

Name: Saratchandra Hemanth T

Reg No: 20BCE0510

Campus: VIT Vellore, CSE

Email: [saratchandra.hemanth2020@vitstudent.ac.in](mailto:saratchandra.hemanth2020@vitstudent.ac.in)

## **Smart Bridge Externship Program in Modern Application Development**

### **(Java Spring Boot)**

### **ASSIGNMENT – 2**

Q1: Create, update, and delete commands in MySQL.

Q2: Create tables and perform joins in MySQL.

Q3: Create update and delete commands in mongo.

#### **Q1: Create, update, and delete commands in MySQL.**

##### **Creating Table**

```
mysql> create table orders(orderid int,customerid int, orderdate date);
```

Query OK, 0 rows affected (0.02 sec)

##### **Inserting values**

```
mysql> insert into orders values (11110,22,'2023-05-27');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> insert into orders values (11111,12,'2023-04-07');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into orders values (11113,2,'2023-02-20');
```

Query OK, 1 row affected (0.01 sec)

```
mysql> insert into orders values (11114,11,'2023-05-20');
```

Query OK, 1 row affected (0.00 sec)

### **Orders table**

```
mysql> select * from orders;
```

```
+-----+-----+-----+
|orderid|customerid|orderdate|
+-----+-----+-----+
| 11110 |      22 | 2023-05-27 |
| 11111 |      12 | 2023-04-07 |
| 11113 |       2 | 2023-02-20 |
| 11114 |      11 | 2023-05-20 |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

### **Updating values**

```
mysql> update orders set orderdate = '2023-01-20' where orderid = 11111;
```

```
Query OK, 1 row affected (0.01 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

### **Orders table**

```
mysql> select * from orders;
```

```
+-----+-----+-----+
|orderid|customerid|orderdate|
+-----+-----+-----+
| 11110 |      22 | 2023-05-27 |
| 11111 |      12 | 2023-01-20 |
| 11113 |       2 | 2023-02-20 |
| 11114 |      11 | 2023-05-20 |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

### **Delete operation:**

```
mysql> delete from orders where orderid = 11110;
```

```
Query OK, 1 row affected (0.00 sec)
```

### Orders table

```
mysql> select * from orders;
```

```
+-----+-----+-----+
|orderid|customerid|orderdate|
+-----+-----+-----+
| 11111 |      12  |2023-01-20|
| 11113 |       2  |2023-02-20|
| 11114 |      11  |2023-05-20|
+-----+-----+-----+
```

3 rows in set (0.00 sec)

### **Q2: Create tables and perform joins in MySQL.**

#### Tables:

##### Customers:

```
mysql> select * from customers;
```

```
+-----+-----+-----+-----+
|customerid|customername|username|country|
+-----+-----+-----+-----+
|      1   |Johnathan   |john    |Canada |
|      2   |Rama krishna|Ram     |India  |
|      3   |George Martin|George  |England|
+-----+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> select * from customers
-> ;
+-----+-----+-----+-----+
|customerid|customername|username|country|
+-----+-----+-----+-----+
|      1   |Johnathan   |john    |Canada |
|      2   |Rama krishna|Ram     |India  |
|      3   |George Martin|George  |England|
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

##### Orders:

```
mysql> select * from orders;
```

```
+-----+-----+-----+
```

orderid	customerid	orderdate
11111	12	2023-01-20
11113	2	2023-02-20
11114	11	2023-05-20
11115	3	2023-03-22

4 rows in set (0.00 sec)

```
mysql> select * from orders;
```

orderid	customerid	orderdate
11111	12	2023-01-20
11113	2	2023-02-20
11114	11	2023-05-20
11115	3	2023-03-22

4 rows in set (0.00 sec)

### Inner join

```
mysql> select orders.orderid, customers.customername, orders.orderdate
-> from orders
-> inner join customers on orders.customerid = customers.customerid;
```

orderid	customername	orderdate
11113	Rama krishna	2023-02-20
11115	George Martin	2023-03-22

2 rows in set (0.00 sec)

```
mysql> select orders.orderid, customers.customername, orders.orderdate
-> from orders
-> inner join customers on orders.customerid = customers.customerid;
```

orderid	customername	orderdate
11113	Rama krishna	2023-02-20
11115	George Martin	2023-03-22

2 rows in set (0.00 sec)

### Left Join:

```
mysql> select customers.customername, orders.orderid
      -> from customers
      -> left join orders on customers.customerid = orders.customerid
      -> order by customers.customername;
```

```
+-----+-----+
| customername | orderid |
+-----+-----+
| George Martin | 11115 |
| Johnathan     | NULL   |
| Rama krishna  | 11113 |
+-----+-----+
3 rows in set (0.01 sec)
```

```
mysql> select customers.customername, orders.orderid
      -> from customers
      -> left join orders on customers.customerid = orders.customerid
      -> order by customers.customername;
+-----+-----+
| customername | orderid |
+-----+-----+
| George Martin | 11115 |
| Johnathan     | NULL   |
| Rama krishna  | 11113 |
+-----+-----+
3 rows in set (0.01 sec)
```

### Right join:

```
mysql> select orders.orderid, customers.username, customers.country
      -> from orders
      -> right join customers on orders.customerid = customers.customerid
      -> order by orders.orderid;
```

```
+-----+-----+-----+
| orderid | username | country |
+-----+-----+-----+
| NULL    | john     | Canada  |
| 11113   | Ram      | India   |
| 11115   | George   | England |
```

```
+-----+-----+-----+
```

3 rows in set (0.00 sec)

```
mysql> select orders.orderid, customers.username, customers.country
-> from orders
-> right join customers on orders.customerid = customers.customerid
-> order by orders.orderid;
```

```
+-----+-----+-----+
| orderid | username | country |
+-----+-----+-----+
|      NULL | john     | Canada  |
|     11113 | Ram      | India   |
|     11115 | George   | England |
+-----+-----+-----+
```

3 rows in set (0.00 sec)

### Cross Join:

```
mysql> select * from orders cross join customers;
```

```
+-----+-----+-----+-----+-----+-----+-----+
| orderid | customerid | orderdate | customerid | customername | username | country |
+-----+-----+-----+-----+-----+-----+-----+
| 11111 | 12 | 2023-01-20 | 3 | George Martin | George | England |
| 11111 | 12 | 2023-01-20 | 2 | Rama krishna | Ram | India |
| 11111 | 12 | 2023-01-20 | 1 | Johnathan | john | Canada |
| 11113 | 2 | 2023-02-20 | 3 | George Martin | George | England |
| 11113 | 2 | 2023-02-20 | 2 | Rama krishna | Ram | India |
| 11113 | 2 | 2023-02-20 | 1 | Johnathan | john | Canada |
| 11114 | 11 | 2023-05-20 | 3 | George Martin | George | England |
| 11114 | 11 | 2023-05-20 | 2 | Rama krishna | Ram | India |
| 11114 | 11 | 2023-05-20 | 1 | Johnathan | john | Canada |
| 11115 | 3 | 2023-03-22 | 3 | George Martin | George | England |
| 11115 | 3 | 2023-03-22 | 2 | Rama krishna | Ram | India |
| 11115 | 3 | 2023-03-22 | 1 | Johnathan | john | Canada |
+-----+-----+-----+-----+-----+-----+-----+
```

12 rows in set (0.00 sec)

```
mysql> select * from orders cross join customers;
```

orderid	customerid	orderdate	customerid	customername	username	country
11111	12	2023-01-20	3	George Martin	George	England
11111	12	2023-01-20	2	Rama krishna	Ram	India
11111	12	2023-01-20	1	Johnathan	john	Canada
11113	2	2023-02-20	3	George Martin	George	England
11113	2	2023-02-20	2	Rama krishna	Ram	India
11113	2	2023-02-20	1	Johnathan	john	Canada
11114	11	2023-05-20	3	George Martin	George	England
11114	11	2023-05-20	2	Rama krishna	Ram	India
11114	11	2023-05-20	1	Johnathan	john	Canada
11115	3	2023-03-22	3	George Martin	George	England
11115	3	2023-03-22	2	Rama krishna	Ram	India
11115	3	2023-03-22	1	Johnathan	john	Canada

```
12 rows in set (0.00 sec)
```

**Q3: Create update and delete commands in mongo.**

**Listing the databases and selecting the assignment database**

```
>_MONGOSH

> show dbs
< admin          40.00 KiB
    assignment    8.00 KiB
    config        108.00 KiB
    local         40.00 KiB

> use assignment
< switched to db assignment

assignment>
```

**Create**

```
db.createCollection("Persons")
```

```
> db.createCollection("Persons")
< { ok: 1 }
```

**Insert Operation:**

```
db.Persons.insertOne({ "name": "John Doe", "age": 30 })

{
  acknowledged: true,
```

```
    insertedId: ObjectId("64737399f1a06676cb9eaa7b")
  }
```

```
> db.Persons.insertOne({ "name": "John Doe", "age": 30 })
< {
  acknowledged: true,
  insertedId: ObjectId("64737399f1a06676cb9eaa7b")
}
```

```
> db.Persons.insertOne({ "name": "George Martin", "age": 40 })
< {
  acknowledged: true,
  insertedId: ObjectId("64737447f1a06676cb9eaa7c")
}
```

#### Viewing the table:

```
db.Persons.find()
```

```
> db.Persons.find()
< [
  {
    _id: ObjectId("64737399f1a06676cb9eaa7b"),
    name: 'John Doe',
    age: 30
  },
  {
    _id: ObjectId("64737447f1a06676cb9eaa7c"),
    name: 'George Martin',
    age: 40
  }
]
```

#### Update:

```
db.Persons.updateOne({ "name": "John Doe" }, { $set: { "age": 35 } })
```



```
> db.Persons.updateOne({ "name": "John Doe" }, { $set: { "age": 35 } })
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

### Viewing the table:

```
> db.Persons.find()
< {
  _id: ObjectId("64737399f1a06676cb9eaa7b"),
  name: 'John Doe',
  age: 35
}
{
  _id: ObjectId("64737447f1a06676cb9eaa7c"),
  name: 'George Martin',
  age: 40
}
```

### Delete:

```
> db.Persons.deleteOne({ "name": "John Doe" })
< {
  acknowledged: true,
  deletedCount: 1
}
```

### Viewing the table

```
> db.Persons.find()
< {
  _id: ObjectId("64737447f1a06676cb9eaa7c"),
  name: 'George Martin',
  age: 40
}
```