_ID
JOIN
    PARTS P ON SP.PART_ID = P.PART_ID
JOIN
    ORDER_FOR_PARTS OP ON P.PART_ID = OP.PART_ID
WHERE
    S.COUNTRY <> 'India';
```

	supplier_id character varying (20)	supplier_name character varying (50)	part_name character varying (20)	country character varying (30)
1	S10	South American Imports	engine	Brazil
2	S07	Pacific Traders	Car Seats	Australia
3	S05	Lnt Suppliers	Brake Pads	United States
4	S05	Lnt Suppliers	Tires	United States
5	S09	Canada Connections	Glass	Canada
6	S06	EuroTrade	Tires	Germany
7	S08	Asia Exports	engine	China

30. Calculate the manufacture cost (Base price) for every car model, selling price to delear and also calculate the net profit.

```
WITH AveragePrice AS (
    SELECT
        dof.CAR_MODEL_ID,
        AVG(dof.TOTAL_AMOUNT) AS sellstodelaer_price
    FROM
        DEALER_ORDER_FOR dof
    GROUP BY
        dof.CAR_MODEL_ID
),
TotalCostPerCarModel AS (
    SELECT
        OB.CAR_MODEL_ID,
        CM.MODEL_NAME,
        CM.COLOR,
        SUM(OT.TOTAL_AMOUNT) AS baseprice
    FROM
        ORDER_BASED_ON OB
    JOIN
        ORDER_TRANSACTIONS OT ON OB.ORDER_NO = OT.ORDER_NO
    JOIN
        CAR_MODEL CM ON OB.CAR_MODEL_ID = CM.CAR_MODEL_ID
    GROUP BY
        OB.CAR_MODEL_ID, CM.MODEL_NAME, CM.COLOR
```

```
)
SELECT
    cm.CAR_MODEL_ID,
    cm.MODEL_NAME,
    cm.COLOR,
    abp.sellstodelaer_price AS sellstodelaer_price,
    tc.baseprice AS baseprice,
    abp.sellstodelaer_price - tc.baseprice AS TOTAL_PROFIT
FROM
    CAR_MODEL cm
JOIN
    AverageBasePrice abp ON cm.CAR_MODEL_ID = abp.CAR_MODEL_ID
JOIN
    TotalCostPerCarModel tc ON cm.CAR_MODEL_ID = tc.CAR_MODEL_ID
ORDER BY
    cm.CAR_MODEL_ID;
```

	car_model_id [PK] character varying (20)	model_name character varying (25)	color character varying (20)	sellstodelaer_price numeric	baseprice numeric	total_profit numeric
1	CM000001	Accelero Voyager	Graphite Gray	910300.000000000000	774940.00	135360.000000000000
2	CM000002	Accelero Voyager	Graphite Gray	910300.000000000000	774940.00	135360.000000000000
3	CM00001	Accelero Aurora	Glacier White	770900.000000000000	657560.00	113340.000000000000
4	CM00002	Accelero Aurora	Glacier White	770900.000000000000	657560.00	113340.000000000000
5	CM00003	Accelero Aurora	Glacier Silver	743400.000000000000	657560.00	85840.000000000000
6	CM00004	Accelero Aurora	Glacier Black	743400.000000000000	657560.00	85840.000000000000
7	CM0001	Accelero Urbanite	Silver Metallic	638310.000000000000	496550.00	141760.000000000000
8	CM0002	Accelero Urbanite	Silver Metallic	638310.000000000000	496550.00	141760.000000000000
9	CM0003	Accelero Urbanite	Platinum Metallic	657400.000000000000	496550.00	160850.000000000000
10	CM0004	Accelero Urbanite	Magnetic Metallic	638310.000000000000	496550.00	141760.000000000000
11	CM0005	Accelero Urbanite	Silver Metallic	638310.000000000000	496550.00	141760.000000000000
12	CM001	Accelero Luxor	Obsidian Black	630870.000000000000	430160.00	200710.000000000000
13	CM002	Accelero Luxor	Obsidian Black	630870.000000000000	430160.00	200710.000000000000
14	CM004	Accelero Luxor	Obsidian Black	630870.000000000000	430160.00	200710.000000000000
15	CM005	Accelero Luxor	Obsidian Red	630870.000000000000	430160.00	200710.000000000000
16	CM01	Accelero Apex	Midnight Blue	740890.000000000000	546770.00	194120.000000000000

31. Give the ID, name, color and paid amount of the car model that is the most expensive by model name to the dealer.

```
WITH MaxPricePerCarModel AS (
    SELECT
        dof.CAR_MODEL_ID,
        cm.MODEL_NAME,
        cm.COLOR,
        dof.TOTAL_AMOUNT,
        ROW_NUMBER() OVER (PARTITION BY cm.MODEL_NAME ORDER BY dof.TOTAL_AMOUNT
DESC) AS PRICE_RANK
    FROM
        DEALER_ORDER_FOR dof
```

```
    JOIN
        CAR_MODEL cm ON dof.CAR_MODEL_ID = cm.CAR_MODEL_ID
)
SELECT
    CAR_MODEL_ID,
    MODEL_NAME,
    COLOR,
    TOTAL_AMOUNT AS HIGHEST_PRICE_PAID_BY_DEALER
FROM
    MaxPricePerCarModel
WHERE
    PRICE_RANK = 1
ORDER BY
    MODEL_NAME;
```

	car_model_id character varying (20)	model_name character varying (25)	color character varying (20)	highest_price_paid_by_dealer numeric (18,2)
1	CM02	Accelero Apex	Midnight Silver	770400.00
2	CM00002	Accelero Aurora	Glacier White	770900.00
3	CM4	Accelero Avant	Racing Blue	560400.00
4	CM002	Accelero Luxor	Obsidian Black	630870.00
5	CM0003	Accelero Urbanite	Platinum Metallic	657400.00
6	CM000001	Accelero Voyager	Graphite Gray	910300.00

32. Retrieve the insurance policies that have expired.

```
SELECT IN_POLICY_NO, COMPANY_NAME, START_DATE, END_DATE
FROM INSURANCE
WHERE END_DATE < CURRENT_DATE;
```

	in_policy_no [PK] character varying (20)	company_name character varying (20)	start_date date	end_date date
1	POL001	ABC Insurance	2022-11-15	2023-11-15
2	POL002	XYZ Insurance	2022-12-13	2023-12-13
3	POL004	DEF Insurance	2023-02-10	2024-02-10
4	POL005	LMN Insurance	2023-03-10	2024-03-10
5	POL006	STU Insurance	2023-03-14	2024-03-14
6	POL007	GHI Insurance	2023-01-15	2024-01-15
7	POL008	JKL Insurance	2023-03-25	2024-03-25
8	POL009	MNO Insurance	2023-04-02	2024-04-02
9	POL011	RST Insurance	2022-10-28	2023-10-28
10	POL012	EFG Insurance	2023-03-24	2024-03-24
11	POL014	BCD Insurance	2022-06-27	2023-06-27

33. Give the id and name of the car for which order of parts is not done yet.

```
SELECT CM.CAR_MODEL_ID, CM.MODEL_NAME
FROM CAR_MODEL CM
LEFT JOIN ORDER_BASED_ON ob ON CM.CAR_MODEL_ID = ob.CAR_MODEL_ID
WHERE ob.CAR_MODEL_ID IS NULL;
```

car_model_id [PK] character varying (20)	model_name character varying (25)

34. List the parts with their respective car models where the unit price of the part is above the average unit price of parts produced by the manufacturer.

```
SELECT MP.COMPONENT_ID, MP.COMPONENT_NAME, MP.UNIT_PRICE, CM.CAR_MODEL_ID,
CM.MODEL_NAME,
       (SELECT AVG(UNIT_PRICE) FROM MANUFACTURED_PARTS_BY_OWN) AS
AVERAGE_UNIT_PRICE
FROM MANUFACTURED_PARTS_BY_OWN MP
JOIN CAR_MODEL CM ON MP.CAR_MODEL_ID = CM.CAR_MODEL_ID
WHERE MP.UNIT_PRICE > (
    SELECT AVG(UNIT_PRICE)
    FROM MANUFACTURED_PARTS_BY_OWN
);
```

	component_id character varying (20)	component_name character varying (20)	unit_price numeric (10,2)	car_model_id character varying (20)	model_name character varying (25)	average_unit_price numeric
1	CP1	Frame	2500.00	CM1	Accelero Avant	2000.0000000000000000
2	CP3	Frame	2500.00	CM2	Accelero Avant	2000.0000000000000000
3	CP5	Frame	2500.00	CM3	Accelero Avant	2000.0000000000000000
4	CP7	Frame	2500.00	CM4	Accelero Avant	2000.0000000000000000
5	CP9	Frame	2500.00	CM5	Accelero Avant	2000.0000000000000000
6	CP01	Frame	2500.00	CM01	Accelero Apex	2000.0000000000000000
7	CP03	Frame	2500.00	CM02	Accelero Apex	2000.0000000000000000
8	CP05	Frame	2500.00	CM03	Accelero Apex	2000.0000000000000000
9	CP07	Frame	2500.00	CM04	Accelero Apex	2000.0000000000000000
10	CP001	Frame	2500.00	CM001	Accelero Luxor	2000.0000000000000000
11	CP003	Frame	2500.00	CM002	Accelero Luxor	2000.0000000000000000
12	CP005	Frame	2500.00	CM003	Accelero Luxor	2000.0000000000000000
13	CP007	Frame	2500.00	CM004	Accelero Luxor	2000.0000000000000000
14	CP009	Frame	2500.00	CM005	Accelero Luxor	2000.0000000000000000
15	CP0001	Frame	2500.00	CM0001	Accelero Urbanite	2000.0000000000000000
16	CP0003	Frame	2500.00	CM0002	Accelero Urbanite	2000.0000000000000000

35. Find the total number of parts supplied by each supplier.

```
SELECT S.SUPPLIER_ID, S.SUPPLIER_NAME,
       COUNT(SP.PART_ID) AS TOTAL_PARTS_SUPPLIED
FROM SUPPLIER S
LEFT JOIN SUPPLIES_PARTS SP ON S.SUPPLIER_ID = SP.SUPPLIER_ID
GROUP BY S.SUPPLIER_ID, S.SUPPLIER_NAME;
```

	supplier_id [PK] character varying (20)	supplier_name character varying (50)	total_parts_supplied bigint
1	S13	Delhi Enterprises	3
2	S07	Pacific Traders	1
3	S02	Jani Traders	2
4	S14	Bansi Traders	3
5	S10	South American Imports	2
6	S01	Chauhan Enterprises	2
7	S08	Asia Exports	1
8	S06	EuroTrade	1
9	S03	Global Imports	2
10	S04	Dynamic Distributors	2
11	S11	Indian Suppliers Inc.	3
12	S05	Lnt Suppliers	2
13	S15	Rajasthan Exports	2
14	S12	Bhanderi Trading Co.	2
15	S09	Canada Connections	1