

**1. 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, accdate: date, location: String)  
**OWNS** (driver-id #: String, Regno: String)  
**PARTICIPATED** (driver-id#: String, Regno: String, report-number: int, damage-amount: int)

- (a) Demonstrate how you : 1) Update the damage amount to 25000 for the car with a specific Regno in the accident with report number 12  
2) Add a new accident to the database.
- (b) Find the total number of people who owned cars that were involved in accidents in 2008.
- (c) Find the number of accidents in which cars belonging to a specific model were involved.

**2. Implement database Triggers.**

**3. Implement SQL function to check whether a number is palindrome or not.**

1.The following relations keep track of airline flight information:

Flights (*no*: integer, *from*: string, *to*: string, *distance*: integer, *Departs*: time, *arrives*: time, *price*: real)

Aircraft (*aid*: integer, *aname*: string, *cruisingrange*: integer)

Certified (*eid*: integer, *aid*: integer)

Employees (*eid*: integer, *ename*: string, *salary*: integer)

Note that the Employees relation describes pilots and other kinds of employees as well; Every pilot is certified for some aircraft, and only pilots are certified to fly.

Write each of the following queries in SQL.

(a) Find the names of aircraft such that all pilots certified to operate them have salaries more than

Rs.80, 000.

(b) For each pilot who is certified for more than three aircrafts, find the *eid* and the maximum *cruisingrange* of the aircraft for which she or he is certified.

(c) Find the names of pilots whose salary is less than the price of the cheapest route from Bengaluru to Frankfurt.

(d) Find the *aids* of all aircraft that can be used on routes from Bengaluru to New Delhi.

2.Implement SQL function to check whether a number is odd or even

3Implement SQL function to find the factorial of a number.