

0.3 SQL Table for Insurance

you-said

For this Insurance data, create sql tables Person (driver_id, name, address) - Primary Keys (driver_id) Car (license_plate, model, year) - Primary Keys (license_plate) Accident (report_number, year, location) - Primary Keys (report_number) Own (driver_id, license_plate) - Primary Keys (driver_id, license_plate) Participated (report_number, license_plate, driver_id, damage_amount) - Primary Keys (report_number, license_plate)

ChatGPT said:

Here are the SQL statements to create the tables for your Insurance data schema:

```
[] sqlCopy code-- Table: Person CREATE TABLE Person ( driver_id INT PRIMARY KEY, name VARCHAR(100), address VARCHAR(255) );
```

```
-- Table: Car CREATE TABLE Car ( license_plate VARCHAR(20) PRIMARY KEY, model VARCHAR(50), year INT );
```

```
-- Table: Accident CREATE TABLE Accident ( report_number INT PRIMARY KEY, year INT, location VARCHAR(255) );
```

```
-- Table: Own CREATE TABLE Own ( driver_id INT, license_plate VARCHAR(20), PRIMARY KEY (driver_id, license_plate), FOREIGN KEY (driver_id) REFERENCES Person(driver_id) ON DELETE CASCADE, FOREIGN KEY (license_plate) REFERENCES Car(license_plate) ON DELETE CASCADE );
```

```
-- Table: Participated CREATE TABLE Participated ( report_number INT, license_plate VARCHAR(20), driver_id INT, damage_amount DECIMAL(10, 2), PRIMARY KEY (report_number, license_plate), FOREIGN KEY (report_number) REFERENCES Accident(report_number) ON DELETE CASCADE, FOREIGN KEY (license_plate) REFERENCES Car(license_plate) ON DELETE CASCADE, FOREIGN KEY (driver_id) REFERENCES Person(driver_id) ON DELETE CASCADE );
```

explanation

Explanation:

- **Person**, **Car**, and **Accident** tables each have a single primary key.
- The **Own** table uses a composite primary key of **driver_id** and **license_plate**, with foreign key constraints referencing **Person** and **Car**.
- The **Participated** table uses a composite primary key of **report_number** and **license_plate**, with foreign key constraints referencing **Accident**, **Car**, and **Person**.

you-said-1

write SQL queries for generating data for these tables. Create 5 Persons, 3 of them have more than 1 car and one person with multiple cars has been in an accident and one person who has only one car has been in accident. Also insert data for participated folder

ChatGPT said:

Here are the SQL INSERT queries to generate data for the tables based on your requirements:

insert-5-persons

1. Insert 5 Persons

```
[] sqlCopy codeINSERT INTO Person (driver_id, name, address) VALUES (1, 'John Doe', '123 Maple Street'), (2, 'Jane Smith', '456 Oak Avenue'), (3, 'Alice Johnson', '789 Pine Road'), (4, 'Bob Brown', '321 Cedar Lane'), (5, 'Charlie Davis', '654 Birch Boulevard');
```

insert-6-cars-3-persons-own-more-than-1-car

2. Insert 6 Cars (3 persons own more than 1 car)

```
[] sqlCopy codeINSERT INTO Car (license_plate, model, year) VALUES ('ABC123', 'Toyota Corolla', 2015), ('XYZ987', 'Honda Civic', 2017), ('LMN456', 'Ford Focus', 2016), ('DEF789', 'Chevrolet Malibu', 2018), ('UVW345', 'Tesla Model 3', 2020), ('GHI012', 'Nissan Altima', 2019);
```

insert-ownership-records-3-people-have-more-than-1-car

3. Insert Ownership Records (3 people have more than 1 car)

```
[] sqlCopy codeINSERT INTO Own (driver_id, license_plate) VALUES (1, 'ABC123'), -- John Doe owns 2 cars (1, 'XYZ987'), (2, 'LMN456'), -- Jane Smith owns 1 car (3, 'DEF789'), -- Alice Johnson owns 2 cars (3, 'UVW345'), (4, 'GHI012'); -- Bob Brown owns 1 car
```

insert-accidents-2-persons-have-been-in-accidents

4. Insert Accidents (2 persons have been in accidents)

```
[] sqlCopy codeINSERT INTO Accident (report_number, year, location) VALUES (101, 2023, 'Downtown Avenue'), (102, 2022, 'Elm Street');
```

insert-participated-records-1-person-with-multiple-cars-and-1-person-with-1-car-have-been-in-accidents

5. Insert Participated Records (1 person with multiple cars and 1 person with 1 car have been in accidents)

```
[] sqlCopy codeINSERT INTO Participated (report_number, license_plate, driver_id, damage_amount) VALUES (101, 'UVW345', 3, 2500.00), -- Alice Johnson (has multiple cars) in accident (102, 'GHI012', 4, 1500.00); -- Bob Brown (has one car) in accident
```

data-breakdown

Data Breakdown:

- **Person 1 (John Doe)** has 2 cars.
- **Person 2 (Jane Smith)** has 1 car.
- **Person 3 (Alice Johnson)** has 2 cars and was involved in an accident with car UVW345.
- **Person 4 (Bob Brown)** has 1 car and was involved in an accident with car GHI012.
- **Person 5 (Charlie Davis)** has no cars involved in any accidents.

you-said-2

The Owns relationship has 2 people with 2 cars and 2 with one car. The requirement was to have 3 people with more than 1 car. Update all data accordingly.

ChatGPT said:

Thank you for the clarification. I'll adjust the data so that 3 people own more than 1 car and 2 people own only 1 car. Here's the updated SQL data:

insert-5-persons-1

1. Insert 5 Persons

```
sqlCopy codeINSERT INTO Person (driver_id, name, address) VALUES (1, 'John Doe', '123 Maple Street'), (2, 'Jane Smith', '456 Oak Avenue'), (3, 'Alice Johnson', '789 Pine Road'), (4, 'Bob Brown', '321 Cedar Lane'), (5, 'Charlie Davis', '654 Birch Boulevard');
```

insert-8-cars-3-people-own-more-than-1-car

2. Insert 8 Cars (3 people own more than 1 car)

```
sqlCopy codeINSERT INTO Car (license_plate, model, year) VALUES ('ABC123', 'Toyota Corolla', 2015), ('XYZ987', 'Honda Civic', 2017), ('LMN456', 'Ford Focus', 2016), ('DEF789', 'Chevrolet Malibu', 2018), ('UVW345', 'Tesla Model 3', 2020), ('GHI012', 'Nissan Altima', 2019), ('JKL345', 'Mazda CX-5', 2021), ('PQR678', 'Subaru Outback', 2022);
```

insert-ownership-records-3-people-have-more-than-1-car-1

3. Insert Ownership Records (3 people have more than 1 car)

```
sqlCopy codeINSERT INTO Own (driver_id, license_plate) VALUES (1, 'ABC123'), -- John Doe owns 2 cars (1, 'XYZ987'), (2, 'LMN456'), -- Jane Smith owns 2 cars (2, 'PQR678'), (3, 'DEF789'), -- Alice Johnson owns 2 cars (3, 'UVW345'), (4, 'GHI012'), -- Bob Brown owns 1 car (5, 'JKL345'); -- Charlie Davis owns 1 car
```

insert-accidents-2-persons-have-been-in-accidents-1

4. Insert Accidents (2 persons have been in accidents)

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sqlCopy codeINSERT INTO Accident (report_number, year, location) VALUES (101, 2023, 'Downtown Avenue'), (102, 2022, 'Elm Street');
```

insert-participated-records-1-person-with-multiple-cars-and-1-person-with-1-car-have-been-in-accidents-1

5. Insert Participated Records (1 person with multiple cars and 1 person with 1 car have been in accidents)

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```

data-breakdown-1

Data Breakdown:

- **Person 1 (John Doe)** owns 2 cars.
- **Person 2 (Jane Smith)** owns 2 cars.
- **Person 3 (Alice Johnson)** owns 2 cars and was involved in an accident with car UVW345.
- **Person 4 (Bob Brown)** owns 1 car and was involved in an accident with car GHI012.
- **Person 5 (Charlie Davis)** owns 1 car.

you-said-3

Create a pdf document containing the SQL statements provided above for Table creation and the SQL statements created with the requirements for data insertion.

ChatGPT said:

The PDF document containing the SQL statements for table creation and data insertion has been generated. You can download it using the link below:

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