

NAME:NEELAM H GODIHAL

USN:1BM19CS220

### **PROGRAM 1: INSURANCE DATABASE**

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

PERSON (driver\_id: String, name: String, address: String)

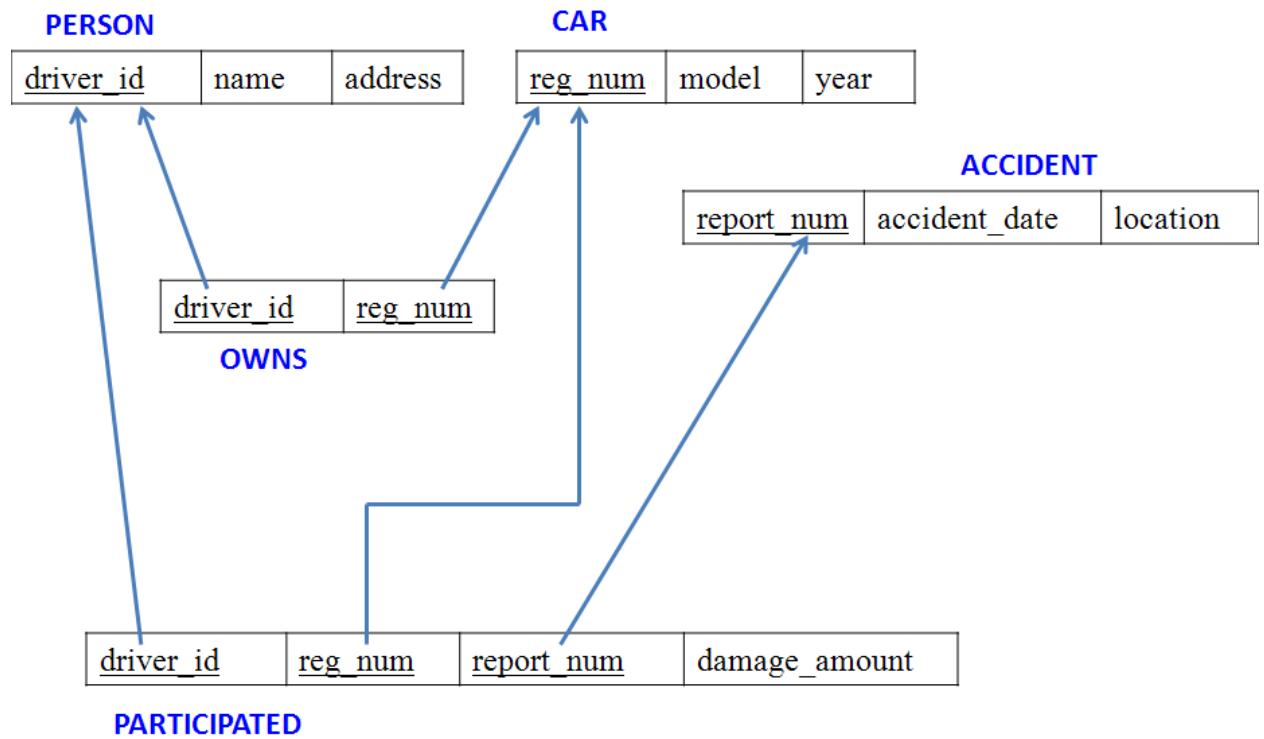
CAR (reg\_num: String, model: String, year: int)

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)

#### **Schema diagram**



#### **Tables**

**PERSON**

<u>driver_id</u>	name	address
A01	Richard	Srinivas nagar
A02	Pradeep	Rajaji nagar
A03	Smith	Ashok nagar
A04	Venu	N R Colony
A05	Jhon	Hanumanth nagar

**CAR**

<u>reg_num</u>	model	year
KA052250	Indica	1990
KA031181	Lancer	1957
KA095477	Toyota	1998
KA053408	Honda	2008
KA041702	Audi	2005

**OWNS**

<u>driver_id</u>	<u>reg_num</u>
A01	KA052250
A02	KA053408
A03	KA031181
A04	KA095477
A05	KA041702

**ACCIDENT**

<u>report_num</u>	<u>accident_date</u>	<u>location</u>
11	01-JAN-03	Mysore Road
12	02-FEB-04	South end Circle
13	21-JAN-03	Bull temple Road
14	17-FEB-08	Mysore Road
15	04-MAR-05	Kanakpura Road

**PARTICIPATED**

<u>driver_id</u>	<u>reg_num</u>	<u>report_num</u>	<u>damage_amount</u>
A01	KA052250	11	10000
A02	KA053408	12	50000
A03	KA095477	13	25000
A04	KA031181	14	3000
A05	KA041702	15	5000

**1.Create the above tables by properly specifying the primary keys and the foreign keys.**  
create database insurance1;

use insurance1;

```
create table person(
    driver_id varchar(10) NOT NULL,
    name varchar(30),
    address varchar(40),
    primary key (driver_id)
);
desc person;
```

MySQL Workbench

Local instance MySQL80

**Query 1:**

```

146 • create table person(
147     driver_id varchar(10) NOT NULL,
148     name varchar(30),
149     address varchar(40),
150     primary key (driver_id)
151 );
152 • desc person;

```

**Result Grid:**

Field	Type	Null	Key	Default	Extra
driver_id	varchar(10)	NO	PRI		
name	varchar(30)	YES			
address	varchar(40)	YES			

**Result 3:**

#	Time	Action	Message	Duration / Fetch
1	09:41:08	show databases	6 row(s) returned	0.000 sec / 0.000 sec
2	09:42:00	create database insurance	1 row(s) affected	0.421 sec
3	09:42:09	show databases	7 row(s) returned	0.000 sec / 0.000 sec
4	09:42:26	use insurance	0 row(s) affected	0.000 sec
5	09:45:01	create table person(driver_id varchar(10) NOT NULL, name varchar(30), address varchar(40), primary key (driver_id))	0 row(s) affected	0.766 sec
6	09:45:34	desc person	3 row(s) returned	0.000 sec / 0.000 sec

Query Completed

```

create table car(
    reg_num varchar(10) NOT NULL,
    model varchar(10),
    year int,
    primary key(reg_num)
);
desc car;

```

MySQL Workbench

Local instance MySQL80

**Query 1:**

```

154 • create table car(
155     reg_num varchar(10) NOT NULL,
156     model varchar(10),
157     year int,
158     primary key(reg_num)
159 );
160 • desc car;

```

**Result Grid:**

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

**Result 4:**

#	Time	Action	Message	Duration / Fetch
3	09:42:09	show databases	7 row(s) returned	0.000 sec / 0.000 sec
4	09:42:26	use insurance	0 row(s) affected	0.000 sec
5	09:45:01	create table person(driver_id varchar(10) NOT NULL, name varchar(30), address varchar(40), primary key (driver_id))	0 row(s) affected	0.766 sec
6	09:45:34	desc person	3 row(s) returned	0.000 sec / 0.000 sec
7	09:48:34	create table car(reg_num varchar(10) NOT NULL, model varchar(10), year int, primary key(reg_num))	0 row(s) affected	0.032 sec
8	09:48:49	desc car	3 row(s) returned	0.375 sec / 0.000 sec

Query Completed

```

create table accident(
    report_num int NOT NULL,
    accident_date date,

```

```

        location varchar(20),
        primary key(report_num)
);
desc accident;

```

The screenshot shows the MySQL Workbench interface with the following details:

- Navigator:** Shows the database structure with 'MANAGEMENT', 'INSTANCE', and 'PERFORMANCE' sections.
- Query Editor (Query 1):** Displays the SQL code for creating the 'accident' table and describing it. The table has columns: report\_num (int, NOT NULL, primary key), accident\_date (date), and location (varchar(20)).
- Result Grid:** Shows the structure of the 'accident' table with columns: Field, Type, Null, Key, Default, and Extra. The primary key is 'report\_num'.
- Output (Result 5):** Shows the history of actions taken during the session, including the creation of the 'person', 'car', and 'accident' tables, and their descriptions. It includes columns: Action Output, Message, and Duration / Fetch.
- System Tray:** Shows battery level (69%), network connection, system status, and date/time (26-04-2021 09:52 AM).

```

create table owns(
        driver_id varchar(10) NOT NULL,
        reg_num varchar(10) NOT NULL,
        primary key(driver_id,reg_num),
        foreign key(driver_id) REFERENCES person(driver_id),
        foreign key(reg_num) REFERENCES car(reg_num)
);
desc owns;

```

MySQL Workbench Screenshot showing the creation of the 'participated' table and its description.

```

171     driver_id varchar(10) NOT NULL,
172     reg_num varchar(10) NOT NULL,
173     primary key(driver_id,reg_num),
174     foreign key(driver_id) REFERENCES person(driver_id),
175     foreign key(reg_num) REFERENCES car(reg_num)
176   );
177 * desc participated;

```

The 'Result Grid' shows the table structure:

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

The 'Result 6' pane shows the history of operations:

Action	Time	Action	Message	Duration / Fetch
8 09:48:49	desc car		3 row(s) returned	0.375 sec / 0.000 sec
9 09:52:13	create table accident(report_num int NOT NULL, accident_date date, location varchar(20), primary key(report_num))		0 row(s) affected	0.407 sec
10 09:52:26	desc accident		3 row(s) returned	0.016 sec / 0.000 sec
11 09:57:56	create table owns(driver_id varchar(10) NOT NULL, report_num varchar(10) NOT NULL, primary key(driver_id,report_num))		Error Code: 1072 Key column 'reg_num' doesn't exist in table	0.375 sec
12 09:58:34	create table owns(driver_id varchar(10) NOT NULL, reg_num varchar(10) NOT NULL, primary key(driver_id,reg_num))		0 row(s) affected	0.390 sec
13 09:58:51	desc owns		2 row(s) returned	0.000 sec / 0.000 sec

create table participated(

```

        driver_id varchar(10) NOT NULL,
        reg_num varchar(10) NOT NULL,
        report_num int NOT NULL,
        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;

MySQL Workbench Screenshot showing the creation of the 'participated' table and its description.

```

183     damage_amount int,
184     primary key (driver_id,reg_num,report_num),
185     foreign key(driver_id) references person(driver_id),
186     foreign key(reg_num) references car(reg_num),
187     foreign key(report_num) references accident(report_num)
188   );
189 * desc participated;

```

The 'Result Grid' shows the table structure:

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

The 'Result 7' pane shows the history of operations:

Action	Time	Action	Message	Duration / Fetch
11 09:57:56	create table owns(driver_id varchar(10) NOT NULL, report_num varchar(10) NOT NULL, primary key(driver_id,report_num))		Error Code: 1072 Key column 'reg_num' doesn't exist in table	0.375 sec
12 09:58:34	create table owns(driver_id varchar(10) NOT NULL, reg_num varchar(10) NOT NULL, primary key(driver_id,reg_num))		0 row(s) affected	0.390 sec
13 09:58:51	desc owns		2 row(s) returned	0.000 sec / 0.000 sec
14 10:02:24	create table accident(driver_id varchar(10) NOT NULL, reg_num varchar(10) NOT NULL, report_num int NOT NULL, primary key(driver_id,reg_num,report_num))		Error Code: 1050 Table 'accident' already exists	0.016 sec
15 10:02:42	create table participated(driver_id varchar(10) NOT NULL, reg_num varchar(10) NOT NULL, report_num int NOT NULL, primary key(driver_id,reg_num,report_num))		0 row(s) affected	0.219 sec
16 10:03:00	desc participated		4 row(s) returned	0.016 sec / 0.000 sec

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

insert into person(driver\_id,name,address)

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;

The screenshot shows the MySQL Workbench interface with the following details:

- Query Editor:** Contains two queries:
  - Query 1: An insert statement into the 'person' table with driver\_id, name, and address values for five rows (A01 to A05).
  - Query 2: A select statement from the 'person' table.
- Result Grid:** Displays the results of the select query, showing five rows of data:

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

- Output Window:** Shows the execution log with various actions and their messages and durations.

insert into car(reg\_num,model,year)

values ('KA052250','Indica','1990'),

      ('KA031181','Lancer','1957'),

      ('KA095477','Toyota',1998),

      ('KA053408','Honda',2008),

      ('KA041702','Audi',2005);

select \* from car;

MySQL Workbench Screenshot:

```

200 values ('KA052250','Indica','1990'),
201 ('KA031181','Lancer','1957'),
202 ('KA095477','Toyota','1998'),
203 ('KA053408','Honda','2008'),
204 ('KA041702','Audi','2005');
205 • select * from car;

```

Result Grid:

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

car 9 x

Action Output:

- 16 10:03:00 Action Message 0.016 sec / 0.000 sec
- 17 10:06:29 insert into person(driver\_id,name,address) values ('A01','Richard','Srinivas nagar'), ('A02','Pradeep','Rajaj nagar') 4 row(s) returned 0.125 sec
- 18 10:06:38 insert into person(driver\_id,name,address) values ('A01','Richard','Srinivas nagar'), ('A02','Pradeep','Rajaj nagar') 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.015 sec
- 19 10:06:59 select \* from person LIMIT 0, 1000 5 row(s) returned 0.000 sec / 0.000 sec
- 20 10:47:48 insert into car(reg\_num,model,year) values ('KA052250','Indica','1990'), ('KA031181','Lancer','1957'), ('KA095477','Toyota','1998') 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.391 sec
- 21 10:47:52 select \* from car LIMIT 0, 1000 5 row(s) returned 0.000 sec / 0.000 sec

Object Info Session Query Completed

```

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

select * from owns;

```

MySQL Workbench Screenshot:

```

208 values ('A01','KA052250'),
209 ('A02','KA053408'),
210 ('A03','KA031181'),
211 ('A04','KA095477'),
212 ('A05','KA041702');
213 • select * from owns;

```

Result Grid:

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

owns 10 x

Action Output:

- 18 10:06:38 insert into person(driver\_id,name,address) values ('A01','Richard','Srinivas nagar'), ('A02','Pradeep','Rajaj nagar') 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.015 sec
- 19 10:06:59 select \* from person LIMIT 0, 1000 5 row(s) returned 0.000 sec / 0.000 sec
- 20 10:47:48 insert into car(reg\_num,model,year) values ('KA052250','Indica','1990'), ('KA031181','Lancer','1957'), ('KA095477','Toyota','1998') 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.391 sec
- 21 10:47:52 select \* from car LIMIT 0, 1000 5 row(s) returned 0.000 sec / 0.000 sec
- 22 10:51:13 insert into accident(report\_num,accident\_date,location) values ('A01','KA052250'), ('A02','KA053408'), ('A03','KA031181'), ('A04','KA095477'), ('A05','KA041702') 5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0 0.015 sec
- 23 10:51:19 select \* from accident LIMIT 0, 1000 5 row(s) returned 0.000 sec / 0.000 sec

Object Info Session Query Completed

```

insert into accident (report_num,accident_date,location)
values ('11','2003-01-01','Mysore Road'),
       ('12','2004-02-02','South end circle'),

```

```
(13,'2002-01-21','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	2002-01-21	Bull Temple Road
14	2008-02-17	Mysore road
15	2005-03-04	Kanakpura Road

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

select \* from participated;

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1

MANAGEMENT

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Performance Reports
- Performance Schema Setup

Administration Schemas

No object selected

participated 12 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
22	10:51:13	Insert into `own`(`driver_id`, `reg_num`) values ('A01', 'KA052250'), ('A02', 'KA053408'), ('A03', 'KA031181'), ('A04', 'KA041702')	5 row(s) affected. Records: 5 Duplicates: 0 Warnings: 0	0.019 sec
23	10:51:19	select * from `own` LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
24	10:53:51	Insert into `accident`(`report_num`, `accident_date`, `location`) values ('11', '2003-01-01', 'Mysoe Road'), ('12', '2004-02-01', 'Mysore Road')	5 row(s) affected. Records: 5 Duplicates: 0 Warnings: 0	0.016 sec
25	10:53:57	select * from `accident` LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
26	10:57:16	Insert into `participated`(`driver_id`, `reg_num`, `report_num`, `damage_amount`) values ('A01', 'KA052250', '11', '10000'), ('A02', 'KA053408', '12', '25000'), ('A03', 'KA05477', '13', '25000'), ('A04', 'KA031181', '14', '3000'), ('A05', 'KA041702', '15', '5000')	5 row(s) affected. Records: 5 Duplicates: 0 Warnings: 0	0.359 sec
27	10:57:21	select * from `participated` LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

### 3.Demonstrate how you

- a.Update the damage amount to 25000 for the car with a specific reg-num(example 'K A053408') for which the accident report number was 12.  
update participated set damage\_amount=25000 where reg\_num='KA053408' and report\_num=12;  
select \* from participated;

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1

MANAGEMENT

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Performance Reports
- Performance Schema Setup

Administration Schemas

No object selected

participated 13 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
22	10:51:13	Insert into `own`(`driver_id`, `reg_num`) values ('A01', 'KA052250'), ('A02', 'KA053408'), ('A03', 'KA031181'), ('A04', 'KA041702')	5 row(s) affected. Records: 5 Duplicates: 0 Warnings: 0	0.019 sec
23	10:51:19	select * from `own` LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
24	10:53:51	Insert into `accident`(`report_num`, `accident_date`, `location`) values ('11', '2003-01-01', 'Mysoe Road'), ('12', '2004-02-01', 'Mysore Road')	5 row(s) affected. Records: 5 Duplicates: 0 Warnings: 0	0.016 sec
25	10:53:57	select * from `accident` LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
26	10:57:16	Insert into `participated`(`driver_id`, `reg_num`, `report_num`, `damage_amount`) values ('A01', 'KA052250', '11', '10000'), ('A02', 'KA053408', '12', '25000'), ('A03', 'KA05477', '13', '25000'), ('A04', 'KA031181', '14', '3000'), ('A05', 'KA041702', '15', '5000')	5 row(s) affected. Records: 5 Duplicates: 0 Warnings: 0	0.359 sec
27	10:57:21	select * from `participated` LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
28	11:00:25	update participated set damage_amount=25000 where reg_num='KA053408' and report_num=12	1 row(s) affected. Rows matched: 1. Changed: 1. Warnings: 0	0.000 sec
29	11:00:39	select * from `participated` LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

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

insert into accident  
values (16,'2008-03-15','Domlur');  
select \* from accident;

```

234 • select * from participated;
235
236 • select * from accident;
237 • insert into accident
238 values (16,'2008-03-15','Domlur');
239 • select * from accident;

```

report_num	accident_date	location
11	2003-01-01	Mysore Road
12	2004-02-02	South end circle
13	2002-01-21	Bull Temple Road
14	2008-02-17	Mysore road
15	2005-03-04	Kanakpura Road
16	2008-03-15	Domlur
...	...	...

Action Output

#	Time	Action	Message	Duration / Fetch
28	11:00:25	update participated set damage_amount=25000 where reg_num='KA053408' and report_num=12	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec
29	11:00:39	select * from participated LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec
30	11:02:08	select * from accident LIMIT 0, 1000	5 row(s) returned	0.016 sec / 0.000 sec
31	11:04:05	insert into accident(16, '2008-03-15', 'Domlur')	Error Code: 1064 You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'insert into accident(16, '2008-03-15', 'Domlur')' at line 1	0.000 sec
32	11:04:42	insert into accident values (16, '2008-03-15', 'Domlur')	1 row(s) affected	0.015 sec
33	11:04:52	select * from accident LIMIT 0, 1000	6 row(s) returned	0.015 sec / 0.000 sec

#### 4.Find the total number of people who owned cars that involved in accidents in 2008.

```
select count(distinct driver_id) CNT from participated a, accident b where
a.report_num=b.report_num and b.accident_date like '2008%';
```

```

132 • select * from participated;
133
134 • select * from accident;
135 • insert into accident values(16,'2008-03-15','Domlur');
136 • select * from accident;
137
138 • select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.accident_date like '2008%';

```

CNT
1

Action Output

#	Time	Action	Message	Duration / Fetch
38	10:46:41	insert into accident values(16, '2008-03-15', 'Domlur')	1 row(s) affected	0.015 sec
39	10:46:43	select * from accident LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
40	10:47:19	select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.accident_date like '2008%'	1 row(s) returned	0.015 sec / 0.000 sec
41	10:54:35	select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.accident_date like '2008%'	1 row(s) returned	0.000 sec / 0.000 sec
42	10:56:06	select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.accident_date like '2008%'	1 row(s) returned	0.000 sec / 0.000 sec
43	10:59:39	select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.accident_date like '2008%'	1 row(s) returned	0.000 sec / 0.000 sec

#### 5.Find the number of accidents in which cars belonging to a specific model (example )were involved.

```
select count(report_num) CNT from car c,participated p where c.reg_num=p.reg_num and
model='Lancer';
```

```

MySQL Workbench
File Edit View Query Database Server Tools Help
Navigator: Local instance MySQL80 x
Query 1: SQL File 4*
134 • select * from accident;
135 • insert into accident values(16,'2008-03-15','Domur');
136 • select * from accident;
137
138 • select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.accident_date like '2008%';
139
140 • select count(report_num) CNT from car c,participated p where c.reg_num=p.reg_num and model='Lancer';

```

Result Grid: CNT

CNT
1

Result 24 x

Action Output:

#	Time	Action	Message	Duration / Fetch
39	10:46:43	select * from accident LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
40	10:47:19	select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.ac... 1 row(s) returned		0.015 sec / 0.000 sec
41	10:54:35	select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.ac... 1 row(s) returned		0.000 sec / 0.000 sec
42	10:56:06	select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.ac... 1 row(s) returned		0.000 sec / 0.000 sec
43	10:59:39	select count(distinct driver_id) CNT from participated a, accident b where a.report_num=b.report_num and b.ac... 1 row(s) returned		0.000 sec / 0.000 sec
44	10:59:50	select count(report_num) CNT from car c,participated p where c.reg_num=p.reg_num and model='Lancer' LIM... 1 row(s) returned		0.016 sec / 0.000 sec

Object Info Session

Query Completed

## EXTRA QUERIES:

Update the appropriate table for the following details

1. Mr. Smith meet with an accident when he travelled in "Audi (KA05MC001)" car on 1 st march 2019 at "Bull temple road". Police registered a case with number 16 recorded damage amount with 75000. Mr. Smith has bought the car in the year 2018.

insert into person  
values ('A06','Smith','JP nagar');

select \* from person;

```

MySQL Workbench
File Edit View Query Database Server Tools Help
Navigator: Local instance MySQL80 (inst... Local instance MySQL80 (bank) x
Query 1: v
241 • show databases;
242 • use insurance1;
243
244 • insert into person
245   values ('A06','Smith','JP nagar');
246
247 • select * from person;

```

Result Grid: driver\_id name address

driver_id	name	address
A01	Richard	Srinivas nagar
A02	Pradeep	Rajeev nagar
A03	Smith	Ashok nagar
A04	Venu	N.R Colony
A05	Jhon	Harumathi Nagar
A06	Smith	JP nagar
A07	Smith	BBM

person 3 x

Action Output:

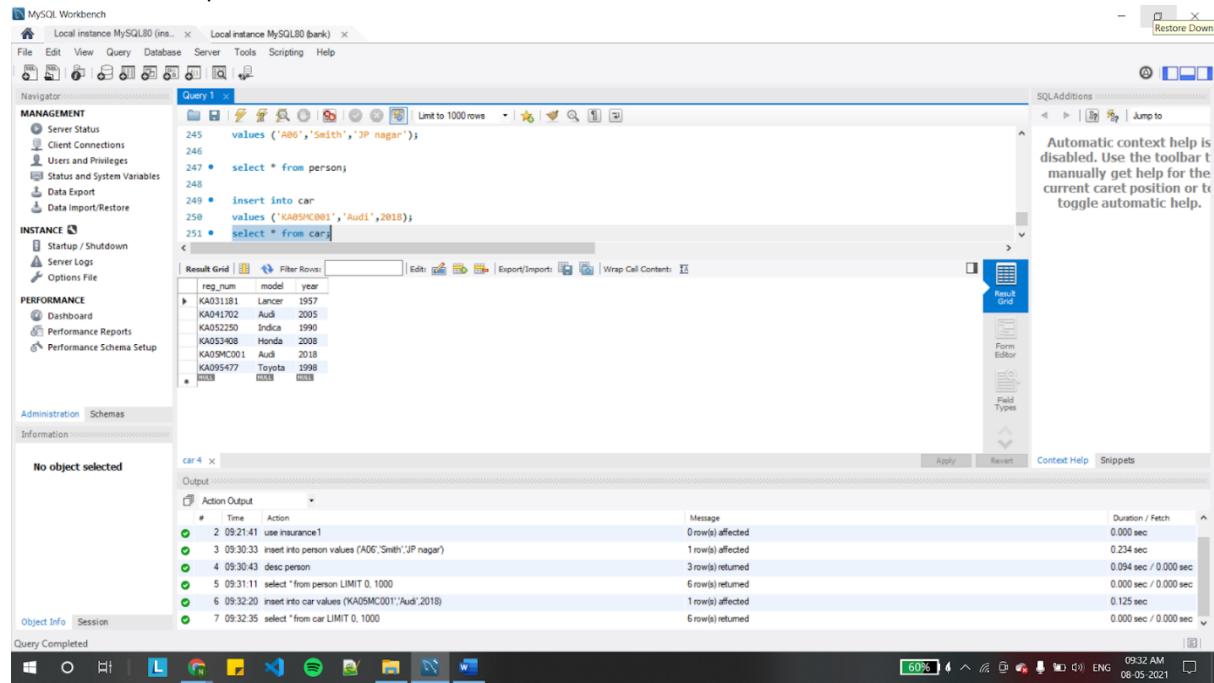
#	Time	Action	Message	Duration / Fetch
1	09:21:29	show databases	8 row(s) returned	0.000 sec / 0.000 sec
2	09:21:41	use insurance1	0 row(s) affected	0.000 sec
3	09:30:33	insert into person values ('A06','Smith','JP nagar')	1 row(s) affected	0.234 sec
4	09:30:43	desc person	3 row(s) returned	0.094 sec / 0.000 sec
5	09:31:11	select * from person LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

insert into car

values ('KA05MC001','Audi',2018);  
 select \* from car;



```

245 values ('A06','Smith','JP nagar');
246
247 • select * from person;
248
249 • insert into car
250     values ('KA05MC001','Audi',2018);
251 • select * from car;
    
```

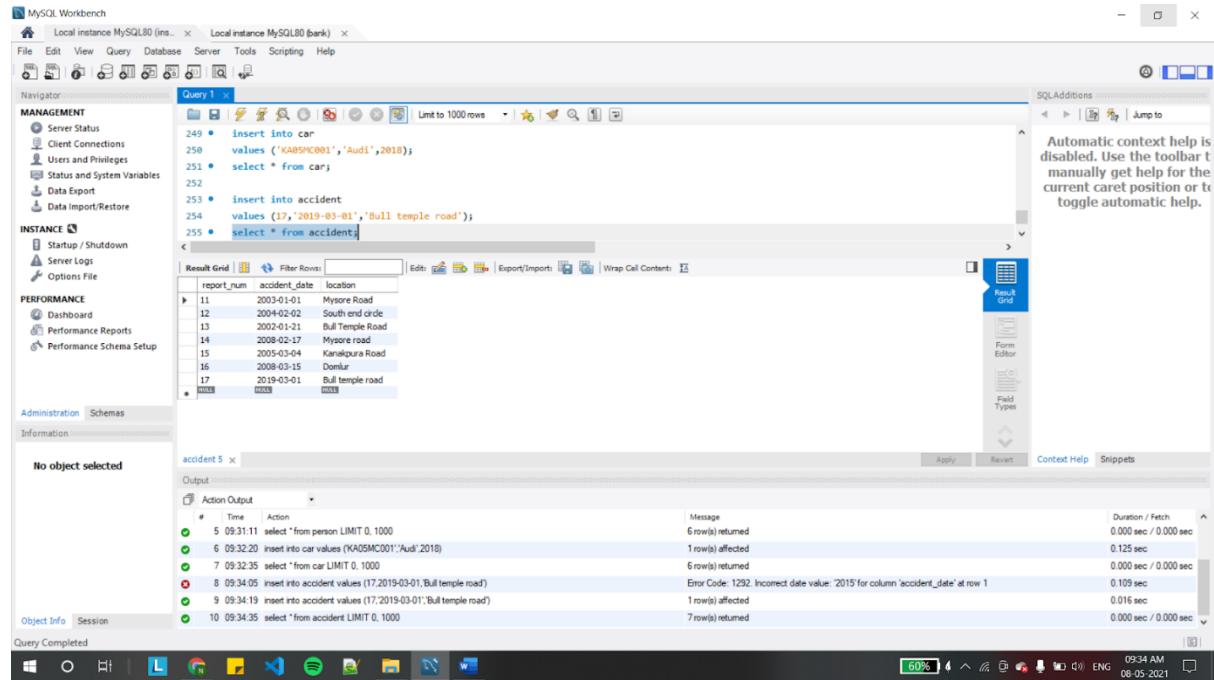
The screenshot shows the MySQL Workbench interface. The left sidebar has sections for MANAGEMENT, INSTANCE, and PERFORMANCE. The central area has a 'Query 1' tab with the above SQL code. Below it is a 'Result Grid' showing the following data:

reg_num	model	year
KA031181	Lancer	1957
KA041702	Audi	2005
KA052250	Indica	1990
KA053408	Honda	2009
KA059C001	Audi	2018
KA095477	Toyota	1998
NULL	NULL	NULL

Below the result grid is an 'Output' section showing the execution log:

#	Time	Action	Message	Duration / Fetch
2	09:21:41	use insurance1	0 row(s) affected	0.000 sec
3	09:30:33	insert into person values ('A06','Smith','JP nagar')	1 row(s) affected	0.234 sec
4	09:30:43	desc person	3 row(s) returned	0.094 sec / 0.000 sec
5	09:31:11	select * from person LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
6	09:32:20	insert into car values ('KA05MC001','Audi',2018)	1 row(s) affected	0.125 sec
7	09:32:35	select * from car LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

insert into accident  
 values (17,'2019-03-01','Bull temple road');  
 select \* from accident;



```

249 • insert into car
250     values ('KA05MC001','Audi',2018);
251 • select * from car;
252
253 • insert into accident
254     values (17,'2019-03-01','Bull temple road');
255 • select * from accident;
    
```

The screenshot shows the MySQL Workbench interface. The left sidebar has sections for MANAGEMENT, INSTANCE, and PERFORMANCE. The central area has a 'Query 1' tab with the above SQL code. Below it is a 'Result Grid' showing the following data:

report_num	accident_date	location
11	2003-01-01	Mysore Road
12	2004-02-02	South end circle
13	2002-01-21	Bull Temple Road
14	2008-02-17	Mysore road
15	2005-03-04	Karikalpura Road
16	2008-03-15	Donlur
17	2019-03-01	Bull temple road
NULL	NULL	NULL

Below the result grid is an 'Output' section showing the execution log:

#	Time	Action	Message	Duration / Fetch
5	09:31:11	select * from person LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
6	09:32:20	insert into car values ('KA05MC001','Audi',2018)	1 row(s) affected	0.125 sec
7	09:32:35	select * from car LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
8	09:34:05	insert into accident values (17,'2019-03-01','Bull temple road')	Error Code: 1292: Incorrect date value: '2015' for column 'accident_date' at row 1	0.109 sec
9	09:34:19	insert into accident values (17,'2019-03-01','Bull temple road')	1 row(s) affected	0.016 sec
10	09:34:35	select * from accident LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec

insert into participated  
 values ('A06','KA05MC001',17,75000);  
 select \* from participated;

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator

**MANAGEMENT**

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

**INSTANCE**

- Startup / Shutdown
- Server Logs
- Options File

**PERFORMANCE**

- Dashboard
- Performance Reports
- Performance Schema Setup

Administration Schemas

Information

No object selected

participated 6 x

Action Output

#	Time	Action	Message	Duration / Fetch
7	09:32:35	select * from car LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
8	09:34:05	insert into accident values (17, '2019-03-01', 'Bull temple road')	Error Code: 1292: Incorrect date value: '2015' for column 'accident_date' at row 1	0.105 sec
9	09:34:19	insert into accident values (17, 2019-03-01, 'Bull temple road')	1 row(s) affected	0.016 sec
10	09:34:35	select * from accident LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
11	09:35:54	insert into participated values ('A06', 'KA05MC001', 17, 75000)	1 row(s) affected	0.391 sec
12	09:35:58	select * from participated LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

Query Completed

2. Print driver\_id and reg\_number of the owner who owns the car "indica".

```
select driver_id,reg_num
from owns
where reg_num=
    select reg_num
    from car
    where model='Indica'
);
```

MySQL Workbench

File Edit View Query Database Server Tools Scripting Help

Navigator

**MANAGEMENT**

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

**INSTANCE**

- Startup / Shutdown
- Server Logs
- Options File

**PERFORMANCE**

- Dashboard
- Performance Reports
- Performance Schema Setup

Administration Schemas

Information

No object selected

owns 8 x

Action Output

#	Time	Action	Message	Duration / Fetch
9	09:34:19	insert into accident values (17, '2019-03-01', 'Bull temple road')	1 row(s) affected	0.016 sec
10	09:34:35	select * from accident LIMIT 0, 1000	7 row(s) returned	0.000 sec / 0.000 sec
11	09:35:54	insert into participated values ('A06', 'KA05MC001', 17, 75000)	1 row(s) affected	0.391 sec
12	09:35:58	select * from participated LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec
13	09:38:49	select driver_id,reg_num from owns where reg_num=(select reg_num from car where model='Indica') LIMIT 0, 1000	1 row(s) returned	0.360 sec / 0.000 sec
14	09:39:05	select driver_id,reg_num from owns where reg_num=(select reg_num from car where model='Indica') LIMIT 0, 1000	1 row(s) returned	0.015 sec / 0.000 sec

Object Info Session

Query Completed

3. List the reg\_nums of the cars which has involved in the accident between the period 2003 to 2005.

```

select reg_num
from participated
where report_num IN(
    select report_num
    from accident
    where accident_date between '2003-01-01' and '2005-12-31'
);

```

The screenshot shows the MySQL Workbench interface with a query editor containing the provided SQL code. The results pane displays the following data:

reg_num
KA052250
KA052408
KA041702

4. List total no of accident happened in Mysore.  
 select count(report\_num) AS no\_of\_acc  
 from accident  
 where location like '%Mysore%';

The screenshot shows the MySQL Workbench interface with a query editor containing the provided SQL code. The results pane displays the following data:

no_of_acc
2

5. Find the customer whose damage amount is greater than the average damage amount.

```
select driver_id  
from participated  
where damage_amount > (  
    select avg(damage_amount)  
    from participated  
)
```

The screenshot shows the MySQL Workbench interface. In the 'Query Grid' tab, a query is being run:

```
280  
281 • select driver_id  
282     from participated  
283     where damage_amount > [ ]  
284         select avg(damage_amount)  
285             from participated  
286     )
```

The results are displayed in the 'Result Grid' tab:

driver_id
A02
A03
A06

In the 'Output' tab, the execution log shows the following steps:

Action	Time	Message	Duration / Fetch
15	09:49:13	select reg_num from participated where report_num IN( select report_num from accident where accident_date like '2008%' )	0.000 sec / 0.000 sec
16	09:51:43	select reg_num from participated where report_num IN( select report_num from accident where accident_date like '2008%' ) AS no_of_acc from accident where location='Mysore' LIMIT 0, 1000	0.000 sec / 0.000 sec
17	09:54:16	select count(report_num) AS no_of_acc from accident where location='Mysore' LIMIT 0, 1000	1 row(s) returned
18	09:55:40	select count(report_num) AS no_of_acc from accident where location like '%Mysore%' LIMIT 0, 1000	1 row(s) returned
19	09:57:22	select count(report_num) AS no_of_acc from accident where location like '%Mysore%' LIMIT 0, 1000	1 row(s) returned
20	10:08:38	select driver_id from participated where damage_amount > ( select avg(damage_amount) from participated ) UNION ALL	3 row(s) returned

6. Find the total number of people who owned cars that were involved in accidents in 2008.

```
select count(driver_id)  
from participated  
where report_num IN (  
    select report_num  
    from accident  
    where accident_date like '2008%'  
)
```

The screenshot shows the MySQL Workbench interface. In the top-left corner, there are two tabs: "Local instance MySQL80 (ins...)" and "Local instance MySQL80 (bank)". The main window has a toolbar with various icons. On the left, a "Navigator" pane displays sections like MANAGEMENT, INSTANCE, and PERFORMANCE. The central area contains a "Query 1" tab with the following SQL code:

```

288 • select count(driver_id)
  from participated
289   where report_num IN (
290     select report_num
291       from accident
292      where accident_date like '2008%'
293
294

```

Below the code is a "Result Grid" showing the output of the query:

count(driver_id)
1

On the right side of the interface, there is a "SQLAdditions" panel with the message: "Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help." Below this is a "Result 17" tab showing the "Action Output" of the session:

#	Time	Action	Message	Duration / Fetch
18	09:55:40	select count(report_num) AS no_of_acc from accident where location like '%Mysore%' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
19	09:57:22	select count(report_num) AS no_of_acc from accident where location like '%Mysore%' LIMIT 0, 1000	1 row(s) returned	0.000 sec / 0.000 sec
20	10:08:38	select driver_id from participated where damage_amount > ( select avg(damage_amount) from participated ) U...	3 row(s) returned	0.000 sec / 0.000 sec
21	10:09:14	select driver_id from participated where damage_amount > ( select avg(damage_amount) from participated ) U...	3 row(s) returned	0.000 sec / 0.000 sec
22	10:20:55	select count(driver_id) from participated where report_num IN ( select report_num from accident where ac...	1 row(s) returned	0.000 sec / 0.000 sec
23	10:21:29	select count(driver_id) from participated where report_num IN ( select report_num from accident where ac...	1 row(s) returned	0.000 sec / 0.000 sec

7. Delete the Audi belonging to “Jhon”.

**Referential integrity is violated.Hence,it cannot be deleted.**