By: Chris Neal
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Section:02

QUERY 1:
1. List the cars (license, model and year, Amount_of_Damage) that have been involved in any accidents.
Order the result by license in descending order.

```
SELECT C.License, C.Model, C.Year, A.Amount_of_Damage
FROM CAR AS C, HAD AS H, ACCIDENT AS A
WHERE C.License=H.License AND H.AccidentNo=A.Accident_no;
```

```
mysql> SELECT C.License, C.Model, C.Year, A.Amount_of_Damage
    -> FROM CAR AS C, HAD AS H, ACCIDENT AS A
    -> WHERE C.License=H.License AND H.AccidentNo=A.Accident_no;
+-----------------+--------------+------+------------------+
| License         | Model        | Year | Amount_of_Damage |
+-----------------+--------------+------+------------------+
| 111111111111111 | Mustang      | 1965 | 9999999999999.99 |
| 333333333333333 | Honda Accord | 1999 |           300.25 |
| 444444444444444 | Honda Accord | 1992 |           100.25 |
| 555555555555555 | Telsa        | 2013 | 9999999999999.99 |
| 666666666666666 | Honda Accord | 2013 |           500.25 |
+-----------------+--------------+------+------------------+
5 rows in set (0.00 sec)
```

QUERY 2:
2. List the cars that have more than two accidents. List license and number of accidents.

```
SELECT License, Accident_no
FROM HAD AS H, ACCIDENT AS A
WHERE A.Accident_No>2 AND A.Accident_No=H.AccidentNo;
```

```
mysql> SELECT License, Accident_no
    -> FROM HAD AS H, ACCIDENT AS A
    -> WHERE A.Accident_No>2 AND A.Accident_No=H.AccidentNo;
+-----------------+-------------+
| License         | Accident_no |
+-----------------+-------------+
| 444444444444444 |           3 |
| 555555555555555 |           4 |
| 666666666666666 |           5 |
+-----------------+-------------+
3 rows in set (0.00 sec)
```

QUERY 3:
3. List information (driver name, amount of damage, license, model and SSN) about the accidents
in which the owner of the car are involved i.e., the Driver_Name and Customer_Name are the same.

```
SELECT A.Driver_Name, A.Amount_of_Damage, H.License, C2.Model, O.SSN
FROM CUSTOMER AS C1, OWNS AS O, CAR AS C2, HAD AS H, ACCIDENT AS A
WHERE C1.Customer_Name=A.Driver_Name AND (O.License=C2.License AND H.License =
C2.License AND A.Accident_No=H.AccidentNo);
```

```
mysql> SELECT A.Driver_Name, A.Amount_of_Damage, H.License, C2.Model, O.SSN FROM
CUSTOMER AS C1, OWNS AS O, CAR AS C2, HAD AS H, ACCIDENT AS A
WHERE C1.Customer_Name=A.Driver_Name AND (O.License=C2.License AND H.License =
C2.License AND A.Accident_No=H.AccidentNo);
+---------------+------------------+-----------------+-------------+-----------+
| Driver_Name   | Amount_of_Damage | License         | Model       | SSN       |
+---------------+------------------+-----------------+-------------+-----------+
| Joe Smith     | 9999999999999.99 | 111111111111111 | Mustang     | 111111111 |
| Phil Arnold   |           300.25 | 333333333333333 | Honda Accord | 333333333 |
| Mary Arnold   |           100.25 | 444444444444444 | Honda Accord | 444444444 |
| Jessica Smith |        250000.50 | 555555555555555 | Telsa       | 222222222 |
| Steve McDonald |          500.25 | 666666666666666 | Honda Accord | 666666666 |
+---------------+------------------+-----------------+-------------+-----------+
5 rows in set (0.00 sec)
```

QUERY 4:
4. Obtain the information of any policy (policy number, policy rate and policy details) whose
policy rate is higher than the rate of policy number 12.

```
SELECT P.PolicyNo, P.Policy_Rate, P.Policy_Details
FROM POLICY AS P
WHERE P.Policy_Rate>(SELECT P2.Policy_Rate FROM POLICY AS P2 WHERE P2.PolicyNo=12);

mysql> SELECT P.PolicyNo, P.Policy_Rate, P.Policy_Details
    -> FROM POLICY AS P
    -> WHERE P.Policy_Rate>(SELECT P2.Policy_Rate FROM POLICY AS P2 WHERE
P2.PolicyNo=12);
+----------+------------------+-----------------+
| PolicyNo | Policy_Rate      | Policy_Details  |
+----------+------------------+-----------------+
|        1 | 9999999999999.99 | Full Coverage   |
|        2 |       1000000.00 | Deluxe Coverage |
+----------+------------------+-----------------+
2 rows in set (0.00 sec)
```

QUERY 5:
5. Consider all policies, list the lowest rate, highest rate, and average rate.

```
SELECT MIN(P1.Policy_Rate), MAX(P1.Policy_Rate), AVG(P1.Policy_Rate)
FROM POLICY AS P1;

mysql> SELECT MIN(P1.Policy_Rate), MAX(P1.Policy_Rate), AVG(P1.Policy_Rate)
    -> FROM POLICY AS P1;
+--------------------+--------------------+---------------------+
| MIN(P1.Policy_Rate) | MAX(P1.Policy_Rate) | AVG(P1.Policy_Rate)  |
+--------------------+--------------------+---------------------+
|               10.00 |    9999999999999.99 | 3333333666669.996667 |
+--------------------+--------------------+---------------------+
1 row in set (0.00 sec)
```

QUERY 6:
6. Get information (accident number, driver name, accident date and amount of damage) of the accident
which has the highest amount of damage among all the accidents.

```
SELECT Accident_no, Driver_name, Accident_Date, MAX(Amount_of_Damage)
```

```
FROM ACCIDENT;

mysql> SELECT Accident_no, Driver_name, Accident_Date, MAX(Amount_of_Damage) FROM
ACCIDENT;
+-------------+-------------+---------------+----------------------+
| Accident_no | Driver_name | Accident_Date | MAX(Amount_of_Damage) |
+-------------+-------------+---------------+----------------------+
|           1 | Joe Smith   | 2000-05-14    |      9999999999999.99 |
+-------------+-------------+---------------+----------------------+
1 row in set (0.00 sec)
```

QUERY 7:
7. Get the information (customer name, city and state) about the customers who own cars with the model of ‘Honda Accord’. Also get those cars’ license, and year made.

```
SELECT C1.Customer_Name, C1.City, C1.State, C2.License, C2.Year
FROM CUSTOMER AS C1, CAR AS C2, OWNS AS O
WHERE C1.SSN=O.SSN AND O.License=C2.License AND C2.Model='Honda Accord';

mysql> SELECT C1.Customer_Name, C1.City, C1.State, C2.License, C2.Year
    -> FROM CUSTOMER AS C1, CAR AS C2, OWNS AS O
    -> WHERE C1.SSN=O.SSN AND O.License=C2.License AND C2.Model='Honda Accord';
+----------------+-----------+------------+-----------------+------+
| Customer_Name  | City      | State      | License         | Year |
+----------------+-----------+------------+-----------------+------+
| Phil Arnold    | Roseville | California | 333333333333333 | 1999 |
| Mary Arnold    | Sunrise   | California | 444444444444444 | 1992 |
| Steve McDonald | Sunrise   | California | 666666666666666 | 2013 |
+----------------+-----------+------------+-----------------+------+
3 rows in set (0.01 sec)
```

QUERY 8:
8. Retrieve the customers’ information (SSN, customer name, street, city, state and zip) who live either in ‘Roseville’ or ‘Sunrise’. (‘Roseville’ and ‘Sunrise’ are city names)

```
SELECT SSN, Customer_Name, Street, City, State, Zip
FROM CUSTOMER
WHERE City='Roseville' OR City='Sunrise';

mysql> SELECT SSN, Customer_Name, Street, City, State, Zip
    -> FROM CUSTOMER
    -> WHERE City='Roseville' OR City='Sunrise';
+-----------+----------------+---------------+-----------+------------+-------+
| SSN       | Customer_Name  | Street        | City      | State      | Zip   |
+-----------+----------------+---------------+-----------+------------+-------+
| 333333333 | Phil Arnold    | Oak Street    | Roseville | California | 95747 |
| 444444444 | Mary Arnold    | Sunrise Blvd. | Sunrise   | California | 95848 |
| 666666666 | Steve McDonald | Sunrise Blvd. | Sunrise   | California | 95848 |
+-----------+----------------+---------------+-----------+------------+-------+
3 rows in set (0.00 sec)
```

QUERY 9:
9. Retrieve policies that cover more than 2 cars. List policy number and number of cars covered.

5_output

```
SELECT PolicyNo_Ref, numCount
FROM( SELECT PolicyNo_Ref,
      COUNT(PolicyNo_Ref) AS numCount
          FROM CAR
          GROUP BY PolicyNo_Ref ) as TEMP_TABLE
WHERE numCount > 2;

mysql> SELECT PolicyNo_Ref, numCount
    -> FROM( SELECT PolicyNo_Ref,
    ->       COUNT(PolicyNo_Ref) AS numCount
    ->   FROM CAR
    ->   GROUP BY PolicyNo_Ref ) as TEMP_TABLE
    -> WHERE numCount > 2;
+--------------+----------+
| PolicyNo_Ref | numCount |
+--------------+----------+
|           12 |        3 |
+--------------+----------+
1 row in set (0.00 sec)
```