NORMALIZATION:

It is a relationship database concept and is done in the process of building ER. If the correct entity model is being built will conform to the rules of normalization. Each rule has corresponding data model interpretation, which can be used to validate placement of attributes in ER Model.

Normalization of car vehicle insurance company:

Normal form	Table
First Normal Form(1NF)	
Second Normal Form(2NF)	T10_DEPARTMENT T10_VEHICLE T10_NOK T10_INSURANCE_POLICY T10_CLAIM T10_CLAIM_SETTLEMENT T10_PREMIUM_PAYMENT T10_QUOTE
Third Normal Form(3NF)	T10_CUSTOMER T10_APPLICATION T10_INSURANCE_COMPANY T10_MEMBERSHIP T10_PRODUCT T10_COVERAGE T10_VEHICLE_SERVICE T10_INCIDENT

CREATE TABLES T10

1. T10_CUSTOMER

```
CREATE TABLE T10_CUSTOMER
(
T10_1_Cust_Id  VARCHAR(20) NOT NULL ,
T10_1_Cust_FName VARCHAR(10) NOT NULL ,
T10_1_Cust_LName VARCHAR(10) NOT NULL ,
T10_1_Cust_DOB DATE NOT NULL ,
T10_1_Cust_Gender VARCHAR(20) NOT NULL ,
T10_1_Cust_Address VARCHAR(20) NOT NULL ,
T10_1_Cust_MOB_Number VARCHAR(20) NOT NULL ,
T10_1_Cust_Email VARCHAR(20) NULL ,
T10_1_Cust_Passport_Number VARCHAR(20) NULL ,
T10_1_Cust_Marital_Status VARCHAR(20) NULL ,
T10_1_Cust_PPS_Number VARCHAR(20) NULL ,
CONSTRAINT XPKCUSTOMER_1 PRIMARY KEY (T10_1_Cust_Id)
);
CREATE UNIQUE INDEX XPKCUSTOMER_1 ON T10_CUSTOMER
(T10_1_Cust_Id ASC);
```

2. T10_APPLICATION

```
CREATE TABLE T10_APPLICATION

(

T10_2_Application_Id VARCHAR(20) NOT NULL ,

T10_2_Vehicle_Id VARCHAR(20) NOT NULL ,

T10_2_Application_Status VARCHAR(20) NOT NULL ,

T10_2_Coverage VARCHAR(50) NOT NULL ,

T10_1_Cust_Id VARCHAR(20) NOT NULL ,
```

```
CONSTRAINT XPKAPPLICATION_2 PRIMARY KEY
(T10_2_Application_Id,T10_1_Cust_Id),

CONSTRAINT R_93 FOREIGN KEY (T10_1_Cust_Id) REFERENCES
T10_CUSTOMER

(T10_1_Cust_Id)

ON DELETE CASCADE

ON UPDATE CASCADE


);

CREATE UNIQUE INDEX XPKAPPLICATION_2 ON T10_APPLICATION

(T10_2_Application_Id ASC,T10_1_Cust_Id ASC);
```

3.T10_QUOTE

```
CREATE TABLE T10_QUOTE

(

T10_3_Quote_Id VARCHAR(20) NOT NULL,

T10_3_Issue_Date DATE NOT NULL,

T10_3_Valid_From_Date DATE NOT NULL,

T10_3_Valid_Till_Date DATE NOT NULL,

T10_3_Description VARCHAR(100) NULL,

T10_3_Product_Id VARCHAR(20) NOT NULL,
```

T10_3_Coverage_Level VARCHAR(20) NOT NULL,

T10_2_Application_Id VARCHAR(20) NOT NULL,

T10_1_Cust_Id VARCHAR(20) NOT NULL,

CONSTRAINT XPKQU0TE_3 PRIMARY KEY

(T10_3_Quote_Id,T10_2_Application_Id,T10_1_Cust_Id),

CONSTRAINT R_94 FOREIGN KEY (T10_2_Application_Id, T10_1_Cust_Id) REFERENCES

T10_APPLICATION (T10_2_Application_Id, T10_1_Cust_Id) on delete cascade on update CASCADE

);

CREATE UNIQUE INDEX XPKQU0TE_3 ON T10_QUOTE

(T10_3_Quote_Id ASC,T10_2_Application_Id ASC,T10_1_Cust_Id ASC);

4. T10_INSURANCE_POLICY

CREATE TABLE T10_INSURANCE_POLICY

(

T10_4_Agreement_id VARCHAR(20) NOT NULL ,

T10_4_Department_Name VARCHAR(25) NULL ,

T10_4_Policy_Number VARCHAR(20) NULL ,

T10_4_Start_Date DATE NULL ,

T10_4_Expiry_Date DATE NULL ,

T10_4_Term_Condition_Description VARCHAR(200) NULL ,

```
T10_2_Application_Id VARCHAR(20) NOT NULL ,

T10_1_Cust_Id VARCHAR(20) NOT NULL ,

CONSTRAINT XPKINSURANCE_POLICY_4 PRIMARY KEY

(T10_4_Agreement_id,T10_2_Application_Id,T10_1_Cust_Id),

CONSTRAINT R_95 FOREIGN KEY (T10_2_Application_Id, T10_1_Cust_Id)
REFERENCES

T10_APPLICATION (T10_2_Application_Id,T10_1_Cust_Id)

);

CREATE UNIQUE INDEX XPKINSURANCE_POLICY_4 ON
T10_INSURANCE_POLICY

(T10_4_Agreement_id ASC,T10_2_Application_Id ASC,T10_1_Cust_Id ASC);
```

5. T10_PREMIUM_PAYMENT

```
CREATE TABLE T10_PREMIUM_PAYMENT

(

T10_5_Premium_Payment_Id VARCHAR(20) NOT NULL ,

T10_4_Policy_Number VARCHAR(20) NOT NULL ,

T10_5_Premium_Payment_Amount INTEGER NOT NULL ,

T10_5_Premium_Payment_Schedule DATE NOT NULL ,

T10_5_Receipt_Id VARCHAR(20) NOT NULL ,

T10_1_Cust_Id VARCHAR(20) NOT NULL,
```

```
CONSTRAINT XPKPREMIUM_PAYMENT_5 PRIMARY KEY

(T10_5_Premium_Payment_Id,T10_1_Cust_Id),

CONSTRAINT R_85 FOREIGN KEY (T10_1_Cust_Id) REFERENCES
T10_CUSTOMER(T10_1_Cust_Id) ON DELETE CASCADE ON UPDATE
CASCADE

);


CREATE UNIQUE INDEX XPKPREMIUM_PAYMENT_5 ON

T10_PREMIUM_PAYMENT

(T10_5_Premium_Payment_Id ASC,T10_1_Cust_Id ASC);
```

6. T10_VEHICLE

```
CREATE TABLE T10_VEHICLE

(

T10_6_Vehicle_Id VARCHAR(20) NOT NULL ,

T10_6_Policy_Id VARCHAR(20) NULL ,

T10_6_Dependent_NOK_Id VARCHAR(20) NULL ,

T10_6_Vehicle_Registration_Number VARCHAR(20) NOT NULL ,

T10_6_Vehicle_Value INTEGER NULL ,

T10_6_Vehicle_Type VARCHAR(20) NOT NULL ,
```

```
T10_6_Vehicle_Size INTEGER NULL ,

T10_6_Vehicle_Number_Of_Seat INTEGER NULL ,

T10_6_Vehicle_Manufacturer VARCHAR(20) NULL ,

T10_6_Vehicle_Engine_Number INTEGER NULL ,

T10_6_Vehicle_Chasis_Number INTEGER NULL ,

T10_6_Vehicle_Number VARCHAR(20) NULL ,

T10_6_Vehicle_Model_Number VARCHAR(20) NULL ,

T10_6_Cust_Id VARCHAR(20) NOT NULL ,

CONSTRAINT XPKVEHICLE_6 PRIMARY KEY
(T10_6_Vehicle_Id,T10_6_Cust_Id),

CONSTRAINT R_92 FOREIGN KEY (T10_6_Cust_Id) REFERENCES
T10_CUSTOMER (T10_1_Cust_Id) ON DELETE CASCADE ON UPDATE
CASCADE

);


CREATE UNIQUE INDEX XPKVEHICLE_6 ON T10_VEHICLE
(T10_6_Vehicle_Id ASC,T10_6_Cust_Id ASC);
```

7. T10_CLAIM

```
CREATE TABLE T10_CLAIM

(

T10_7_Claim_Id VARCHAR(20) NOT NULL ,

T10_4_Agreement_Id VARCHAR(20) NOT NULL ,
```

```
T10_7_Claim_Amount INTEGER NOT NULL ,

T10_14_Incident_Id VARCHAR(20) NOT NULL ,

T10_7_Damage_Type VARCHAR(20) NOT NULL ,

T10_7_Date_Of_Claim DATE NOT NULL ,

T10_7_Claim_Status CHAR(20) NOT NULL ,

T10_1_Cust_Id VARCHAR(20) NOT NULL ,

CONSTRAINT XPKCLAIM_7 PRIMARY KEY
(T10_7_Claim_Id,T10_1_Cust_Id),

CONSTRAINT R_88 FOREIGN KEY (T10_1_Cust_Id) REFERENCES
T10_CUSTOMER

(T10_1_Cust_Id) ON DELETE CASCADE ON UPDATE CASCADE

);

CREATE UNIQUE INDEX XPKCLAIM_7 ON T10_CLAIM

(T10_7_Claim_Id ASC,T10_1_Cust_Id ASC);
```

8. T10_CLAIM_SETTLEMENT

```
CREATE TABLE T10_CLAIM_SETTLEMENT

(

T10_8_Claim_Settlement_Id VARCHAR(20) NOT NULL ,

T10_6_Vehicle_Id VARCHAR(20) NOT NULL ,

T10_8_Date_Settled DATE NOT NULL ,

T10_8_Amount_Paid INTEGER NOT NULL ,
```

```
T10_8_Coverage_Id VARCHAR(20) NOT NULL ,

T10_7_Claim_Id VARCHAR(20) NOT NULL ,

T10_1_Cust_Id VARCHAR(20) NOT NULL ,

CONSTRAINT XPKCLAIM_SETTLEMENT_8 PRIMARY KEY

(T10_8_Claim_Settlement_Id,T10_7_Claim_Id,T10_1_Cust_Id),

CONSTRAINT R_90 FOREIGN KEY (T10_7_Claim_Id, T10_1_Cust_Id)
REFERENCES T10_CLAIM

(T10_7_Claim_Id, T10_1_Cust_Id) ON DELETE CASCADE ON UPDATE
CASCADE

);

CREATE UNIQUE INDEX XPKCLAIM_SETTLEMENT_8 ON

T10_CLAIM_SETTLEMENT

(T10_8_Claim_Settlement_Id ASC,T10_7_Claim_Id ASC,T10_1_Cust_Id ASC);
```

9. T10_MEMBERSHIP

```
CREATE TABLE T10_MEMBERSHIP

(

T10_9_Membership_Id VARCHAR(20) NOT NULL ,

T10_9_Membership_Type CHAR(15) NOT NULL ,

T10_9_Organisation_Contact VARCHAR(20) NULL ,

T10_1_Cust_Id VARCHAR(20) NOT NULL ,

CONSTRAINT XPKMEMBERSHIP_12 PRIMARY KEY

(T10_9_Membership_Id,T10_1_Cust_Id),
```

```
CONSTRAINT R_91 FOREIGN KEY (T10_1_Cust_Id) REFERENCES
T10_CUSTOMER

(T10_1_Cust_Id) ON DELETE CASCADE ON UPDATE CASCADE

);


CREATE UNIQUE INDEX XPKMEMBERSHIP_12 ON T10_MEMBERSHIP

(T10_9_Membership_Id ASC,T10_1_Cust_Id ASC);
```

10. T10_INSURANCE_COMPANY

```
CREATE TABLE T10_INSURANCE_COMPANY

(

T10_10_Company_Name VARCHAR(50) NOT NULL ,

T10_10_Company_Address VARCHAR(150) NULL ,

T10_10_Company_Contact_Number VARCHAR(50) NULL ,

T10_10_Company_Fax VARCHAR(50) NULL ,

T10_10_Company_Email VARCHAR(50) NULL ,

T10_10_Company_Website VARCHAR(50) NULL ,

T10_10_Company_Location VARCHAR(20) NULL ,

T10_10_Company_Department_Name VARCHAR(20) NULL ,

T10_10_Company_Office_Name VARCHAR(50) NULL ,

CONSTRAINT XPKINSURANCE_COMPANY_15 PRIMARY KEY

(T10_10_Company_Name)
```

);

CREATE UNIQUE INDEX XPKINSURANCE_COMPANY_15 ON

T10_INSURANCE_COMPANY

(T10_10_Company_Name ASC);

11. T10_VEHICLE_SERVICE

CREATE TABLE T10_VEHICLE_SERVICE

(

T10_11_Department_Name VARCHAR(25) NOT NULL ,

T10_11_Vehicle_Service_Company_Name VARCHAR(30) NOT NULL ,

T10_11_Vehicle_Service_Address VARCHAR(50) NULL ,

T10_11_Vehicle_Service_Contact VARCHAR(20) NULL ,

T10_11_Vehicle_Service_Incharge VARCHAR(30) NULL ,

T10_11_Vehicle_Service_Type VARCHAR(20) NULL ,

T10_11_Department_Id CHAR(25) NOT NULL ,

T10_10_Company_Name VARCHAR(50) NOT NULL ,

CONSTRAINT XPKVEHICLE_SERVICE PRIMARY KEY

(T10_11_Vehicle_Service_Company_Name,T10_11_Department_Name),

CONSTRAINT R_50 FOREIGN KEY (T10_11_Department_Name,
T10_11_Department_Id,

T10_10_Company_Name) REFERENCES T10_DEPARTMENT
(T10_13_Department_Name,

T10_13_Department_ID, T10_10_Company_Name) ON DELETE CASCADE
ON UPDATE CASCADE

);

CREATE UNIQUE INDEX XPKVEHICLE_SERVICE ON
T10_VEHICLE_SERVICE

(T10_11_Vehicle_Service_Company_Name ASC,T10_11_Department_Name
ASC);

12. T10_NOK

CREATE TABLE T10_NOK

(

T10_12_Nok_Id VARCHAR(20) NOT NULL ,

T10_12_Nok_Name VARCHAR(20) NULL ,

T10_12_Nok_Address VARCHAR(20) NULL ,

T10_12_Nok_Phone_Number INTEGER NULL ,

T10_12_Nok_Gender CHAR(2) NULL ,

T10_12_Nok_Marital_Status CHAR(10) NULL ,

T10_4_Agreement_id VARCHAR(20) NOT NULL ,

T10_2_Application_Id VARCHAR(20) NOT NULL ,

T10_1_Cust_Id VARCHAR(20) NOT NULL ,

CONSTRAINT XPKNOK_14 PRIMARY KEY

(T10_12_Nok_Id,T10_4_Agreement_id,T10_2_Application_Id,T10_1_Cust_Id),

```
CONSTRAINT R_99 FOREIGN KEY (T10_4_Agreement_id,
T10_2_Application_Id, T10_1_Cust_Id)

REFERENCES T10_INSURANCE_POLICY (T10_4_Agreement_id,
T10_2_Application_Id, T10_1_Cust_Id) ON DELETE CASCADE

ON  UPDATE CASCADE

);


CREATE UNIQUE INDEX XPKNOK_14 ON T10_NOK

(T10_12_Nok_Id ASC,T10_4_Agreement_id ASC,T10_2_Application_Id ASC,
T10_1_Cust_Id ASC);
```

13. T10_DEPARTMENT

```
CREATE TABLE T10_DEPARTMENT

(

T10_13_Department_Name VARCHAR(25)  ,

T10_13_Department_ID CHAR(25) NOT NULL ,

T10_13_Department_Staff CHAR(25) NULL ,

T10_13_Department_Offices CHAR(25) NULL ,

T10_10_Company_Name VARCHAR(50) ,

CONSTRAINT XPKDEPARTMENT PRIMARY KEY
```

```
(T10_13_Department_Name,T10_13_Department_ID,T10_10_Company_Name),

CONSTRAINT R_56 FOREIGN KEY (T10_10_Company_Name)

REFERENCES T10_INSURANCE_COMPANY (T10_10_Company_Name) ON
DELETE CASCADE ON UPDATE CASCADE

);


CREATE UNIQUE INDEX XPKDEPARTMENT ON T10_DEPARTMENT

(T10_13_Department_Name ASC,T10_13_Department_ID
ASC,T10_10_Company_Name ASC);
```

14. T10_INCIDENT

```
CREATE TABLE T10_INCIDENT

(

T10_14_Incident_Id VARCHAR(20) NOT NULL ,

T10_14_Incident_Type VARCHAR(30) NULL ,

T10_14_Incident_Date DATE NOT NULL ,

T10_14_Description VARCHAR(100) NULL ,

CONSTRAINT XPKINCIDENT_17 PRIMARY KEY (T10_14_Incident_Id)

);
```

```
CREATE UNIQUE INDEX XPKINCIDENT_17 ON T10_INCIDENT

(T10_14_Incident_Id ASC);
```

15. T10_PRODUCT

```
CREATE TABLE T10_PRODUCT

(

T10_15_Product_Price INTEGER NULL ,

T10_15_Product_Type CHAR(100) NULL ,

T10_15_Product_Number VARCHAR(50) NOT NULL ,

T10_10_Company_Name VARCHAR(50) NOT NULL ,

CONSTRAINT XPKPRODUCT_20 PRIMARY KEY

(T10_15_Product_Number,T10_10_Company_Name),

CONSTRAINT R_107 FOREIGN KEY (T10_10_Company_Name)
REFERENCES

T10_INSURANCE_COMPANY (T10_10_Company_Name) ON DELETE
CASCADE ON UPDATE CASCADE

);

CREATE UNIQUE INDEX XPKPRODUCT_20 ON T10_PRODUCT

(T10_15_Product_Number ASC,T10_10_Company_Name ASC);
```

16. T10_COVERAGE

```
CREATE TABLE T10_COVERAGE

(

T10_8_Coverage_Id VARCHAR(20) NOT NULL ,

T10_16_Coverage_Amount INTEGER NOT NULL ,

T10_16_Coverage_Type CHAR(50) NOT NULL ,

T10_3_Coverage_Level CHAR(50) NOT NULL ,

T10_16_Product_Id VARCHAR(20) NOT NULL ,

T10_16_Coverage_Description VARCHAR(200) NULL ,

T10_16_Coveage_Terms VARCHAR(500) NULL ,

T10_10_Company_Name VARCHAR(50) NOT NULL ,

CONSTRAINT XPKCOVERAGE_19 PRIMARY KEY

(T10_8_Coverage_Id,T10_10_Company_Name),

CONSTRAINT R_102 FOREIGN KEY (T10_10_Company_Name)
REFERENCES

T10_INSURANCE_COMPANY (T10_10_Company_Name) ON DELETE
CASCADE ON UPDATE CASCADE

);

CREATE UNIQUE INDEX XPKCOVERAGE_19 ON T10_COVERAGE

(T10_8_Coverage_Id ASC,T10_10_Company_Name ASC);
```

17. T10_INCIDENT_REPORT

```
CREATE TABLE T10_INCIDENT_REPORT
```

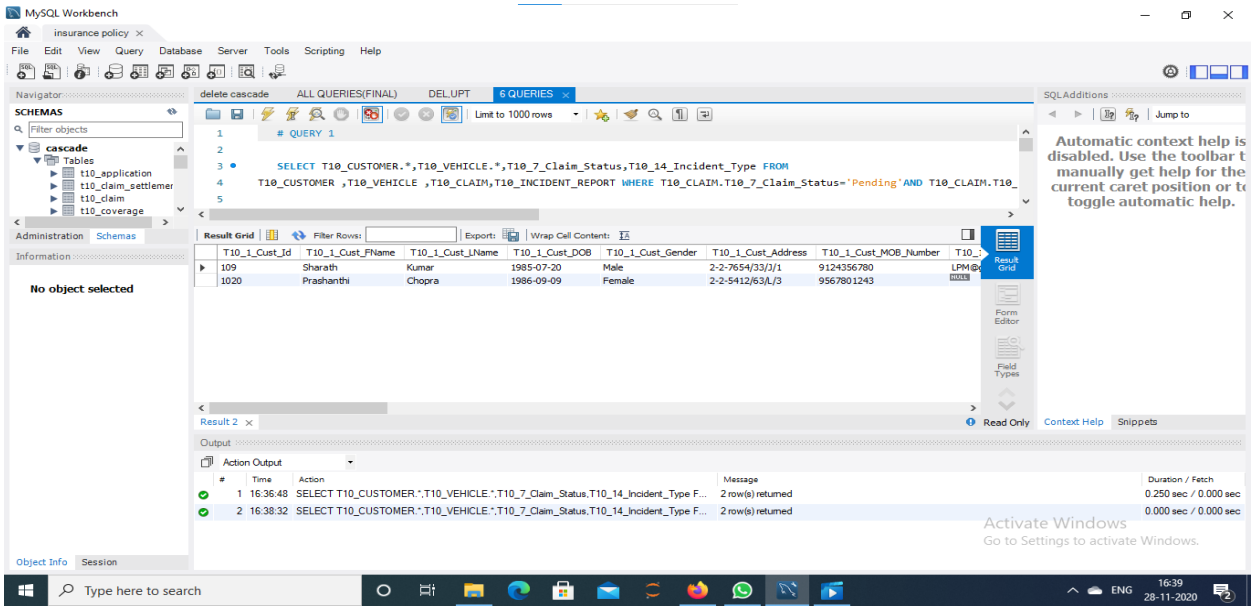
```
(
        T10_17_Incident_Report_Id VARCHAR(20) NOT NULL ,
    T10_14_Incident_Type VARCHAR(50) NULL ,
    T10_17_Incident_Inspector VARCHAR(20) NULL ,
    T10_17_Incident_Cost INTEGER NULL ,
    T10_17_Incident_Report_Description VARCHAR(100) NULL ,
    T10_14_Incident_Id VARCHAR(20) NOT NULL ,
T10_1_Cust_Id VARCHAR(20) NOT NULL ,
CONSTRAINT XPKINCIDENT_REPORT_18 PRIMARY KEY
(T10_17_Incident_Report_Id,T10_14_Incident_Id,T10_1_Cust_Id),
CONSTRAINT R_83 FOREIGN KEY (T10_14_Incident_Id) REFERENCES
T10_INCIDENT
(T10_14_Incident_Id) ON DELETE CASCADE ON UPDATE CASCADE,
CONSTRAINT R_86 FOREIGN KEY (T10_1_Cust_Id) REFERENCES
T10_CUSTOMER
(T10_1_Cust_Id) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKINCIDENT_REPORT_18 ON
T10_INCIDENT_REPORT
(T10_17_Incident_Report_Id ASC,T10_1_Cust_Id);
```

Query 1

```
SELECT T10_CUSTOMER.*,T10_VEHICLE.*,T10_7_Claim_Status,
T10_14_Incident_Type FROM
```

T10_CUSTOMER ,T10_VEHICLE ,T10_CLAIM,T10_INCIDENT_REPORT WHERE T10_CLAIM.T10_7_Claim_Status='Pending' AND T10_CLAIM.T10_1_Cust_Id=T10_CUSTOMER.T10_1_Cust_Id AND T10_CUSTOMER.T10_1_Cust_Id=T10_VEHICLE.T10_6_Cust_Id AND T10_CUSTOMER.T10_1_Cust_Id = T10_INCIDENT_REPORT.T10_1_Cust_Id;

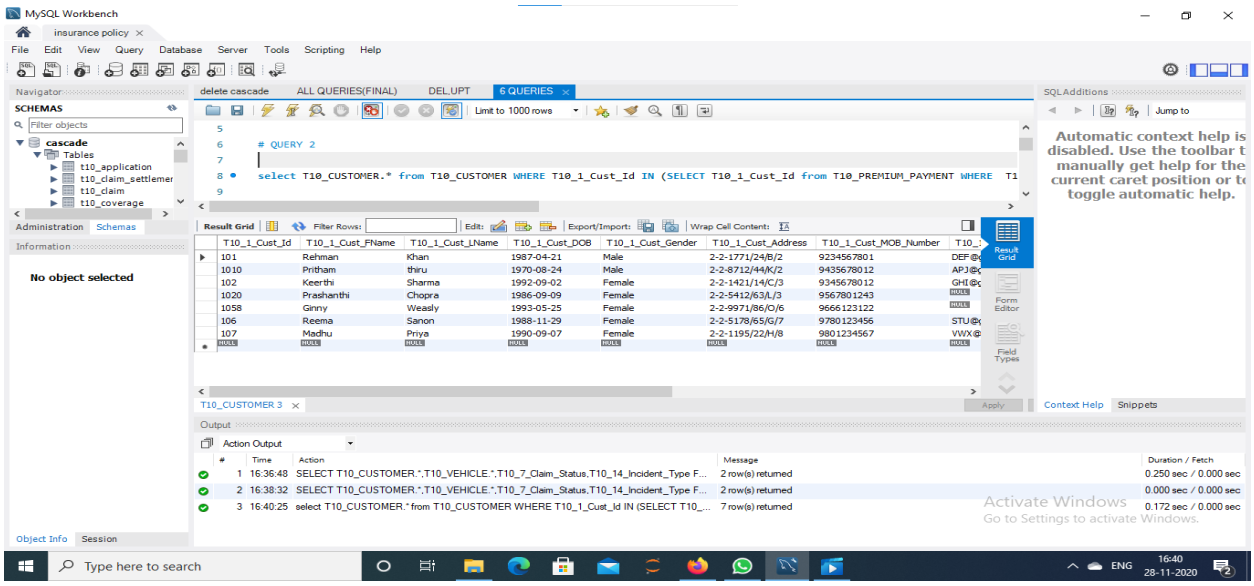
OUTPUT



QUERY 2

select T10_CUSTOMER.* from T10_CUSTOMER WHERE T10_1_Cust_Id IN (SELECT T10_1_Cust_Id from T10_PREMIUM_PAYMENT WHERE T10_PREMIUM_PAYMENT.T10_5_Premium_Payment_Amount > ANY(SELECT SUM(T10_1_Cust_Id) FROM T10_CUSTOMER));

OUTPUT

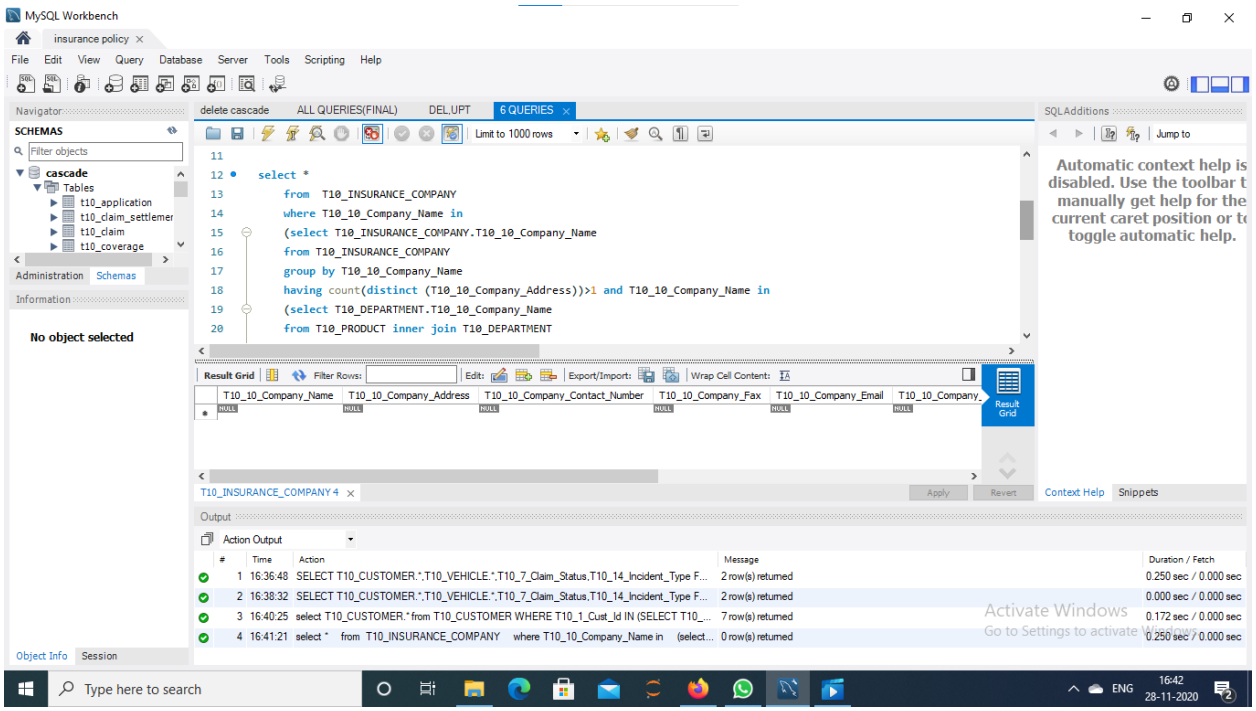


QUERY 3

```
select *
   from  T10_INSURANCE_COMPANY
   where T10_10_Company_Name in
   (select T10_INSURANCE_COMPANY.T10_10_Company_Name
   from T10_INSURANCE_COMPANY
   group by T10_10_Company_Name
   having count(distinct (T10_10_Company_Address))>1 and
T10_10_Company_Name in
   (select T10_DEPARTMENT.T10_10_Company_Name
   from T10_PRODUCT inner join T10_DEPARTMENT
   on T10_DEPARTMENT.T10_10_Company_Name =
T10_PRODUCT.T10_10_Company_Name
   group by T10_DEPARTMENT.T10_10_Company_Name
```

having count(distinct (T10_15_Product_Number)) > count(distinct (T10_13_Department_Name))));

OUTPUT



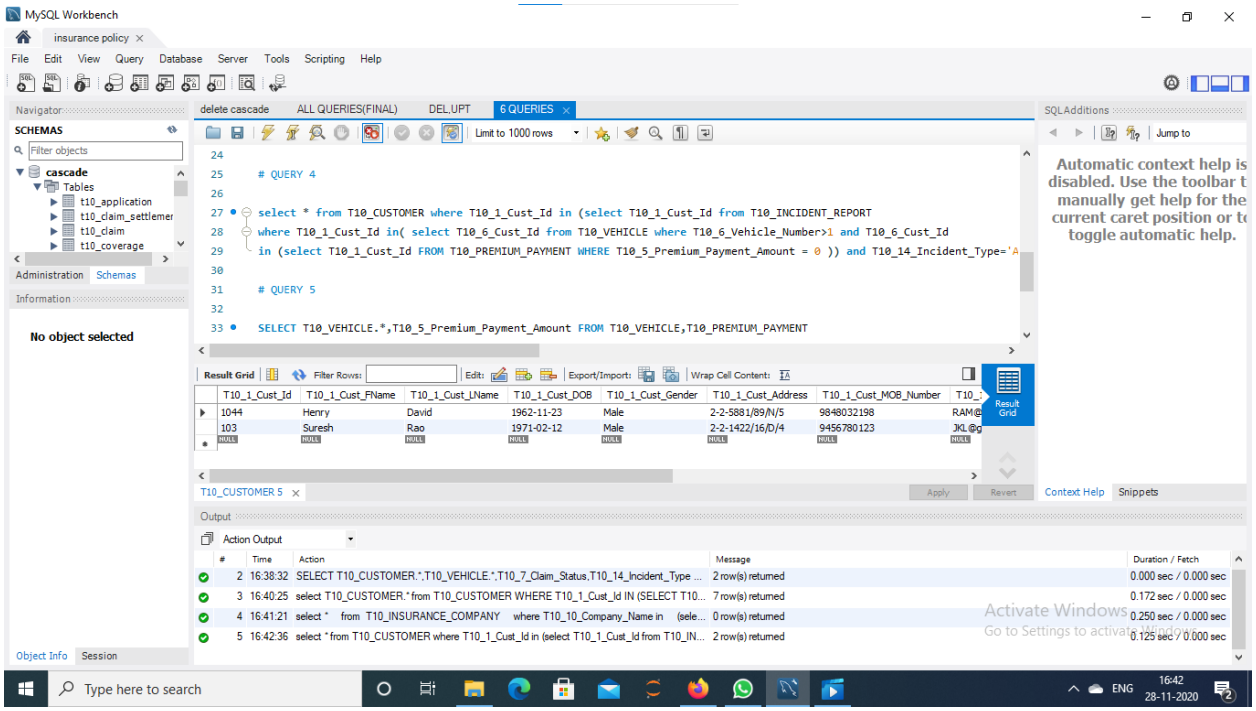
QUERY 4

select * from T10_CUSTOMER where T10_1_Cust_Id in (select T10_1_Cust_Id from T10_INCIDENT_REPORT

where T10_1_Cust_Id in(select T10_6_Cust_Id from T10_VEHICLE where T10_6_Vehicle_Number>1 and T10_6_Cust_Id

in (select T10_1_Cust_Id FROM T10_PREMIUM_PAYMENT WHERE T10_5_Premium_Payment_Amount = 0)) and T10_14_Incident_Type='Accident');

OUTPUT

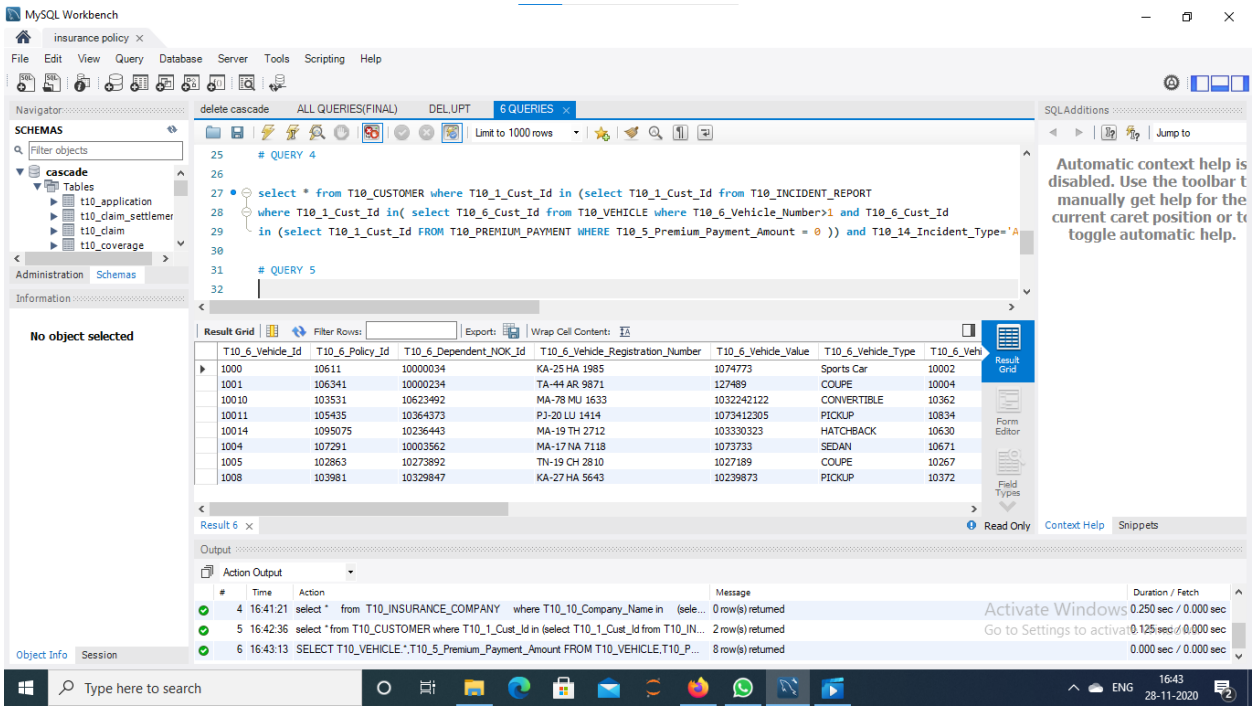


QUERY 5

SELECT T10_VEHICLE.*,T10_5_Premium_Payment_Amount FROM T10_VEHICLE,T10_PREMIUM_PAYMENT

WHERE (T10_5_Premium_Payment_Amount > T10_6_Vehicle_Number AND T10_PREMIUM_PAYMENT.T10_1_Cust_Id = T10_VEHICLE.T10_6_Cust_Id);

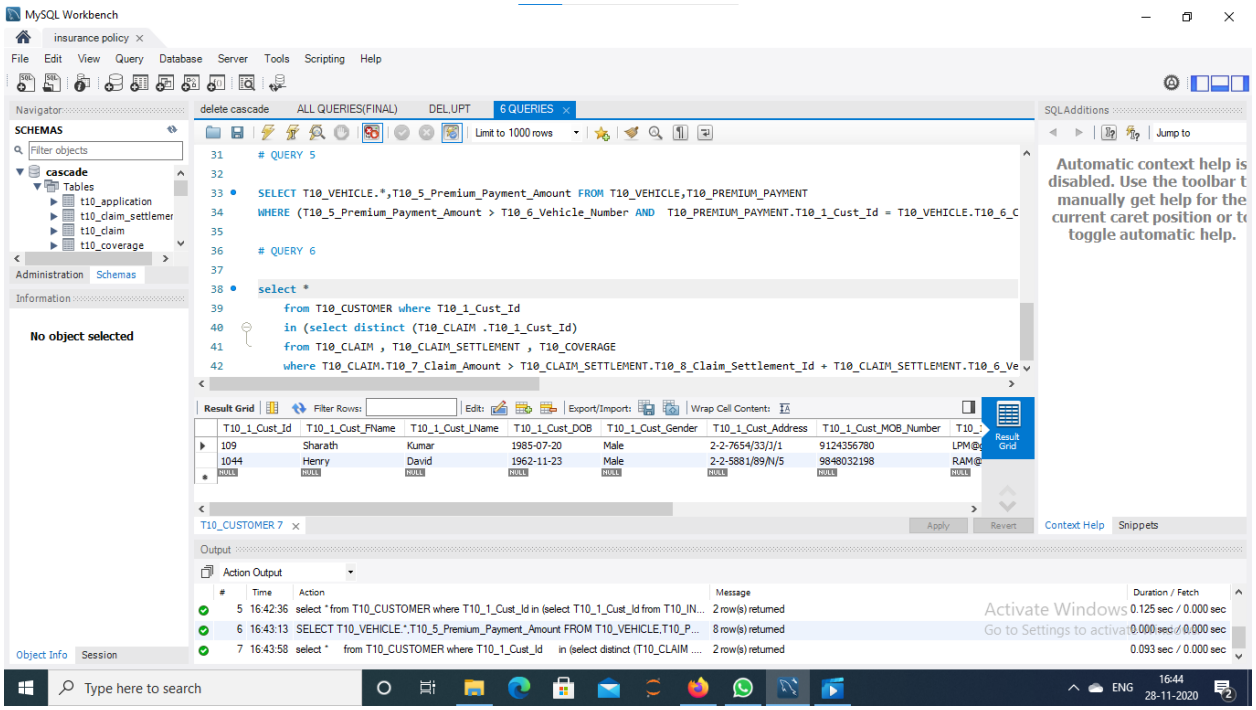
OUTPUT



QUERY 6

```
select *
   from T10_CUSTOMER where T10_1_Cust_Id
   in (select distinct (T10_CLAIM .T10_1_Cust_Id)
        from T10_CLAIM , T10_CLAIM_SETTLEMENT , T10_COVERAGE
   where T10_CLAIM.T10_7_Claim_Amount >
T10_CLAIM_SETTLEMENT.T10_8_Claim_Settlement_Id +
T10_CLAIM_SETTLEMENT.T10_6_Vehicle_Id +
T10_CLAIM.T10_7_Claim_Id + T10_CLAIM.T10_1_Cust_Id and
T10_16_Coverage_Amount > T10_CLAIM.T10_7_Claim_Amount );
```

OUTPUT



Conclusion

We have as class project created database (DB) with all documentations and reports included. Our goal was to create DB for Online car vehicle insurance company with code generated for MySQL. There were some
big and small challenges but we succeeded in making a functional DB. We started to build conceptual data model (CDM) we continued with logical data model (LDM) and then we made physical data model (PDM) all in MySQL

Workbench.From physical data model we created a code to be run in MySQL data base management system (DBMS).For better understanding for a reader and for our learning we included some theory in each faze we done and cumented in project initial document (PID) with reports of progress and work being done.

DELETE CASCADE PROBLEM

ON DELETE RESTRICT means you **can't** delete a given **parent row** if a **child row exists** that references the value for that parent row. If the parent row has no referencing child rows, then you can delete that parent row.