

# DATABASE MANAGEMENT SYSTEM (CS310)

Report on

Database design on Car vehicle insurance company

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## **PROJECT TITLE:**

A database for a Vehicle Insurance Company.

## **PURPOSE:**

This module provides a comprehensive discussion of, and practical experience in, advanced entity modelling; normalisation; transactional relational database design; SQL coding; and generation of data backed management reports.

## **PROJECT BENEFITS:**

To make a good DB, that could be used with analytical tools and faster in delivering the right data at the right time for better decision making.

## **ASSUMPTION:**

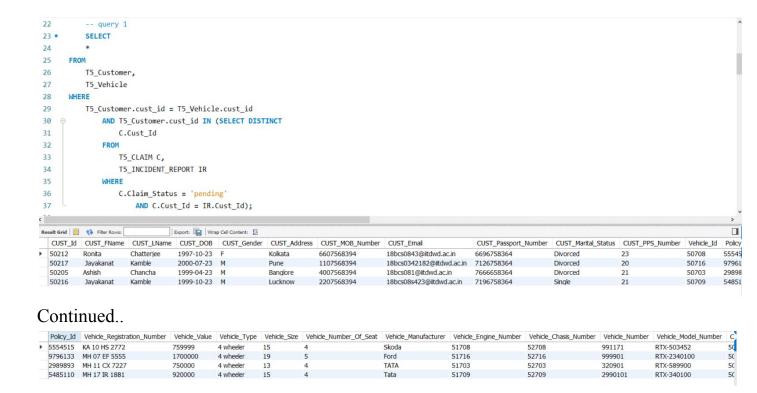
- The Foreign Key of office table (table 18) has been changed to (Department\_Name,Department\_ID,Company\_Name)
  Referencing the Primary Key of the Department Table(table 5).
- The Foreign Key of Department Table (table 5) has been changed to (Company\_Name) referencing the Primary Key of Insurance\_Company Table

# **QUERY 1**

Retrieve Customer and Vehicle details who has been involved in an incident and claim status is pending

```
FROM
T5_Customer,
T5_Vehicle
WHERE
T5_Customer.cust_id = T5_Vehicle.cust_id
AND T5_Customer.cust_id IN (SELECT DISTINCT
C.Cust_Id
FROM
T5_CLAIM C,
T5_INCIDENT_REPORT IR
WHERE
```

# C.Claim\_Status = 'pending' AND C.Cust\_Id = IR.Cust\_Id);

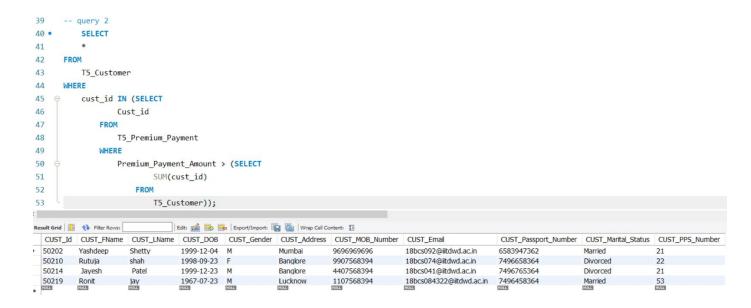


# **QUERY 2**

Retrieve customer details who has premium payment amount greater than the sum of all the customerIds in the database

```
FROM
T5_Customer
WHERE
cust_id IN (SELECT
Cust_id
FROM
T5_Premium_Payment
WHERE
```

```
Premium_Payment_Amount > (SELECT
    SUM(cust_id)
FROM
    T5_Customer));
```



# **QUERY 3**

Retrieve Company details whose number of products is greater than departments, where the departments are located in more than one location.

```
FROM
T5_Insurance_Company
WHERE
Company_Name IN (SELECT
    T5_Office.Company_Name
FROM
    T5_Office
GROUP BY Company_Name
HAVING COUNT(DISTINCT (address)) > 1
AND Company_Name IN (SELECT
    T5_Department.Company_Name
FROM
    T5 Product
```

## **INNER JOIN**

T5\_Department ON T5\_Department.Company\_Name =
T5\_Product.Company\_Name
GROUP BY T5\_Department.Company\_Name
HAVING COUNT(DISTINCT (Product\_Type)) > COUNT(DISTINCT (Department\_Name))));

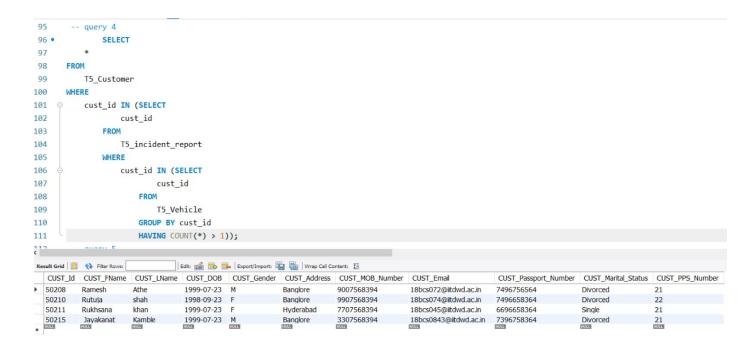
```
75 -- query 3
                                                     SELECT *
16 .
77
78
                        T5_Insurance_Company
79 WHERE
0 ○ Company_Name IN (SELECT
31
                                                   T5 Office.Company Name
13
                                                    T5 Office
                                GROUP BY Company_Name
34
                               HAVING COUNT(DISTINCT (address)) > 1
35
                                        AND Company_Name IN (SELECT
16
                                                                 T5_Department.Company_Name
18
                                                              T5_Product
                                                                              INNER JOIN
                                                               T5_Department ON T5_Department.Company_Name = T5_Product.Company_Name
                                   GROUP BY T5_Department.Company_Name
                                                     HAVING COUNT(DISTINCT (Product_Type)) > COUNT(DISTINCT (Department_Name))));
  esult Grid | 📳 🔖 Fiter Rows: | Edit: 🕍 🐘 | Export/Import: 🖺 🐻 | Wrap Cell Content: 🗵
                                                                                                                                                                           Company_Contact_Number Company_Fax Company_Email Company_Website Company_Location Company_Department_Name Company_
  Company_Name
                                                                                         Company_Address
   SBI Vehicle Insurance Company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 5565871687 sbl/ehicle@help.com sbl/ehicle@help.com sbl/ehicle.com Mumbai sbl/ehicleoffice company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Solutions. 7th ... 180571584020 company Limited SBI Vehicle Corporate Soluti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sbiVehicleof
```

# **QUERY 4**

Select Customers who have more than one Vehicle, where the premium for one of the Vehicles is not paid and it is involved in accident

```
FROM
T5_Customer
WHERE
cust_id IN (SELECT
cust_id
FROM
T5_incident_report
WHERE
```

```
cust_id IN (SELECT
    cust_id
FROM
    T5_Vehicle
GROUP BY cust_id
HAVING COUNT(*) > 1));
```



# **QUERY 5**

Select all vehicles which have a premium more than its vehicle number.

```
(SELECT
```

\*

#### **FROM**

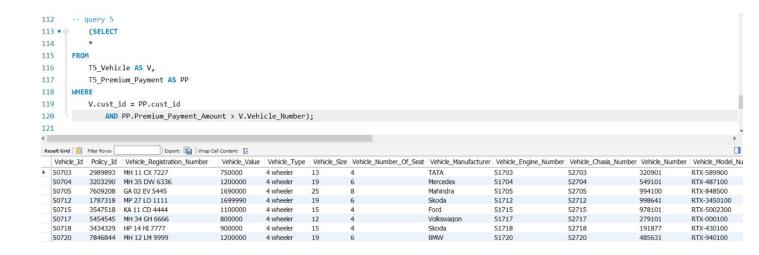
```
T5_Vehicle AS V,
```

T5\_Premium\_Payment AS PP

## WHERE

```
V.cust_id = PP.cust_id
```

AND PP.Premium Payment Amount > V.Vehicle Number);



# Continued...

ufacture	r Vehicle_Engine_Number	Vehicle_Chasis_Number	Vehicle_Number	Vehicle_Model_Number	Cust_Id	Premium_Payment_Id	Policy_Number	Premium_Payment_Amount	Premium_Payment_Schedule	Receipt_Id	Cust_Id
	51703	52703	320901	RTX-589900	50205	50805	3434235	520000	2018-04-13	50905	50205
	51704	52704	549101	RTX-487100	50202	50802	34423423	5200000	2019-11-20	50902	50202
	51705	52705	994100	RTX-848500	50210	50810	534324	2800000	2019-01-23	50910	50210
	51712	52712	998641	RTX-3450100	50219	50819	8547546	3800000	2019-02-19	50919	50219
	51715	52715	978101	RTX-5002300	50214	50814	6547554	4000000	2019-10-09	50914	50214
	51717	52717	279101	RTX-000100	50215	50815	84567546	350000	2018-05-02	50915	50215
	51718	52718	191877	RTX-430100	50203	50803	342355325	520000	2018-02-25	50903	50203
	51720	52720	485631	RTX-940100	50210	50810	534324	2800000	2019-01-23	50910	50210

# **QUERY 6**

Retrieve Customer details whose Claim Amount is less than Coverage Amount and Claim Amount is greater than Sum of (CLAIM\_SETTLEMENT\_ID, VEHICLE\_ID, CLAIM\_ID, CUST\_ID)

**SELECT** 

\*

# **FROM**

**T5** Customer

# **WHERE**

cust\_id IN (SELECT DISTINCT

(T5\_Claim.cust\_id)

## **FROM**

T5 Claim,

T5 Claim Settlement,

**T5** Coverage

WHERE

# claim\_amount > claim\_settlement\_id + vehicle\_id + T5\_Claim.claim\_id + T5\_Claim.cust\_id

# AND claim\_amount < coverage\_amount);

