INSURANCE DATABASE

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1BM24CS310

DBMS LAB 1

```
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), foreign key(driver_id) references person(driver_id), foreign key(reg_num) references car(reg_num));

drop table owns;

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","Ashok nagar"),("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);
```

-- 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);
```

-- Show all accidents (date and location)

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

-- 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);
```

-- 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)
```

```
-- Total damage per accident report
select report_num,damage_amount from participated;



-- Drivers who were involved in more than one accident
select driver_id
from participated
group by driver_id
having count(report_num)>1;



-- 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);



-- Latest accident (most recent accident_date)
select *from accident
order by accident_date desc
limit 1;



-- Average damage amount per driver
select driver_id,avg(damage_amount) from participated group by driver_id;
```

```
-- 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;



-- 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);



-- 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;



-- 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;
```

DBMS Program -1

```
create database insurance;
use insurance;
create table person (driver_id varchar (10)),
name varchar(20), address varchar(30), primary key(driver_id));

create table car(reg_num varchar(10) primary key,
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));

insert into person values("A01", "Richard", "Srinivasanagar"),
("A02","Pradeep", "Basavanagudi");

insert into car
values ("KA052250", "Indica", 1990),
       ("KA031181", "Lancer", 1982);
```

```
insert into accidents
values (11, "2002-02-01", "Basavanagudi"),
       (12, "2001-12-11", "Hanumanthanagar");

insert into owns
values ("A01", "KA05 2250"), ("A02", "KA03 1181");

insert into participated
values ("A01", "KA05 2250", 11, 25000),
       ("A02", "KA03 1181", 12, 10000);

-- Find drivers who caused damage >= 25000

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

Output:

driver_id	name
A01	Richard

```
-- show all accidents (date and location)

select accident_date, location from accident;
```

Output:

accident_date	location
2002-02-01	Basavanagudi
2001-12-11	Hanumanthanagar

Date __/__/__
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-- List each driver with the cars they own

```
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)
```

Output

name	model
Richard	Indica
Pradeep	Lancer

-- Show accidents and the drives involved (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)
```

output:

driver_id	name	report_num	accident_date	location	damage_amt
A01	Richard	11	2002-02-11	Basaveshwarnagar	25000
A02	Pradeep	12	2001-12-11	Hanumanthanagar	10000

-- Total damage per accident report

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

Output:-

report_num	damage_amount
11	25000
12	10000

-- Drivers who were involved in more than one accident

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

Output:

driver_id

-- Cars that never had an accident

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

Output

driver_id	reg_num
NULL	NULL

Date / /
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-- Latest accident

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

Output:

report_num	accident_date	location
11	2002-02-11	Basavanagudi

-- Average damage amount per driver.

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

Output:

driver_id	avg(damage_amount)
A01	25000.0000
A02	10000.0000

-- update: set damage = 25000 for a specific car.

```
update participated
set damage_amount = 25000
where reg_num = 'KA053408' and report_num = 12;

select * from participated;
```

Output:

driver_id	reg_num	report_num	damage_amount
A01	KA052250	11	25000
A02	KA031181	12	25000

-- 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)
```

Output:

driver_id
A01
A02

-- Show cars (model) with total damage > 20000

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

Output

model
A01
A02

Date / /
Page

-- Create a view summmarizing 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;
```

Output:

participant_count	total_damage
2	50000