

# 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 Lab1;
```

```
use Lab1;
```

```
create table Lab1.person (driver_id varchar(10),
```

```
name varchar(20),
```

```
address varchar(30),
```

```
primary key(driver_id));
```

```
desc person;
```

	Field	Type	Null	Key	Default	Extra
►	driver_id	varchar(10)	NO	PRI	<b>NULL</b>	
	name	varchar(20)	YES		<b>NULL</b>	
	address	varchar(30)	YES		<b>NULL</b>	

```
create table car(reg_num varchar(10),model
```

```
varchar(10),year int,primary key(reg_num));
```

```
desc car;
```

	Field	Type	Null	Key	Default	Extra
►	reg_num	varchar(10)	NO	PRI	NULL	
	model	varchar(10)	YES		NULL	
	year	int	YES		NULL	

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

	Field	Type	Null	Key	Default	Extra
►	report_num	int	NO	PRI	NULL	
	accident_date	date	YES		NULL	
	location	varchar(20)	YES		NULL	

```
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;
```

	Field	Type	Null	Key	Default	Extra
►	driver_id	varchar(10)	NO	PRI	NULL	
	reg_num	varchar(10)	NO	PRI	NULL	

```
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;
```

	Field	Type	Null	Key	Default	Extra
►	driver_id	varchar(10)	NO	PRI	NULL	
	reg_num	varchar(10)	NO	PRI	NULL	
	report_num	int	NO	PRI	NULL	
	damage_amount	int	YES		NULL	

## ii. Enter at least five tuples for each relation

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

insert into person values('A02','Pradeep','Rajajinagar');

insert into person values('A03','Smith','Ashoknagar');

insert into person values('A04','Venu','N.R.Colony');

insert into person values('A05','John','Hanumanth Nagar');

select \* from person;

	driver_id	name	address
►	A01	Richard	Srinivas Nagar
	A02	Pradeep	Rajajinagar
	A03	Smith	Ashoknagar
	A04	Venu	N.R.Colony
	A05	John	Hanumanth Nagar
*	NULL	NULL	NULL

insert into car values('KA052250','Indica', 1990);

insert into car values('KA031181','Lancer', 1957);

insert into car values('KA095477','Toyota',1998);

insert into car values('KA053408','Honda',2008);

insert into car values('KA041702','Audi',2005);

select \* from car;

	reg_num	model	year
▶	KA031181	Lancer	1957
	KA041702	Audi	2005
	KA052250	Indica	1990
	KA053408	Honda	2008
	KA095477	Toyota	1998
★	NULL	NULL	NULL

insert into accident values(11,'2003-01-01','Mysore Road');

insert into accident values(12,'2004-02-02','Southend Circle');

insert into accident values(13,'2003-01-21','Bulltemple Road');

insert into accident values(14,'2008-02-17','Mysore Road');

insert into accident values(15,'2005-03-04','Kanakpura Road');

select \* from accident;

	report_num	accident_date	location
▶	11	2003-01-01	Mysore Road
	12	2004-02-02	Southend Circle
	13	2003-01-21	Bulltemple Road
	14	2008-02-17	Mysore Road
	15	2005-03-04	Kanakpura Road
★	NULL	NULL	NULL

insert into owns values('A01','KA052250');

insert into owns values('A02','KA053408');

insert into owns values('A03','KA095477');

insert into owns values('A04','KA031181');

insert into owns values('A05','KA041702');

select \* from owns;

	driver_id	reg_num
▶	A04	KA031181
	A05	KA041702
	A01	KA052250
	A02	KA053408
	A03	KA095477
★	NULL	NULL

```

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

```

	driver_id	reg_num	report_num	damage_amount
▶	A01	KA052250	11	10000
	A02	KA053408	12	50000
	A03	KA095477	13	25000
	A04	KA031181	14	3000
	A05	KA041702	15	5000
★	NULL	NULL	NULL	NULL

### 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.**

```

update participated set damage_amount=25000 where report_num=12;
select * from participated;

```

	driver_id	reg_num	report_num	damage_amount
▶	A01	KA052250	11	10000
	A02	KA053408	12	25000
	A03	KA095477	13	25000
	A04	KA031181	14	3000
	A05	KA041702	15	5000

**b. Add a new accident to the database.**

```

insert into person values('A06','Josphe','Shanti Nagar');
insert into car values('KA012370','Honda', 2008);
insert into accident values(16,'2008-01-01','MG Road');
insert into owns values('A06','KA012370');
insert into participated values('A06','KA012370',16,15000);

```

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

```
select count(*) from accident where year(accident_date)=2008;
```

	count(*)
▶	2

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

```
select count(*) as no_of_acc from participated where reg_num in(select reg_num from car where model='Honda');
```

	no_of_acc
▶	2