# A database for a Vehicle Insurance Company

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# Team 3

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### Physical Data Model(PDM)

### PDM for vehicle insurance service

```
- Creating table and testing sql queries using MySQL Workbench
CREATE DATABASE IF NOT EXISTS mydb;
USE mydb;
CREATE TABLE IF NOT EXISTS t3 INCIDENT
t3 Incident Id VARCHAR(20) NOT NULL,
t3_Incident_Type VARCHAR(50) NULL,
t3 Incident Date DATE NOT NULL,
t3 Description VARCHAR(1000) NULL,
CONSTRAINT XPKINCIDENT 17 PRIMARY KEY (t3 Incident Id)
);
CREATE UNIQUE INDEX XPKINCIDENT_17 ON t3_INCIDENT (t3_Incident_Id ASC);
CREATE TABLE IF NOT EXISTS t3_CUSTOMER
(
t3 Cust Id VARCHAR(15) NOT NULL,
t3 Cust FName VARCHAR(15) NOT NULL,
t3 Cust LName VARCHAR(15) NOT NULL,
t3 Cust DOB DATE NOT NULL,
t3_Cust_Gender CHAR(2) NOT NULL,
t3 Cust Address VARCHAR(35) NOT NULL,
t3 Cust MOB Number BIGINT NOT NULL,
t3 Cust Email VARCHAR(25) NULL,
t3 Cust Passport Number VARCHAR(20) NULL,
```

```
t3_Cust_Marital_Status CHAR(12) NULL,
t3 Cust PPS Number INTEGER NULL,
CONSTRAINT XPKCUSTOMER PRIMARY KEY (t3 Cust Id)
);
CREATE UNIQUE INDEX XPKCUSTOMER_1 ON t3_CUSTOMER (t3_Cust_Id ASC);
CREATE TABLE IF NOT EXISTS t3 INCIDENT REPORT
Incident Report Id VARCHAR(20) NOT NULL,
t3 Incident Type CHAR(50) NULL,
t3 Incident Inspector VARCHAR(20) NULL,
t3 Incident Cost INTEGER NULL,
t3 Incident Report Description VARCHAR(1000) NULL,
t3 Incident Id VARCHAR(20) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKINCIDENT_REPORT_18 PRIMARY KEY
(Incident Report Id,t3 Incident Id,t3 Cust Id),
CONSTRAINT R 83 FOREIGN KEY (t3 Incident Id) REFERENCES t3 INCIDENT (t3 Incident Id) ON
DELETE CASCADE ON UPDATE CASCADE,
CONSTRAINT R 86 FOREIGN KEY (t3 Cust Id) REFERENCES t3 CUSTOMER (t3 Cust Id) ON
DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKINCIDENT_REPORT_18 ON t3_INCIDENT_REPORT (Incident_Report_Id ASC,t3_Incident_Id
ASC,t3_Cust_Id ASC);
```

```
CREATE TABLE IF NOT EXISTS t3 INSURANCE COMPANY
t3 Company Name VARCHAR(70) NOT NULL,
t3 Company Address VARCHAR(400) NULL,
t3_Company_Contact_Number bigint NULL,
t3 Company Fax bigint NULL,
t3 Company Email VARCHAR(50) NULL,
t3 Company Website VARCHAR(50) NULL,
t3 Company Location VARCHAR(50) NULL,
t3 Company Department Name VARCHAR(50) NULL,
t3 Company Office Name VARCHAR(50) NULL,
CONSTRAINT XPKINSURANCE COMPANY 15 PRIMARY KEY
(t3 Company Name)
);
CREATE UNIQUE INDEX XPKINSURANCE_COMPANY_15 ON t3_INSURANCE_COMPANY
(t3_Company_Name ASC);
-- Table 5
CREATE TABLE IF NOT EXISTS t3 DEPARTMENT
t3_Department_Name VARCHAR(50) NOT NULL,
t3 Department ID VARCHAR(50) NOT NULL,
t3 Department Staff VARCHAR(50) NULL,
t3 Company Name VARCHAR(100) NOT NULL,
CONSTRAINT XPKDEPARTMENT PRIMARY KEY
(t3 Department Name,t3 Department ID,t3 Company Name),
CONSTRAINT R 56 FOREIGN KEY (t3 Company Name)
```

```
REFERENCES t3 INSURANCE COMPANY (t3 Company Name) ON DELETE CASCADE ON UPDATE
CASCADE
);
CREATE UNIQUE INDEX XPKDEPARTMENT ON t3 DEPARTMENT
(t3_Department_Name ASC,t3_Department_ID ASC,t3_Company_Name ASC);
CREATE TABLE t3 VEHICLE SERVICE
t3 Department Name VARCHAR(100) NOT NULL,
t3 Vehicle Service Company Name VARCHAR(10) NOT NULL,
t3 Vehicle Service Address VARCHAR(200) NULL,
t3 Vehicle Service Contact VARCHAR(200) NULL,
t3 Vehicle Service Incharge VARCHAR(200) NULL,
t3 Vehicle Service Type VARCHAR(200) NULL,
t3 Department ID VARCHAR(200) NOT NULL,
t3 Company Name VARCHAR(200) NOT NULL,
CONSTRAINT XPKVEHICLE_SERVICE PRIMARY KEY
(t3 Vehicle Service Company Name,t3 Department Name),
CONSTRAINT R 50 FOREIGN KEY (t3 Department Name, t3 Department ID,
t3_Company_Name) REFERENCES t3_DEPARTMENT (t3_Department_Name,
t3 Department ID, t3 Company Name) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKVEHICLE SERVICE ON t3 VEHICLE SERVICE
(t3_Vehicle_Service_Company_Name ASC,t3_Department_Name ASC);
```

```
CREATE TABLE t3 VEHICLE
t3 Vehicle Id VARCHAR(20) NOT NULL,
t3 Policy Id VARCHAR(20) NULL,
t3 Vehicle Registration Number VARCHAR(20) NOT NULL,
t3_Vehicle_Value bigint NULL,
t3 Vehicle Type VARCHAR(20) NOT NULL,
t3 Vehicle Size INTEGER NULL,
t3_Vehicle_Number_Of_Seat INTEGER NULL,
t3 Vehicle Manufacturer VARCHAR(20) NULL,
t3 Vehicle Engine Number INTEGER NULL,
t3_Vehicle_Chasis_Number INTEGER NULL,
t3 Vehicle Number INTEGER NULL,
t3 Vehicle Model Number VARCHAR(20) NULL,
t3_Cust_Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKVEHICLE 6 PRIMARY KEY (t3 Vehicle Id,t3 Cust Id),
CONSTRAINT R 92 FOREIGN KEY (t3 Cust Id) REFERENCES t3 CUSTOMER
(t3 Cust Id) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKVEHICLE 6 ON t3_VEHICLE (t3_Vehicle_Id ASC,t3_Cust_Id ASC);
CREATE TABLE t3 PREMIUM PAYMENT
t3 Premium Payment Id VARCHAR(20) NOT NULL,
t3 Policy Number VARCHAR(20) NOT NULL,
```

```
t3 Premium Payment Amount INTEGER NOT NULL,
t3 Premium Payment Schedule DATE NOT NULL,
t3 Receipt Id VARCHAR(20) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKPREMIUM PAYMENT 5 PRIMARY KEY
(t3 Premium Payment Id,t3 Cust Id),
CONSTRAINT R 85 FOREIGN KEY (t3 Cust Id) REFERENCES t3 CUSTOMER
(t3 Cust Id) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKPREMIUM_PAYMENT_5 ON
t3_PREMIUM_PAYMENT
(t3_Premium_Payment_Id ASC,t3_Cust_Id ASC);
CREATE TABLE IF NOT EXISTS t3_RECEIPT
t3 Receipt Id VARCHAR(20) NOT NULL,
t3 Time DATE NOT NULL,
t3 Cost INTEGER NOT NULL,
t3 Premium Payment Id VARCHAR(20) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKRECEIPT 21 PRIMARY KEY (t3 Receipt Id,t3 Premium Payment Id,t3 Cust Id),
CONSTRAINT R_84 FOREIGN KEY (t3_Premium_Payment_Id, t3_Cust_Id)
REFERENCES t3 PREMIUM PAYMENT (t3 Premium Payment Id, t3 Cust Id) ON DELETE
CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKRECEIPT_21 ON t3_RECEIPT (t3_Receipt_Id ASC,t3_Premium_Payment_Id ASC,t3_Cust_Id ASC);
```

```
CREATE TABLE IF NOT EXISTS t3 APPLICATION
t3_Application_Id VARCHAR(20) NOT NULL,
t3 Vehicle Id VARCHAR(20) NOT NULL,
t3 Application Status CHAR(8) NOT NULL,
t3_Coverage VARCHAR(50) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKAPPLICATION 2 PRIMARY KEY (t3 Application Id,t3 Cust Id),
CONSTRAINT R_93 FOREIGN KEY (t3_Cust_Id) REFERENCES t3_CUSTOMER
(t3 Cust Id) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKAPPLICATION 2 ON t3_APPLICATION
(t3_Application_Id ASC,t3_Cust_Id ASC);
CREATE TABLE IF NOT EXISTS t3 INSURANCE POLICY
t3_Agreement_id VARCHAR(20) NOT NULL,
t3_Department_Name VARCHAR(20) NULL,
t3_Policy_Number VARCHAR(20) NULL,
t3 Start Date DATE NULL,
t3 Expiry Date DATE NULL,
t3 Term Condition Description VARCHAR(400) NULL,
t3 Application Id VARCHAR(20) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
```

```
CONSTRAINT XPKINSURANCE_POLICY_4 PRIMARY KEY
(t3 Agreement id,t3 Application Id,t3 Cust Id),
CONSTRAINT R 95 FOREIGN KEY (t3 Application Id, t3 Cust Id) REFERENCES t3 APPLICATION
(t3 Application Id, t3 Cust Id) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKINSURANCE POLICY 4 ON t3 INSURANCE POLICY
(t3_Agreement_id ASC,t3_Application_Id ASC,t3_Cust_Id ASC);
CREATE TABLE t3_POLICY_RENEWABLE
t3 Policy Renewable Id VARCHAR(20) NOT NULL,
t3 Date Of Renewal DATE NOT NULL,
t3 Type Of Renewal CHAR(15) NOT NULL,
t3 Agreement id VARCHAR(20) NOT NULL,
t3 Application Id VARCHAR(20) NOT NULL,
t3_Cust_Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKPOLICY_RENEWABLE_16 PRIMARY KEY
(t3 Policy Renewable Id,t3 Agreement id,t3 Application Id,t3 Cust Id),
CONSTRAINT R 101 FOREIGN KEY (t3 Agreement id, t3 Application Id, t3 Cust Id)
REFERENCES t3_INSURANCE_POLICY (t3_Agreement_id, t3_Application_Id, t3_Cust_Id) ON DELETE
CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKPOLICY_RENEWABLE_16 ON
t3 POLICY RENEWABLE
(t3_Policy_Renewable_Id ASC,t3_Agreement_id ASC,t3_Application_Id
ASC,t3_Cust_Id ASC);
```

```
CREATE TABLE IF NOT EXISTS t3 MEMBERSHIP
t3 Membership Id VARCHAR(20) NOT NULL,
t3_Membership_Type CHAR(15) NOT NULL,
t3_Organisation_Contact VARCHAR(20) NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKMEMBERSHIP 12 PRIMARY KEY
(t3 Membership Id,t3 Cust Id),
CONSTRAINT R 91 FOREIGN KEY (t3 Cust Id) REFERENCES t3 CUSTOMER
(t3 Cust Id) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKMEMBERSHIP_12 ON t3_MEMBERSHIP
(t3_Membership_Id ASC,t3_Cust_Id ASC);
CREATE TABLE IF NOT EXISTS t3 QUOTE
t3 Quote Id VARCHAR(20) NOT NULL,
t3_Issue_Date DATE NOT NULL,
t3 Valid From Date DATE NOT NULL,
t3 Valid Till Date DATE NOT NULL,
t3\_Description\ VARCHAR(100)\ NULL ,
t3 Product Id VARCHAR(20) NOT NULL,
t3 Coverage Level VARCHAR(20) NOT NULL,
t3_Application_Id VARCHAR(20) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
```

```
CONSTRAINT XPKQUOTE_3 PRIMARY KEY
(t3 Quote Id,t3 Application Id,t3 Cust Id),
CONSTRAINT R 94 FOREIGN KEY (t3 Application Id, t3 Cust Id) REFERENCES
t3 APPLICATION (t3 Application Id, t3 Cust Id) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKQUOTE 3 ON t3 QUOTE
(t3_Quote_Id ASC,t3_Application_Id ASC,t3_Cust_Id ASC);
CREATE TABLE IF NOT EXISTS t3 STAFF
t3 Staff Id VARCHAR(200) NOT NULL,
t3 Staff Fname VARCHAR(100) NULL,
t3 Staff LName VARCHAR(100) NULL,
t3 Staff Address VARCHAR(200) NULL,
t3 Staff Contact BIGINT NULL,
t3 Staff Gender CHAR(2) NULL,
t3_Staff_Marital_Status CHAR(8) NULL,
t3 Staff Nationality CHAR(15) NULL,
t3 Staff Qualification VARCHAR(20) NULL,
t3_Staff_Allowance bigint NULL,
t3 Staff PPS Number bigint NULL,
t3 Company Name VARCHAR(400) NOT NULL,
CONSTRAINT XPKSTAFF 9 PRIMARY KEY (t3 Staff Id,t3 Company Name),
CONSTRAINT R 105 FOREIGN KEY (t3 Company Name) REFERENCES
t3 INSURANCE COMPANY (t3 Company Name) ON DELETE CASCADE ON UPDATE CASCADE
);
```

CREATE UNIQUE INDEX XPKSTAFF\_9 ON t3\_STAFF (t3\_Staff\_Id ASC,t3\_Company\_Name ASC);

```
CREATE TABLE t3 NOK
t3 Nok Id VARCHAR(20) NOT NULL,
t3 Nok Name VARCHAR(20) NULL,
t3 Nok Address VARCHAR(200) NULL,
t3 Nok Phone Number BIGINT NULL,
t3 Nok Gender CHAR(10) NULL,
t3 Nok Marital Status CHAR(8) NULL,
t3 Agreement id VARCHAR(20) NOT NULL,
t3_Application_Id VARCHAR(20) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKNOK 14 PRIMARY KEY
(t3_Nok_Id,t3_Agreement_id,t3_Application_Id,t3_Cust_Id),
CONSTRAINT R 99 FOREIGN KEY (t3 Agreement id, t3 Application Id, t3 Cust Id)
REFERENCES t3 INSURANCE POLICY (t3 Agreement id, t3 Application Id, t3 Cust Id) ON DELETE
CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKNOK 14 ON t3 NOK (t3 Nok Id ASC,t3 Agreement id ASC,t3 Application Id ASC);
CREATE TABLE IF NOT EXISTS t3 PRODUCT
t3_Product_Number VARCHAR(200) NOT NULL,
t3 Product Price INTEGER NULL,
```

```
t3 Product Type CHAR(40) NULL,
t3 Company Name VARCHAR(200) NOT NULL,
CONSTRAINT XPKPRODUCT 20 PRIMARY KEY (t3 Product Number,t3 Company Name),
CONSTRAINT R 107 FOREIGN KEY (t3 Company Name) REFERENCES t3 INSURANCE COMPANY
(t3 Company Name) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKPRODUCT 20 ON t3_PRODUCT (t3_Product_Number ASC,t3_Company_Name ASC);
CREATE TABLE IF NOT EXISTS t3 OFFICE
t3 Office Name VARCHAR(200) NOT NULL,
t3 Office Leader VARCHAR(200) NOT NULL,
t3 Contact Information VARCHAR(200) NOT NULL,
t3 Address VARCHAR(200) NOT NULL,
t3_Admin_Cost INTEGER NULL,
t3_Staff VARCHAR(50) NULL,
t3 Department Name VARCHAR(200) NOT NULL,
t3 Department ID VARCHAR(200) NOT NULL,
t3 Company Name VARCHAR(200) NOT NULL,
CONSTRAINT XPKOFFICE 11 PRIMARY
KEY(t3 Office Name,t3 Department Name,t3 Company Name),
CONSTRAINT R 104 FOREIGN KEY (t3 Department Name,t3 Department ID,t3 Company Name)
REFERENCES t3 DEPARTMENT (t3 Department Name,t3 Department ID,t3 Company Name) ON
DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKOFFICE_11 ON t3_OFFICE (t3_Office_Name ASC,t3_Department_Name ASC,t3_Company_Name ASC);
```

```
CREATE TABLE IF NOT EXISTS t3 COVERAGE
t3_Coverage_Id VARCHAR(20) NOT NULL,
t3 Coverage Amount INTEGER NOT NULL,
t3_Coverage_Type CHAR(30) NOT NULL,
t3_Coverage_Level CHAR(30) NOT NULL,
t3 Product Id VARCHAR(30) NOT NULL,
t3 Coverage Description VARCHAR(400) NULL,
t3_Coverage_Terms VARCHAR(50) NULL,
t3 Company Name VARCHAR(400) NOT NULL,
CONSTRAINT XPKCOVERAGE 19 PRIMARY KEY
(t3 Coverage Id,t3 Company Name),
CONSTRAINT R 102 FOREIGN KEY (t3 Company Name) REFERENCES
t3 INSURANCE COMPANY (t3 Company Name) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKCOVERAGE_19 ON t3_COVERAGE
(t3_Coverage_Id ASC,t3_Company_Name ASC);
CREATE TABLE IF NOT EXISTS t3_INSURANCE_POLICY_COVERAGE
t3 Agreement id VARCHAR(20) NOT NULL,
t3_Application_Id VARCHAR(20) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
t3 Coverage Id VARCHAR(20) NOT NULL,
```

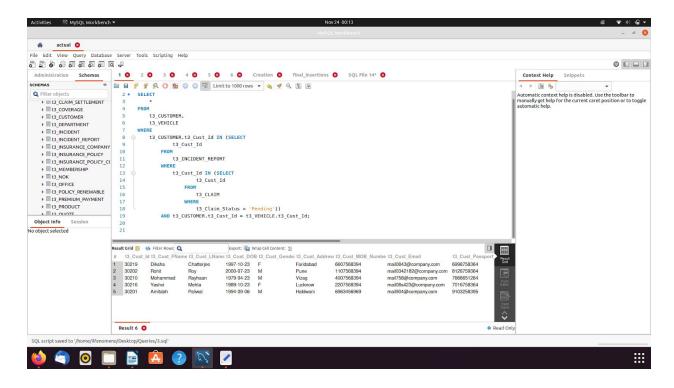
```
t3 Company Name VARCHAR(200) NOT NULL,
CONSTRAINT XPKINSURANCE POLICY 4 COVERAGE PRIMARY KEY
(t3 Agreement id,t3 Application Id,t3 Cust Id,t3 Coverage Id,t3 Company Name),
CONSTRAINT R 97 FOREIGN KEY (t3 Agreement id, t3 Application Id, t3 Cust Id)
REFERENCES t3 INSURANCE POLICY (t3 Agreement id, t3 Application Id, t3 Cust Id) ON DELETE
CASCADE ON UPDATE CASCADE,
CONSTRAINT R 98 FOREIGN KEY (t3 Coverage Id, t3 Company Name)
REFERENCES t3 COVERAGE (t3 Coverage Id, t3 Company Name) ON DELETE CASCADE ON
UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKINSURANCE POLICY 4 COVERAGE ON
t3_INSURANCE_POLICY_COVERAGE
(t3_Agreement_id ASC,t3_Application_Id ASC,t3_Cust_Id ASC,t3_Coverage_Id
ASC,t3_Company_Name ASC);
CREATE TABLE IF NOT EXISTS t3 CLAIM
t3 Claim Id VARCHAR(20) NOT NULL,
t3_Agreement_id VARCHAR(20) NOT NULL,
t3 Claim Amount INTEGER NOT NULL,
t3 Incident Id VARCHAR(20) NOT NULL,
t3 Damage Type VARCHAR(20) NOT NULL,
t3 Date Of Claim DATE NOT NULL,
t3 Claim Status CHAR(10) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKCLAIM 7 PRIMARY KEY (t3 Claim Id,t3 Cust Id),
```

```
CONSTRAINT R_88 FOREIGN KEY (t3_Cust_Id) REFERENCES t3_CUSTOMER
(t3 Cust Id) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKCLAIM_7 ON t3_CLAIM
(t3_Claim_Id ASC,t3_Cust_Id ASC);
CREATE TABLE IF NOT EXISTS t3 CLAIM SETTLEMENT
t3_Claim_Settlement_Id VARCHAR(20) NOT NULL,
t3 Vehicle Id VARCHAR(20) NOT NULL,
t3 Date Settled DATE NOT NULL,
t3 Amount Paid INTEGER NOT NULL,
t3 Coverage Id VARCHAR(20) NOT NULL,
t3_Claim_Id VARCHAR(20) NOT NULL,
t3 Cust Id VARCHAR(20) NOT NULL,
CONSTRAINT XPKCLAIM SETTLEMENT 8 PRIMARY KEY
(t3_Claim_Settlement_Id,t3_Claim_Id,t3_Cust_Id),
CONSTRAINT R 90 FOREIGN KEY (t3 Claim Id, t3 Cust Id) REFERENCES t3 CLAIM
(t3 Claim Id, t3 Cust Id) ON DELETE CASCADE ON UPDATE CASCADE
);
CREATE UNIQUE INDEX XPKCLAIM_SETTLEMENT_8 ON
t3_CLAIM_SETTLEMENT
(t3_Claim_Settlement_Id ASC,t3_Claim_Id ASC,t3_Cust_Id ASC);
```

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# **TESTING QUERY 1**

```
SELECT
FROM
 t3_CUSTOMER,
 t3_VEHICLE
WHERE
 t3_CUSTOMER.t3_Cust_Id IN (SELECT
     t3_Cust_Id
   FROM
     t3_INCIDENT_REPORT
   WHERE
     t3_Cust_Id IN (SELECT
        t3_Cust_Id
       FROM
        t3_CLAIM
       WHERE
        t3_Claim_Status = 'Pending'))
   AND t3_CUSTOMER.t3_Cust_Id = t3_VEHICLE.t3_Cust_Id;
```



## **TESTING QUERY 2**

```
SELECT
```

\*

#### **FROM**

t3\_CUSTOMER

#### **WHERE**

t3 Cust id IN (SELECT

t3\_Cust\_Id

### **FROM**

t3\_PREMIUM\_PAYMENT

#### **WHERE**

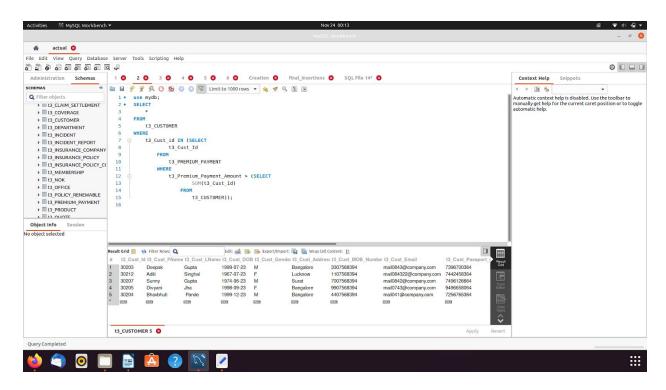
t3 Premium Payment Amount > (SELECT

SUM(t3\_Cust\_Id)

**FROM** 

t3 CUSTOMER));

# **OUTPUT QUERY 2**



### **TESTING QUERY 3**

**SELECT** 

\*

**FROM** 

t3\_INSURANCE\_COMPANY

**WHERE** 

t3\_Company\_Name IN (SELECT

t3 Company Name

**FROM** 

```
t3_OFFICE

GROUP BY t3_Company_Name

HAVING COUNT(DISTINCT (t3_Address)) > 1)

AND t3_Company_Name IN (SELECT

t3_DEPARTMENT.t3_Company_Name

FROM

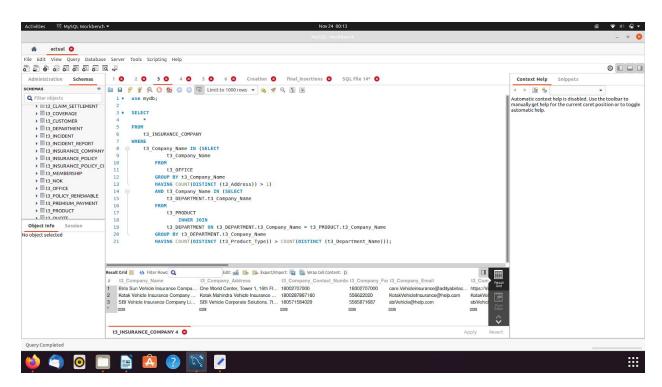
t3_PRODUCT

INNER JOIN

t3_DEPARTMENT ON t3_DEPARTMENT.t3_Company_Name = t3_PRODUCT.t3_Company_Name

GROUP BY t3_DEPARTMENT.t3_Company_Name

HAVING COUNT(DISTINCT (t3_Product_Type)) > COUNT(DISTINCT (t3_Department_Name)));
```



# **TESTING QUERY 4**

```
FROM

t3_CUSTOMER

WHERE

t3_Cust_id IN (SELECT

t1.t3_Cust_ld

FROM

t3_VEHICLE AS t1

INNER JOIN

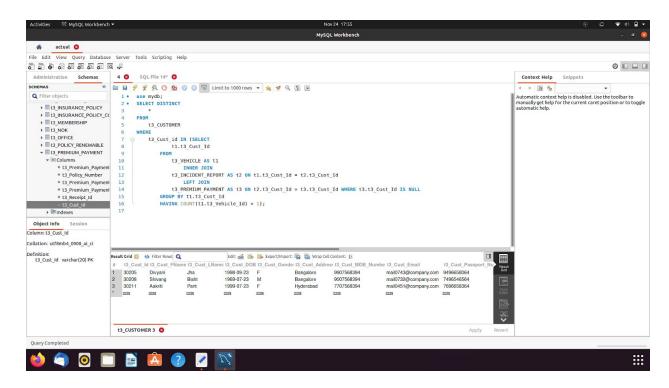
t3_INCIDENT_REPORT AS t2 ON t1.t3_Cust_ld = t2.t3_Cust_ld

LEFT JOIN

t3_PREMIUM_PAYMENT AS t3 ON t2.t3_Cust_ld = t3.t3_Cust_ld WHERE t3.t3_Cust_ld IS NULL

GROUP BY t1.t3_Cust_ld

HAVING COUNT(t1.t3_Vehicle_ld) > 1);
```



### **TESTING QUERY 5**

**SELECT** 

t1.\*

**FROM** 

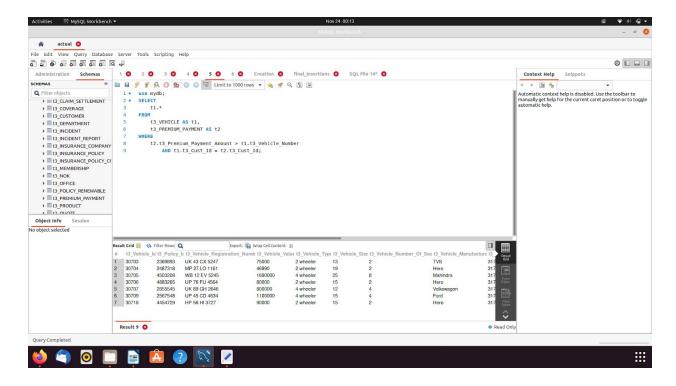
t3\_VEHICLE AS t1,

t3 PREMIUM PAYMENT AS t2

**WHERE** 

t2.t3\_Premium\_Payment\_Amount > t1.t3\_Vehicle\_Number

**AND t1.t3** Cust Id = **t2.t3** Cust Id;



### **TESTING QUERY 6**

```
SELECT DISTINCT
```

t1.\*

#### **FROM**

```
t3_CUSTOMER AS t1,
```

t3 COVERAGE AS t2,

t3\_CLAIM\_SETTLEMENT AS t3,

t3\_CLAIM AS t4

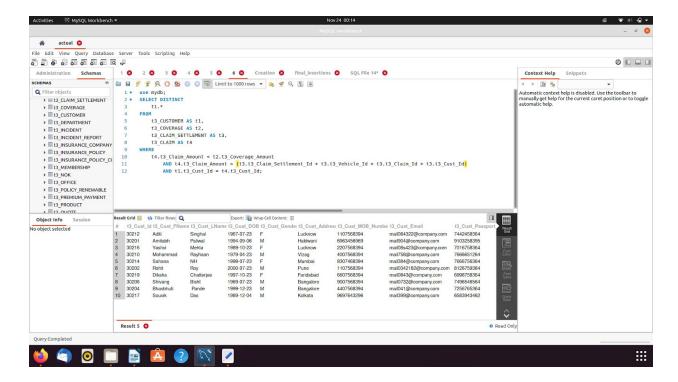
#### WHERE

```
t4.t3 Claim Amount < t2.t3 Coverage Amount
```

AND t4.t3\_Claim\_Amount > (t3.t3\_Claim\_Settlement\_Id + t3.t3\_Vehicle\_Id + t3.t3\_Claim\_Id +

t3.t3 Cust Id)

AND t1.t3 Cust Id = t4.t3 Cust Id;



### Conclusion

We have a class project created database (DB) with all documentations and reports included. Our goal was to create a DB for Online vehicle insurance companies with code generated for MySQL workbench. There were some big and small challenges but we succeeded in making a functional DB. We started to build conceptual data models (CDM), we continued with logical data models (LDM) and then we made physical data models (PDM). From the physical data model we created a code to be run in MySQL database management system (DBMS). For better understanding for a reader and for our learning we included some theory in each phase we did and documented in the project initial document (PID) with reports of progress and work being done.