SMARTBRIDGE EXTERNSHIP Modern Application Development (Java Spring Boot)

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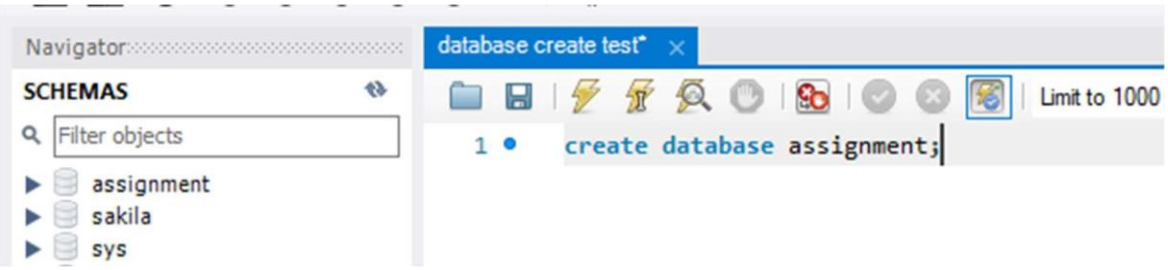
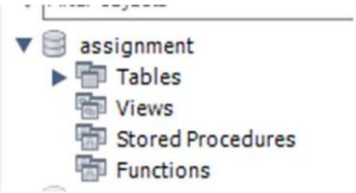
WEEK 2 ASSIGNMENT – SQL AND MONGO

SQL:

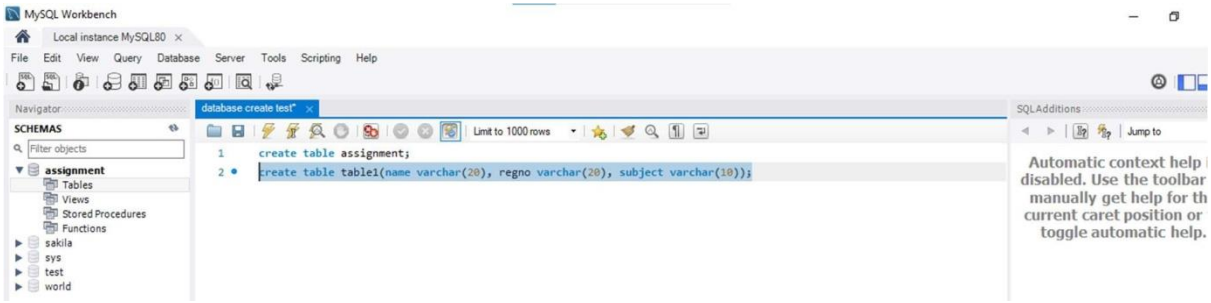
CREATE DATABASE:

create database assignment;

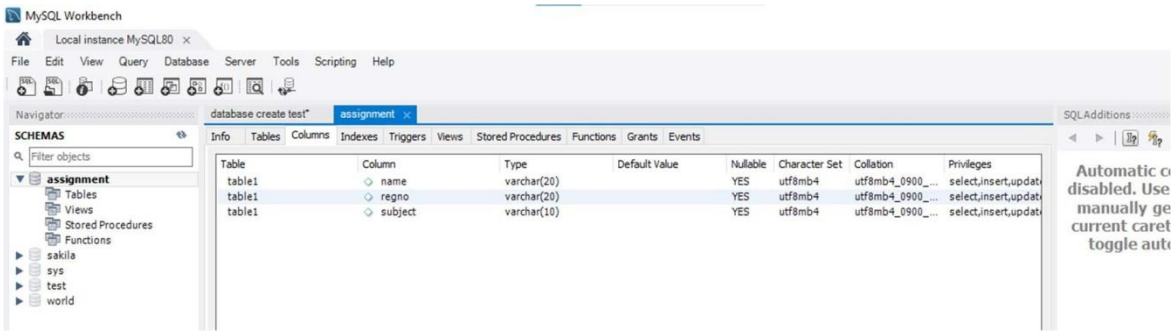




CREATE TABLE:

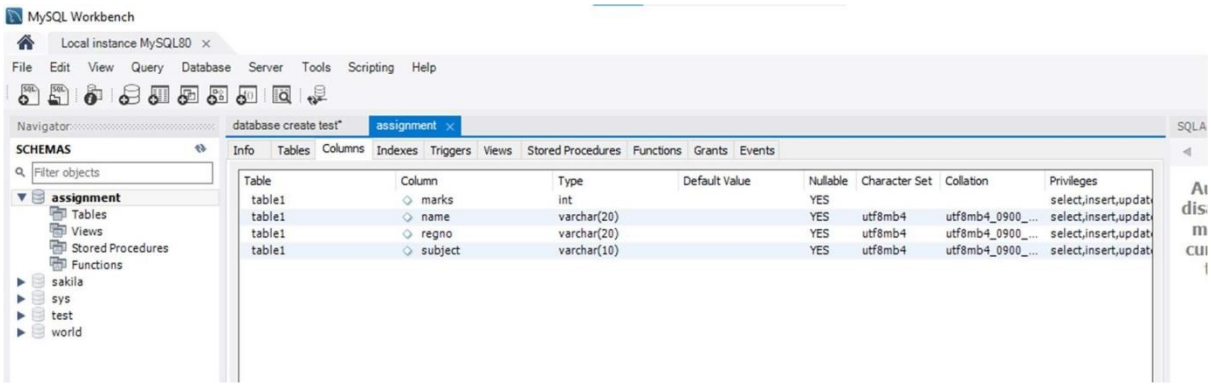


create table table1(name varchar(20), regno varchar(20), subject varchar(10));

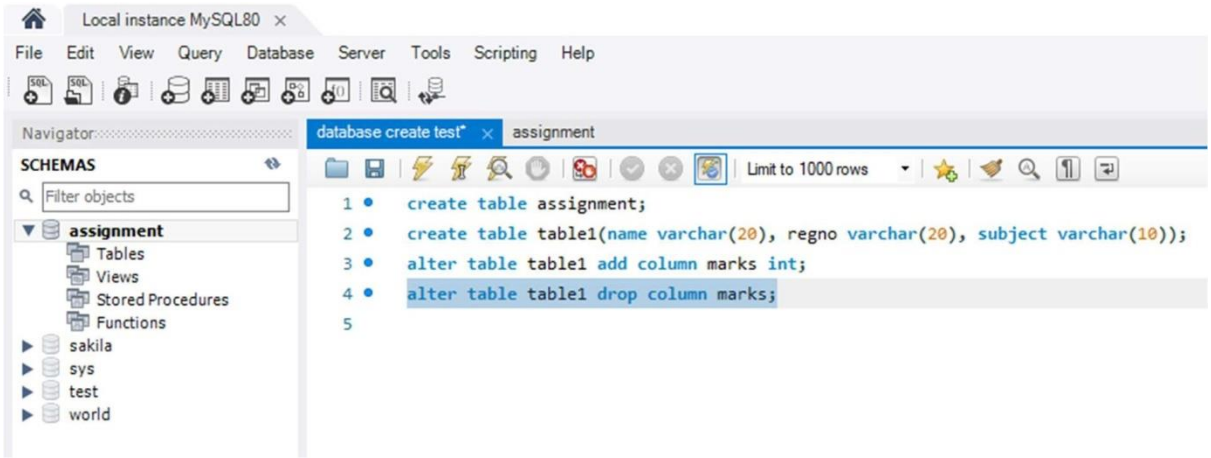


ADD COLUMN

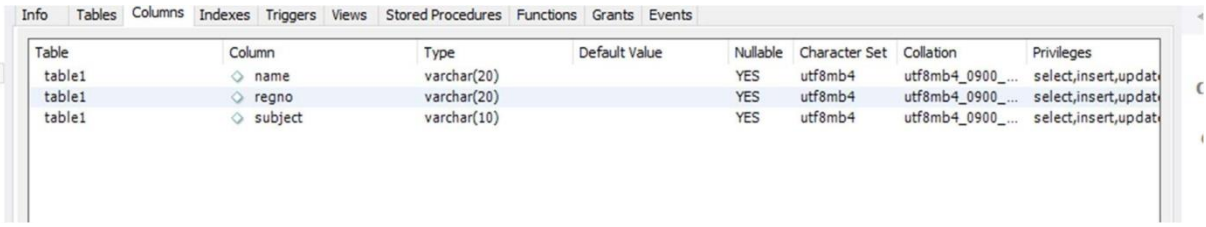
alter table table1 add column marks int;



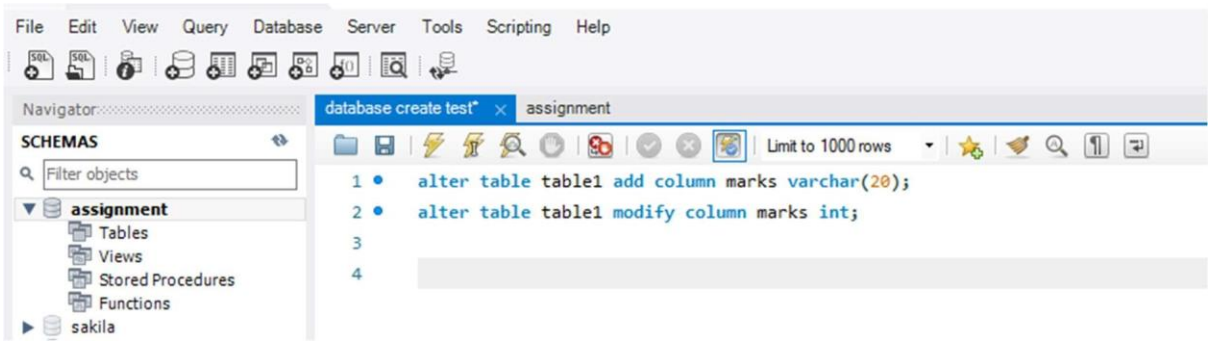
DROP COLUMN



alter table table1 drop column marks;

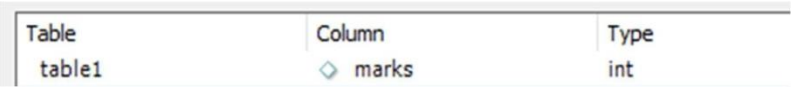


MODIFY

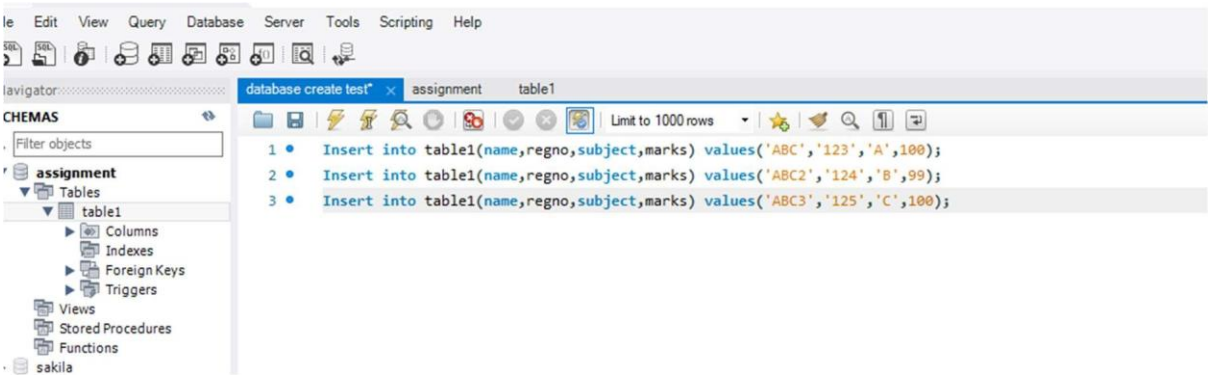


alter table table1 add column marks varchar(20);

alter table table1 modify column marks int;



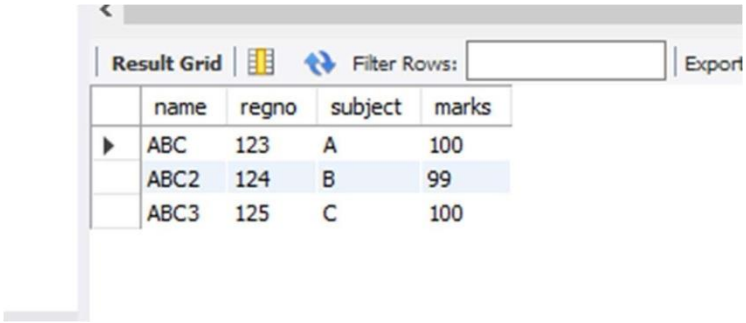
INSERT



Insert into table1(name,regno,subject,marks) values('ABC','123','A',100);

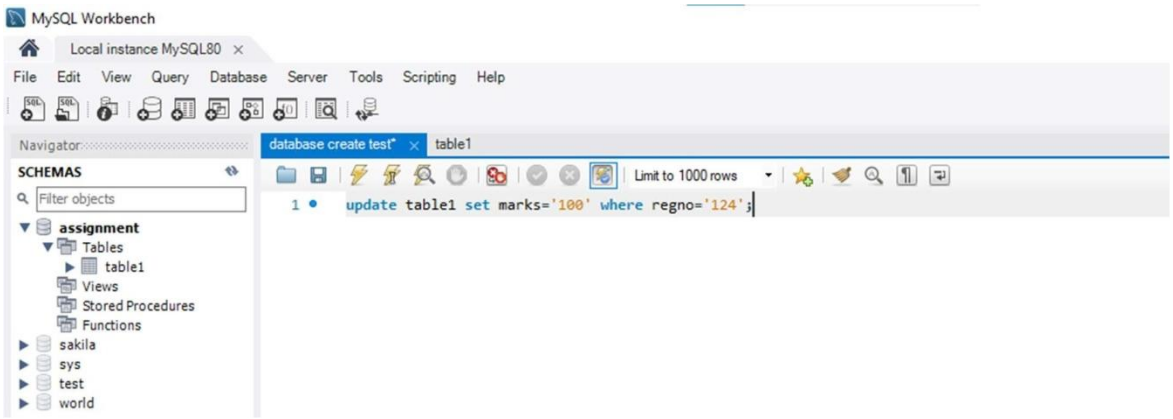
Insert into table1(name,regno,subject,marks) values('ABC2','124','B',99);

Insert into table1(name,regno,subject,marks) values('ABC3','125','C',100);

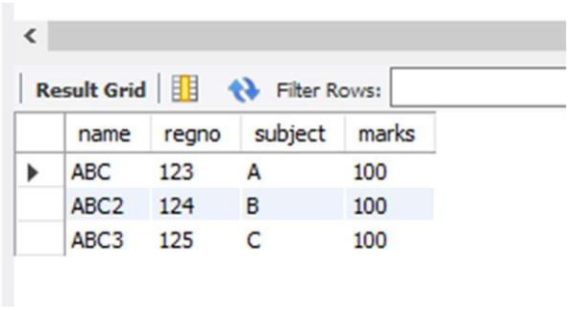


name	regno	subject	marks
ABC	123	A	100
ABC2	124	B	99
ABC3	125	C	100

UPDATE

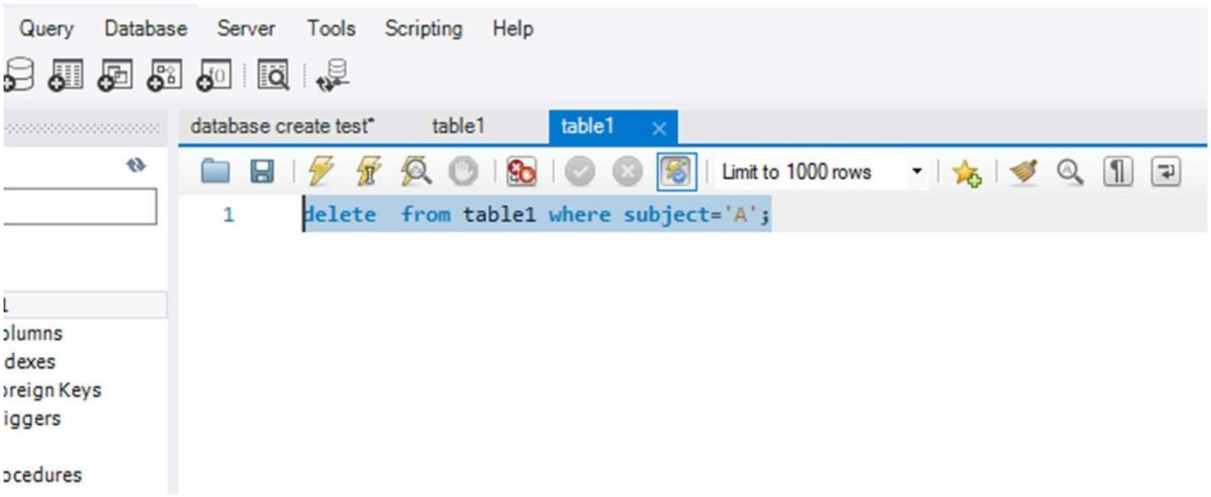


update table1 set marks='100' where regno='124';

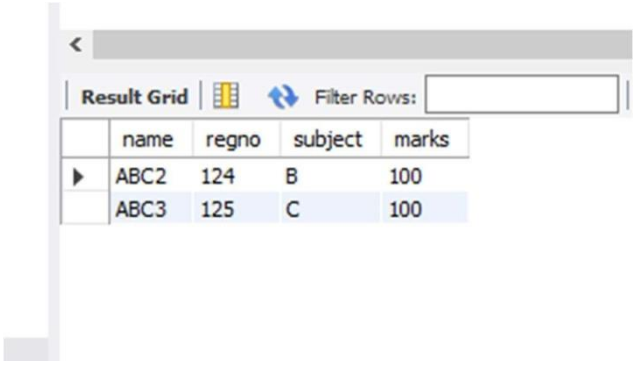


	name	regno	subject	marks
▶	ABC	123	A	100
	ABC2	124	B	100
	ABC3	125	C	100

DELETE:

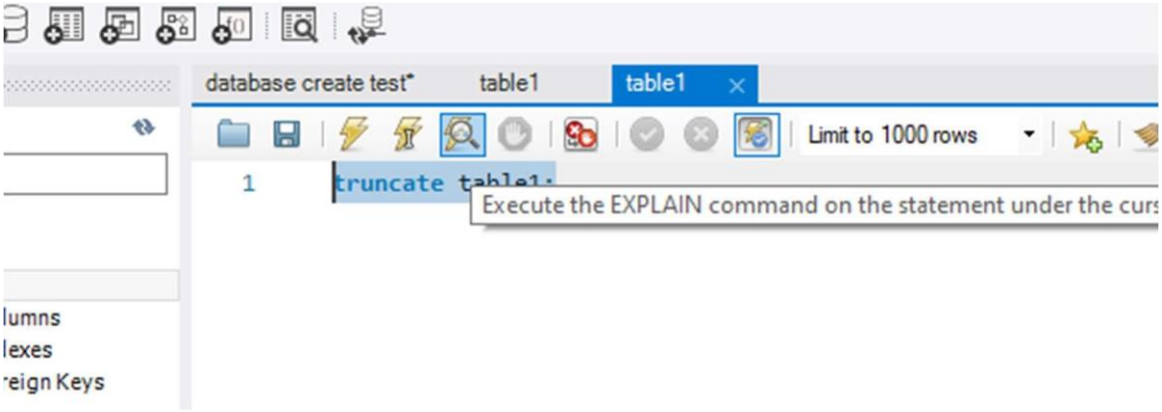


delete from table1 where subject='A';

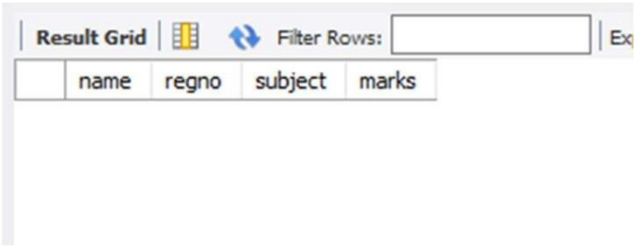


	name	regno	subject	marks
▶	ABC2	124	B	100
	ABC3	125	C	100

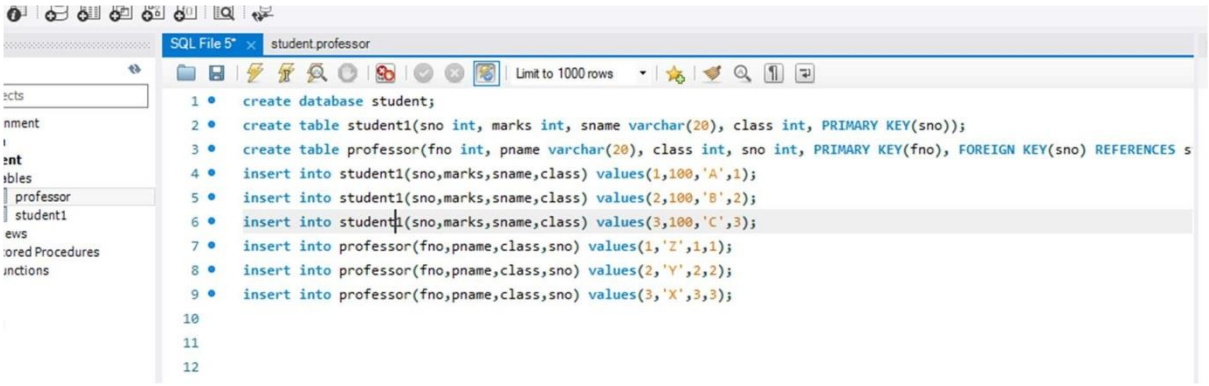
TRUNCATE



truncate table1;



JOINS:



create database student;

create table student1(sno int, marks int, sname varchar(20), class int, PRIMARY KEY(sno));

create table professor(fno int, pname varchar(20), class int, sno int, PRIMARY KEY(fno), FOREIGN KEY(sno) REFERENCES student1(sno));

insert into student1(sno,marks,sname,class) values(1,100,'A',1);

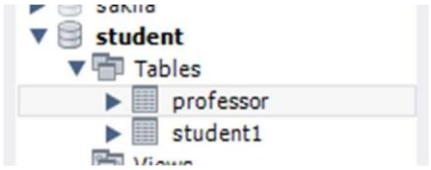
insert into student1(sno,marks,sname,class) values(2,100,'B',2);

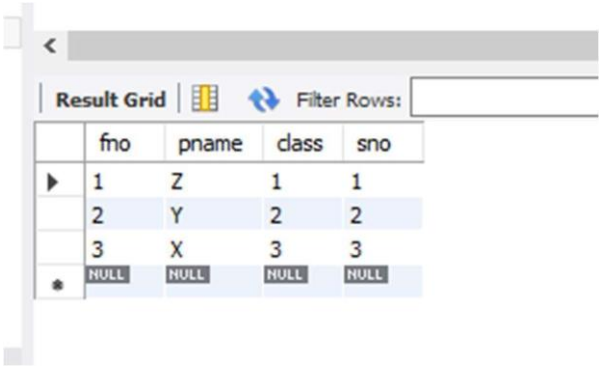
insert into student1(sno,marks,sname,class) values(3,100,'C',3);

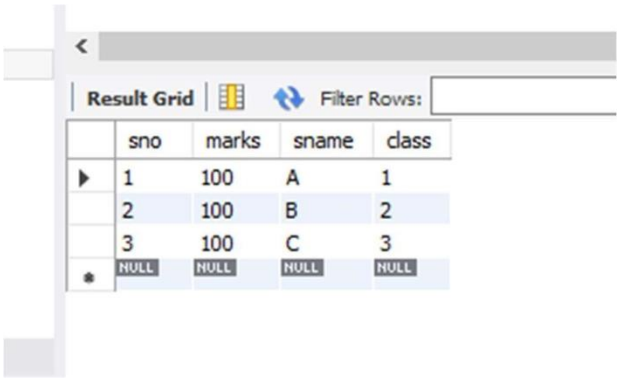
insert into professor(fno,pname,class,sno) values(1,'Z',1,1);

insert into professor(fno,pname,class,sno) values(2,'Y',2,2);

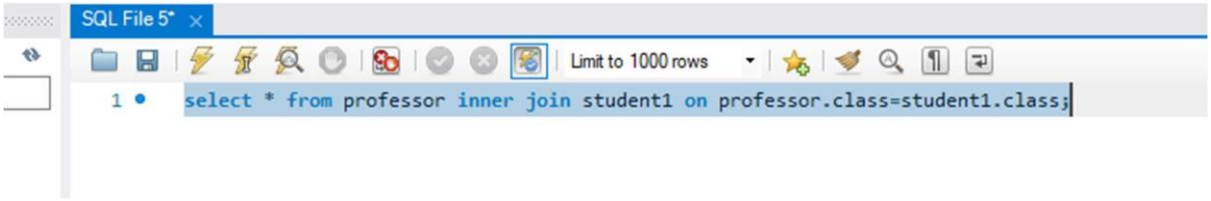
insert into professor(fno,pname,class,sno) values(3,'X',3,3);



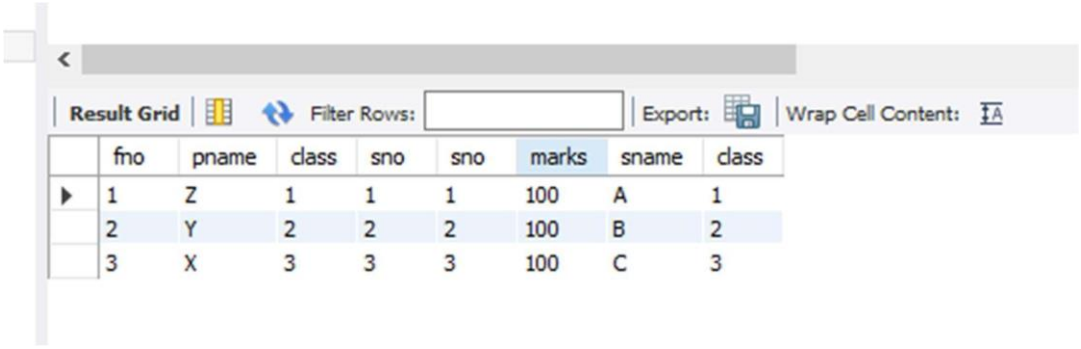




INNER JOIN

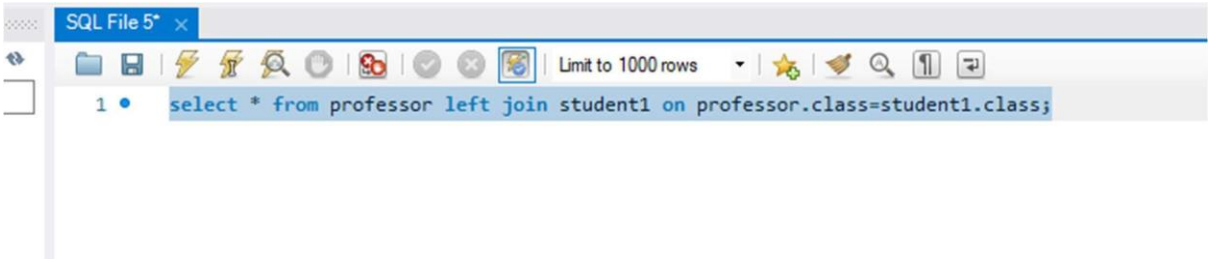


select * from professor inner join student1 on professor.class=student1.class;

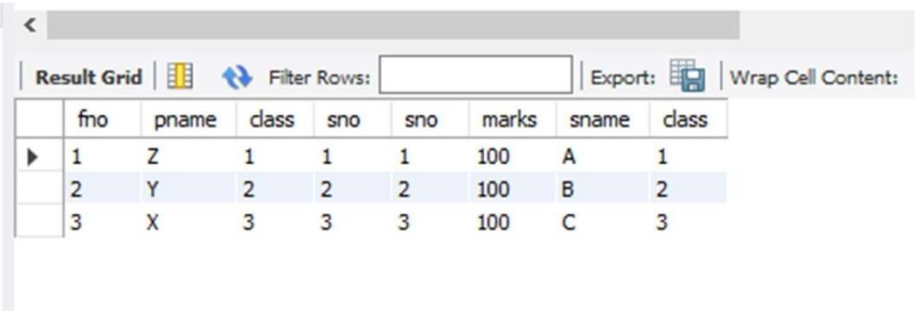


fno	pname	class	sno	sno	marks	sname	class
1	Z	1	1	1	100	A	1
2	Y	2	2	2	100	B	2
3	X	3	3	3	100	C	3

LEFT OUTER JOIN:

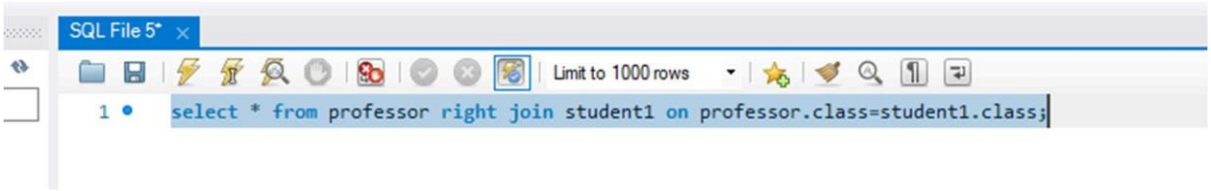


select * from professor left join student1 on professor.class=student1.class;

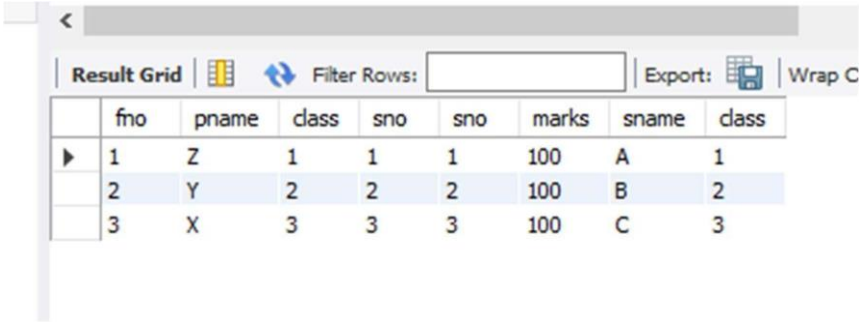


fno	pname	class	sno	sno	marks	sname	class
1	Z	1	1	1	100	A	1
2	Y	2	2	2	100	B	2
3	X	3	3	3	100	C	3

RIGHT OUTER JOIN:

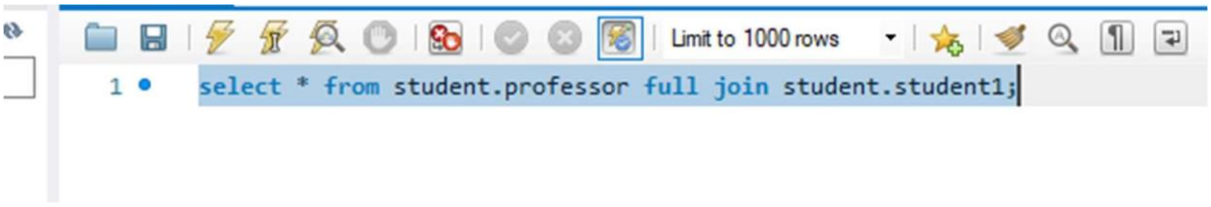


select * from professor right join student1 on professor.class=student1.class;

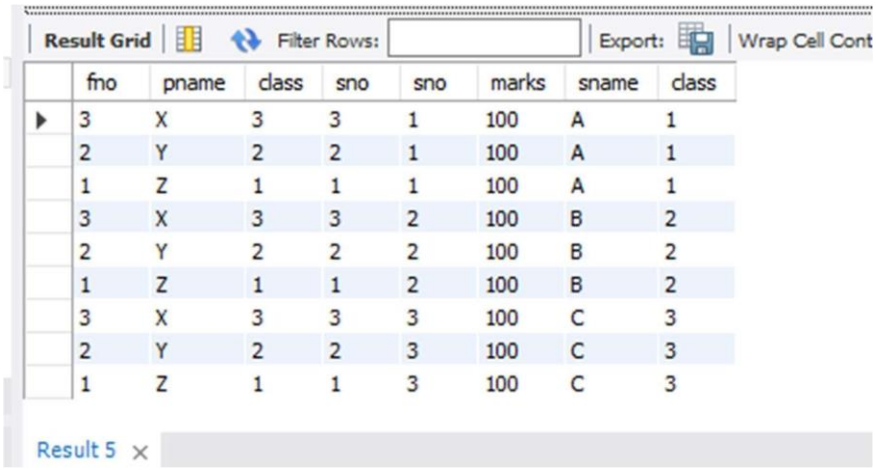


fno	pname	class	sno	sno	marks	sname	class
1	Z	1	1	1	100	A	1
2	Y	2	2	2	100	B	2
3	X	3	3	3	100	C	3

FULL JOIN:



select * from student.professor full join student.student1;



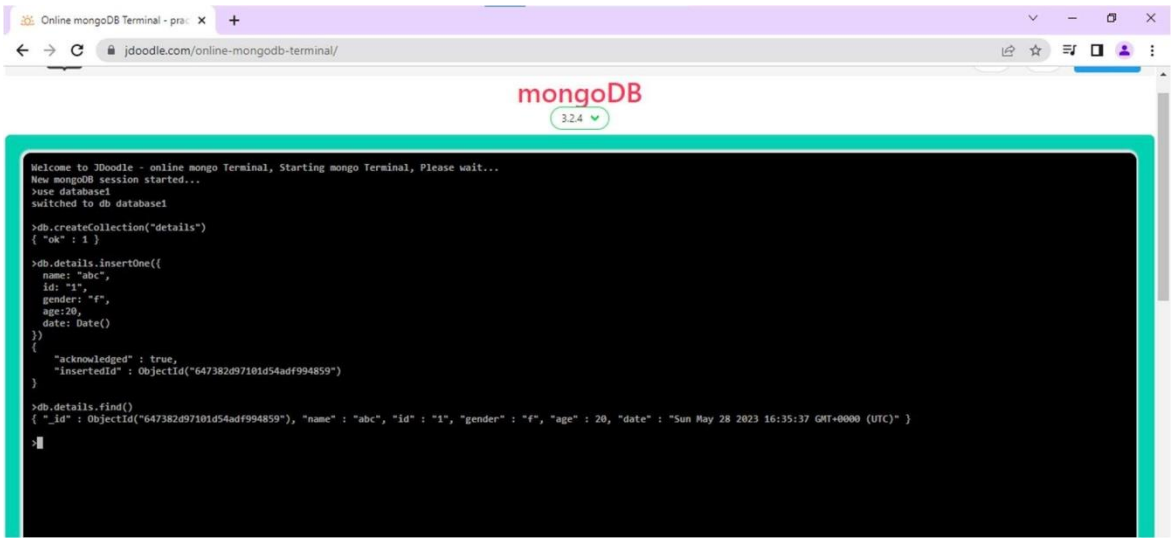
fno	pname	class	sno	sno	marks	sname	class
3	X	3	3	1	100	A	1
2	Y	2	2	1	100	A	1
1	Z	1	1	1	100	A	1
3	X	3	3	2	100	B	2
2	Y	2	2	2	100	B	2
1	Z	1	1	2	100	B	2
3	X	3	3	3	100	C	3
2	Y	2	2	3	100	C	3
1	Z	1	1	3	100	C	3

MONGO DB:

INSERT:

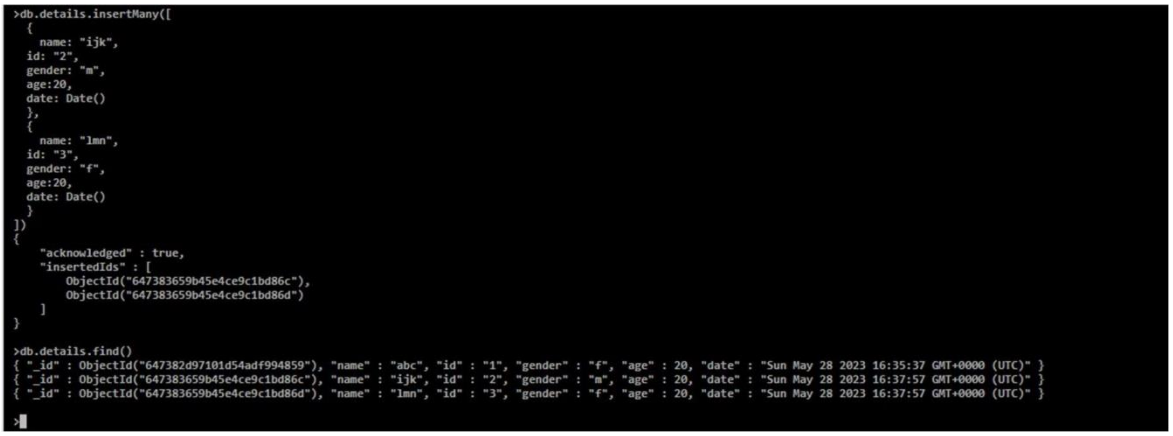
```
use database1
db.createCollection("details")
db.details.insertOne({
  name: "abc",
  id: "1",
  gender: "f",
  age:20,
  date: Date()
})
db.details.insertOne({
  name: "abc",
  id: "1",
  gender: "f",
  age:20,
  date: Date()
})
```

db.details.find()



```
db.details.insertMany([
 {
  name: "ijk",
 id: "2",
 gender: "m",
 age:20,
 date: Date()
 },
 {
  name: "lmn",
 id: "3",
 gender: "f",
 age:20,
 date: Date()
 }
])
```

db.details.find()



UPDATE:

GETTING ERROR

```
>db.details.updateOne({name:"abc"},{$set:{id:"7"}})
2023-05-28T16:44:10.944+0000 E QUERY    [thread1] SyntaxError: invalid property id @(shell):1:35
```

DELETE:

db.details.deleteOne({ id: "3" })

db.details.find()

```
>db.details.deleteOne({id:"3"})
{ "acknowledged" : true, "deletedCount" : 1 }

>db.details.find()
{ "_id" : ObjectId("647382d97101d54adf994859"), "name" : "abc", "id" : "1", "gender" : "f", "age" : 20, "date" : "Sun May 28 2023 16:35:37 GMT+0000 (UTC)" }
{ "_id" : ObjectId("647383659b45e4ce9c1bd86c"), "name" : "ijk", "id" : "2", "gender" : "m", "age" : 20, "date" : "Sun May 28 2023 16:37:57 GMT+0000 (UTC)" }

>
```

db.details.insertOne({

name: "abc",

id: "1",

gender: "f",

age:20,

date: Date()

})

db.posts.deleteMany({ gender: "f" })

db.details.find()

```
>db.details.insertOne({
  name: "abc",
  id: "1",
  gender: "f",
  age:20,
  date: Date()
})

{
    "acknowledged" : true,
    "insertedId" : ObjectId("647385e3d712bd9d202c59f7")
}

>db.details.deleteMany({ gender: "f" })
{ "acknowledged" : true, "deletedCount" : 2 }

>db.details.find()
{ "_id" : ObjectId("647383659b45e4ce9c1bd86c"), "name" : "ijk", "id" : "2", "gender" : "m", "age" : 20, "date" : "Sun May 28 2023 16:37:57 GMT+0000 (UTC)" }

>
```