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;

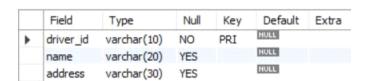
create table Lab1.person (driver_id varchar(10),

name varchar(20),

address varchar(30),

primary key(driver_id));

desc person;



create table car(reg_num varchar(10),model

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

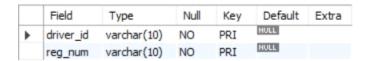
desc car;



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

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

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;

	Field	Type	Null	Key	Default	Extra
١	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	HULL

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
١	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
Þ	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
١	A01	KA052250	11	10000
	A02	KA053408	12	50000
	A03	KA095477	13	25000
	A04	KA031181	14	3000
	A05	KA041702	15	5000
*	NULL	NULL	NULL	HULL

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
١	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', 'Jospeh', '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	