

DBMS Lab(3K section)

NAME= Tejas Ramesh Iramani

USN=1BM24CS312

DATE=10/10/2025

```
create database insurance1;

use insurance1;

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

desc person;

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

desc car;

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

desc accident;

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));

desc owns;

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 participated;

insert into person values('A01','Richard','Srinivas Nagar'),
```

```
('A02','Pradeep','Rajaji nagar'),
('A03','Smith','Ashok nagar'),
('A04','Venu','N R Colony'),
('A05','Jhon','Hanumanth nagar');

commit;

select * from person;

insert into car values('KA052250','Indica',1990),
('KA031181','Lancer',1957),
('KA095477','Toyota',1998),
('KA053408','Honda',2008),
('KA041702','Audi',2005);

commit;

select *from car;

INSERT INTO accident (report_num, accident_date, location) VALUES
(11, '2003-01-01', 'mysore road'),
(12, '2004-02-02', 'South end Circle'),
(13, '2003-01-21', 'Bull temple Road'),
(14, '2008-02-17', 'mysore road'),
(15, '2005-03-04', 'Kanakpura Road');

commit;

select * from accident;

insert into owns values ('A01','KA052250'),
('A02','KA053408'),
('A03','KA031181'),
('A04','KA095477'),
('A05','KA041702');

commit;

select * from owns;

insert into participated values ('A01','KA052250',11,10000),
('A02','KA053408',12,50000),
('A03','KA095477',13,25000),
('A04','KA031181',14,3000),
('A05','KA041702',15,5000);

commit;
```

```
select * from participated;
```

```
-- queries
```

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

```
SELECT accident_date, location
```

```
FROM accident;
```

	accident_date	location
▶	2003-01-01	mysore road
	2004-02-02	South end Circle
	2003-01-21	Bull temple Road
	2008-02-17	mysore road
	2005-03-04	Kanakpura Road

```
-- Find drivers who caused damage ≥ 25000
```

```
SELECT DISTINCT driver_id, name
```

```
FROM person
```

```
WHERE driver_id IN (
```

```
    SELECT driver_id
```

```
    FROM participated
```

```
    WHERE damage_amount >= 25000
```

```
);
```

	driver_id	name
▶	A02	Pradeep
	A03	Smith
•	NULL	NULL

```
-- 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;
```

	name	model
▶	Richard	Indica
	Pradeep	Honda
	Smith	Lancer
	Venu	Toyota
	Jhon	Audi

-- Show accidents and the drivers involved (including damage amount)

```
SELECT accident.report_num, accident.accident_date, accident.location, person.name, participated.damage_amount
FROM accident, participated, person
WHERE accident.report_num = participated.report_num
AND participated.driver_id = person.driver_id;
```

	report_num	accident_date	location	name	damage_amount
▶	11	2003-01-01	mysore road	Richard	10000
	12	2004-02-02	South end Circle	Pradeep	50000
	13	2003-01-21	Bull temple Road	Smith	25000
	14	2008-02-17	mysore road	Venu	3000
	15	2005-03-04	Kanakpura Road	Jhon	5000

-- Total damage per accident report

```
SELECT report_num, SUM(damage_amount) AS total_damage
FROM participated
GROUP BY report_num;
```

	report_num	total_damage
▶	11	10000
	12	50000
	13	25000
	14	3000
	15	5000

-- Drivers who were involved in more than one accident

```
SELECT driver_id
FROM participated
GROUP BY driver_id
HAVING COUNT(DISTINCT report_num) > 1;
```

driver_id

-- 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)
```

	driver_id	reg_num
•	NULL	NULL

-- Latest accident (most recent accident_date)

```
SELECT *
```

```
FROM accident
```

```
ORDER BY accident_date DESC
```

```
LIMIT 1;
```

	report_num	accident_date	location
▶	14	2008-02-17	mysore road
•	NULL	NULL	NULL

-- Average damage amount per driver

```
SELECT driver_id, AVG(damage_amount) AS avg_damage
```

```
FROM participated
```

```
GROUP BY driver_id;
```

	driver_id	avg_damage
▶	A01	10000.0000
	A02	50000.0000
	A03	25000.0000
	A04	3000.0000
	A05	5000.0000

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

UPDATE participated

SET damage_amount = 25000

WHERE reg_num = 'KA052250' AND report_num = 11;

select * from participated;

	driver_id	reg_num	report_num	damage_amount
▶	A01	KA052250	11	25000
	A02	KA053408	12	50000
	A03	KA095477	13	25000
	A04	KA031181	14	3000
	A05	KA041702	15	5000
•	HULL	HULL	HULL	HULL

-- Find drivers who caused the maximum damage in any single accident

SELECT driver_id, damage_amount

FROM participated

WHERE damage_amount = (

SELECT MAX(damage_amount) FROM participated

);

	driver_id	damage_amount
▶	A02	50000

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

SELECT DISTINCT car.model

FROM car, participated

WHERE car.reg_num = participated.reg_num

GROUP BY participated.report_num, car.model

HAVING SUM(participated.damage_amount) > 20000;

Result Grid	
	model
▶	Honda
	Indica
	Toyota

-- Create a view summarizing accidents with participants count and total damage

```
CREATE VIEW accident_summary AS
```

```
SELECT
```

```
    a.report_num,
```

```
    a.accident_date,
```

```
    a.location,
```

```
    COUNT(p.driver_id) AS participants_count,
```

```
    SUM(p.damage_amount) AS total_damage
```

```
FROM accident a, participated p
```

```
WHERE a.report_num = p.report_num
```

```
GROUP BY a.report_num, a.accident_date, a.location;
```

```
SELECT * FROM accident_summary;
```

	report_num	accident_date	location	participants_count	total_damage
▶	11	2003-01-01	mysore road	1	25000
	12	2004-02-02	South end Circle	1	50000
	13	2003-01-21	Bull temple Road	1	25000
	14	2008-02-17	mysore road	1	3000
	15	2005-03-04	Kanakpura Road	1	5000