

PROGRAM 1: INSURANCE DATABASE

Consider the Insurance database given below. The primary keys are underlined and the data types are specified.

PERSON (driver-id #: String, name: String, address: String)

CAR (Regno: String, model: String, year: int)

ACCIDENT (report-number: int, date: date, location: String)

OWNS (driver-id #: String, Regno: String)

PARTICIPATED (driver-id: String, Regno: String, report-number: int, damage-amount: int)

i. Create the above tables by properly specifying the primary keys and the foreign keys

```
CREATE DATABASE INSURANCE;  
CREATE TABLE PERSON(  
  DRIVER_ID VARCHAR(20),  
  NAME VARCHAR(20),  
  ADDRESS VARCHAR(20),  
  PRIMARY KEY(DRIVER_ID));
```

```
CREATE TABLE CAR(  
  REG_NO VARCHAR(20),  
  MODEL VARCHAR(20),  
  YEAR INT,  
  PRIMARY KEY(REG_NO));
```

```
CREATE TABLE ACCIDENT(  
  REPORT_NUMBER INT,  
  DATE DATE,  
  LOCATION VARCHAR(20),  
  PRIMARY KEY(REPORT_NUMBER));
```

```
CREATE TABLE OWNS(  
  DRIVER_ID VARCHAR(20),  
  REG_NO VARCHAR(20),  
  PRIMARY KEY(DRIVER_ID),  
  FOREIGN KEY(DRIVER_ID) REFERENCES PERSON(DRIVER_ID));
```

```

CREATE TABLE PARCIPATED(
DRIVER_ID VARCHAR(20),
REG_NO VARCHAR(20),
REPORT_NUMBER INT,
DAMAGE_AMOUNT INT,
PRIMARY KEY(DRIVER_ID,REG_NO,REPORT_NUMBER),
FOREIGN KEY(DRIVER_ID) REFERENCES PERSON(DRIVER_ID),
FOREIGN KEY(REG_NO) REFERENCES CAR(REG_NO),
FOREIGN KEY(REPORT_NUMBER) REFERENCES ACCIDENT(REPORT_NUMBER));

```

ii. Enter at least five tuples for each relation.

```

INSERT INTO PERSON
VALUES('A1','TYAX','BASAVANGUDI,BANGLORE');
INSERT INTO PERSON
VALUES('A2','SAHANA','GANGAVATHI');
INSERT INTO PERSON
VALUES('A3','CHINMAYEE','MG ROAD,BANGLORE');
INSERT INTO PERSON
VALUES('A4','SINDHU','BAGALKOT');
INSERT INTO PERSON
VALUES('A5','JAYSHREE','HUBLI');

```

```

INSERT INTO CAR(REG_NO,MODEL,YEAR)
VALUES('KA37 0019','MARUTHI SWIFT','2015');
INSERT INTO CAR(REG_NO,MODEL,YEAR)
VALUES('KA37 0018','HYUNDAI VENUE','2016');
INSERT INTO CAR(REG_NO,MODEL,YEAR)
VALUES('KA37 0016','VITARA BREZZA','2017');
INSERT INTO CAR(REG_NO,MODEL,YEAR)
VALUES('KA37 0015','ERTIGA','2018');
INSERT INTO CAR(REG_NO,MODEL,YEAR)
VALUES('KA37 0014','RENAULT TRIBER','2019');

```

```

INSERT INTO ACCIDENT
VALUES('0013','2008-01-21','BANGLORE');
INSERT INTO ACCIDENT
VALUES('0014','2004-07-21','MANGLORE');
INSERT INTO ACCIDENT
VALUES('0015','2008-01-21','BELLARY');
INSERT INTO ACCIDENT

```

```
VALUES('0016','2009-04-21','GANGAVATHI');
INSERT INTO ACCIDENT
VALUES('0012','2007-08-21','KARTAGI');
```

```
INSERT INTO OWNS
VALUES('A1','KA37 0019');
INSERT INTO OWNS
VALUES('A2','KA37 0018');
INSERT INTO OWNS
VALUES('A3','KA37 0016');
INSERT INTO OWNS
VALUES('A4','KA37 0015');
INSERT INTO OWNS
VALUES('A5','KA37 0017');
```

```
INSERT INTO PARTICIPATED ('DRIVER_ID', 'REG_NO', 'REPORT_NUMBER',
'DAMAGE_AMOUNT') VALUES ('A1', 'KA37 0019', '0013', '2000');
INSERT INTO PARTICIPATED ('DRIVER_ID', 'REG_NO', 'REPORT_NUMBER',
'DAMAGE_AMOUNT') VALUES ('A2', 'KA37 0018', '0014', '3000');
INSERT INTO PARTICIPATED ('DRIVER_ID', 'REG_NO', 'REPORT_NUMBER',
'DAMAGE_AMOUNT') VALUES ('A3', 'KA37 0016', '0015', '5000');
INSERT INTO PARTICIPATED ('DRIVER_ID', 'REG_NO', 'REPORT_NUMBER',
'DAMAGE_AMOUNT') VALUES ('A4', 'KA37 0015', '0016', '8000');
INSERT INTO PARTICIPATED ('DRIVER_ID', 'REG_NO', 'REPORT_NUMBER',
'DAMAGE_AMOUNT') VALUES ('A5', 'KA37 0017', '0012', '9000');
```

iii. Demonstrate how you

a. Update the damage amount for the car with a specific Regno in the accident with report number 12 to 25000.

b. Add a new accident to the database.

a.

```
UPDATE PARTICIPATED
SET DAMAGE_AMOUNT=25000
WHERE REG_NO='KA37 0014' AND REPORT_NUMBER='0012'
```

b.

```
INSERT INTO ACCIDENT
VALUES('0020','2008-01-21','BELLARY');
```

iv. Find the total number of people who owned cars that involved in accidents in 2008.

```
SELECT COUNT(*) FROM ACCIDENT WHERE DATE BETWEEN '2008-01-01' AND '2008-12-31'
```

v. Find the number of accidents in which cars belonging to a specific model were involved.

```
SELECT COUNT(*) FROM PARTICIPATED WHERE REG_NO  
IN (SELECT REG_NO FROM CAR WHERE MODEL='RENAULT TRIBER');
```