

Sushanth Gowda – 1BM24CS302

Insurance Database

Create Database:

```
create database bms123;
```

```
use bms123;
```

```
create table person(driver_id varchar(10), name varchar(10), address varchar(20), primary key(driver_id));
```

```
create table car(reg_num varchar(10), model varchar(10), year int, primary key(reg_num));
```

```
create table accident(report_num int, accident_date date, location varchar(20), primary key(report_num));
```

```
create table owns(driver_id varchar(10), reg_num varchar(10), primary key(driver_id, reg_num), foreign key(driver_id) references person(driver_id), foreign key(reg_num) references car(reg_num));
```

```
create table participated(driver_id varchar(10), reg_num varchar(10), report_num int, damage_amount int, primary key(driver_id, reg_num, report_num), foreign key(driver_id) references person(driver_id), foreign key(reg_num) references car(reg_num), foreign key(report_num) references accident(report_num));
```

```
desc person;
```

```
desc car;
```

```
desc owns;
```

```
desc accident;
```

```
desc participated;
```

```
insert into person(driver_id, name, address) values ("A01", "Richard", "Srinavasanagar"), ("A02", "Pradeep", "Basavanagudi"), ("A03", "Smith", "Ashoknagar"), ("A04", "Venu", "NR colony"), ("A05", "Jhon", "Hanumanthanagar");
```

```
insert into car (reg_num, model, year) values ("KA052250", "Indiea", 1990), ("KA031181", "Laneer", 1982), ("KA095456", "Toyota", 1998), ("KA048936", "Honda", 1967), ("KA056767", "Audi", 2007);
```

```
insert into accident(report_num, accident_date, location) values (11,"2002-02-01","Basavanagudi"),(12,"2001-12-11","Hanumanthanagar"),(13,"2012-05-31","Jayanagar"),(14,"2012-12-21","Basavanagudi"),(15,"2007-02-12","Srinivasanagar");
```

```
insert into owns(driver_id, reg_num) values ("A01","KA052250"),("A02","KA031181"),("A03","KA095456"),("A04","KA048936"),("A05","KA056767");
```

```
insert into participated(driver_id,reg_num,report_num,damage_amount) values ("A01","KA052250",11,15000),("A02","KA031181",12,10000),("A03","KA095456",13,20000),("A04","KA048936",14,28000),("A05","KA056767",15,50000);
```

Queries:

1. Find drivers who caused damage ≥ 25000

```
select pa.driver_id, p.name  
from participated pa,person p  
where(p.driver_id=pa.driver_id and pa.damage_amount>=25000);
```

2. Show all accidents (date and location)

```
select accident_date,location  
from accident;
```

3. List each driver with the cars they own (one row per ownership)

```
select p.name,c.model  
from person p, car c, owns o  
where(p.driver_id=o.driver_id and c.reg_num=o.reg_num);
```

4. Show accidents and the drivers involved (including damage amount)

```
select p.driver_id,p.name,a.report_num,a.accident_date,a.location,pa.damage_amount  
from accident a, person p, participated pa  
where(a.report_num=pa.report_num and p.driver_id=pa.driver_id)
```

5. Total damage per accident report

```
select report_num,damage_amount  
from participated;
```

6. Drivers who were involved in more than one accident

```
select driver_id  
from participated  
group by driver_id  
having count(report_num)>1;
```

7. Cars that never had an accident (owned but not in participated)

```
select o.driver_id,o.reg_num  
from owns o  
where o.driver_id not in (select driver_id from participated);
```

8. Latest accident (most recent accident_date)

```
select *from accident  
order by accident_date desc  
limit 1;
```

9. Average damage amount per driver

```
select driver_id,avg(damage_amount)  
from participated  
group by driver_id;
```

10. Update: set damage_amount = 25000 for a specific car & report (example)

```
select *  
from participated;  
update participated  
set damage_amount=25000  
where reg_num="KA031181" and report_num=12;  
select *from participated;
```

11. Find drivers who caused the maximum damage in any single accident

```
select driver_id  
from participated  
where damage_amount=(select max(damage_amount) from participated);
```

12. Show cars (model) involved in accidents with total damage > 20000

```
select c.model  
from car c,participated p  
where c.reg_num=p.reg_num and p.damage_amount>20000;
```

13. Create a view summarizing accidents with participants count and total damage

```
create view accident_summary as  
select count(driver_id) as participant_count,sum(damage_amount) as total_damage  
from participated;  
select *from accident_summary;
```