MODERN APPLICATION DEVELOPMENT

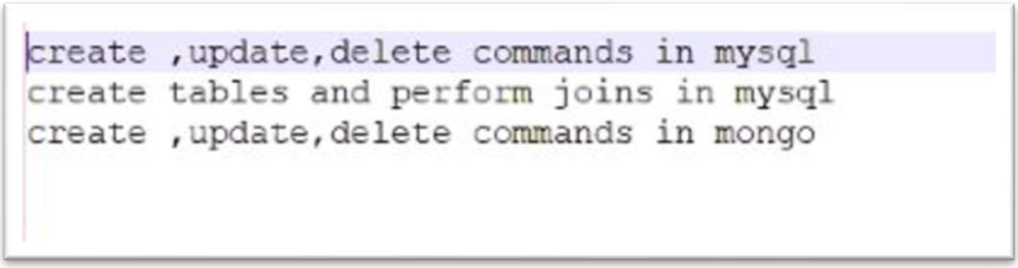
JAVA SPRING BOOT

WEEKLY ASSIGNMET:2

NAME:ASHWIN SIVASANKAR V

REGNO:20BCE1804

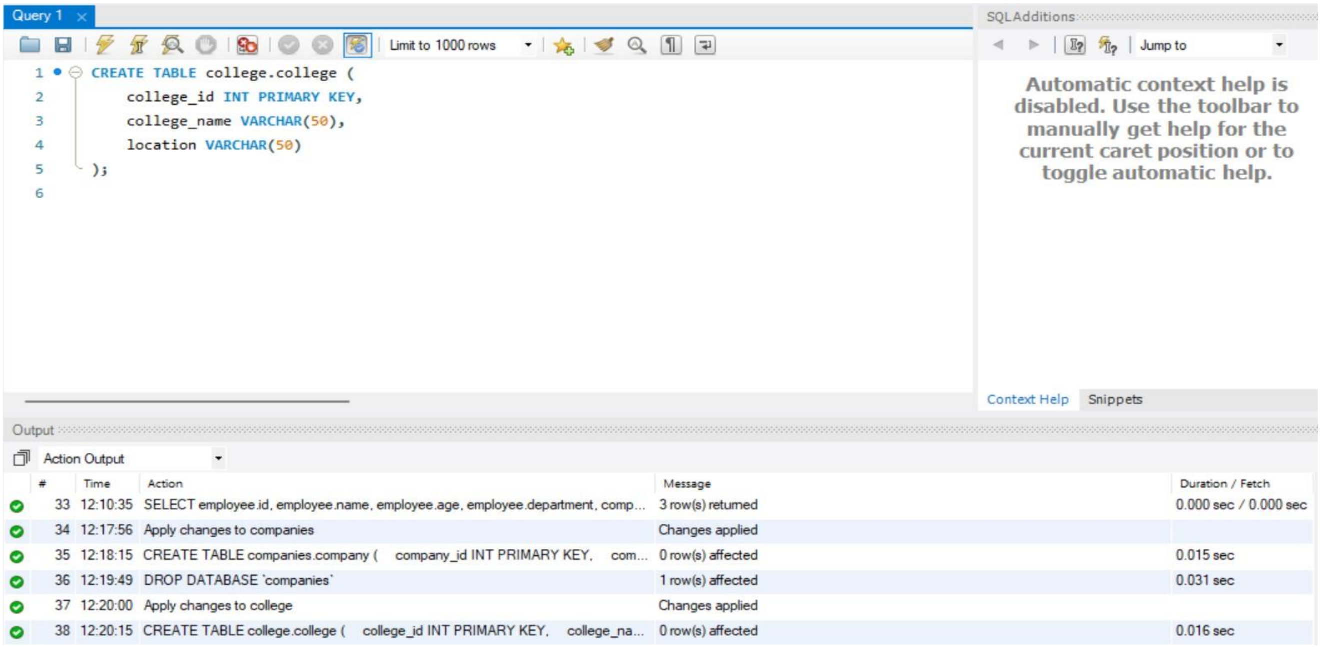
QUESTION:



```
create ,update,delete commands in mysql
create tables and perform joins in mysql
create ,update,delete commands in mongo
```

MYSQL:

CREATE COMMANDS

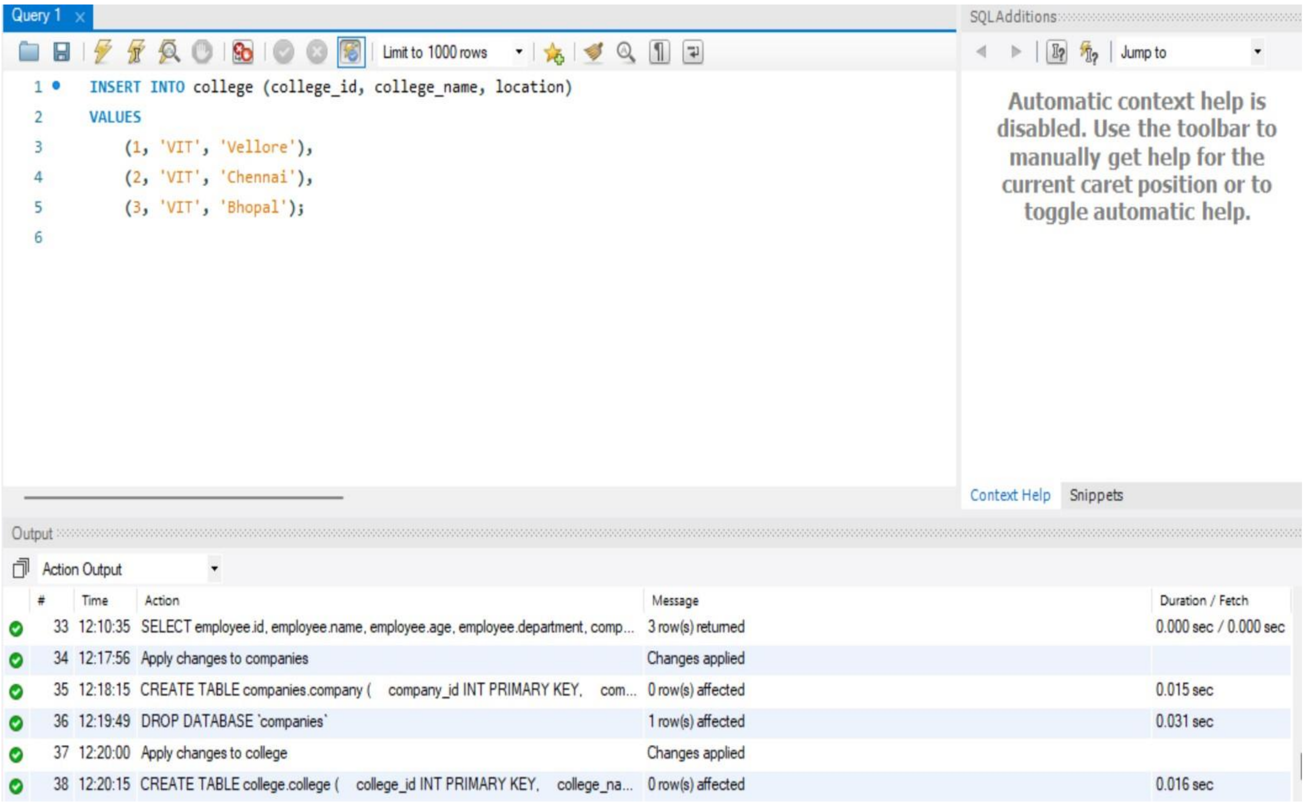


```sql
CREATE TABLE college.college (
    college_id INT PRIMARY KEY,
    college_name VARCHAR(50),
    location VARCHAR(50)
);
```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

#	Time	Action	Message	Duration / Fetch
33	12:10:35	SELECT employee.id, employee.name, employee.age, employee.department, comp...	3 row(s) returned	0.000 sec / 0.000 sec
34	12:17:56	Apply changes to companies	Changes applied	
35	12:18:15	CREATE TABLE companies.company (company_id INT PRIMARY KEY, com...	0 row(s) affected	0.015 sec
36	12:19:49	DROP DATABASE `companies`	1 row(s) affected	0.031 sec
37	12:20:00	Apply changes to college	Changes applied	
38	12:20:15	CREATE TABLE college.college (college_id INT PRIMARY KEY, college_na...	0 row(s) affected	0.016 sec

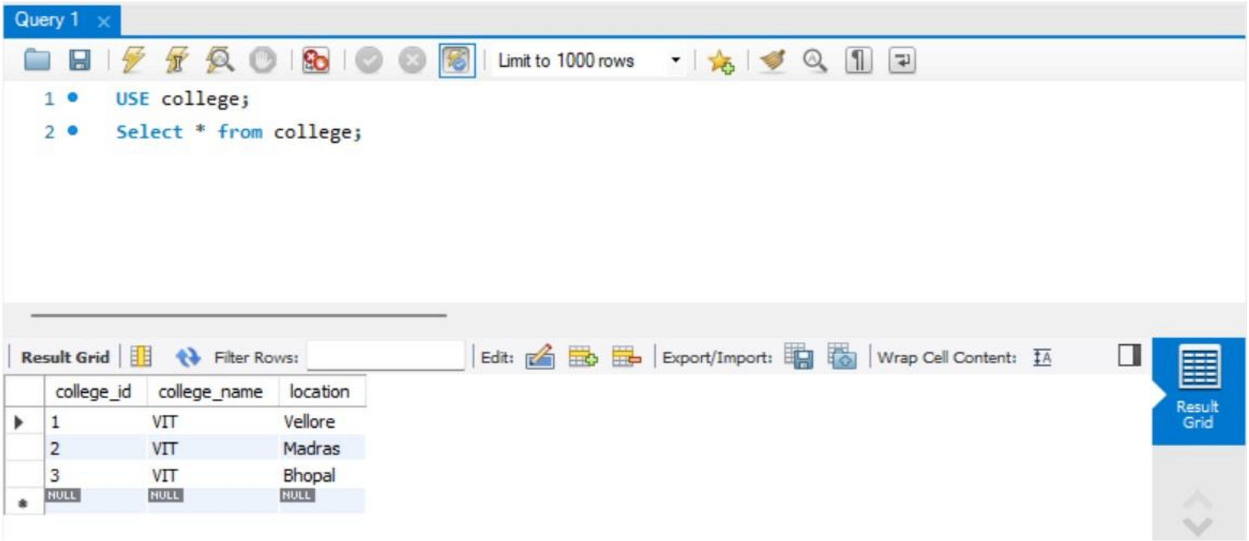
INSERT COMMANDS



```sql
INSERT INTO college (college_id, college_name, location)
VALUES
    (1, 'VIT', 'Vellore'),
    (2, 'VIT', 'Chennai'),
    (3, 'VIT', 'Bhopal');
```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

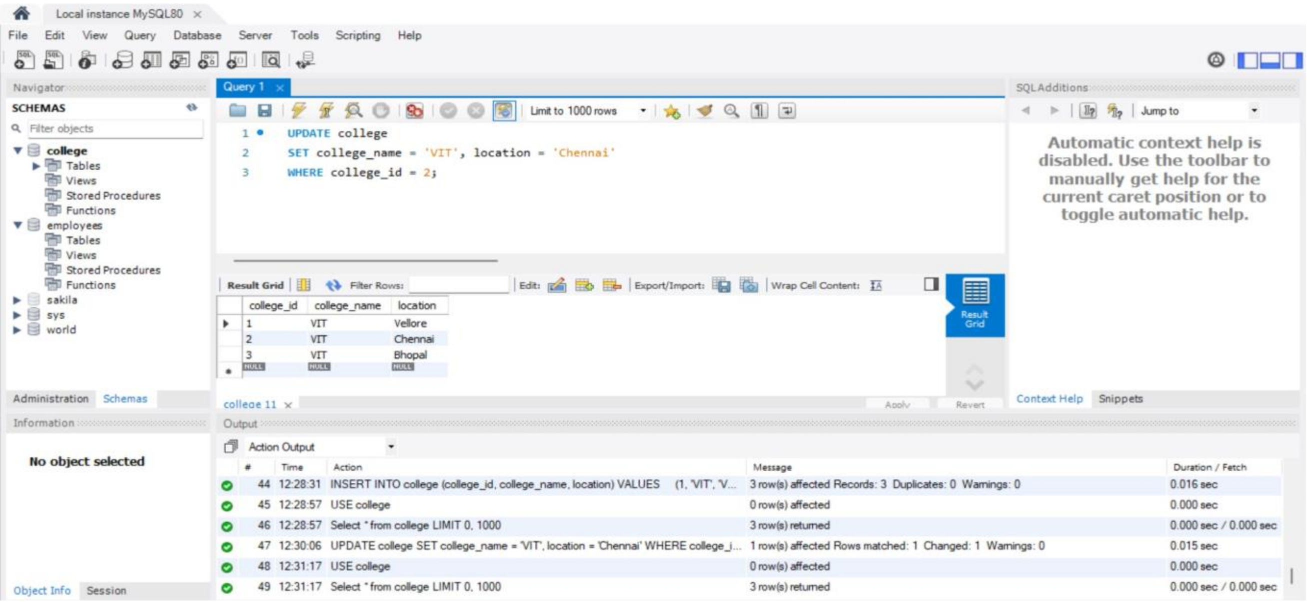
	#	Time	Action	Message	Duration / Fetch
✓	33	12:10:35	SELECT employee.id, employee.name, employee.age, employee.department, comp...	3 row(s) returned	0.000 sec / 0.000 sec
✓	34	12:17:56	Apply changes to companies	Changes applied	
✓	35	12:18:15	CREATE TABLE companies.company (company_id INT PRIMARY KEY, com...	0 row(s) affected	0.015 sec
✓	36	12:19:49	DROP DATABASE `companies`	1 row(s) affected	0.031 sec
✓	37	12:20:00	Apply changes to college	Changes applied	
✓	38	12:20:15	CREATE TABLE college.college (college_id INT PRIMARY KEY, college_na...	0 row(s) affected	0.016 sec



```sql
USE college;
Select * from college;
```

college_id	college_name	location
1	VIT	Vellore
2	VIT	Madras
3	VIT	Bhopal
NULL	NULL	NULL

UPDATE COMMANDS:



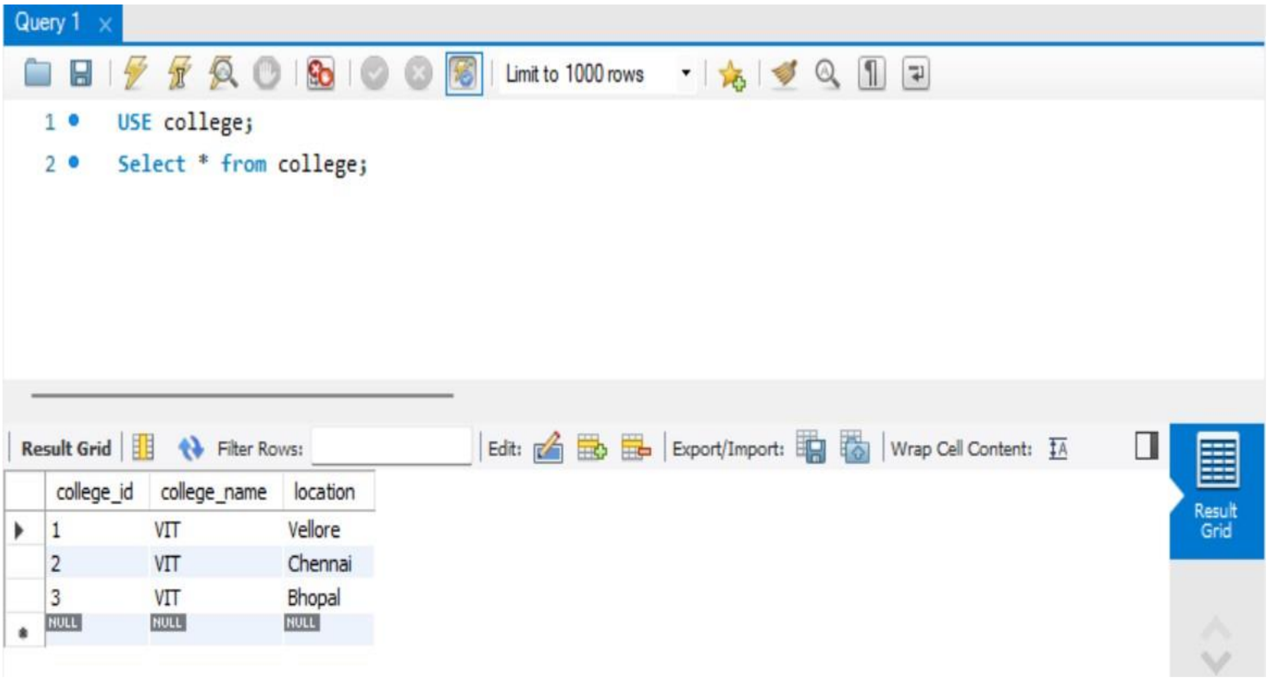
```sql
UPDATE college
SET college_name = 'VIT', location = 'Chennai'
WHERE college_id = 2;
```

college_id	college_name	location
1	VIT	Vellore
2	VIT	Chennai
3	VIT	Bhopal
NULL	NULL	NULL

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

No object selected

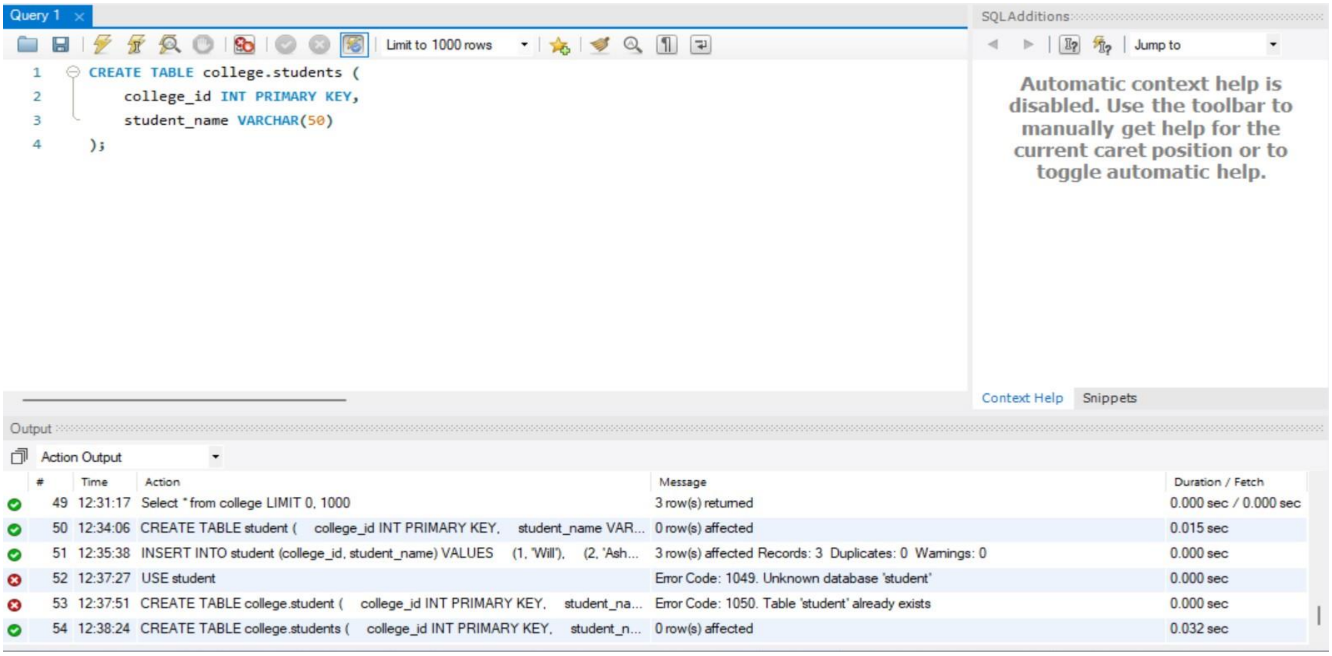
```
#   Time      Action                                                                  Message                                                       Duration / Fetch
44  12:28:31  INSERT INTO college (college_id, college_name, location) VALUES  (1, 'VIT', 'V...  3 row(s) affected Records: 3  Duplicates: 0  Warnings: 0   0.016 sec
45  12:28:57  USE college                                                             0 row(s) affected                                             0.000 sec
46  12:28:57  Select * from college LIMIT 0, 1000                                     3 row(s) returned                                             0.000 sec / 0.000 sec
47  12:30:06  UPDATE college SET college_name = 'VIT', location = 'Chennai' WHERE college_i...  1 row(s) affected Rows matched: 1  Changed: 1  Warnings: 0   0.015 sec
48  12:31:17  USE college                                                             0 row(s) affected                                             0.000 sec
49  12:31:17  Select * from college LIMIT 0, 1000                                     3 row(s) returned                                             0.000 sec / 0.000 sec
```



```sql
USE college;
Select * from college;
```

college_id	college_name	location
1	VIT	Vellore
2	VIT	Chennai
3	VIT	Bhopal
NULL	NULL	NULL

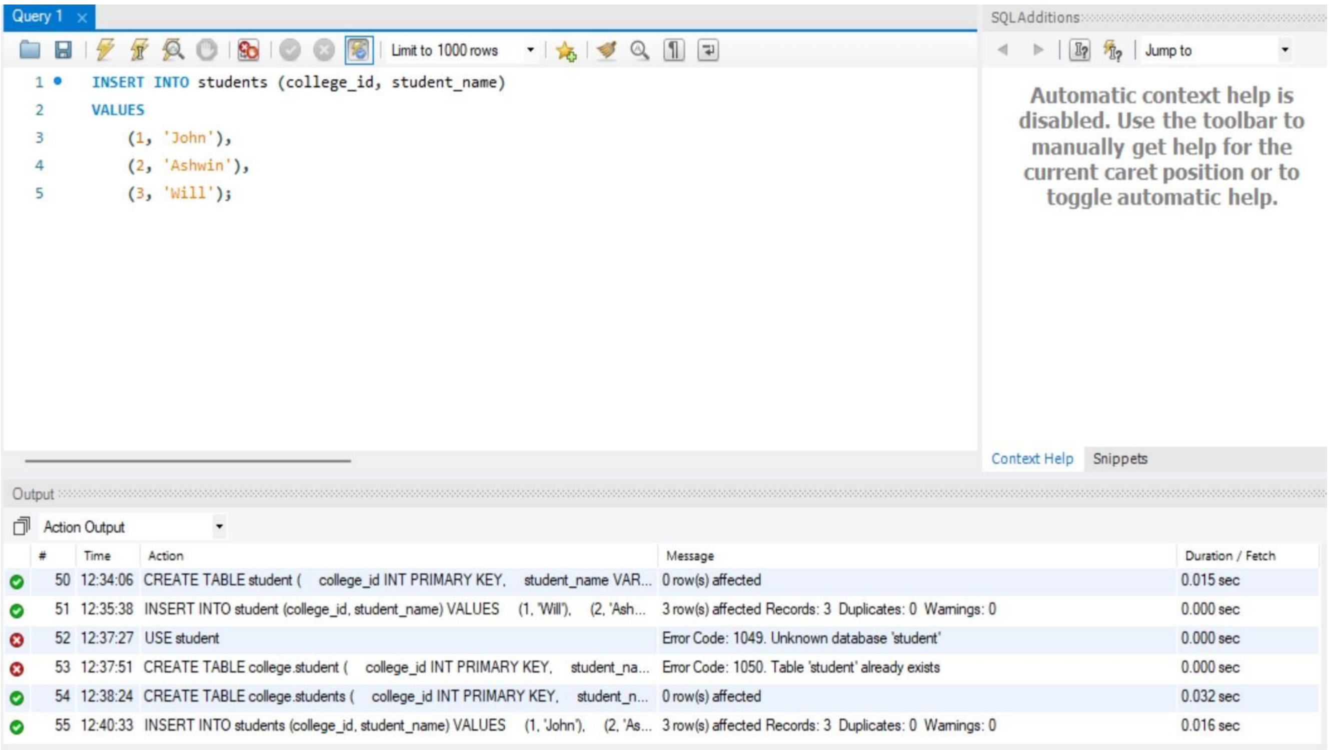
JOIN COMMANDS:



```sql
CREATE TABLE college.students (
    college_id INT PRIMARY KEY,
    student_name VARCHAR(50)
);
```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

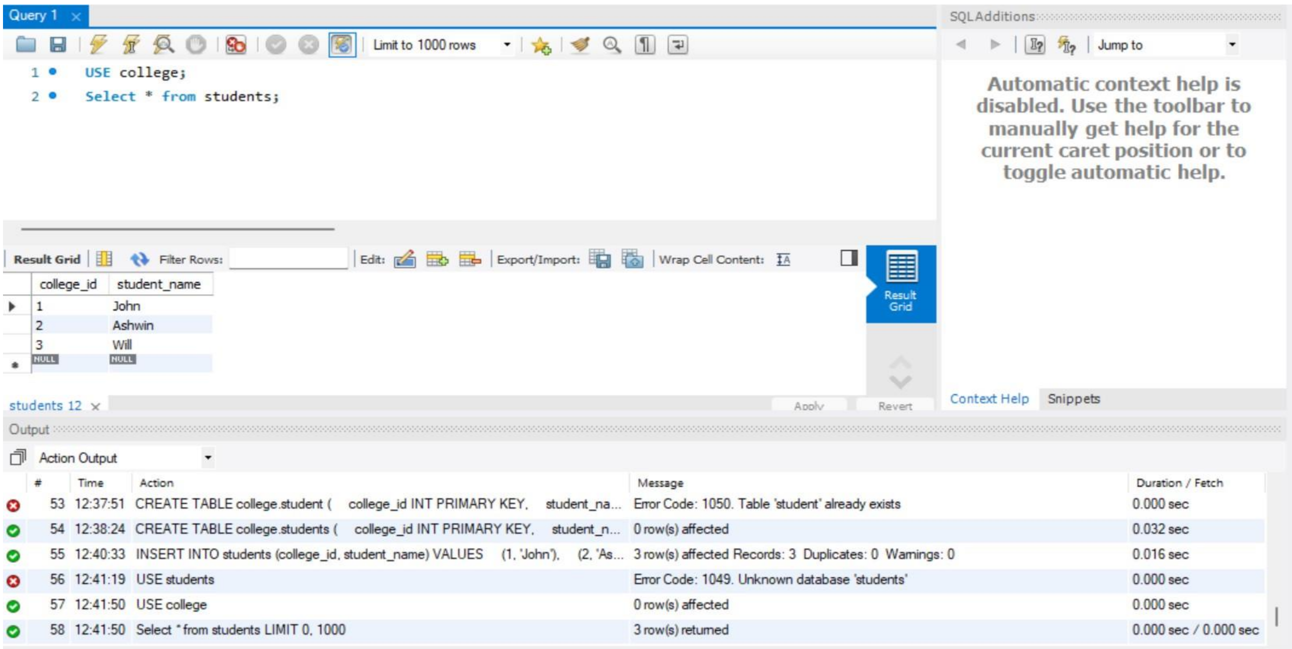
	#	Time	Action	Message	Duration / Fetch
✓	49	12:31:17	Select * from college LIMIT 0, 1000	3 row(s) returned	0.000 sec / 0.000 sec
✓	50	12:34:06	CREATE TABLE student (college_id INT PRIMARY KEY, student_name VAR...	0 row(s) affected	0.015 sec
✓	51	12:35:38	INSERT INTO student (college_id, student_name) VALUES (1, 'Will'), (2, 'Ash...	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0	0.000 sec
✗	52	12:37:27	USE student	Error Code: 1049. Unknown database 'student'	0.000 sec
✗	53	12:37:51	CREATE TABLE college.student (college_id INT PRIMARY KEY, student_na...	Error Code: 1050. Table 'student' already exists	0.000 sec
✓	54	12:38:24	CREATE TABLE college.students (college_id INT PRIMARY KEY, student_n...	0 row(s) affected	0.032 sec



```sql
INSERT INTO students (college_id, student_name)
VALUES
    (1, 'John'),
    (2, 'Ashwin'),
    (3, 'Will');
```

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

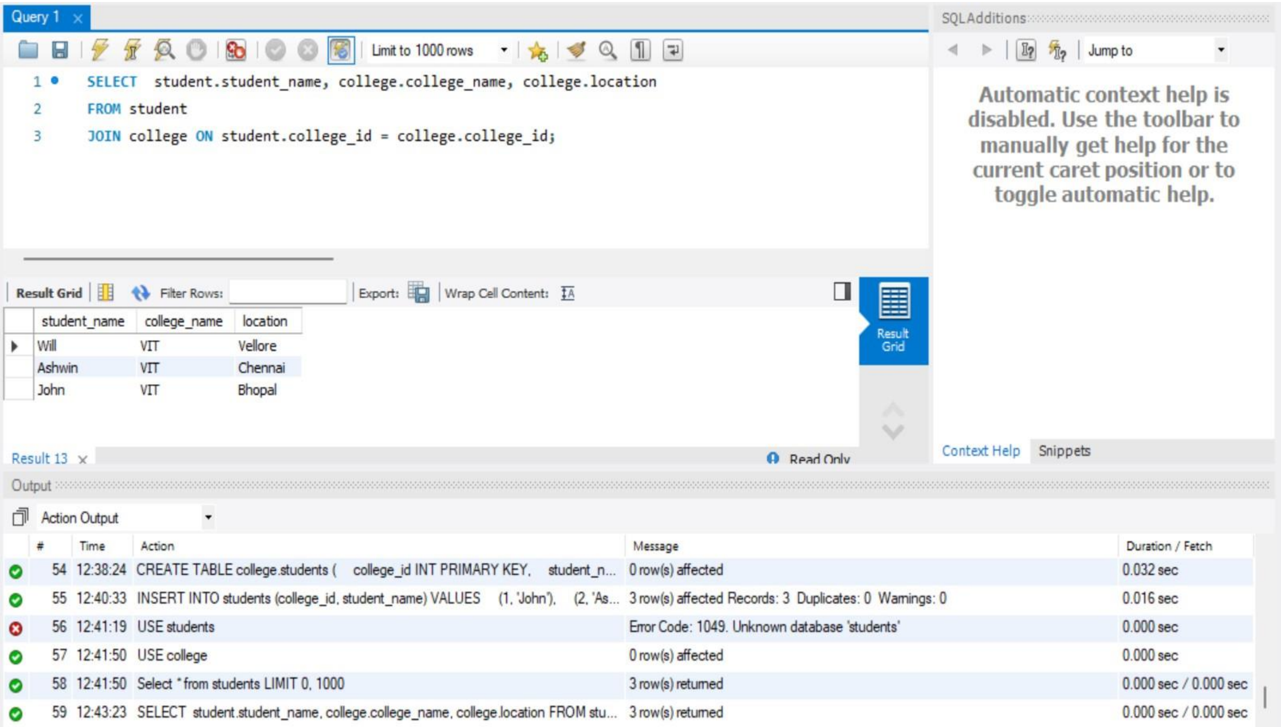
	#	Time	Action	Message	Duration / Fetch
✓	50	12:34:06	CREATE TABLE student (college_id INT PRIMARY KEY, student_name VAR...	0 row(s) affected	0.015 sec
✓	51	12:35:38	INSERT INTO student (college_id, student_name) VALUES (1, 'Will'), (2, 'Ash...	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0	0.000 sec
✗	52	12:37:27	USE student	Error Code: 1049. Unknown database 'student'	0.000 sec
✗	53	12:37:51	CREATE TABLE college.student (college_id INT PRIMARY KEY, student_na...	Error Code: 1050. Table 'student' already exists	0.000 sec
✓	54	12:38:24	CREATE TABLE college.students (college_id INT PRIMARY KEY, student_n...	0 row(s) affected	0.032 sec
✓	55	12:40:33	INSERT INTO students (college_id, student_name) VALUES (1, 'John'), (2, 'As...	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0	0.016 sec



```sql
USE college;
Select * from students;
```

college_id	student_name
1	John
2	Ashwin
3	Will
NULL	NULL

```
#   Time      Action                                                             Message                                                       Duration / Fetch
53  12:37:51  CREATE TABLE college.student (    college_id INT PRIMARY KEY,    student_na...  Error Code: 1050. Table 'student' already exists              0.000 sec
54  12:38:24  CREATE TABLE college.students (    college_id INT PRIMARY KEY,    student_n...  0 row(s) affected                                             0.032 sec
55  12:40:33  INSERT INTO students (college_id, student_name) VALUES    (1, 'John'),    (2, 'As...  3 row(s) affected Records: 3  Duplicates: 0  Warnings: 0     0.016 sec
56  12:41:19  USE students                                                       Error Code: 1049. Unknown database 'students'                 0.000 sec
57  12:41:50  USE college                                                        0 row(s) affected                                             0.000 sec
58  12:41:50  Select * from students LIMIT 0, 1000                               3 row(s) returned                                             0.000 sec / 0.000 sec
```

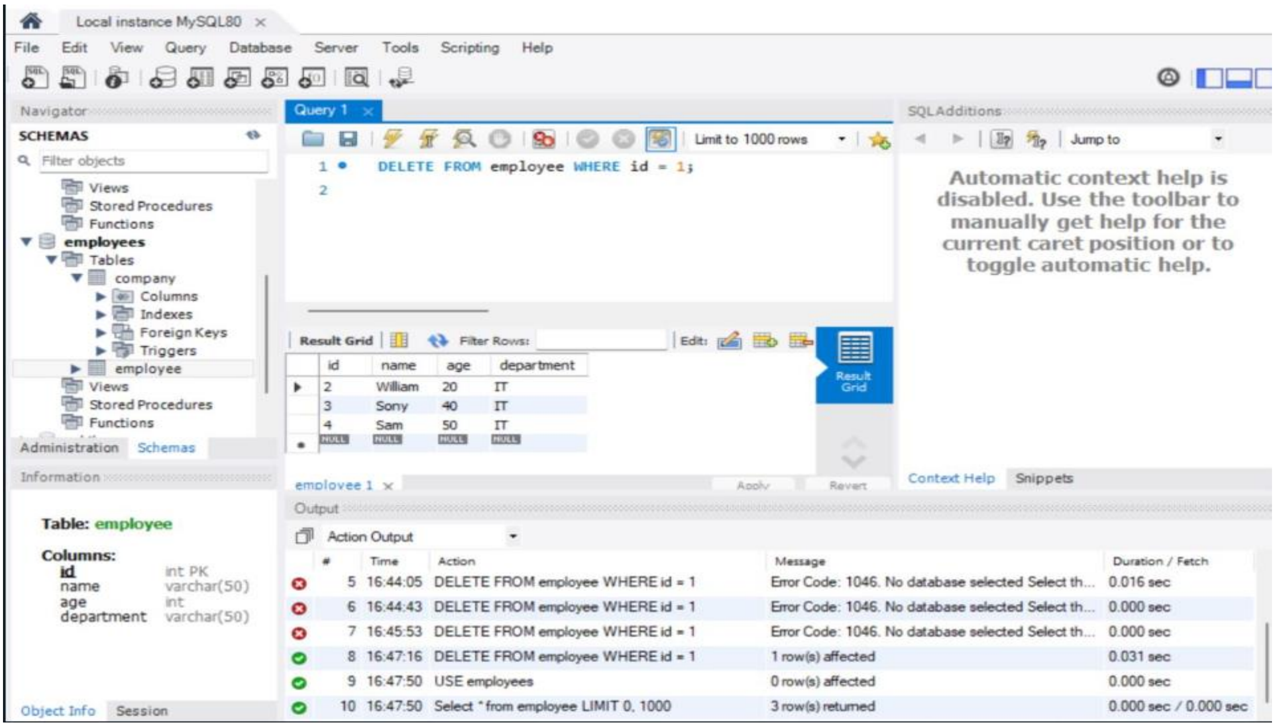


```sql
SELECT  student.student_name, college.college_name, college.location
FROM student
JOIN college ON student.college_id = college.college_id;
```

student_name	college_name	location
Will	VIT	Vellore
Ashwin	VIT	Chennai
John	VIT	Bhopal

```
#   Time      Action                                                             Message                                                       Duration / Fetch
54  12:38:24  CREATE TABLE college.students (    college_id INT PRIMARY KEY,    student_n...  0 row(s) affected                                             0.032 sec
55  12:40:33  INSERT INTO students (college_id, student_name) VALUES    (1, 'John'),    (2, 'As...  3 row(s) affected Records: 3  Duplicates: 0  Warnings: 0     0.016 sec
56  12:41:19  USE students                                                       Error Code: 1049. Unknown database 'students'                 0.000 sec
57  12:41:50  USE college                                                        0 row(s) affected                                             0.000 sec
58  12:41:50  Select * from students LIMIT 0, 1000                               3 row(s) returned                                             0.000 sec / 0.000 sec
59  12:43:23  SELECT  student.student_name, college.college_name, college.location FROM stu...  3 row(s) returned                                             0.000 sec / 0.000 sec
```

DELETE COMMANDS:



```sql
DELETE FROM employee WHERE id = 1;
```

id	name	age	department
2	William	20	IT
3	Sony	40	IT
4	Sam	50	IT
NULL	NULL	NULL	NULL

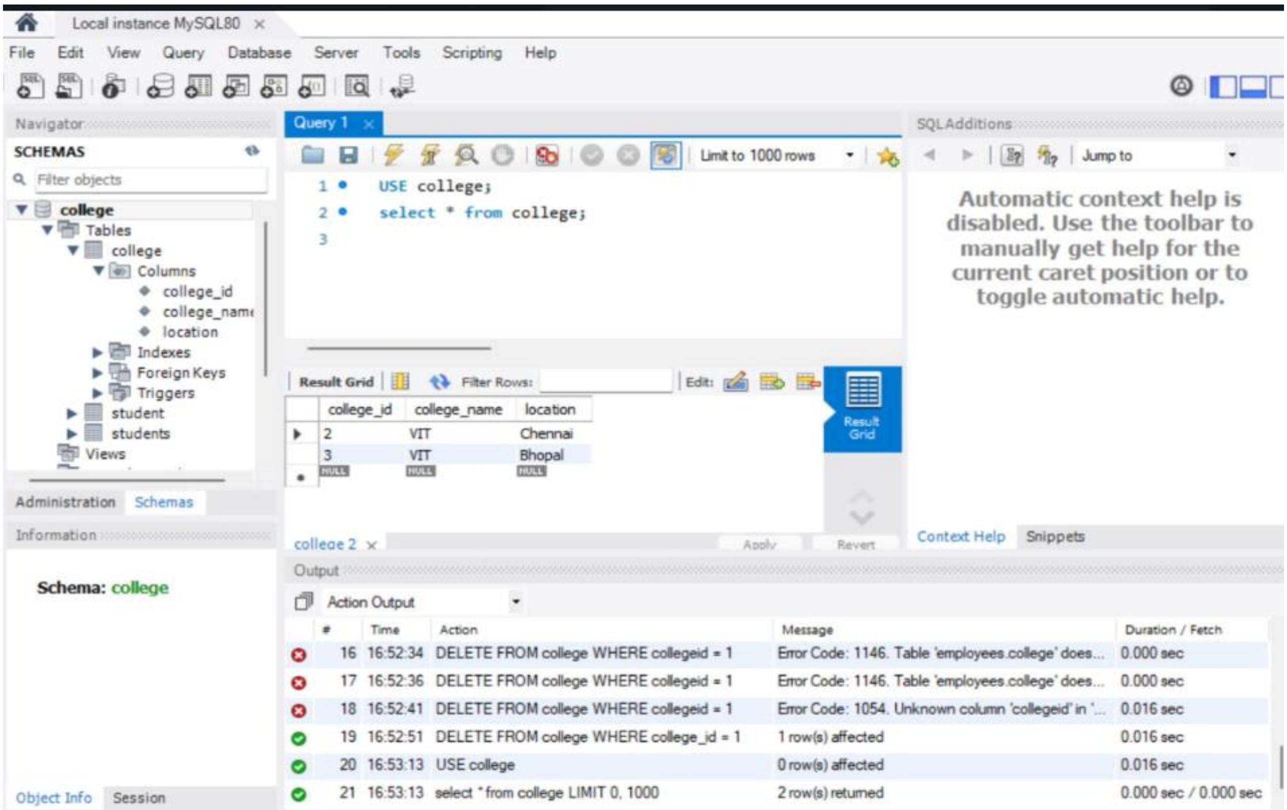
Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Table: employee

Columns:

id	int PK
name	varchar(50)
age	int
department	varchar(50)

```
#   Time      Action                                    Message                                             Duration / Fetch
5   16:44:05  DELETE FROM employee WHERE id = 1         Error Code: 1046. No database selected Select th...  0.016 sec
6   16:44:43  DELETE FROM employee WHERE id = 1         Error Code: 1046. No database selected Select th...  0.000 sec
7   16:45:53  DELETE FROM employee WHERE id = 1         Error Code: 1046. No database selected Select th...  0.000 sec
8   16:47:16  DELETE FROM employee WHERE id = 1         1 row(s) affected                                    0.031 sec
9   16:47:50  USE employees                             0 row(s) affected                                    0.000 sec
10  16:47:50  Select * from employee LIMIT 0, 1000      3 row(s) returned                                    0.000 sec / 0.000 sec
```



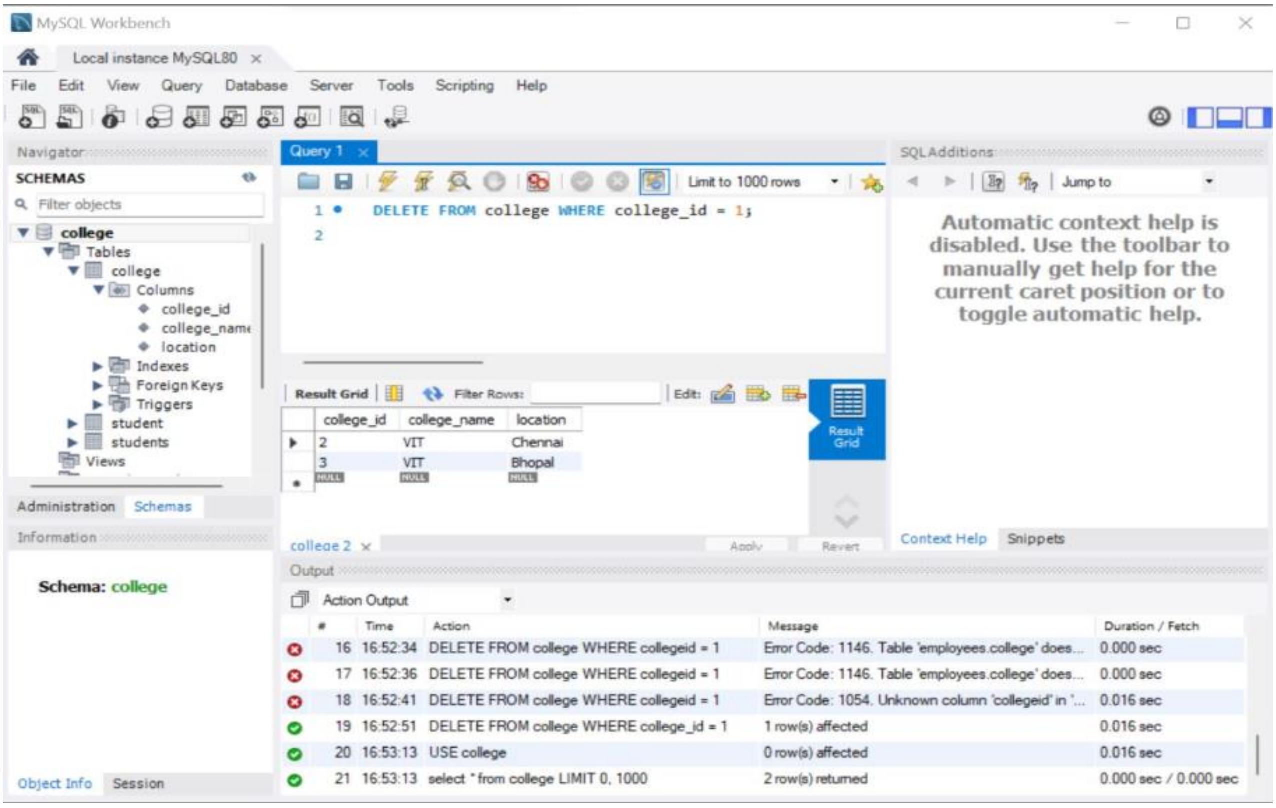
```sql
USE college;
select * from college;
```

college_id	college_name	location
2	VIT	Chennai
3	VIT	Bhopal
NULL	NULL	NULL

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Schema: college

```
#   Time      Action                                       Message                                             Duration / Fetch
16  16:52:34  DELETE FROM college WHERE collegeid = 1      Error Code: 1146. Table 'employees.college' does...  0.000 sec
17  16:52:36  DELETE FROM college WHERE collegeid = 1      Error Code: 1146. Table 'employees.college' does...  0.000 sec
18  16:52:41  DELETE FROM college WHERE collegeid = 1      Error Code: 1054. Unknown column 'collegeid' in '...  0.016 sec
19  16:52:51  DELETE FROM college WHERE college_id = 1     1 row(s) affected                                    0.016 sec
20  16:53:13  USE college                                  0 row(s) affected                                    0.016 sec
21  16:53:13  select * from college LIMIT 0, 1000          2 row(s) returned                                    0.000 sec / 0.000 sec
```

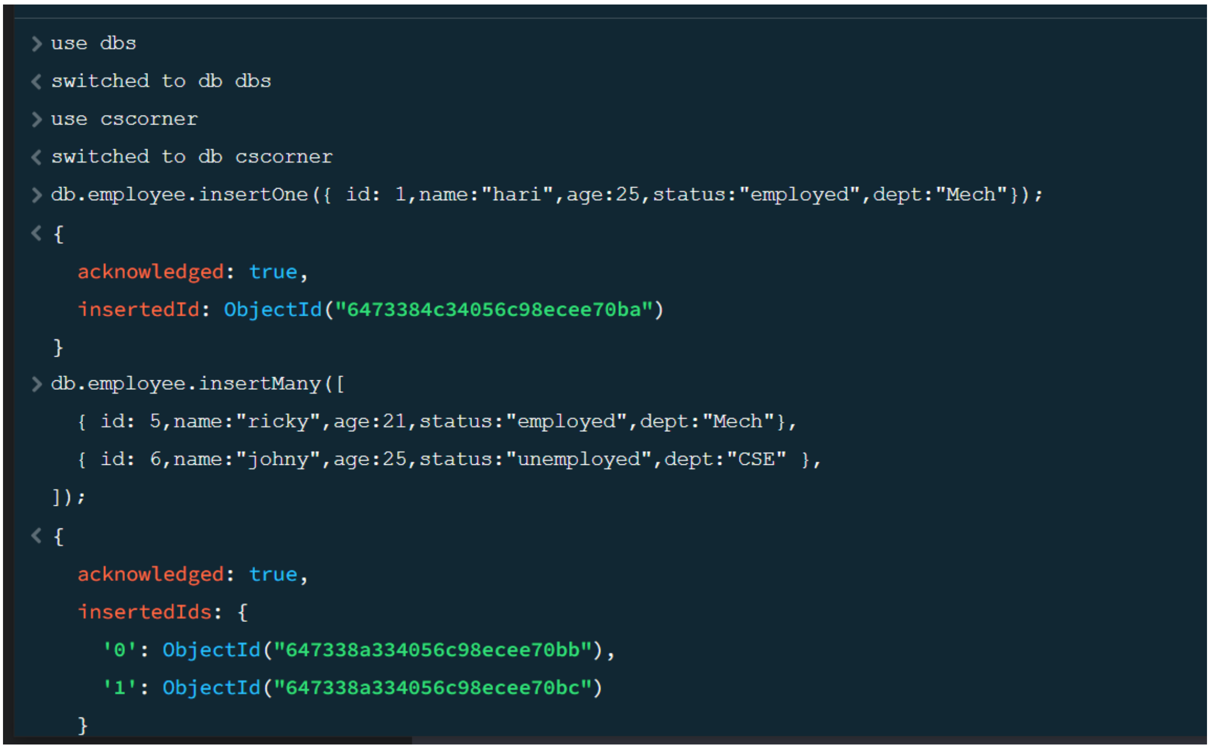


```
DELETE FROM college WHERE college_id = 1;
```

college_id	college_name	location
2	VIT	Chennai
3	VIT	Bhopal
NULL	NULL	NULL

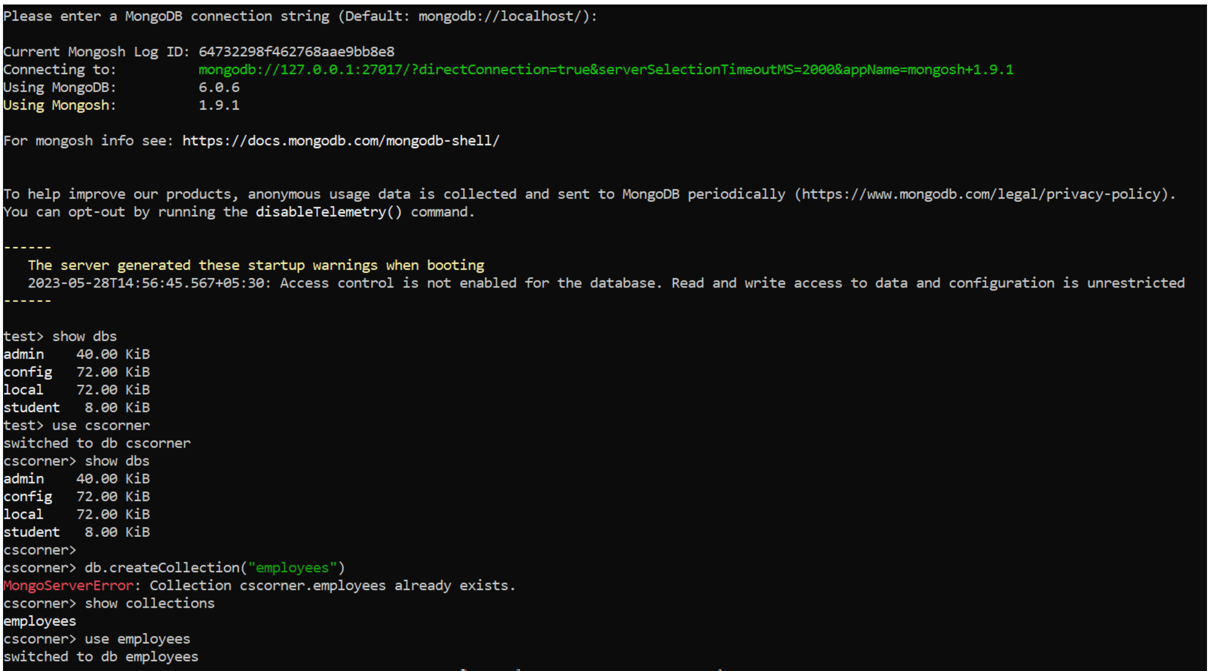
```
#   Time      Action                                          Message                                                Duration / Fetch
16  16:52:34  DELETE FROM college WHERE collegeid = 1         Error Code: 1146. Table 'employees.college' does...    0.000 sec
17  16:52:36  DELETE FROM college WHERE collegeid = 1         Error Code: 1146. Table 'employees.college' does...    0.000 sec
18  16:52:41  DELETE FROM college WHERE collegeid = 1         Error Code: 1054. Unknown column 'collegeid' in '...   0.016 sec
19  16:52:51  DELETE FROM college WHERE college_id = 1        1 row(s) affected                                      0.016 sec
20  16:53:13  USE college                                     0 row(s) affected                                      0.016 sec
21  16:53:13  select * from college LIMIT 0, 1000             2 row(s) returned                                      0.000 sec / 0.000 sec
```

MONGODB:

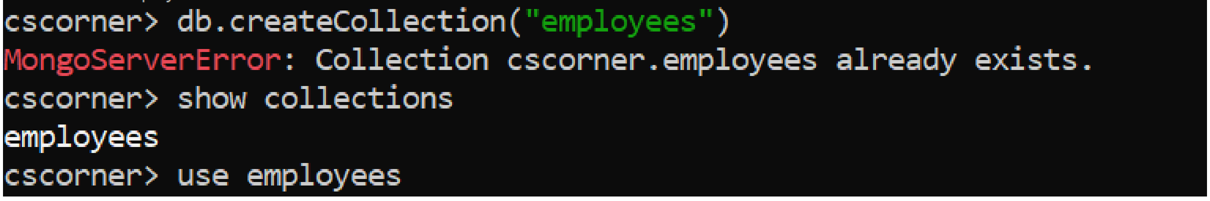


```
> use dbs
< switched to db dbs
> use cscorner
< switched to db cscorner
> db.employee.insertOne({ id: 1,name:"hari",age:25,status:"employed",dept:"Mech"});
< {
    acknowledged: true,
    insertedId: ObjectId("6473384c34056c98ecee70ba")
  }
> db.employee.insertMany([
    { id: 5,name:"ricky",age:21,status:"employed",dept:"Mech"},
    { id: 6,name:"johny",age:25,status:"unemployed",dept:"CSE" },
  ]);
< {
    acknowledged: true,
    insertedIds: {
      '0': ObjectId("647338a334056c98ecee70bb"),
      '1': ObjectId("647338a334056c98ecee70bc")
    }
```

Screenshots of mongo shell:

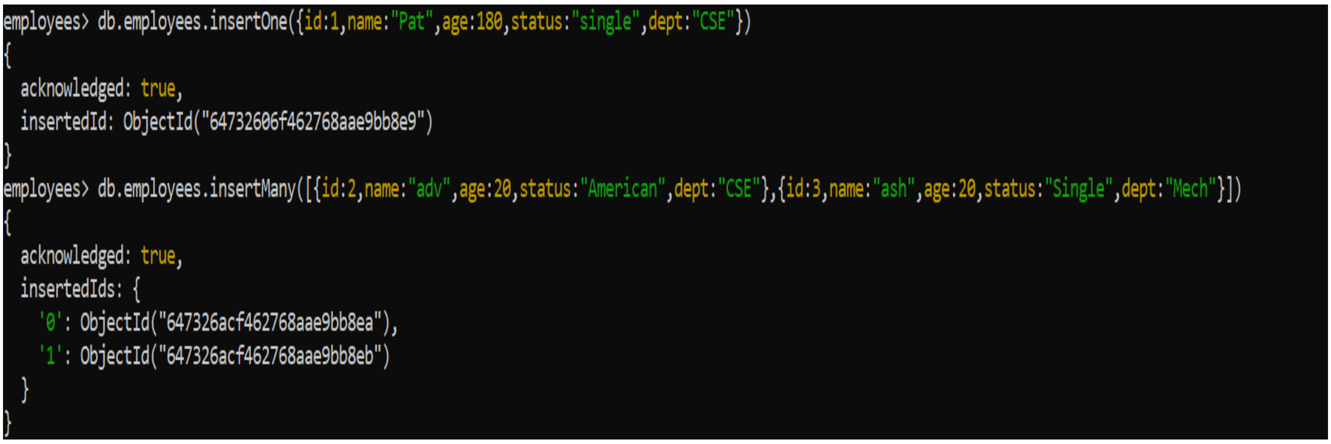


```
Please enter a MongoDB connection string (Default: mongodb://localhost/):

Current Mongosh Log ID: 64732298f462768aae9bb8e8
Connecting to:          mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+1.9.1
Using MongoDB:          6.0.6
Using Mongosh:          1.9.1

For mongosh info see: https://docs.mongodb.com/mongodb-shell/


To help improve our products, anonymous usage data is collected and sent to MongoDB periodically (https://www.mongodb.com/legal/privacy-policy).
You can opt-out by running the disableTelemetry() command.

------
   The server generated these startup warnings when booting
   2023-05-28T14:56:45.567+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
------

test> show dbs
admin    40.00 KiB
config   72.00 KiB
local    72.00 KiB
student   8.00 KiB
test> use cscorner
switched to db cscorner
cscorner> show dbs
admin    40.00 KiB
config   72.00 KiB
local    72.00 KiB
student   8.00 KiB
cscorner>
cscorner> db.createCollection("employees")
MongoServerError: Collection cscorner.employees already exists.
cscorner> show collections
employees
cscorner> use employees
switched to db employees
```



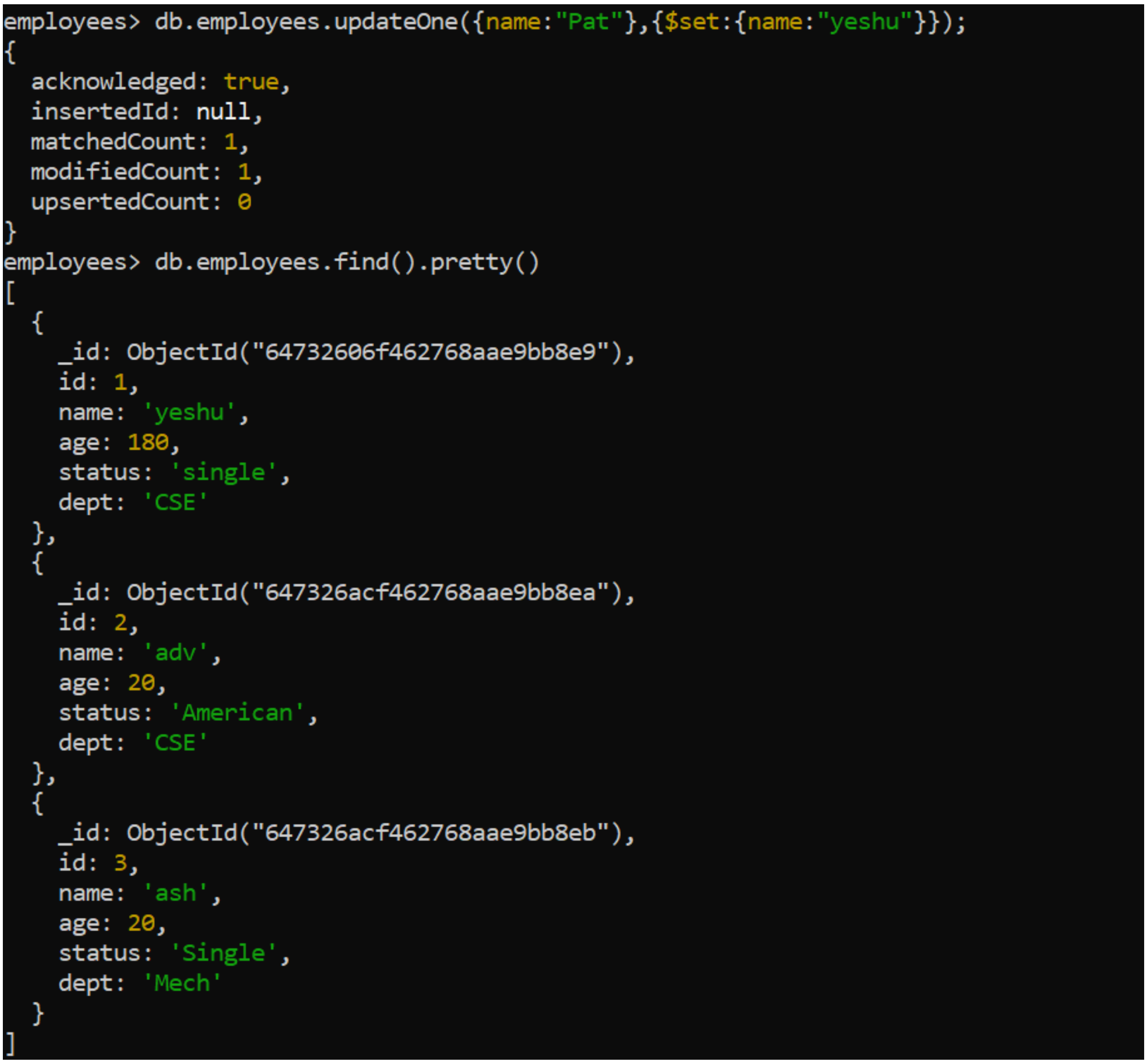
```
cscorner> db.createCollection("employees")
MongoServerError: Collection cscorner.employees already exists.
cscorner> show collections
employees
cscorner> use employees
```

INSERTING COMMANDS:



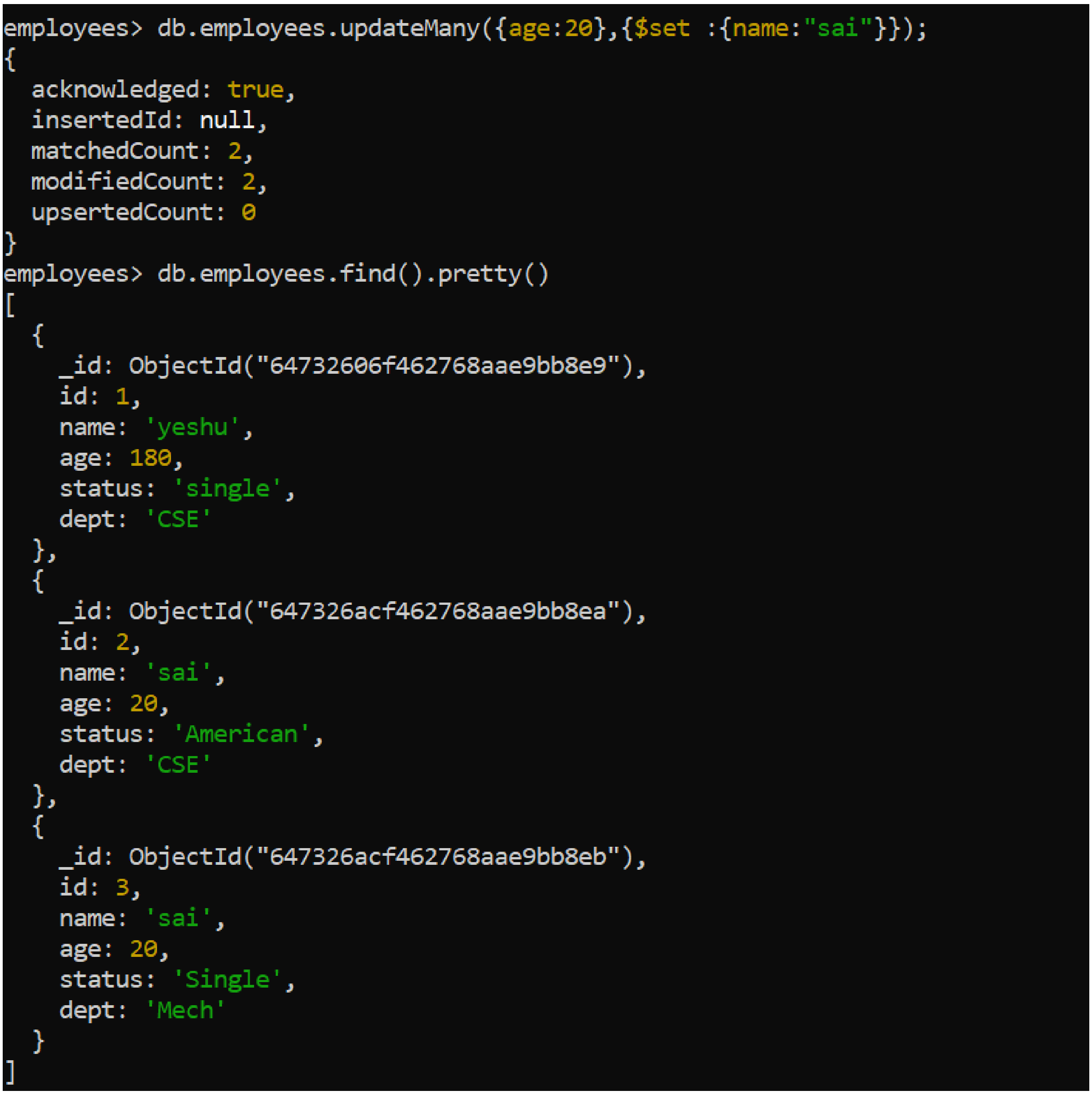
```
employees> db.employees.insertOne({id:1,name:"Pat",age:180,status:"single",dept:"CSE"})
{
  acknowledged: true,
  insertedId: ObjectId("64732606f462768aae9bb8e9")
}
employees> db.employees.insertMany([{id:2,name:"adv",age:20,status:"American",dept:"CSE"},{id:3,name:"ash",age:20,status:"Single",dept:"Mech"}])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("647326acf462768aae9bb8ea"),
    '1': ObjectId("647326acf462768aae9bb8eb")
  }
}
```

UPDATE COMMANDS:



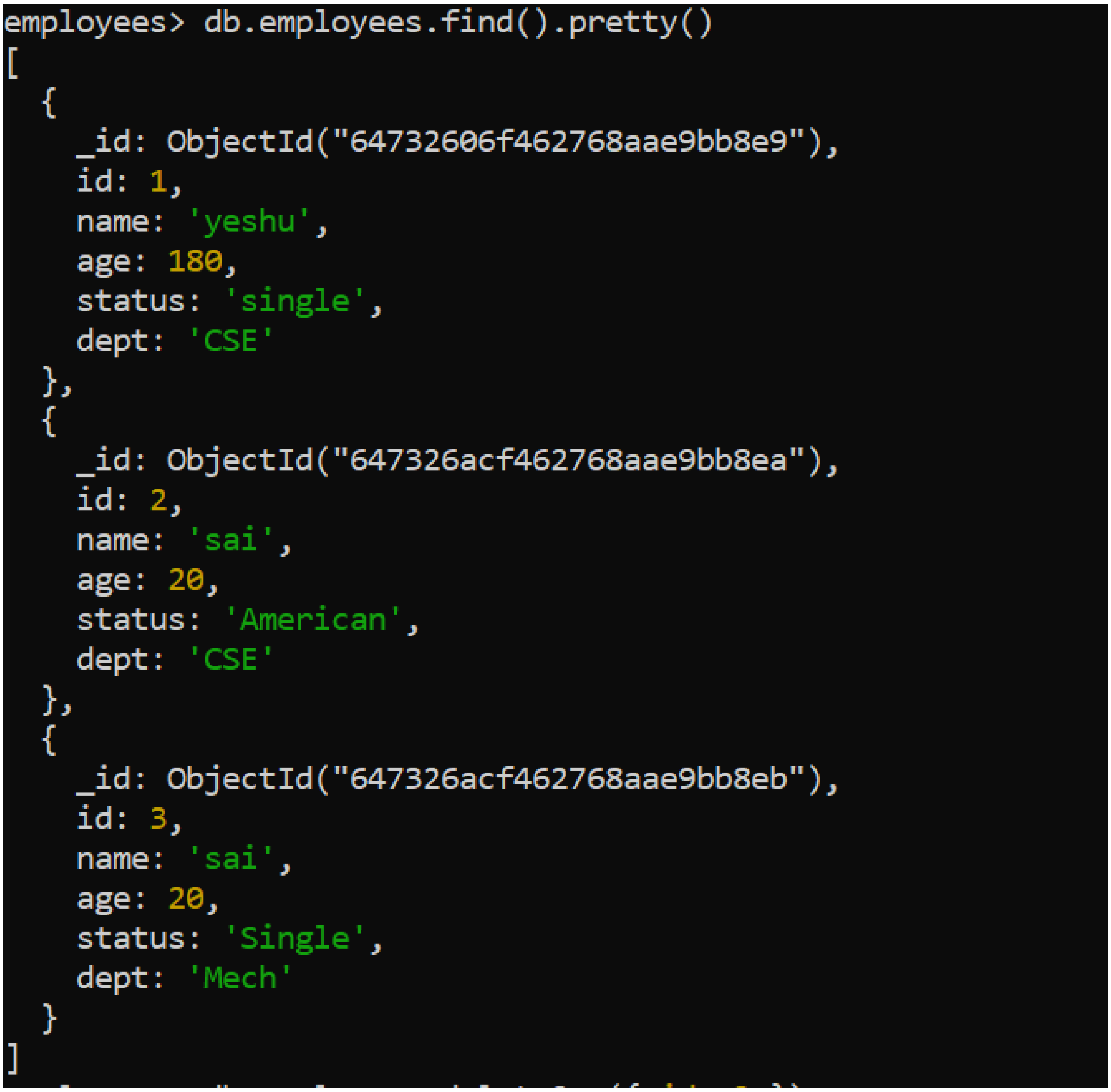
```
employees> db.employees.updateOne({name:"Pat"},{$set:{name:"yeshu"}});
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
employees> db.employees.find().pretty()
[
  {
    _id: ObjectId("64732606f462768aae9bb8e9"),
    id: 1,
    name: 'yeshu',
    age: 180,
    status: 'single',
    dept: 'CSE'
  },
  {
    _id: ObjectId("647326acf462768aae9bb8ea"),
    id: 2,
    name: 'adv',
    age: 20,
    status: 'American',
    dept: 'CSE'
  },
  {
    _id: ObjectId("647326acf462768aae9bb8eb"),
    id: 3,
    name: 'ash',
    age: 20,
    status: 'Single',
    dept: 'Mech'
  }
]
```

\

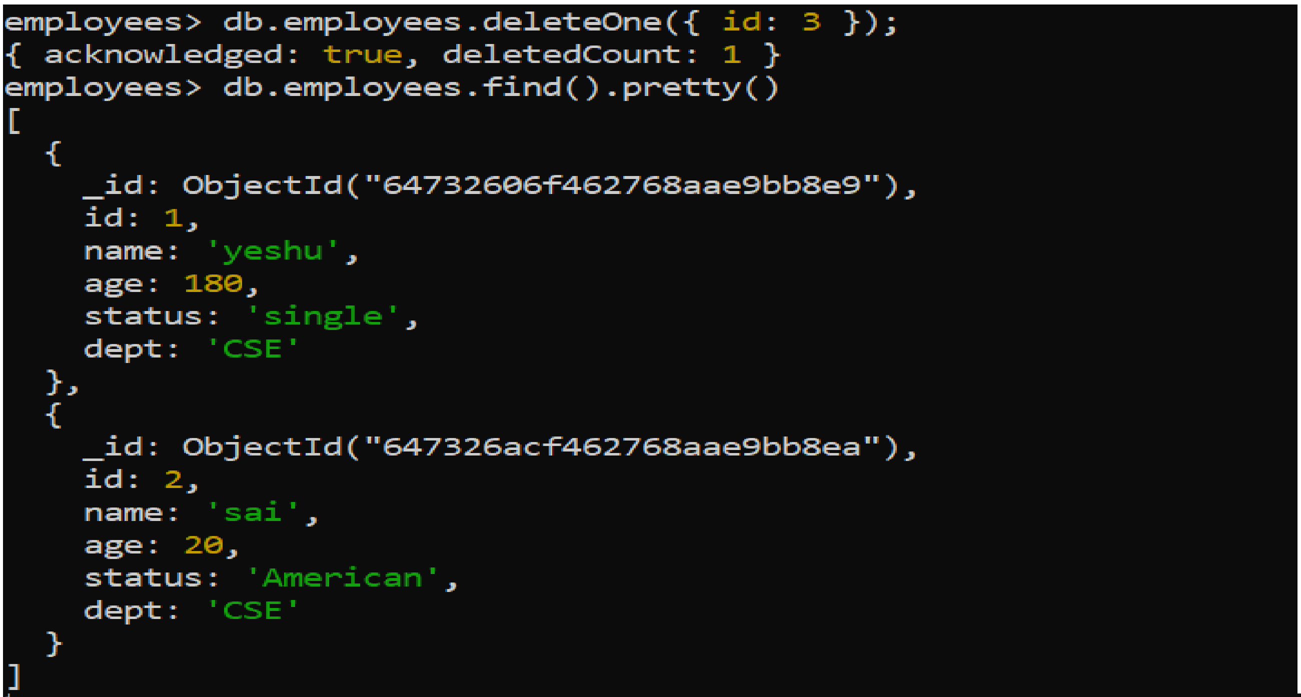


```
employees> db.employees.updateMany({age:20},{$set :{name:"sai"}});
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}
employees> db.employees.find().pretty()
[
  {
    _id: ObjectId("64732606f462768aae9bb8e9"),
    id: 1,
    name: 'yeshu',
    age: 180,
    status: 'single',
    dept: 'CSE'
  },
  {
    _id: ObjectId("647326acf462768aae9bb8ea"),
    id: 2,
    name: 'sai',
    age: 20,
    status: 'American',
    dept: 'CSE'
  },
  {
    _id: ObjectId("647326acf462768aae9bb8eb"),
    id: 3,
    name: 'sai',
    age: 20,
    status: 'Single',
    dept: 'Mech'
  }
]
```

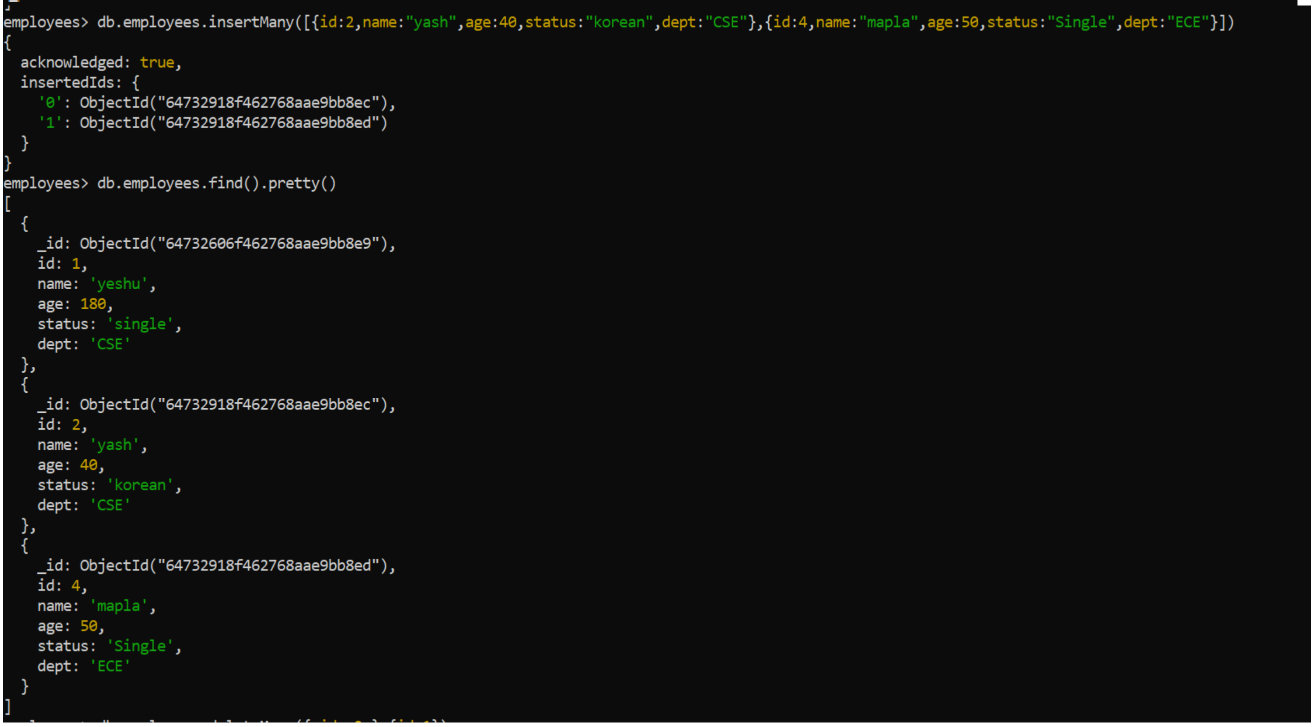
DELETE COMMANDS:



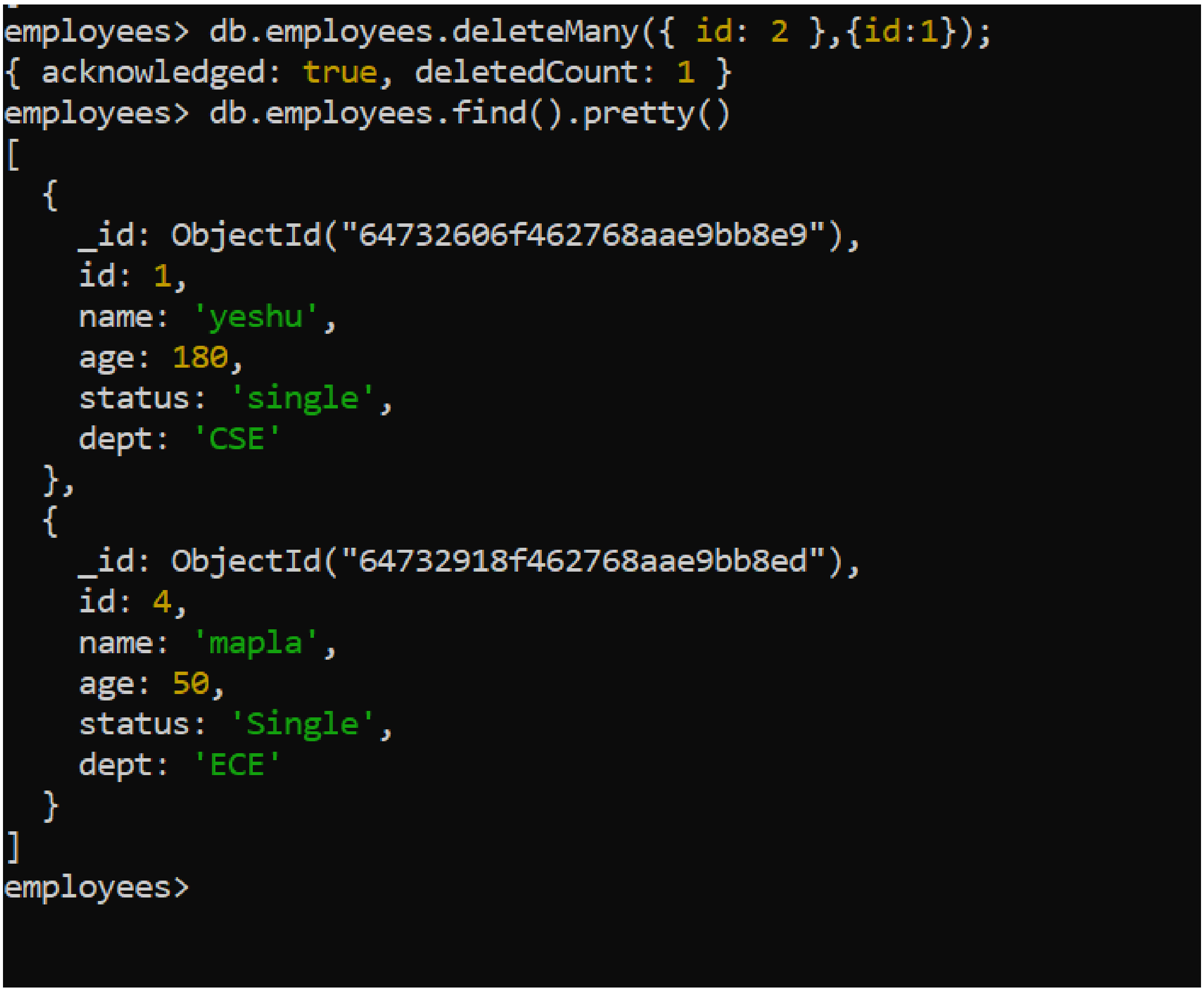
```
employees> db.employees.find().pretty()
[
  {
    _id: ObjectId("64732606f462768aae9bb8e9"),
    id: 1,
    name: 'yeshu',
    age: 180,
    status: 'single',
    dept: 'CSE'
  },
  {
    _id: ObjectId("647326acf462768aae9bb8ea"),
    id: 2,
    name: 'sai',
    age: 20,
    status: 'American',
    dept: 'CSE'
  },
  {
    _id: ObjectId("647326acf462768aae9bb8eb"),
    id: 3,
    name: 'sai',
    age: 20,
    status: 'Single',
    dept: 'Mech'
  }
]
```



```
employees> db.employees.deleteOne({ id: 3 });
{ acknowledged: true, deletedCount: 1 }
employees> db.employees.find().pretty()
[
  {
    _id: ObjectId("64732606f462768aae9bb8e9"),
    id: 1,
    name: 'yeshu',
    age: 180,
    status: 'single',
    dept: 'CSE'
  },
  {
    _id: ObjectId("647326acf462768aae9bb8ea"),
    id: 2,
    name: 'sai',
    age: 20,
    status: 'American',
    dept: 'CSE'
  }
]
```

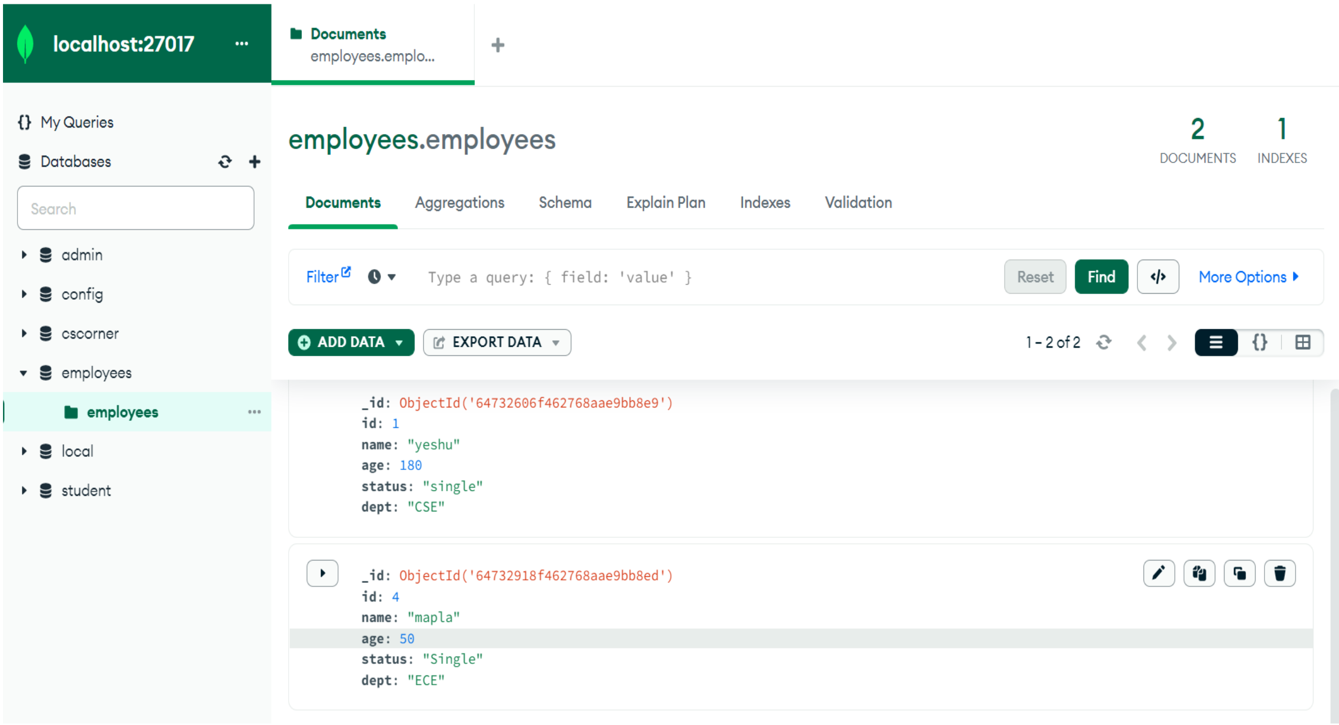


```
employees> db.employees.insertMany([{id:2,name:"yash",age:40,status:"korean",dept:"CSE"},{id:4,name:"mapla",age:50,status:"Single",dept:"ECE"}])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("64732918f462768aae9bb8ec"),
    '1': ObjectId("64732918f462768aae9bb8ed")
  }
}
employees> db.employees.find().pretty()
[
  {
    _id: ObjectId("64732606f462768aae9bb8e9"),
    id: 1,
    name: 'yeshu',
    age: 180,
    status: 'single',
    dept: 'CSE'
  },
  {
    _id: ObjectId("64732918f462768aae9bb8ec"),
    id: 2,
    name: 'yash',
    age: 40,
    status: 'korean',
    dept: 'CSE'
  },
  {
    _id: ObjectId("64732918f462768aae9bb8ed"),
    id: 4,
    name: 'mapla',
    age: 50,
    status: 'Single',
    dept: 'ECE'
  }
]
```



```
employees> db.employees.deleteMany({ id: 2 },{id:1});
{ acknowledged: true, deletedCount: 1 }
employees> db.employees.find().pretty()
[
  {
    _id: ObjectId("64732606f462768aae9bb8e9"),
    id: 1,
    name: 'yeshu',
    age: 180,
    status: 'single',
    dept: 'CSE'
  },
  {
    _id: ObjectId("64732918f462768aae9bb8ed"),
    id: 4,
    name: 'mapla',
    age: 50,
    status: 'Single',
    dept: 'ECE'
  }
]
employees>
```

Mongocompass :



employees.employees

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```
_id: ObjectId('64732606f462768aae9bb8e9')
id: 1
name: "yeshu"
age: 180
status: "single"
dept: "CSE"
```

```
_id: ObjectId('64732918f462768aae9bb8ed')
id: 4
name: "mapla"
age: 50
status: "Single"
dept: "ECE"
```