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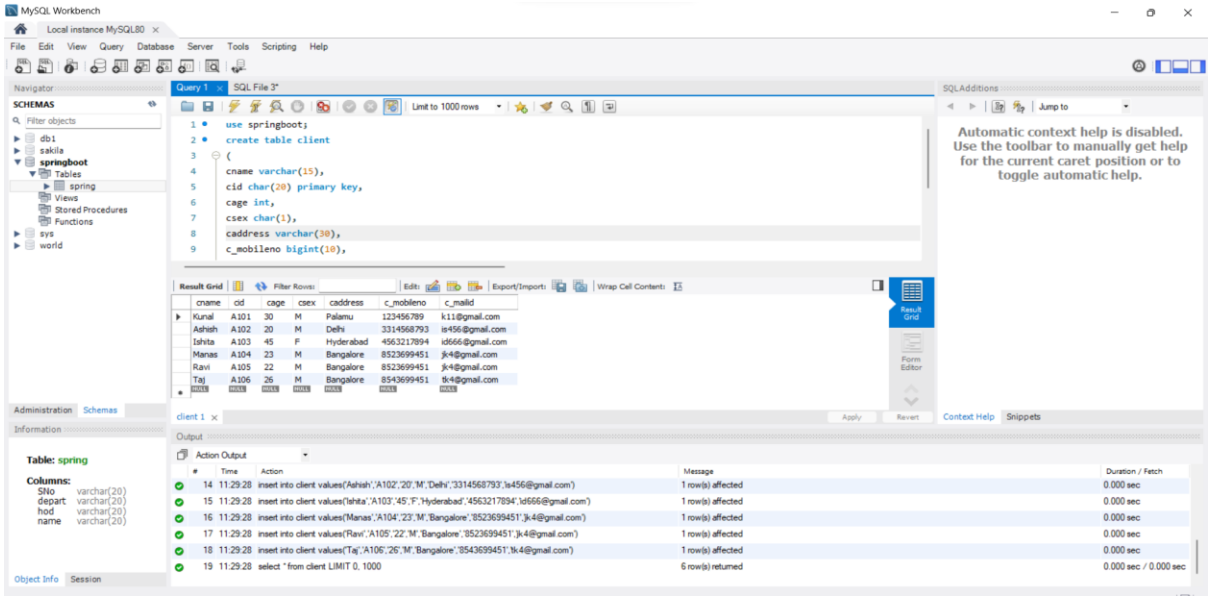
Reg no – 20BCE2157

Modern Application Development (Java Spring Boot)

Q1. Create , update , delete commands in mysql.

```
use springboot;
create table client
(
cname varchar(15),
cid char(20) primary key,
cage int,
csex char(1),
caddress varchar(30),
c_mobileno bigint(10),
c_mailid varchar(25)
);
insert into client values( 'Kunal','A101','30','M','Palamu','123456789','k11@gmail.com');
insert into client values('Ashish','A102','20','M','Delhi','3314568793','is456@gmail.com');
insert into client values('Ishita','A103','45','F','Hyderabad','4563217894','id666@gmail.com');
insert into client values('Manas','A104','23','M','Bangalore','8523699451','jk4@gmail.com');
insert into client values('Ravi','A105','22','M','Bangalore','8523699451','jk4@gmail.com');
insert into client values('Taj','A106','26','M','Bangalore','8543699451','tk4@gmail.com');
select * from client;
```

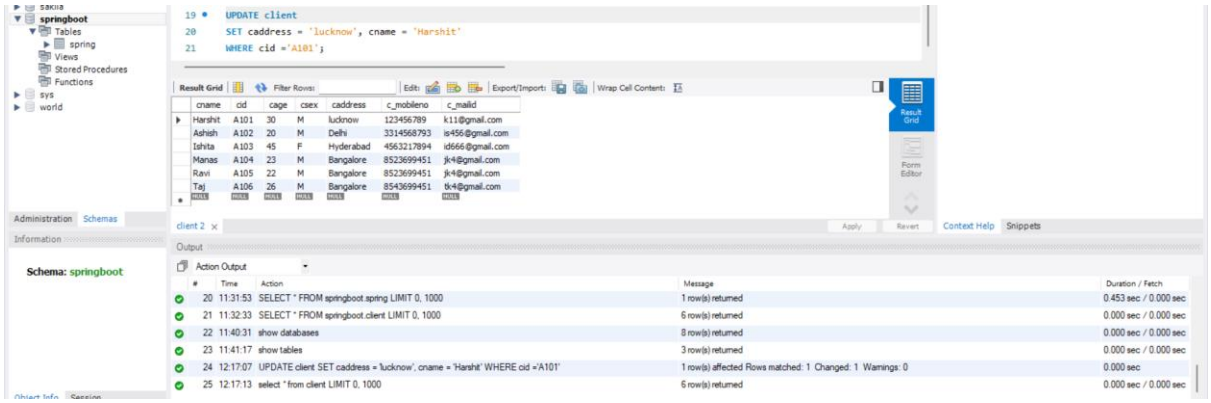


UPDATE client

SET caddress = 'lucknow', cname = 'Harshit'

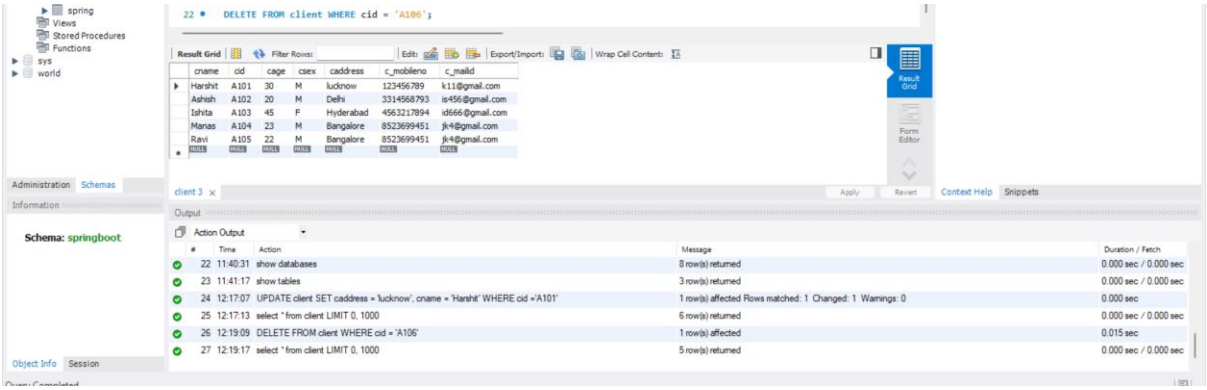
WHERE cid ='A101';

select * from client;



DELETE FROM client WHERE cid = 'A106';

select * from client;



Q2. Create tables and perform joins in mysql

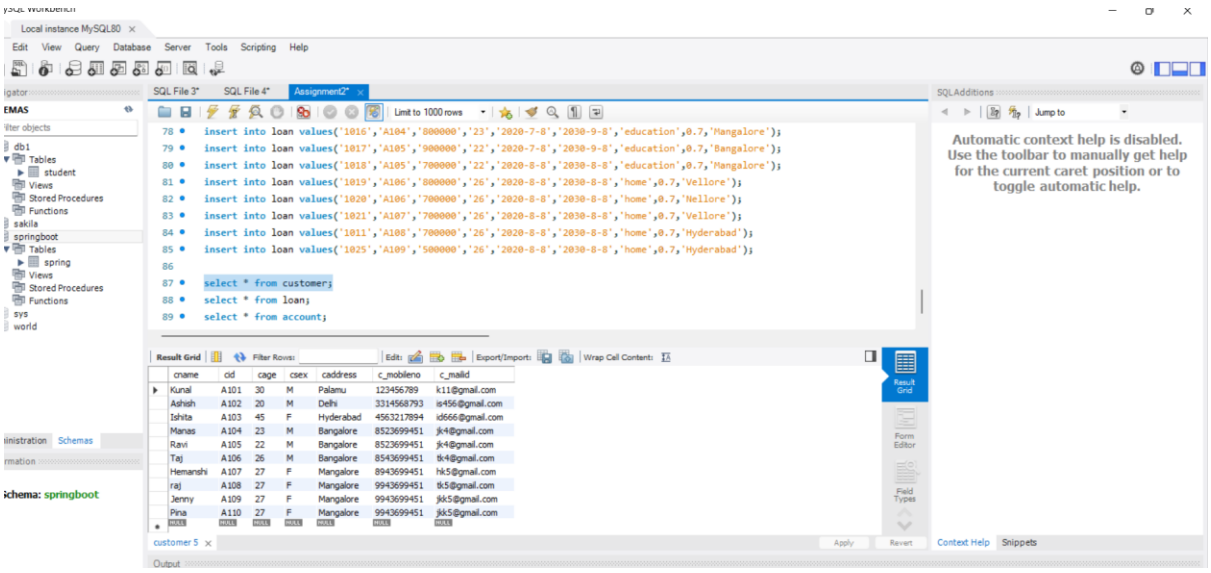
```
create table customer
(
cname varchar(15),
cid char(20) primary key,
cage int,
csex char(1),
caddress varchar(30),
c_mobileno bigint(10),
c_mailid varchar(25)
);
insert into customer values( 'Kunal','A101','30','M','Palamu','123456789','k11@gmail.com');
insert into customer values('Ashish','A102','20','M','Delhi','3314568793','is456@gmail.com');
insert into customer values('Ishita','A103','45','F','Hyderabad','4563217894','id666@gmail.com');
insert into customer values('Manas','A104','23','M','Bangalore','8523699451','jk4@gmail.com');
insert into customer values('Ravi','A105','22','M','Bangalore','8523699451','jk4@gmail.com');
```

```
insert into customer values('Taj','A106','26','M','Bangalore','8543699451','tk4@gmail.com');
insert into customer values('Hemanshi','A107','27','F','Mangalore','8943699451','hk5@gmail.com');
insert into customer values('raj','A108','27','F','Mangalore','9943699451','tk5@gmail.com');
insert into customer values('Jenny','A109','27','F','Mangalore','9943699451','jkk5@gmail.com');
insert into customer values('Pina','A110','27','F','Mangalore','9943699451','jkk5@gmail.com');
create table bank
(
bname varchar(15),
bid char(20) primary key,
branch varchar(15),
cid char(10),
location varchar(20),
assets int,
foreign key (cid) references customer(cid) );
insert into bank values('Indian Bank','I101','Hyderabad','A101','Hyderabad',45632178);
insert into bank values('ICICI Bank','I102','Hyderabad','A102','Hyderabad',456982);
insert into bank values('SBI','S103','Bangalore','A103','Bangalore',456328);
insert into bank values('SBI','S104','Bangalore','A104','Vellore',896523);
insert into bank values('SBI','S105','Bangalore','A105','Bangalore',886523);
insert into bank values('SBI','S106','Bangalore','A106','Bangalore',886523);
insert into bank values('SBI','S107','Vellore','A106','Vellore',886523);
insert into bank values('SBI','S108','Vellore','A108','Vellore',886523);
insert into bank values('SBI','S109','Vellore','A108','Vellore',886523);
insert into bank values('ICICI','C102','Hyderabad','A108','Hyderabad',886523);
create table account
(
ano char(15) primary key,
cid char(10),
branch varchar(15),
a_amount int,
acc_type varchar(15),
```

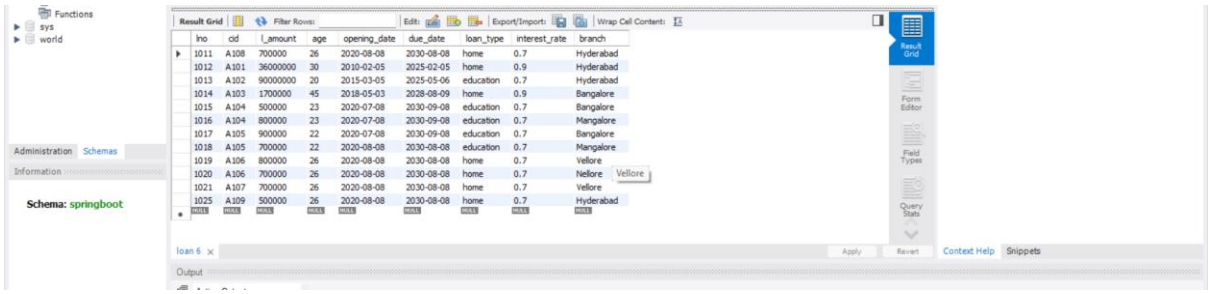
```
opening_date date,
foreign key (cid) references customer(cid) );
insert into account values('7896542130','A101','Hyderabad','45632178','saving','2001-10-12');
insert into account values('8796542581','A102','Hyderabad','456982','saving','2005-08-8');
insert into account values('8523697412','A103','Bangalore','456328','current','2007-05-4');
insert into account values('1236548521','A104','Bangalore','896523','saving','2012-05-8');
insert into account values('1236548522','A105','Bangalore','996523','saving','2012-06-8');
insert into account values('1236548523','A105','Bangalore','8996523','saving','2013-06-8');
insert into account values('1236548532','A104','Bangalore','6596523','saving','2011-06-8');
insert into account values('1236548585','A109','Hyderabad','6596523','saving','2011-06-8');
create table loan (
lno char(10) primary key,
cid char(20),
l_amount int,
age int,
opening_date date,
due_date date,
loan_type varchar(15),
interest_rate decimal (4 , 1),
branch varchar(15),
foreign key (cid) references customer(cid) );
ALTER TABLE loan
ADD CONSTRAINT chk CHECK ((age >= 25 AND loan_type ='home') or (age < 25 and loan_type =
'education'));
insert into loan values('1012','A101','36000000','30','2010-2-5','2025-2-5','home',0.9,'Hyderabad');
insert into loan values('1013','A102','90000000','20','2015-3-5','2025-5-
6','education',0.7,'Hyderabad');
insert into loan values('1014','A103','1700000','45','2018-5-3','2028-8-9','home','0.9','Bangalore');
insert into loan values('1015','A104','500000','23','2020-7-8','2030-9-8','education',0.7,'Bangalore');
insert into loan values('1016','A104','800000','23','2020-7-8','2030-9-8','education',0.7,'Mangalore');
insert into loan values('1017','A105','900000','22','2020-7-8','2030-9-8','education',0.7,'Bangalore');
insert into loan values('1018','A105','700000','22','2020-8-8','2030-8-8','education',0.7,'Mangalore');
```

```
insert into loan values('1019','A106','800000','26','2020-8-8','2030-8-8','home',0.7,'Vellore');
insert into loan values('1020','A106','700000','26','2020-8-8','2030-8-8','home',0.7,'Nellore');
insert into loan values('1021','A107','700000','26','2020-8-8','2030-8-8','home',0.7,'Vellore');
insert into loan values('1011','A108','700000','26','2020-8-8','2030-8-8','home',0.7,'Hyderabad');
insert into loan values('1025','A109','500000','26','2020-8-8','2030-8-8','home',0.7,'Hyderabad');
select * from customer;
select * from loan;
select * from account;
select * from bank;
```

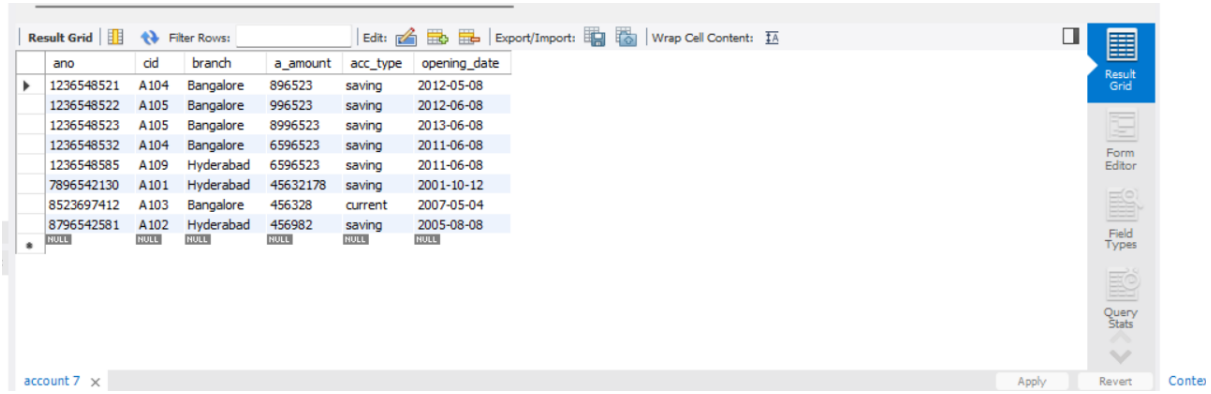
Customer table



Loan Table

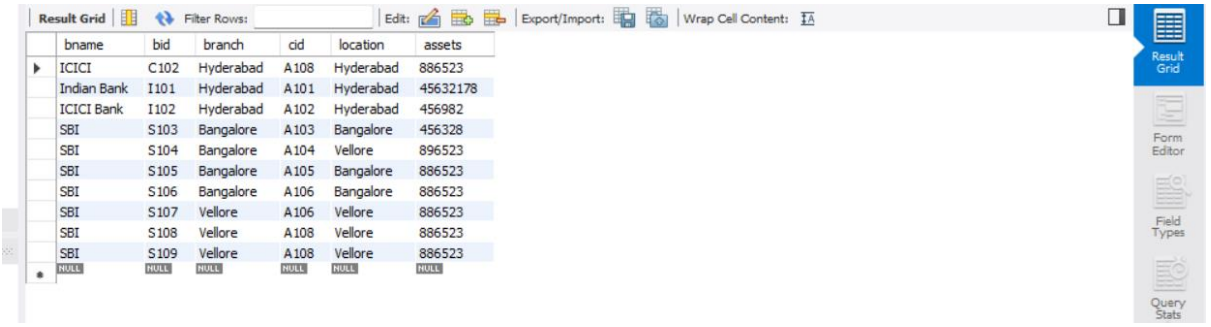


Account Table



ano	cid	branch	a_amount	acc_type	opening_date
1236548521	A104	Bangalore	896523	saving	2012-05-08
1236548522	A105	Bangalore	996523	saving	2012-06-08
1236548523	A105	Bangalore	8996523	saving	2013-06-08
1236548532	A104	Bangalore	6596523	saving	2011-06-08
1236548585	A109	Hyderabad	6596523	saving	2011-06-08
7896542130	A101	Hyderabad	45632178	saving	2001-10-12
8523697412	A103	Bangalore	456328	current	2007-05-04
8796542581	A102	Hyderabad	456982	saving	2005-08-08

Bank Table



bname	bid	branch	cid	location	assets
ICICI	C102	Hyderabad	A108	Hyderabad	886523
Indian Bank	I101	Hyderabad	A101	Hyderabad	45632178
ICICI Bank	I102	Hyderabad	A102	Hyderabad	456982
SBI	S103	Bangalore	A103	Bangalore	456328
SBI	S104	Bangalore	A104	Vellore	896523
SBI	S105	Bangalore	A105	Bangalore	886523
SBI	S106	Bangalore	A106	Bangalore	886523
SBI	S107	Vellore	A106	Vellore	886523
SBI	S108	Vellore	A108	Vellore	886523
SBI	S109	Vellore	A108	Vellore	886523

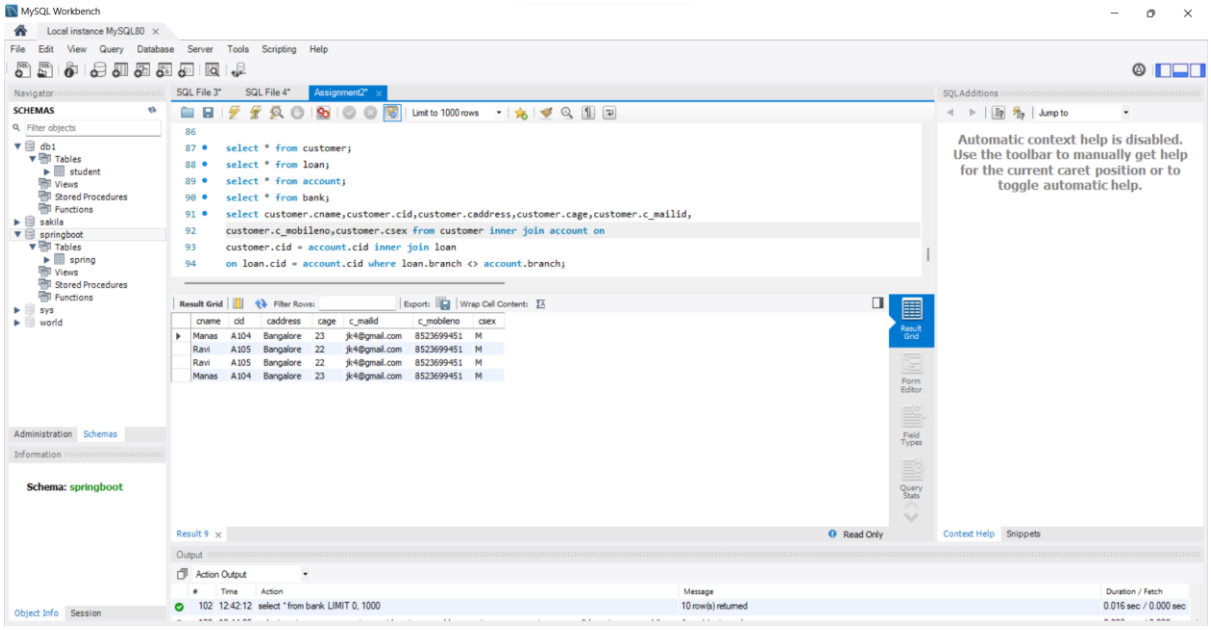
Inner join

select customer.cname,customer.cid,customer.caddress,customer.cage,customer.c_mailid,

customer.c_mobileno,customer.csex from customer inner join account on

customer.cid = account.cid inner join loan

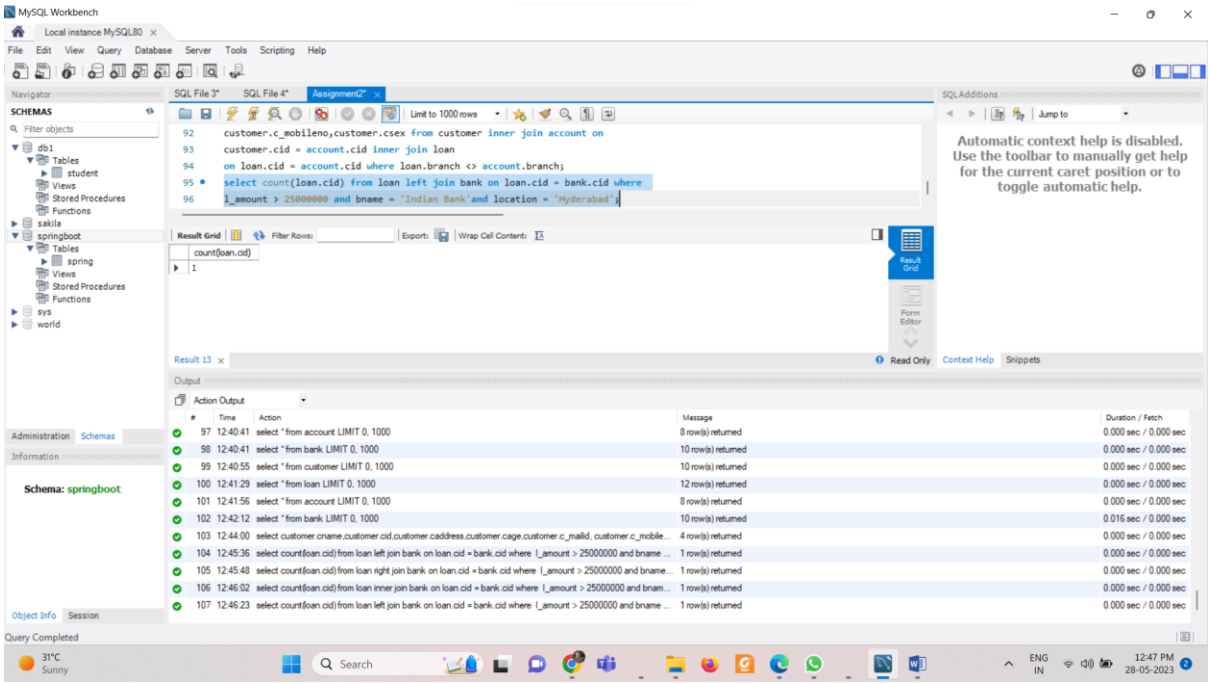
on loan.cid = account.cid where loan.branch <> account.branch;



LEFT JOIN

select count(loan.cid) from loan left join bank on loan.cid = bank.cid where

l_amount > 25000000 and bname = 'Indian Bank'and location = 'Hyderabad';

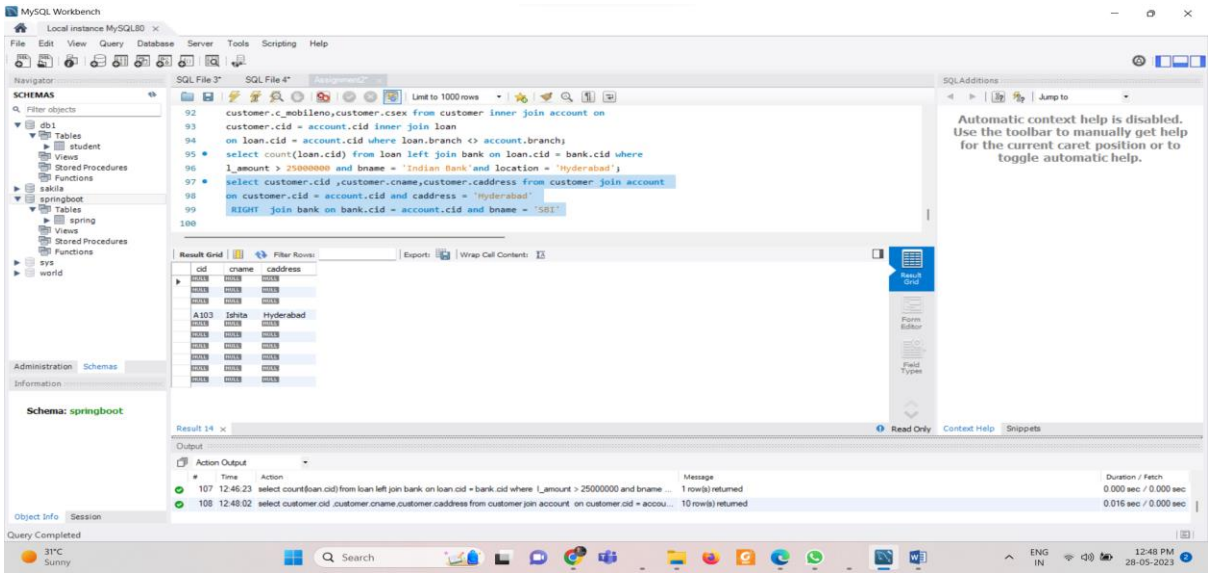


Right join

select customer.cid ,customer.cname,customer.caddress from customer join account

on customer.cid = account.cid and caddress = 'Hyderabad'

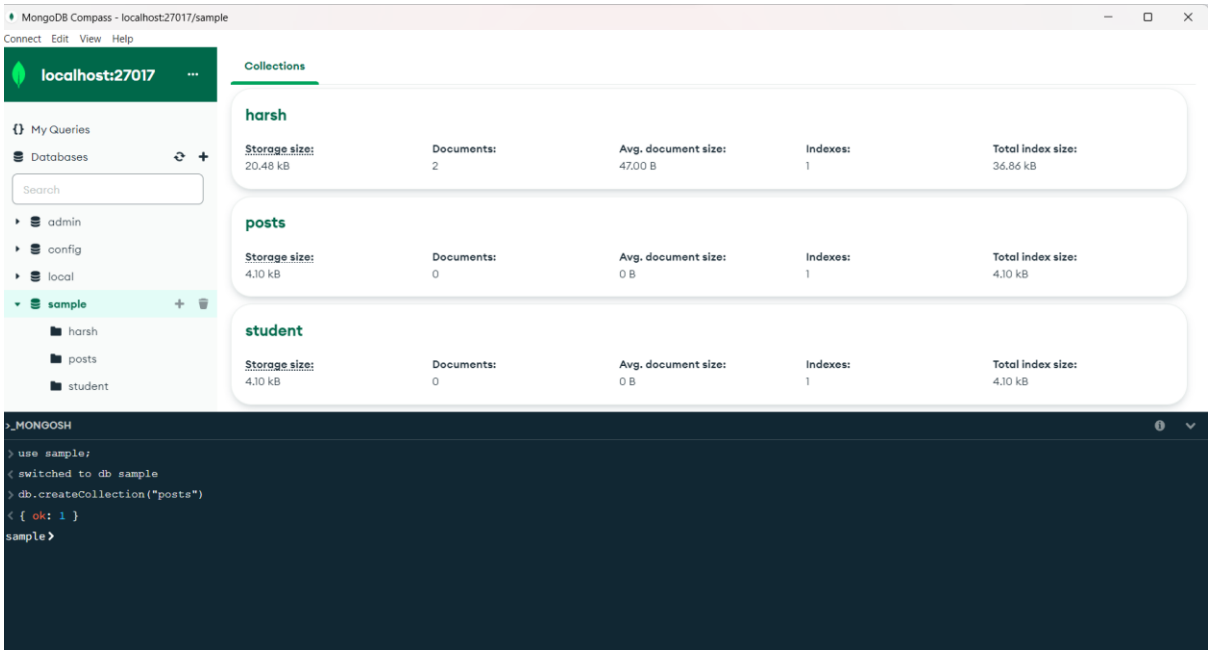
RIGHT join bank on bank.cid = account.cid and bname = 'SBI'



Q3. Create, update, delete commands in mongo

use sample;

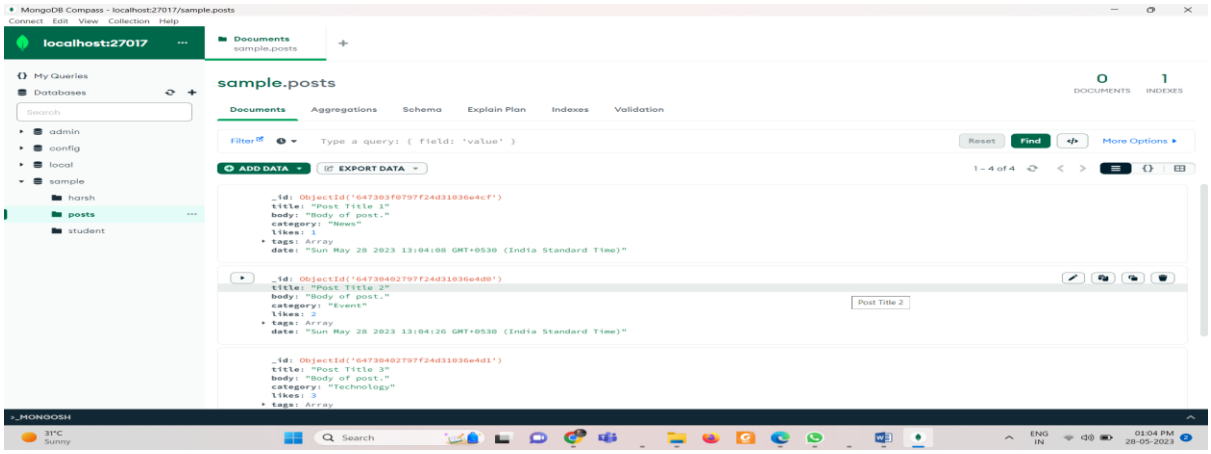
db.createCollection("posts")



Insert

```
db.posts.insertOne({
  title: "Post Title 1",
  body: "Body of post.",
  category: "News",
  likes: 1,
  tags: ["news", "events"],
  date: Date()
})
db.posts.insertMany([
  {
    title: "Post Title 2",
    body: "Body of post.",
    category: "Event",
    likes: 2,
    tags: ["news", "events"],
    date: Date()
  },
  {
    title: "Post Title 3",
    body: "Body of post.",
    category: "Technology",
    likes: 3,
    tags: ["news", "events"],
    date: Date()
  },
  {
    title: "Post Title 4",
    body: "Body of post.",
```

```
    category: "Event",
    likes: 4,
    tags: ["news", "events"],
    date: Date()
  }
])
```

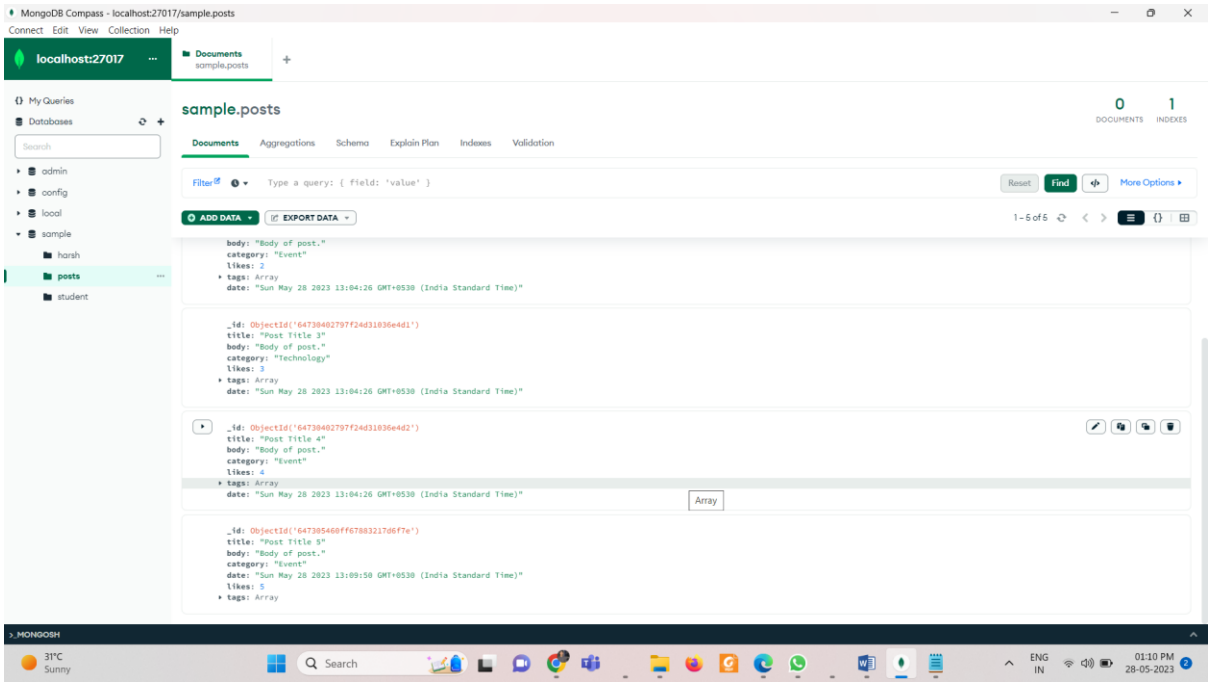


Update

```
db.posts.updateOne( { title: "Post Title 1" }, { $set: { likes: 2 } } )
```

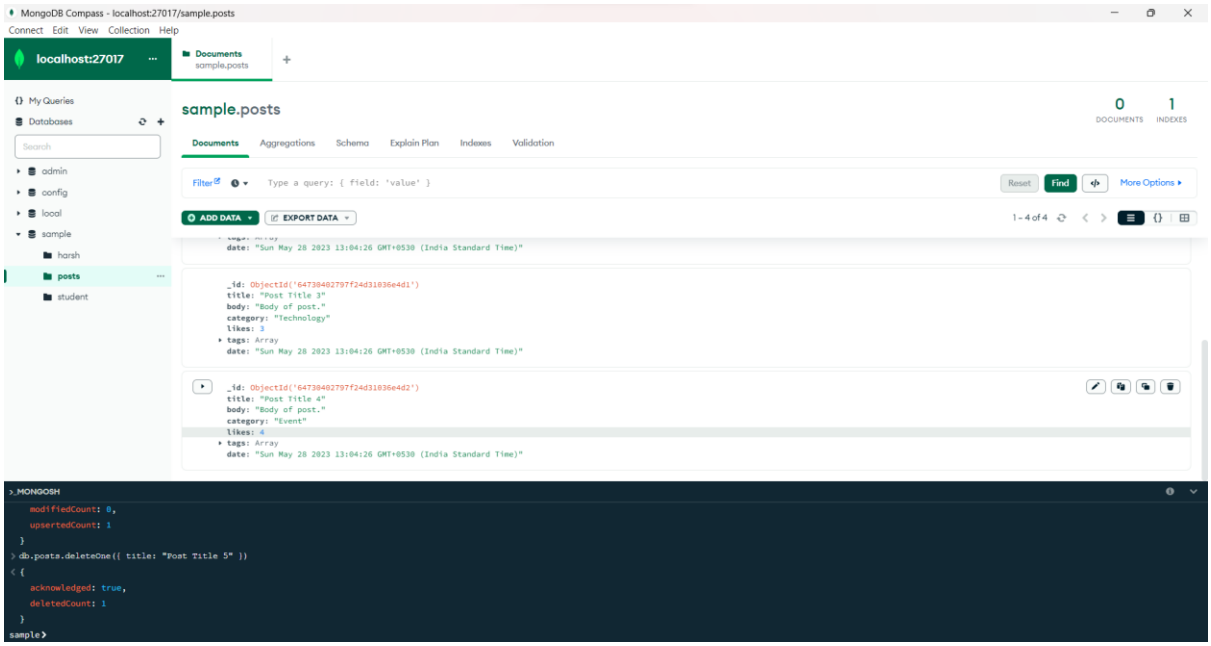
```
db.posts.updateOne(
  { title: "Post Title 5" },
  {
    $set:
      {
        title: "Post Title 5",
        body: "Body of post.",
        category: "Event",
        likes: 5,
        tags: ["news", "events"],
        date: Date()
```

```
    }
  },
  { upsert: true }
)
```



Delete

db.posts.deleteOne({ title: "Post Title 5" })



db.posts.deleteMany({ category: "Technology" })