

```
DROP DATABASE IF EXISTS insurance;
CREATE DATABASE insurance;
USE insurance;
```

```
CREATE TABLE IF NOT EXISTS person (
driver_id VARCHAR(255) NOT NULL,
driver_name TEXT NOT NULL,
address TEXT NOT NULL,
PRIMARY KEY (driver_id)
);
```

```
CREATE TABLE IF NOT EXISTS car (
reg_no VARCHAR(255) NOT NULL,
model TEXT NOT NULL,
c_year INTEGER,
PRIMARY KEY (reg_no)
);
```

```
CREATE TABLE IF NOT EXISTS accident (
report_no INTEGER NOT NULL,
accident_date DATE,
location TEXT,
PRIMARY KEY (report_no)
);
```

```
CREATE TABLE IF NOT EXISTS owns (
driver_id VARCHAR(255) NOT NULL,
reg_no VARCHAR(255) NOT NULL,
FOREIGN KEY (driver_id) REFERENCES person(driver_id) ON DELETE CASCADE,
FOREIGN KEY (reg_no) REFERENCES car(reg_no) ON DELETE CASCADE
);
```

```
CREATE TABLE IF NOT EXISTS participated (
driver_id VARCHAR(255) NOT NULL,
reg_no VARCHAR(255) NOT NULL,
report_no INTEGER NOT NULL,
damage_amount FLOAT NOT NULL,
FOREIGN KEY (driver_id) REFERENCES person(driver_id) ON DELETE CASCADE,
FOREIGN KEY (reg_no) REFERENCES car(reg_no) ON DELETE CASCADE,
FOREIGN KEY (report_no) REFERENCES accident(report_no)
);
```

```
INSERT INTO person VALUES
("D111", "Driver_1", "Kuvempunagar, Mysuru"),
("D222", "Smith", "JP Nagar, Mysuru"),
("D333", "Driver_3", "Udaygiri, Mysuru"),
("D444", "Driver_4", "Rajivnagar, Mysuru"),
("D555", "Driver_5", "Vijayanagar, Mysore");
```

```
INSERT INTO car VALUES
("KA-20-AB-4223", "Swift", 2020),
("KA-20-BC-5674", "Mazda", 2017),
("KA-21-AC-5473", "Alto", 2015),
("KA-21-BD-4728", "Triber", 2019),
("KA-09-MA-1234", "Tiago", 2018);
```

```
INSERT INTO accident VALUES
(43627, "2020-04-05", "Nazarbad, Mysuru"),
(56345, "2019-12-16", "Gokulam, Mysuru"),
(63744, "2020-05-14", "Vijaynagar, Mysuru"),
(54634, "2019-08-30", "Kuvempunagar, Mysuru"),
(65738, "2021-01-21", "JSS Layout, Mysuru"),
(66666, "2021-01-21", "JSS Layout, Mysuru");
```

```
INSERT INTO owns VALUES
("D111", "KA-20-AB-4223"),
("D222", "KA-20-BC-5674"),
("D333", "KA-21-AC-5473"),
("D444", "KA-21-BD-4728"),
("D222", "KA-09-MA-1234");
```

```
INSERT INTO participated VALUES
("D111", "KA-20-AB-4223", 43627, 20000),
("D222", "KA-20-BC-5674", 56345, 49500),
("D333", "KA-21-AC-5473", 63744, 15000),
("D444", "KA-21-BD-4728", 54634, 5000),
("D222", "KA-09-MA-1234", 65738, 25000);
```

```
SELECT * FROM person;
```

driver_id	driver_name	address
D111	Driver_1	Kuvempunagar, Mysuru
D222	Smith	JP Nagar, Mysuru
D333	Driver_3	Udaygiri, Mysuru
D444	Driver_4	Rajivnagar, Mysuru
D555	Driver_5	Vijayanagar, Mysore

```
SELECT * FROM car;
```

reg_no	model	c_year
KA-09-MA-1234	Tiago	2018
KA-20-AB-4223	Swift	2020
KA-20-BC-5674	Mazda	2017
KA-21-AC-5473	Alto	2015
KA-21-BD-4728	Triber	2019

SELECT * FROM accident;

report_no	accident_date	location
43627	2020-04-05	Nazarbad, Mysuru
54634	2019-08-30	Kuvempunagar, Mysuru
56345	2019-12-16	Gokulam, Mysuru
63744	2020-05-14	Vijaynagar, Mysuru
65738	2021-01-21	JSS Layout, Mysuru
66666	2021-01-21	JSS Layout, Mysuru

SELECT * FROM owns;

driver_id	reg_no
D111	KA-20-AB-4223
D222	KA-20-BC-5674
D333	KA-21-AC-5473
D444	KA-21-BD-4728
D222	KA-09-MA-1234

SELECT * FROM participated;

driver_id	reg_no	report_no	damage_amount
D111	KA-20-AB-4223	43627	20000
D222	KA-20-BC-5674	56345	49500
D333	KA-21-AC-5473	63744	15000
D444	KA-21-BD-4728	54634	5000
D222	KA-09-MA-1234	65738	25000

-- Find the total number of people who owned a car that were involved in accidents in 2021

```
select COUNT(driver_id)
from participated p, accident a
where p.report_no=a.report_no and a.accident_date like "2021%";
```

COUNT(driver_id)
1

-- Find the number of accident in which cars belonging to smith were involved

```
select COUNT(distinct a.report_no)
```

```

from accident a
where exists
(select * from person p, participated ptd where p.driver_id=ptd.driver_id and
p.driver_name="Smith" and a.report_no=ptd.report_no);

```

```

+-----+
| COUNT(distinct a.report_no) |
+-----+
|                               2 |
+-----+

```

-- Add a new accident to the database

```

insert into accident values
(45562, "2024-04-05", "Mandya");

```

```

SELECT * FROM accident;

```

```

+-----+-----+-----+
| report_no | accident_date | location |
+-----+-----+-----+
| 43627 | 2020-04-05 | Nazarbad, Mysuru |
| 45562 | 2024-04-05 | Mandya |
| 54634 | 2019-08-30 | Kuvempunagar, Mysuru |
| 56345 | 2019-12-16 | Gokulam, Mysuru |
| 63744 | 2020-05-14 | Vijaynagar, Mysuru |
| 65738 | 2021-01-21 | JSS Layout, Mysuru |
| 66666 | 2021-01-21 | JSS Layout, Mysuru |
+-----+-----+-----+

```

```

insert into participated values
("D222", "KA-21-BD-4728", 45562, 50000);

```

```

select * from participated;

```

```

+-----+-----+-----+-----+
| driver_id | reg_no | report_no | damage_amount |
+-----+-----+-----+-----+
| D111 | KA-20-AB-4223 | 43627 | 20000 |
| D222 | KA-20-BC-5674 | 56345 | 49500 |
| D333 | KA-21-AC-5473 | 63744 | 15000 |
| D444 | KA-21-BD-4728 | 54634 | 5000 |
| D222 | KA-09-MA-1234 | 65738 | 25000 |
| D222 | KA-21-BD-4728 | 45562 | 50000 |
+-----+-----+-----+-----+

```

-- Delete the Mazda belonging to Smith

```

delete from car
where model="Mazda" and reg_no in
(select car.reg_no from person p, owns o where p.driver_id=o.driver_id and
o.reg_no=car.reg_no and p.driver_name="Smith");

```

```
select * from car;
```

reg_no	model	c_year
KA-09-MA-1234	Tiago	2018
KA-20-AB-4223	Swift	2020
KA-21-AC-5473	Alto	2015
KA-21-BD-4728	Triber	2019

```
-- Update the damage amount for the car with reg_no of KA-09-MA-1234 in the accident with report_no 65738
```

```
update participated set damage_amount=10000 where report_no=65738 and reg_no="KA-09-MA-1234";
```

```
select * from participated;
```

driver_id	reg_no	report_no	damage_amount
D111	KA-20-AB-4223	43627	20000
D333	KA-21-AC-5473	63744	15000
D444	KA-21-BD-4728	54634	5000
D222	KA-09-MA-1234	65738	10000
D222	KA-21-BD-4728	45562	50000

```
-- View that shows models and years of car that are involved in accident
```

```
create view CarsInAccident as
select distinct model, c_year
from car c, participated p
where c.reg_no=p.reg_no;
```

```
select * from CarsInAccident;
```

model	c_year
Tiago	2018
Swift	2020
Alto	2015
Triber	2019

```
-- A trigger that prevents a driver from participating in more than 2 accidents in a given year.
```

```
DELIMITER //
```

```
create trigger PreventParticipation
before insert on participated
```

```

for each row
BEGIN
IF 2<=(select count(*) from participated where driver_id=new.driver_id) THEN
signal sqlstate '45000' set message_text='Driver has already participated in 2 accidents';
END IF;
END;//
DELIMITER ; //

```

```

INSERT INTO participated VALUES

```

```

("D333", "KA-20-AB-4223", 66666, 20000);

```

```

ERROR 1644 (45000): Driver has already participated in 2 accidents

```

driver_id	reg_no	report_no	damage_amount
D111	KA-20-AB-4223	43627	20000
D333	KA-21-AC-5473	63744	15000
D444	KA-21-BD-4728	54634	5000
D222	KA-09-MA-1234	65738	25000
D222	KA-21-BD-4728	45562	50000
D333	KA-20-AB-4223	66666	20000