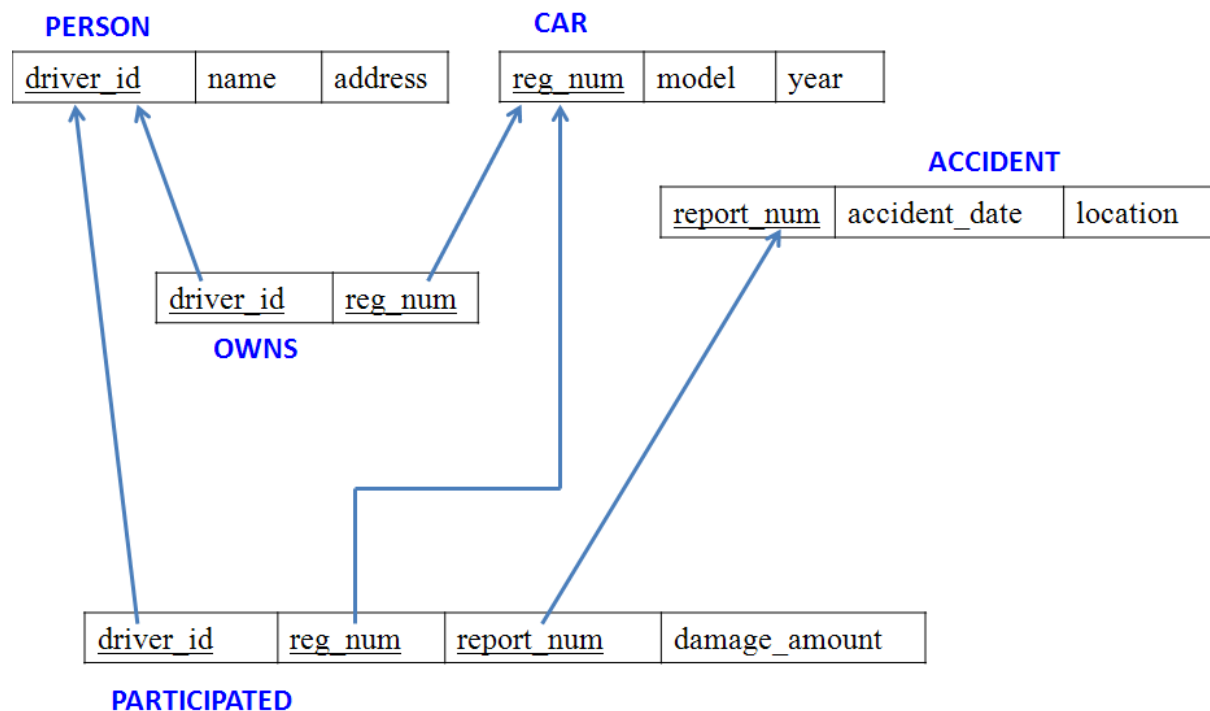PROGRAM 1: INSURANCE DATABASE

Schema diagram

Consider the Insurance database given below. The data types are specified.

PERSON (driver_id: String, name: String, address: String)

CAR (reg_num: String, model: String, year: int)

ACCIDENT (report_num: int, accident_date: date, location: String)

OWNS (driver_id: String, reg_num: String)

PARTICIPATED (driver_id: String,reg_num: String, report_num: int, damage_amount: int)

List of operations

- **Create the above tables by properly specifying the primary keys and the foreign keys.**

    ➢ create database insurance;
    ➢ use insurance;
    ➢ create table person(
       driver_id varchar(20) primary key,
       name varchar(20),

address varchar(50));
- ➤ desc person;

Field	Type	Null	Key	Default	Extra
driver_id	varchar(20)	NO	PRI	NULL	
name	varchar(20)	YES		NULL	
address	varchar(50)	YES		NULL	

- ➤ create table car(
  reg_num varchar(20) primary key,
  model varchar(10),
  year int(6));
- ➤ desc car;

Field	Type	Null	Key	Default	Extra
reg_num	varchar(20)	NO	PRI	NULL	
model	varchar(10)	YES		NULL	
year	int	YES		NULL	

- ➤ create table owns(
  driver_id varchar(20) primary key,
  reg_num varchar(20) ,
  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(20)	NO	PRI	NULL	
reg_num	varchar(20)	YES	MUL	NULL	

- ➤ create table accident(
  report_num int primary key,
  accident_date date,
  location varchar(30));
- ➤ desc accident;

Field	Type	Null	Key	Default	Extra
report_num	int	NO	PRI	NULL	
accident_date	date	YES		NULL	
location	varchar(30)	YES		NULL	

- ➤ create table participated(
  driver_id varchar(20) primary key,

reg_num varchar(20),
report_num int,
damage_amount int ,
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(20)	NO	PRI	NULL	
reg_num	varchar(20)	YES	MUL	NULL	
report_num	int	YES	MUL	NULL	
damage_amount	int	YES		NULL	

- **Enter at least five tuples for each relation**

  ➤ 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');

  ➤ select * from person;

	driver_id	name	address
▶	A01	Richard	Srinivas nagar
	A02	Pradeep	Rajaji nagar
	A03	Smith	Ashok nagar
	A04	Venu	N R Colony
	A05	Jhon	Hanumanth nagar
*	NULL	NULL	NULL

  ➤ insert into accident 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');

  ➤ select * from accident;

	report_num	accident_date	location
▶	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
*	NULL	NULL	NULL

- ➢ insert into car values("KA052250","Indica",1990),
  ("KA031181","Lancer",1957),
  ("KA095477","Toyota",1998),
  ("KA053408","Honda",2008),
  ("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 owns VALUES
  ('A01','KA052250'),
  ('A02','KA053408'),
  ('A03','KA031181'),
  ("A04","KA095477"),
  ('A05','KA041702');
- ➢ select * from owns;

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

- ➢ insert into participated values
  ('A01','KA052250',11,10000),
  ('A02','KA053408',12,50000),
  ('A03','KA095477',13,25000),
  ('A04','KA031181',14,3000),
  ('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

- **Display Accident 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

- **Display driver id who did the accident damage greater than or equal to Rs.25000**

  ➢ select driver_id from participated
     where damage_amount >= 25000;

driver_id
A02
A03
NULL