



# Java SpringBoot Assignment 2

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## Q1) Create, Update and Delete commands in MySQL

```
create database school;

use school;

create table students (
    id INT PRIMARY KEY,
    name VARCHAR(50),
    age INT
);

insert into students (id, name, age)
values (1, 'Mayank', 20),
       (2, 'Arun', 22),
       (3, 'Anjali', 19);

select * from students;

update students
set name = 'Kartik'
where id = 2;

select * from students;

delete from students
where id = 3;

select * from students;
```

Output			
Action Output			
#	Time	Action	Message
✓	1 21:45:15	create database school	1 row(s) affected
✓	2 21:45:29	use school	0 row(s) affected
✓	3 21:45:51	create table students ( id INT PRIMARY KEY, name VARCHAR(50), age INT )	0 row(s) affected
✓	4 21:47:03	insert into students (id, name, age) values (1, 'Mayank', 20), (2, 'Arun', 22), (3, 'Anjali', 19)	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0
✓	5 21:47:41	select * from students LIMIT 0, 1000	3 row(s) returned
✓	6 21:49:27	update students set name = 'Kartik' where id = 2	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0
✓	7 21:49:35	select * from students LIMIT 0, 1000	3 row(s) returned
✓	8 21:50:30	delete from students where id = 3	1 row(s) affected
✓	9 21:50:40	select * from students LIMIT 0, 1000	2 row(s) returned

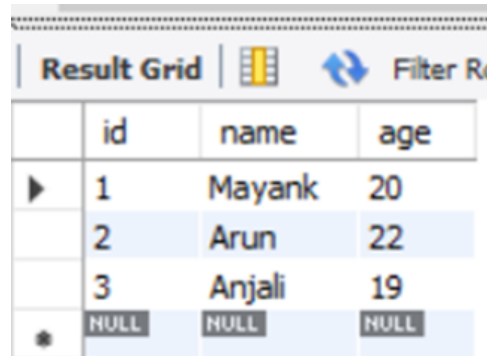
On displaying table

Result Grid			
	id	name	age
▶	1	Mayank	20
	2	Arun	22
	3	Anjali	19
✱	NULL	NULL	NULL

After updation of table

Result Grid			
	id	name	age
▶	1	Mayank	20
	2	Kartik	22
	3	Anjali	19
✱	NULL	NULL	NULL

## After deleting entries table



	id	name	age
▶	1	Mayank	20
	2	Arun	22
	3	Anjali	19
✱	NULL	NULL	NULL

## Q2) Join in MySQL

```
create database school_database;

use school_database;

create table students (
  id INT PRIMARY KEY,
  name VARCHAR(50),
  age INT
);

create table courses (
  id INT PRIMARY KEY,
  course_name VARCHAR(50)
);

insert into students (id, name, age)
VALUES (1, 'Mayank', 21),
       (2, 'Kartik', 22),
       (3, 'Anjali', 19);

insert into courses (id, course_name)
values (1, 'Mathematics'),
       (2, 'English'),
       (3, 'Science');

select students.name, courses.course_name
from students
inner join courses on students.id = courses.id;
```

```

select students.name, courses.course_name
from students
left join courses on students.id = courses.id;

select students.name, courses.course_name
from students
right join courses on students.id = courses.id;

select students.name, courses.course_name
from students
full join courses on students.id = courses.id;



```

Output			
Action Output			
#	Time	Action	Message
1	21:59:37	create database school_database	1 row(s) affected
2	21:59:37	use school_database	0 row(s) affected
3	21:59:37	create table students ( id INT PRIMARY KEY, name VARCHAR(50), age INT )	0 row(s) affected
4	21:59:37	create table courses ( id INT PRIMARY KEY, course_name VARCHAR(50) )	0 row(s) affected
5	21:59:37	insert into students (id, name, age) VALUES (1, 'Mayank', 21), (2, 'Kartik', 22), (3, 'Anjali', 19)	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0
6	21:59:37	insert into courses (id, course_name) values (1, 'Mathematics'), (2, 'English'), (3, 'Science')	3 row(s) affected Records: 3 Duplicates: 0 Warnings: 0
7	22:00:20	select students.name, courses.course_name from students inner join courses on students.id = courses.id LIMIT 0, 1000	3 row(s) returned
8	22:00:54	select students.name, courses.course_name from students left join courses on students.id = courses.id LIMIT 0, 1000	3 row(s) returned
9	22:01:29	select students.name, courses.course_name from students right join courses on students.id = courses.id LIMIT 0, 1000	3 row(s) returned



## Inner Join

Result Grid			Filter Rows
	name	course_name	
▶	Mayank	Mathematics	
	Kartik	English	
	Anjali	Science	

## Left Join



Result Grid					Filter Row
	name	course_name			
▶	Mayank	Mathematics			
	Kartik	English			
	Anjali	Science			

## Right Join

Result Grid					Filter Row
	name	course_name			
▶	Mayank	Mathematics			
	Kartik	English			
	Anjali	Science			

## Full Join

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Result Grid					Filter Rows
	name	course_name			
▶	Mayank	Mathematics			
	Kartik	English			
	Anjali	Science			

## Create, Update, Delete commands in MongoDB

MongoDB Compass - localhost:27017/school.student

Connect Edit View Collection Help

localhost:27017 ... Documents school.student +

My Queries

```
>_MONGOSH

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

> use school
< switched to db school

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

> show collections
< student
  teachers

> db.student.insertOne({"name":"Mayank","age":20})
< {
  acknowledged: true,
  insertedId: ObjectId("64738dcf9a7c0fb5da96bcba")
}

> db.student.insertOne({"name":"Kartik","age":21})
< {
  acknowledged: true,
  insertedId: ObjectId("64738e1d9a7c0fb5da96bcbb")
}

> db.student.updateOne({"name":"Kartik"},{$set:{"age":25}})

> db.student.updateOne({"name":"Kartik"},{$set:{"age":25}})
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}

> db.student.deleteOne({"name":"Mayank"})
< {
  acknowledged: true,
  deletedCount: 1
}

school>
```

## Create Entry

The screenshot shows the MongoDB Compass interface for the 'school.student' collection. The left sidebar lists databases (admin, config, local, school) and collections (student, teachers). The main view displays two documents in the 'student' collection:

Document
<pre>{   "_id": ObjectId('64738dcf9a7c0fb5da96bcba'),   "name": "Mayank",   "age": 20 }</pre>
<pre>{   "_id": ObjectId('64738e1d9a7c0fb5da96bcbb'),   "name": "Kartik",   "age": 21 }</pre>

The bottom terminal window shows the following commands and output:

```
> _MONGOSH
teachers
> db.student.insertOne({"name":"Mayank","age":20})
< {
  acknowledged: true,
  insertedId: ObjectId("64738dcf9a7c0fb5da96bcba")
}
> db.student.insertOne({"name":"Kartik","age":21})
< {
  acknowledged: true,
  insertedId: ObjectId("64738e1d9a7c0fb5da96bcbb")
}
```

## Update Entry



MongoDB Compass - localhost:27017/school.student

Connect Edit View Collection Help

localhost:27017 Documents school.student

My Queries Databases

Search

- admin
- config
- local
- school
  - student
  - teachers

school.student

2 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' } Reset Find More Options

ADD DATA EXPORT DATA

1 - 2 of 2

```

{ "_id": ObjectId("64738e1d9a7c0fb5da96bcbb"),
  "name": "Mayank",
  "age": 20 }

{ "_id": ObjectId("64738e1d9a7c0fb5da96bcbb"),
  "name": "Kartik",
  "age": 25 }

```

> \_MONGOSH

```

> db.student.updateOne({"name":"Kartik"},{$set:{"age":25}})
Error: clone(t={}){const r=t.loc||{};return e({loc:new Position("line"in r?r.line:this.loc.line,"column"in r?r.column:...<om
> db.student.updateOne({"name":"Kartik"},{$set:{"age":25}})
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
school>

```

## Delete Entry

MongoDB Compass - localhost:27017/school.student

Connect Edit View Collection Help

localhost:27017 Documents school.student

My Queries

Databases

Search

- admin
- config
- local
- school
  - student
  - teachers

school.student

1 DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

Filter Type a query: { field: 'value' } Reset Find </> More Options

ADD DATA EXPORT DATA

1 - 1 of 1

```
{
  "_id": ObjectId('64738e1d9a7c0fb5da96bcbb'),
  "name": "Kartik",
  "age": 25
}
```

>\_MONGOSH

```

  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
> db.student.deleteOne({"name": "Mayank"})
< {
  acknowledged: true,
  deletedCount: 1
}
school>
```