ASSIGNMENT-2

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COURSE:MODERN APPLICATION DEVELOPMENT(JAVA SPRING BOOT)

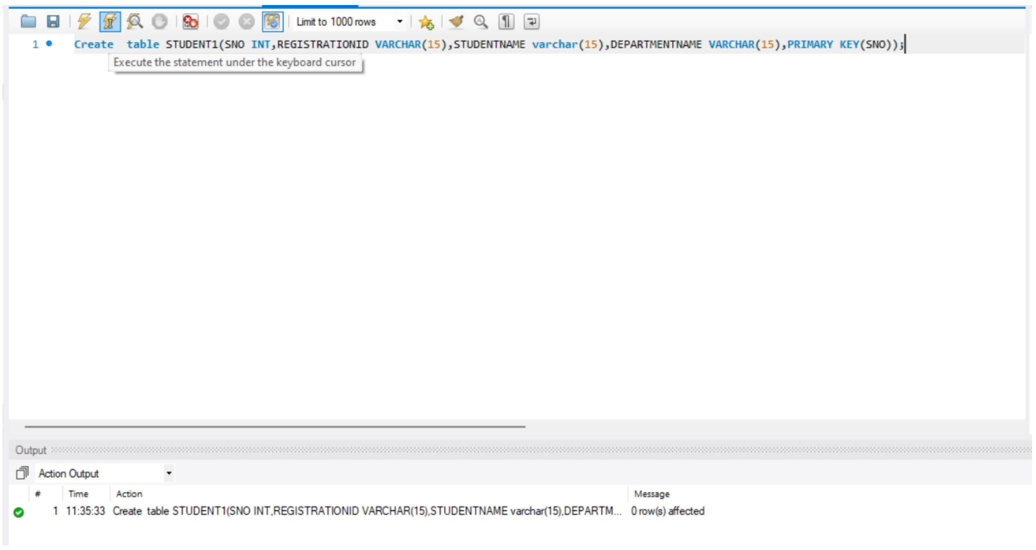
1)CREATE,UPDATE,DELETE COMMANDS IN SQL

CREATING TABLE NAMED STUDENT1

QUERY:

```
 Create  table STUDENT1(SNO INT,REGISTRATIONID
VARCHAR(15),STUDENTNAME
varchar(15),DEPARTMENTNAME
VARCHAR(15),PRIMARY KEY(SNO));
```

OUTPUT: Table named student1 created



```
Create  table STUDENT1(SNO INT,REGISTRATIONID VARCHAR(15),STUDENTNAME varchar(15),DEPARTMENTNAME VARCHAR(15),PRIMARY KEY(SNO));
```

```
Output
Action Output
   #   Time      Action                                                                                        Message
   1   11:35:33  Create  table STUDENT1(SNO INT,REGISTRATIONID VARCHAR(15),STUDENTNAME varchar(15),DEPARTM...   0 row(s) affected
```

INSERTING ROWS/RECORDS IN THE TABLE:

QUERY:

Insert into student1 values(1,'20BCE9999','VISH','CSE');

Insert into student1 values(2,'20BCE9998','AAKASH','ECE');

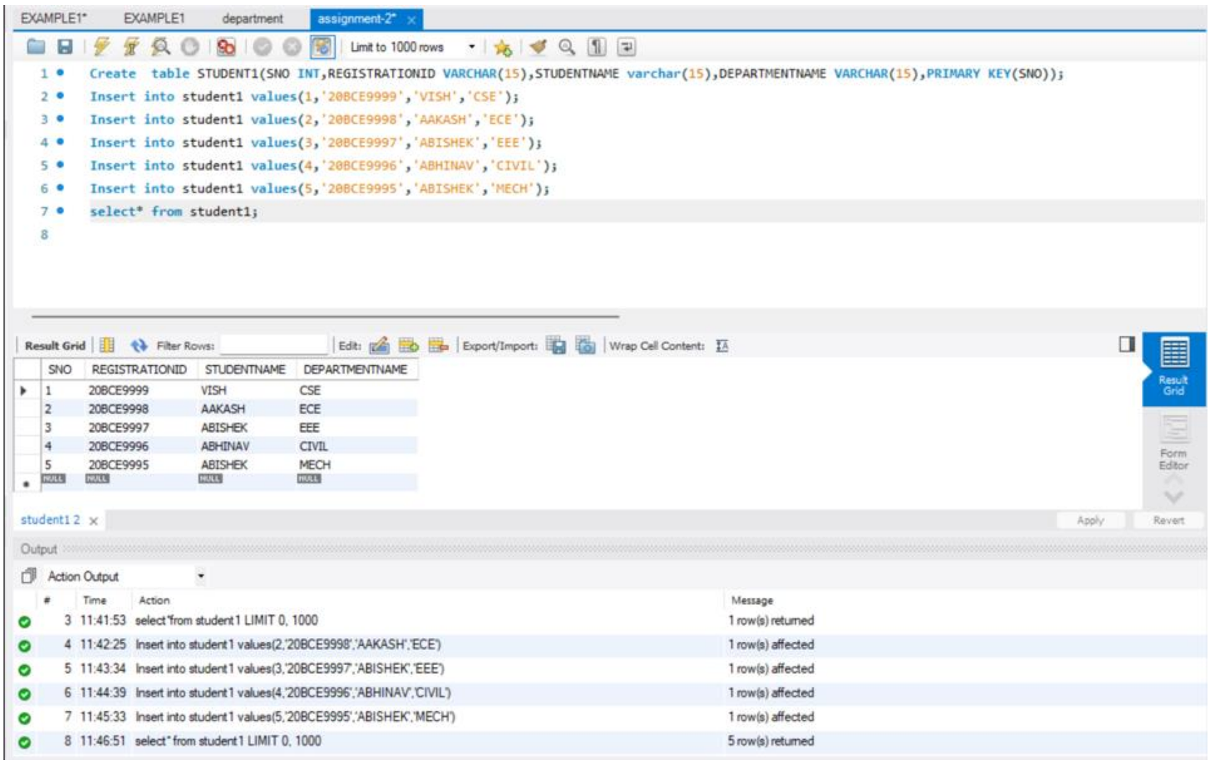
Insert into student1 values(3,'20BCE9997','ABISHEK','EEE');

Insert into student1 values(4,'20BCE9996','ABHINAV','CIVIL');

Insert into student1 values(5,'20BCE9995','ABISHEK','MECH');

select* from student1;

OUPUT:



```
Create  table STUDENT1(SNO INT,REGISTRATIONID VARCHAR(15),STUDENTNAME varchar(15),DEPARTMENTNAME VARCHAR(15),PRIMARY KEY(SNO));
Insert into student1 values(1,'20BCE9999','VISH','CSE');
Insert into student1 values(2,'20BCE9998','AAKASH','ECE');
Insert into student1 values(3,'20BCE9997','ABISHEK','EEE');
Insert into student1 values(4,'20BCE9996','ABHINAV','CIVIL');
Insert into student1 values(5,'20BCE9995','ABISHEK','MECH');
select* from student1;
```

SNO	REGISTRATIONID	STUDENTNAME	DEPARTMENTNAME
1	20BCE9999	VISH	CSE
2	20BCE9998	AAKASH	ECE
3	20BCE9997	ABISHEK	EEE
4	20BCE9996	ABHINAV	CIVIL
5	20BCE9995	ABISHEK	MECH
NULL	NULL	NULL	NULL

```
#  Time      Action                                                        Message
3  11:41:53  select*from student1 LIMIT 0, 1000                            1 row(s) returned
4  11:42:25  Insert into student1 values(2,'20BCE9998','AAKASH','ECE')     1 row(s) affected
5  11:43:34  Insert into student1 values(3,'20BCE9997','ABISHEK','EEE')    1 row(s) affected
6  11:44:39  Insert into student1 values(4,'20BCE9996','ABHINAV','CIVIL')  1 row(s) affected
7  11:45:33  Insert into student1 values(5,'20BCE9995','ABISHEK','MECH')   1 row(s) affected
8  11:46:51  select* from student1 LIMIT 0, 1000                           5 row(s) returned
```

UPDATING:

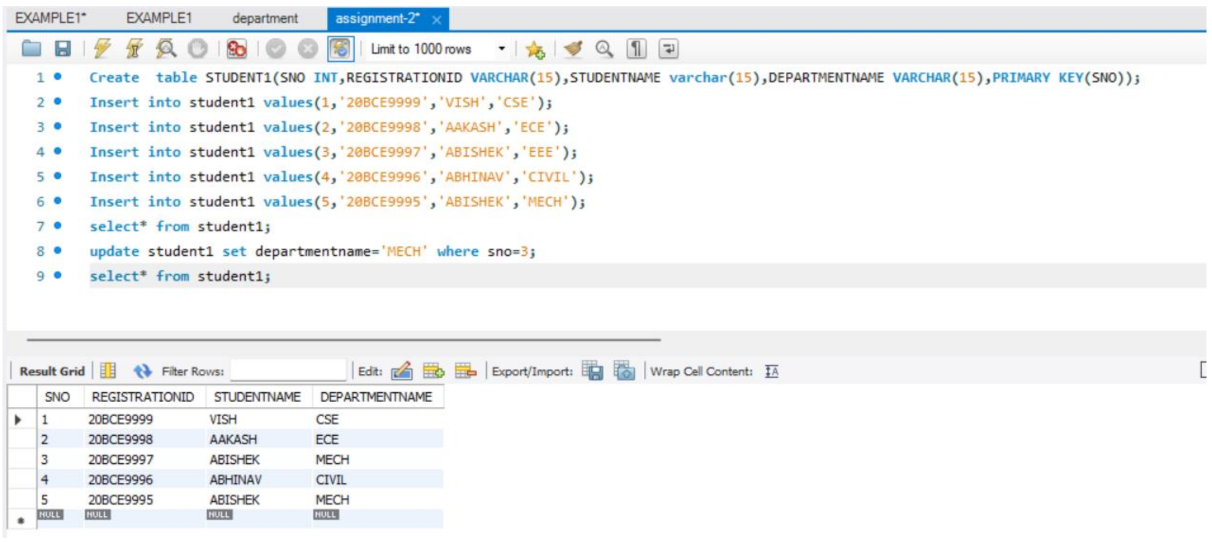
UPDATING the table student1 to change the department name from “EEE” to “MECH” whose sn0=3;

QUERY:

update student1 set departmentname='MECH' where sno=3;

select* from student1;

OUTPUT:



```
Create  table STUDENT1(SNO INT,REGISTRATIONID VARCHAR(15),STUDENTNAME varchar(15),DEPARTMENTNAME VARCHAR(15),PRIMARY KEY(SNO));
Insert into student1 values(1,'20BCE9999','VISH','CSE');
Insert into student1 values(2,'20BCE9998','AAKASH','ECE');
Insert into student1 values(3,'20BCE9997','ABISHEK','EEE');
Insert into student1 values(4,'20BCE9996','ABHINAV','CIVIL');
Insert into student1 values(5,'20BCE9995','ABISHEK','MECH');
select* from student1;
update student1 set departmentname='MECH' where sno=3;
select* from student1;
```

SNO	REGISTRATIONID	STUDENTNAME	DEPARTMENTNAME
1	20BCE9999	VISH	CSE
2	20BCE9998	AAKASH	ECE
3	20BCE9997	ABISHEK	MECH
4	20BCE9996	ABHINAV	CIVIL
5	20BCE9995	ABISHEK	MECH
NULL	NULL	NULL	NULL

DELETING:

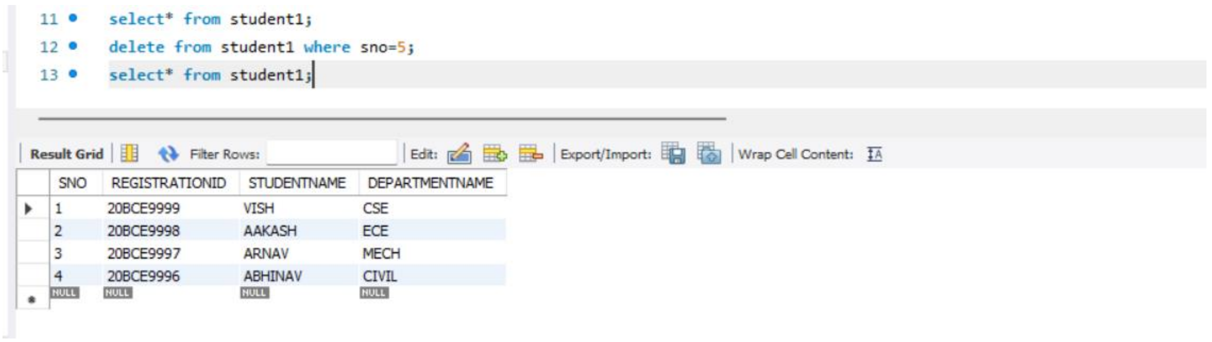
DELETING THE ROW WHICH HAS SN0=5

QUERY:

delete from student1 where sno=5;

select* from student1;

OUTPUT:



```
select* from student1;
delete from student1 where sno=5;
select* from student1;
```

SNO	REGISTRATIONID	STUDENTNAME	DEPARTMENTNAME
1	20BCE9999	VISH	CSE
2	20BCE9998	AAKASH	ECE
3	20BCE9997	ARNAV	MECH
4	20BCE9996	ABHINAV	CIVIL
NULL	NULL	NULL	NULL

QN 2)CREATE TABLES AND PERFORM JOINS IN MYSQL

Creating tables

TABLE CUSTOMERS:

QUERY:

create table customers(sno int,customerid varchar(10),customername varchar(20),address varchar(15),primary key(customerid));

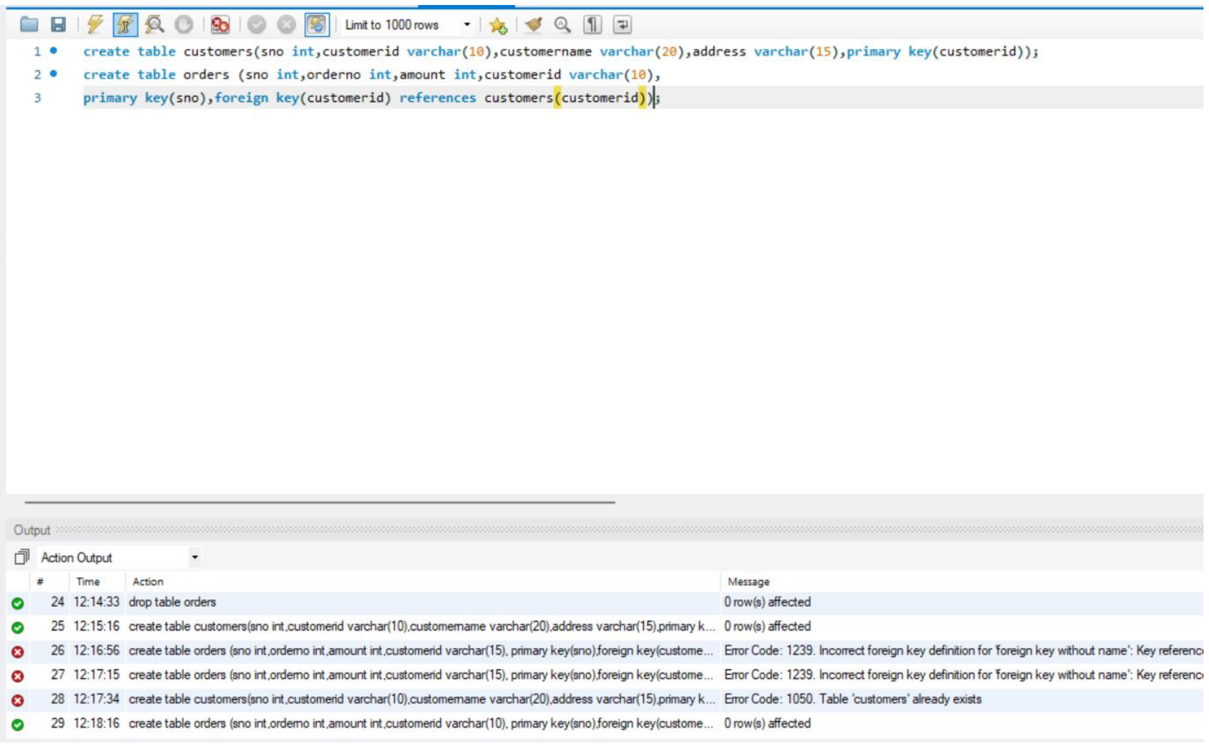
TABLE ORDERS:

QUERY:

create table orders (sno int,orderno int,amount int,customerid varchar(10),

primary key(sno),foreign key(customerid) references customers(customerid));

OUTPUT:



```
create table customers(sno int,customerid varchar(10),customername varchar(20),address varchar(15),primary key(customerid));
create table orders (sno int,orderno int,amount int,customerid varchar(10),
primary key(sno),foreign key(customerid) references customers(customerid));
```

```
    #   Time      Action                                                                                              Message
✓  24  12:14:33  drop table orders                                                                                   0 row(s) affected
✓  25  12:15:16  create table customers(sno int,customerid varchar(10),customername varchar(20),address varchar(15),primary k...   0 row(s) affected
✗  26  12:16:56  create table orders (sno int,orderno int,amount int,customerid varchar(15), primary key(sno),foreign key(custome...   Error Code: 1239. Incorrect foreign key definition for 'foreign key without name': Key referenc
✗  27  12:17:15  create table orders (sno int,orderno int,amount int,customerid varchar(15), primary key(sno),foreign key(custome...   Error Code: 1239. Incorrect foreign key definition for 'foreign key without name': Key referenc
✗  28  12:17:34  create table customers(sno int,customerid varchar(10),customername varchar(20),address varchar(15),primary k...   Error Code: 1050. Table 'customers' already exists
✓  29  12:18:16  create table orders (sno int,orderno int,amount int,customerid varchar(10), primary key(sno),foreign key(custome...   0 row(s) affected
```

INSERTING INTO CUSTOMERS TABLE:

QUERY:

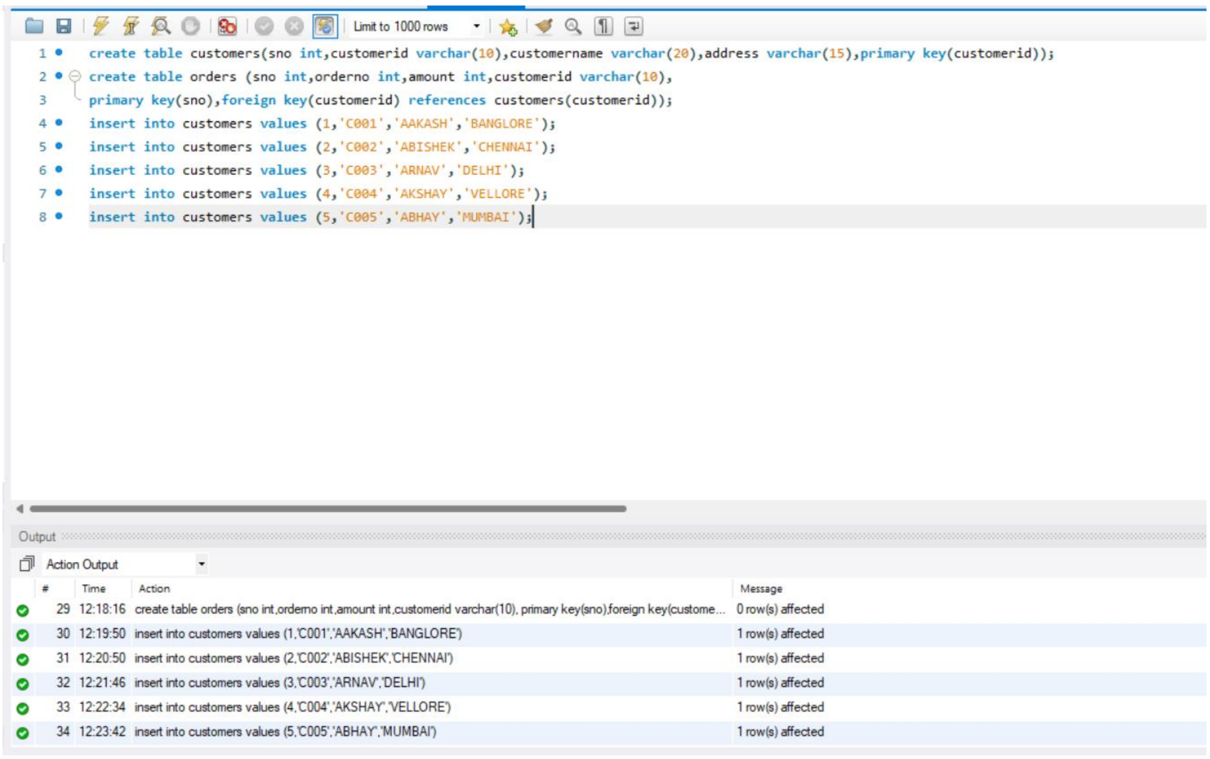
insert into customers values (1,'C001','AAKASH','BANGLORE');

insert into customers values (2,'C002','ABISHEK','CHENNAI');

insert into customers values (3,'C003','ARNAV','DELHI');

insert into customers values (4,'C004','AKSHAY','VELLORE');

insert into customers values (5,'C005','ABHAY','MUMBAI');



```sql
create table customers(sno int,customerid varchar(10),customername varchar(20),address varchar(15),primary key(customerid));
create table orders (sno int,orderno int,amount int,customerid varchar(10),
primary key(sno),foreign key(customerid) references customers(customerid));
insert into customers values (1,'C001','AAKASH','BANGLORE');
insert into customers values (2,'C002','ABISHEK','CHENNAI');
insert into customers values (3,'C003','ARNAV','DELHI');
insert into customers values (4,'C004','AKSHAY','VELLORE');
insert into customers values (5,'C005','ABHAY','MUMBAI');
```

```
   #  Time      Action                                                                                              Message
   29 12:18:16  create table orders (sno int,orderno int,amount int,customerid varchar(10), primary key(sno),foreign key(custome...  0 row(s) affected
   30 12:19:50  insert into customers values (1,'C001','AAKASH','BANGLORE')                                         1 row(s) affected
   31 12:20:50  insert into customers values (2,'C002','ABISHEK','CHENNAI')                                         1 row(s) affected
   32 12:21:46  insert into customers values (3,'C003','ARNAV','DELHI')                                             1 row(s) affected
   33 12:22:34  insert into customers values (4,'C004','AKSHAY','VELLORE')                                          1 row(s) affected
   34 12:23:42  insert into customers values (5,'C005','ABHAY','MUMBAI')                                            1 row(s) affected
```

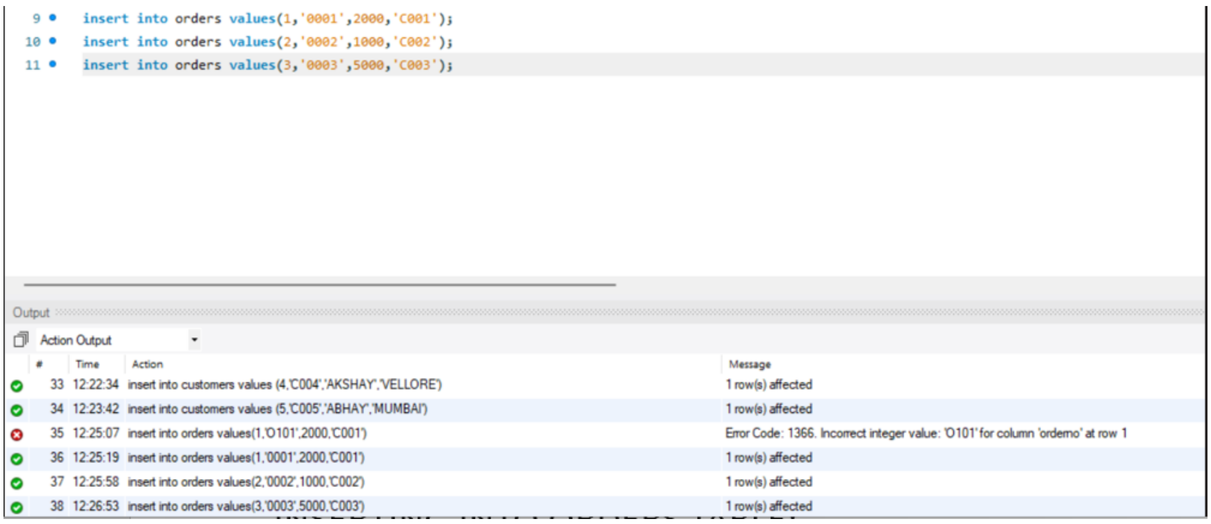
INSERTING INTO ORDERS TABLE:

insert into orders values(1,'0001',2000,'C001');

insert into orders values(2,'0002',1000,'C002');

insert into orders values(3,'0003',5000,'C003');

OUTPUT:



```
insert into orders values(1,'0001',2000,'C001');
insert into orders values(2,'0002',1000,'C002');
insert into orders values(3,'0003',5000,'C003');
```

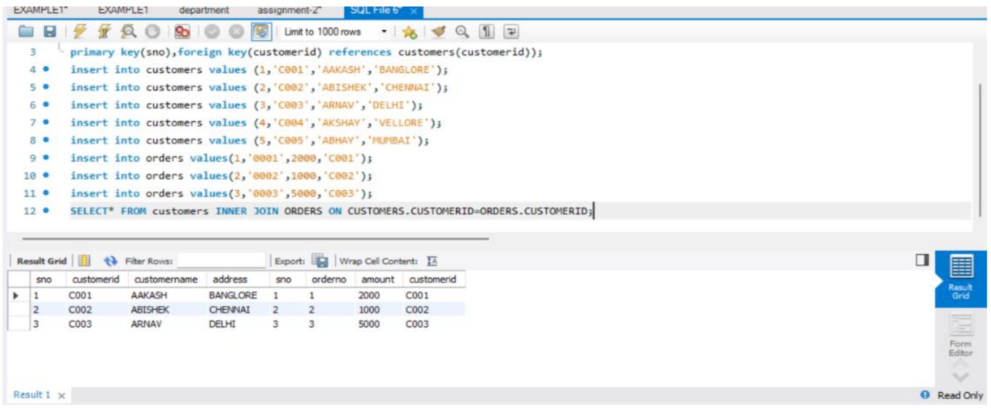
```
Output
Action Output
 #   Time      Action                                                  Message
 33  12:22:34  insert into customers values (4,'C004','AKSHAY','VELLORE')  1 row(s) affected
 34  12:23:42  insert into customers values (5,'C005','ABHAY','MUMBAI')    1 row(s) affected
 35  12:25:07  insert into orders values(1,'O101',2000,'C001')            Error Code: 1366. Incorrect integer value: 'O101' for column 'orderno' at row 1
 36  12:25:19  insert into orders values(1,'0001',2000,'C001')            1 row(s) affected
 37  12:25:58  insert into orders values(2,'0002',1000,'C002')            1 row(s) affected
 38  12:26:53  insert into orders values(3,'0003',5000,'C003')            1 row(s) affected
```

A)INNER JOIN

QUERY:

SELECT* FROM customers INNER JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;

OUTPUT:



```
primary key(sno),foreign key(customerid) references customers(customerid));
insert into customers values (1,'C001','AAKASH','BANGLORE');
insert into customers values (2,'C002','ABISHEK','CHENNAI');
insert into customers values (3,'C003','ARNAV','DELHI');
insert into customers values (4,'C004','AKSHAY','VELLORE');
insert into customers values (5,'C005','ABHAY','MUMBAI');
insert into orders values(1,'0001',2000,'C001');
insert into orders values(2,'0002',1000,'C002');
insert into orders values(3,'0003',5000,'C003');
SELECT* FROM customers INNER JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;
```

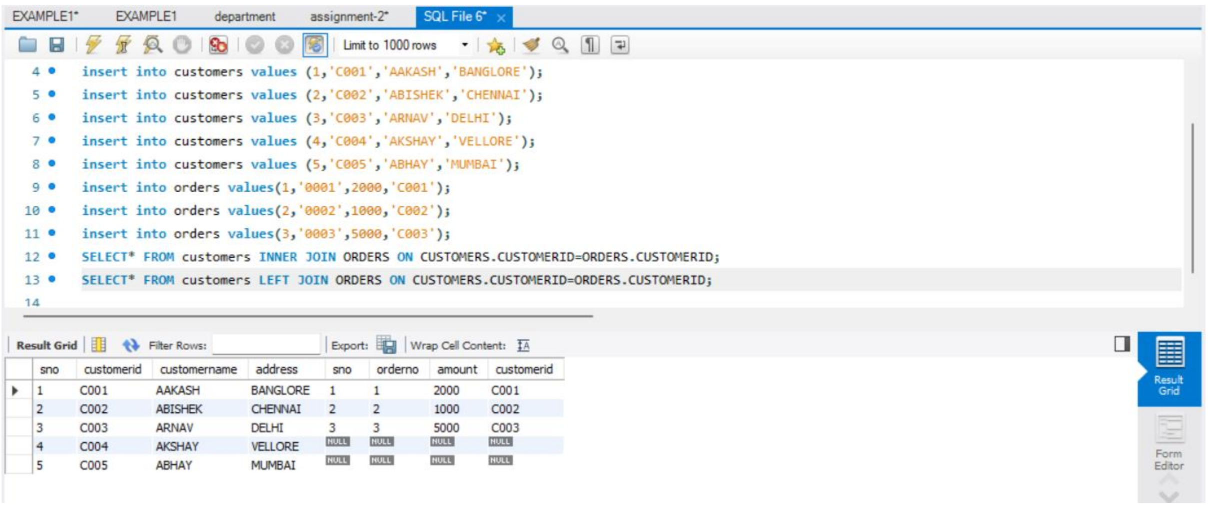
sno	customerid	customername	address	sno	orderno	amount	customerid
1	C001	AAKASH	BANGLORE	1	1	2000	C001
2	C002	ABISHEK	CHENNAI	2	2	1000	C002
3	C003	ARNAV	DELHI	3	3	5000	C003

B)LEFT JOIN

QUERY:

SELECT* FROM customers LEFT JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;

OUTPUT:



```
insert into customers values (1,'C001','AAKASH','BANGLORE');
insert into customers values (2,'C002','ABISHEK','CHENNAI');
insert into customers values (3,'C003','ARNAV','DELHI');
insert into customers values (4,'C004','AKSHAY','VELLORE');
insert into customers values (5,'C005','ABHAY','MUMBAI');
insert into orders values(1,'0001',2000,'C001');
insert into orders values(2,'0002',1000,'C002');
insert into orders values(3,'0003',5000,'C003');
SELECT* FROM customers INNER JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;
SELECT* FROM customers LEFT JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;
```

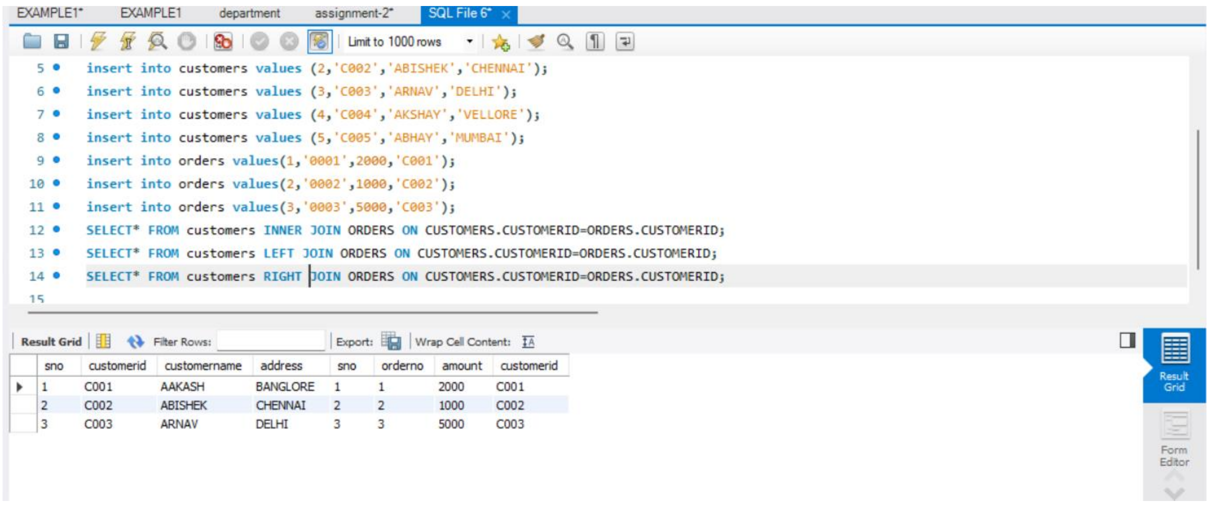
sno	customerid	customername	address	sno	orderno	amount	customerid
1	C001	AAKASH	BANGLORE	1	1	2000	C001
2	C002	ABISHEK	CHENNAI	2	2	1000	C002
3	C003	ARNAV	DELHI	3	3	5000	C003
4	C004	AKSHAY	VELLORE	NULL	NULL	NULL	NULL
5	C005	ABHAY	MUMBAI	NULL	NULL	NULL	NULL

C)RIGHT JOIN

QUERY:

SELECT* FROM customers RIGHT JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;

OUTPUT:



```
insert into customers values (2,'C002','ABISHEK','CHENNAI');
insert into customers values (3,'C003','ARNAV','DELHI');
insert into customers values (4,'C004','AKSHAY','VELLORE');
insert into customers values (5,'C005','ABHAY','MUMBAI');
insert into orders values(1,'0001',2000,'C001');
insert into orders values(2,'0002',1000,'C002');
insert into orders values(3,'0003',5000,'C003');
SELECT* FROM customers INNER JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;
SELECT* FROM customers LEFT JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;
SELECT* FROM customers RIGHT JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;
```

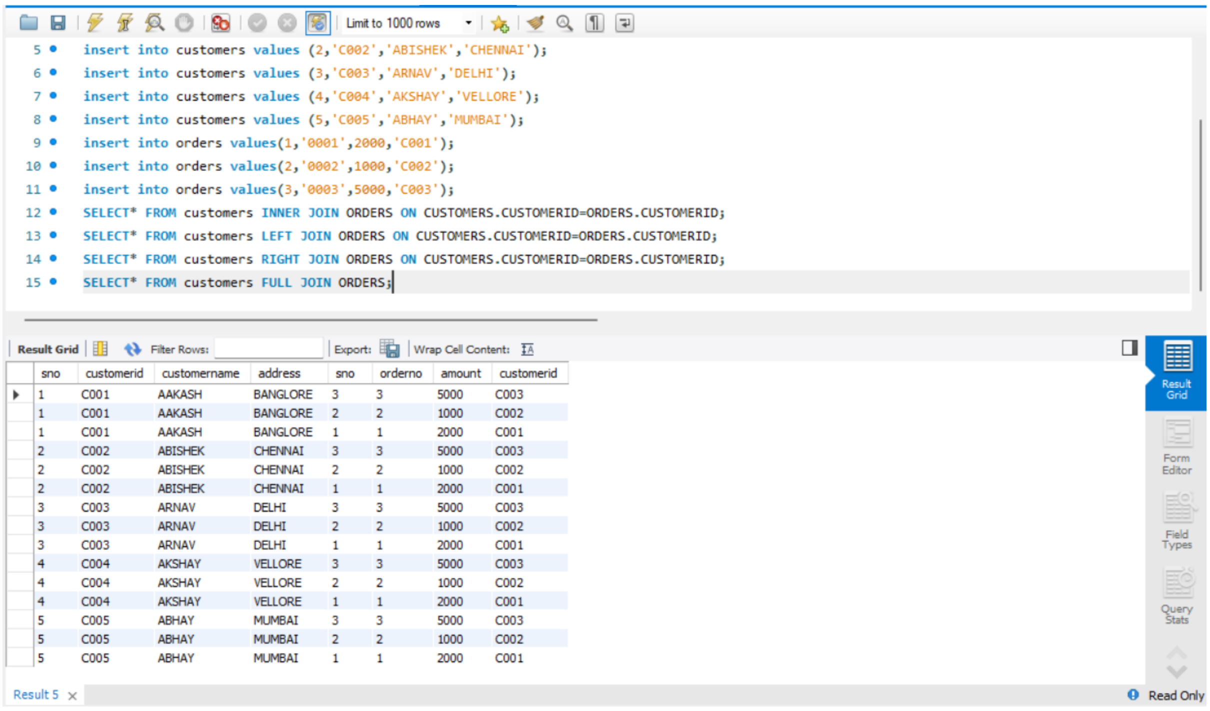
sno	customerid	customername	address	sno	orderno	amount	customerid
1	C001	AAKASH	BANGLORE	1	1	2000	C001
2	C002	ABISHEK	CHENNAI	2	2	1000	C002
3	C003	ARNAV	DELHI	3	3	5000	C003

D)FULL JOIN

QUERY:

SELECT* FROM customers FULL JOIN ORDERS;

OUTPUT:



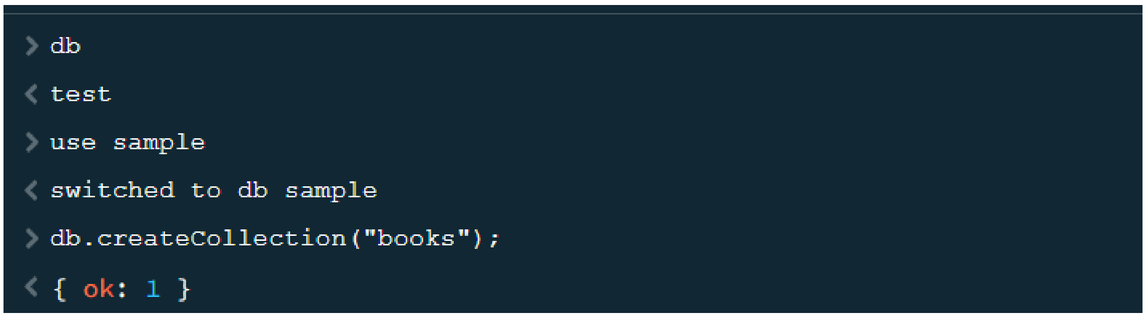
```
insert into customers values (2,'C002','ABISHEK','CHENNAI');
insert into customers values (3,'C003','ARNAV','DELHI');
insert into customers values (4,'C004','AKSHAY','VELLORE');
insert into customers values (5,'C005','ABHAY','MUMBAI');
insert into orders values(1,'0001',2000,'C001');
insert into orders values(2,'0002',1000,'C002');
insert into orders values(3,'0003',5000,'C003');
SELECT* FROM customers INNER JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;
SELECT* FROM customers LEFT JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;
SELECT* FROM customers RIGHT JOIN ORDERS ON CUSTOMERS.CUSTOMERID=ORDERS.CUSTOMERID;
SELECT* FROM customers FULL JOIN ORDERS;
```

sno	customerid	customername	address	sno	orderno	amount	customerid
1	C001	AAKASH	BANGLORE	3	3	5000	C003
1	C001	AAKASH	BANGLORE	2	2	1000	C002
1	C001	AAKASH	BANGLORE	1	1	2000	C001
2	C002	ABISHEK	CHENNAI	3	3	5000	C003
2	C002	ABISHEK	CHENNAI	2	2	1000	C002
2	C002	ABISHEK	CHENNAI	1	1	2000	C001
3	C003	ARNAV	DELHI	3	3	5000	C003
3	C003	ARNAV	DELHI	2	2	1000	C002
3	C003	ARNAV	DELHI	1	1	2000	C001
4	C004	AKSHAY	VELLORE	3	3	5000	C003
4	C004	AKSHAY	VELLORE	2	2	1000	C002
4	C004	AKSHAY	VELLORE	1	1	2000	C001
5	C005	ABHAY	MUMBAI	3	3	5000	C003
5	C005	ABHAY	MUMBAI	2	2	1000	C002
5	C005	ABHAY	MUMBAI	1	1	2000	C001

MONGO DB:

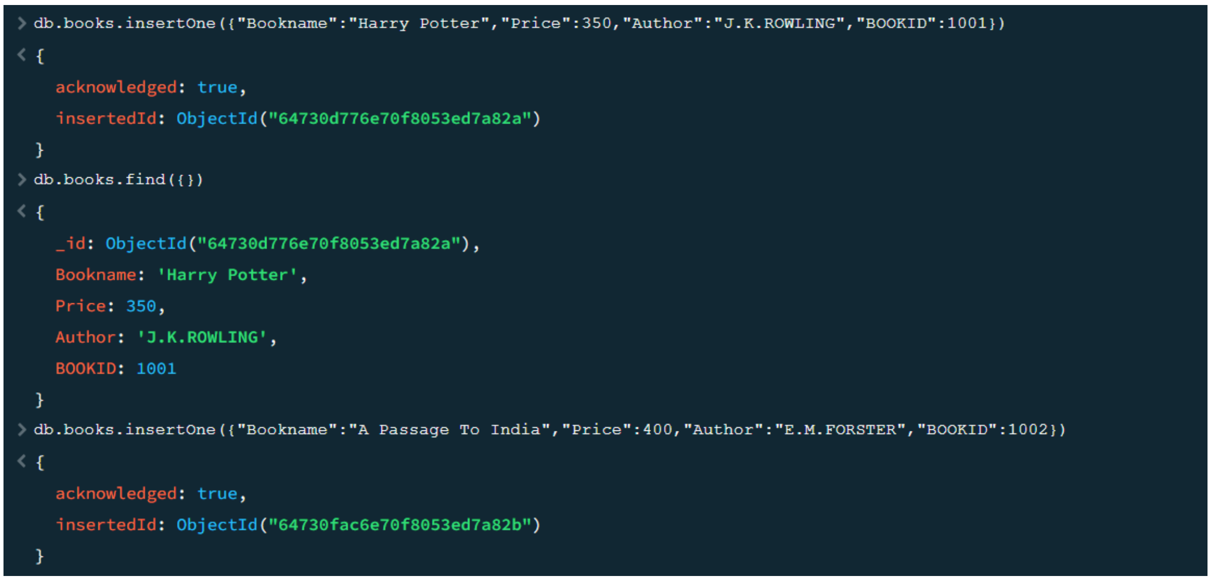
QN 3) CREATE,UPDATE,DELETE COMMAND IN MONGO

CREATING COLLECTIONS:creating a collection named books

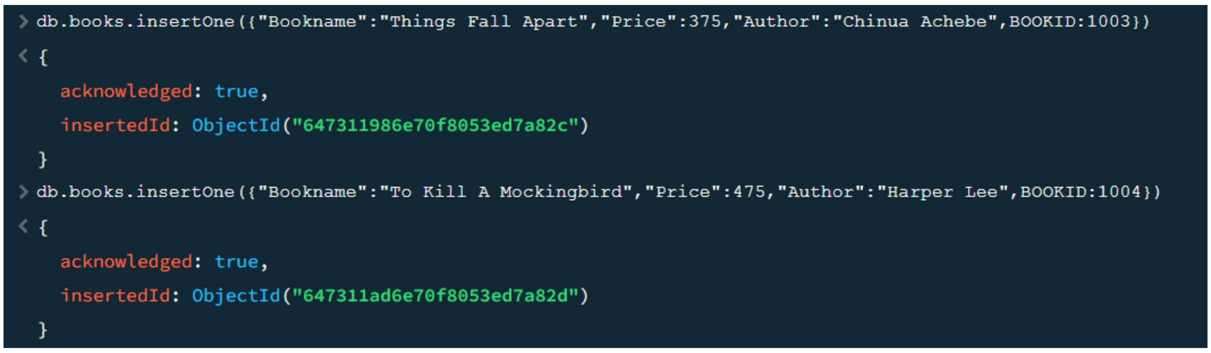


```
> db
< test
> use sample
< switched to db sample
> db.createCollection("books");
< { ok: 1 }
```

INSERTING : Inserting the book details in the collection name books.

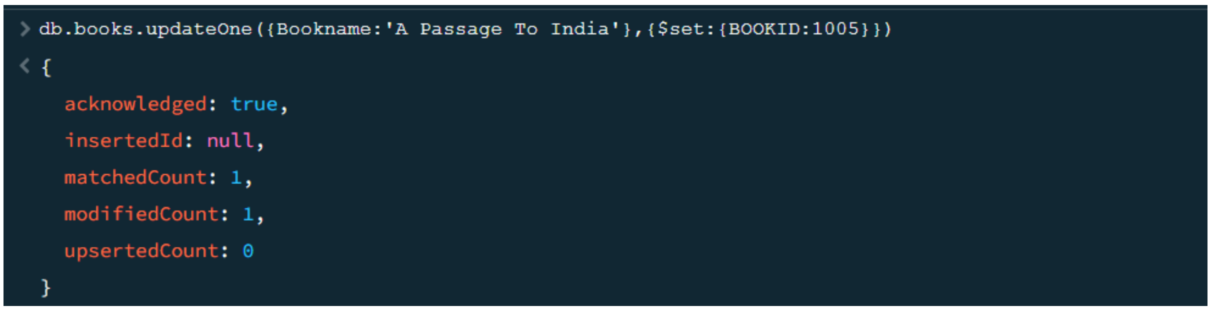


```
> db.books.insertOne({"Bookname":"Harry Potter","Price":350,"Author":"J.K.ROWLING","BOOKID":1001})
< {
    acknowledged: true,
    insertedId: ObjectId("64730d776e70f8053ed7a82a")
  }
> db.books.find({})
< {
    _id: ObjectId("64730d776e70f8053ed7a82a"),
    Bookname: 'Harry Potter',
    Price: 350,
    Author: 'J.K.ROWLING',
    BOOKID: 1001
  }
> db.books.insertOne({"Bookname":"A Passage To India","Price":400,"Author":"E.M.FORSTER","BOOKID":1002})
< {
    acknowledged: true,
    insertedId: ObjectId("64730fac6e70f8053ed7a82b")
  }
```



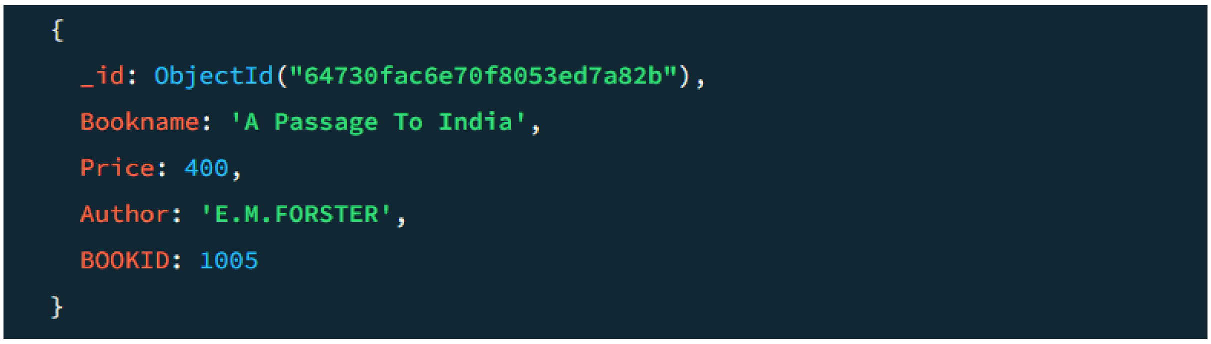
```
> db.books.insertOne({"Bookname":"Things Fall Apart","Price":375,"Author":"Chinua Achebe",BOOKID:1003})
< {
    acknowledged: true,
    insertedId: ObjectId("647311986e70f8053ed7a82c")
  }
> db.books.insertOne({"Bookname":"To Kill A Mockingbird","Price":475,"Author":"Harper Lee",BOOKID:1004})
< {
    acknowledged: true,
    insertedId: ObjectId("647311ad6e70f8053ed7a82d")
  }
```

UPDATING: Updating the bookid from 1003 to 1005 for the book which has bookname as “A Passage To India”.



```
> db.books.updateOne({Bookname:'A Passage To India'},{$set:{BOOKID:1005}})
< {
    acknowledged: true,
    insertedId: null,
    matchedCount: 1,
    modifiedCount: 1,
    upsertedCount: 0
  }
```

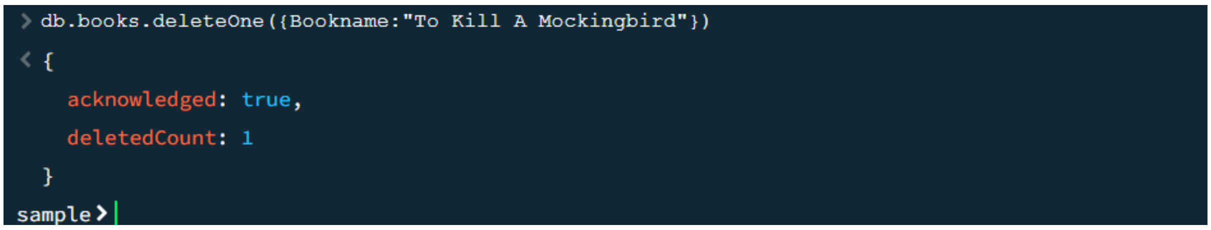
After updating the bookid from 1002 to 1005 for the book which has bookname as “A Passage To India”.



```
  {
    _id: ObjectId("64730fac6e70f8053ed7a82b"),
    Bookname: 'A Passage To India',
    Price: 400,
    Author: 'E.M.FORSTER',
    BOOKID: 1005
  }
```

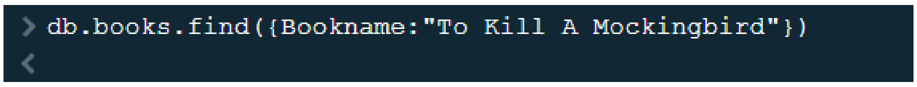
DELETING:

To delete the details of the book which has a bookname=”To kill A Mockingbird”.



```
> db.books.deleteOne({Bookname:"To Kill A Mockingbird"})
< {
    acknowledged: true,
    deletedCount: 1
  }
sample>
```

AFTER DELETING IF WE SEARCH FOR THAT USING FIND WE DON’T GET ANY RESULT , SO THE FILE IS DELETED



```
> db.books.find({Bookname:"To Kill A Mockingbird"})
<
```