

4.Consider insurance database with following schema :

person(driver-id, name, address)
car(license, model, year)
accident (report - no, date, location)
owns(driver-id,license)
participated(driver-id,car,report-no,damage-amount)

Write a query in SQL for following requirements :

-- Create the Insurance Database

CREATE DATABASE Insurance;

-- Use the Insurance Database

USE Insurance;

-- Create the "person" Table

CREATE TABLE person (
driver_id INT PRIMARY KEY,
name VARCHAR(255),
address VARCHAR(255)
);

-- Create the "car" Table

CREATE TABLE car (
license VARCHAR(50) PRIMARY KEY,
model VARCHAR(255),
year INT
);

-- Create the "accident" Table

CREATE TABLE accident (
report_no INT PRIMARY KEY,
date DATE,
location VARCHAR(255)
);

-- Create the "owns" Table

CREATE TABLE owns (
driver_id INT,
license VARCHAR(50),
PRIMARY KEY (driver_id, license),
FOREIGN KEY (driver_id) REFERENCES person(driver_id),
FOREIGN KEY (license) REFERENCES car(license)
);

-- Create the "participated" Table

CREATE TABLE participated (
driver_id INT,
car VARCHAR(50),
report_no INT,

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damage_amount DECIMAL(10, 2),
PRIMARY KEY (driver_id, car, report_no),
FOREIGN KEY (driver_id) REFERENCES person(driver_id),
FOREIGN KEY (car) REFERENCES car(license),
FOREIGN KEY (report_no) REFERENCES accident(report_no)
);

-- Insert record 1
INSERT INTO person VALUES (1, 'John Doe', 'Pune');
INSERT INTO car VALUES ('XYZ123', 'Toyota', 2016);
INSERT INTO accident VALUES (101, '2016-07-15', 'Intersection A');
INSERT INTO owns VALUES (1, 'XYZ123');
INSERT INTO participated VALUES (1, 'XYZ123', 101, 1500.00);

-- Insert record 2
INSERT INTO person VALUES (2, 'Alice Smith', 'Mumbai');
INSERT INTO car VALUES ('ABC456', 'Honda', 2017);
INSERT INTO accident VALUES (102, '2016-08-22', 'Highway B');
INSERT INTO owns VALUES (2, 'ABC456');
INSERT INTO participated VALUES (2, 'ABC456', 102, 2000.00);

-- Insert record 3
INSERT INTO person VALUES (3, 'Bob Johnson', 'Pune');
INSERT INTO car VALUES ('DEF789', 'Ford', 2015);
INSERT INTO accident VALUES (103, '2016-11-10', 'Street C');
INSERT INTO owns VALUES (3, 'DEF789');
INSERT INTO participated VALUES (3, 'DEF789', 103, 1200.00);

-- Insert record 4
INSERT INTO person VALUES (4, 'Anna Taylor', 'Mumbai');
INSERT INTO car VALUES ('GHI123', 'Chevrolet', 2016);
INSERT INTO accident VALUES (104, '2016-12-01', 'Intersection D');
INSERT INTO owns VALUES (4, 'GHI123');
INSERT INTO participated VALUES (4, 'GHI123', 104, 1800.00);

-- Insert record 5
INSERT INTO person VALUES (5, 'Alex Williams', 'Delhi');
INSERT INTO car VALUES ('JKL456', 'Nissan', 2017);
INSERT INTO accident VALUES (105, '2016-09-05', 'Street E');
INSERT INTO owns VALUES (5, 'JKL456');
INSERT INTO participated VALUES (5, 'JKL456', 105, 2500.00);

```

i) Find the total no. of people who owned cars that were involved in accidents in 2016.

```

SELECT COUNT(DISTINCT p.driver_id) AS Total_People
FROM person p
JOIN owns o ON p.driver_id = o.driver_id
JOIN participated pa ON o.license = pa.car

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JOIN accident a ON pa.report_no = a.report_no  
WHERE YEAR(a.date) = 2016;
```

ii) Retrieve the name of person whose address contains Pune.

```
SELECT name  
FROM person  
WHERE address LIKE '%Pune%';
```

iii) Find the name of persons having more than two cars.

```
SELECT p.name  
FROM person p  
JOIN owns o ON p.driver_id = o.driver_id  
GROUP BY p.driver_id, p.name  
HAVING COUNT(o.license) > 2;
```