

## Spring Boot Week-2 Assignment

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### Creating Table:

```
CREATE TABLE Employee(
```

```
    Id int primary key,
```

```
    FirstName varchar(50),
```

```
    LastName varchar(50),
```

```
    Address varchar(200),
```

```
    City varchar(50)
```

```
);
```

```
Insert into Employee values (1, 'Pawan', 'Kalyan', 'Andhra Pradesh','RJY');
```

```
Insert into Employee values (2, 'Allu', 'Arjun', 'Telangana','Hyderabad');
```

```
Insert into Employee values (3, 'Ram', 'Charan', 'Tamil Nadu','Chennai');
```

```
Insert into Employee values (4, 'Mahesh', 'Babu', 'Karnataka','Banglore');
```

```
Select * from Employee
```

### Output:

Output:

Id	FirstName	LastName	Address	City
1	Pawan	Kalyan	Andhra Pradesh	RJY
2	Allu	Arjun	Telangana	Hyderabad
3	Ram	Charan	Tamil Nadu	Chennai
4	Mahesh	Babu	Karnataka	Banglore

### Update from table

```
CREATE TABLE Employee(
```

```
    Id int primary key,
```

```
    FirstName varchar(50),
```

```
    LastName varchar(50),
```

```
    Address varchar(200),
```

```
    City varchar(50)
```

);

Insert into Employee values (1, 'Pawan', 'Kalyan', 'Andhra Pradesh','RJY');

Insert into Employee values (2, 'Allu', 'Arjun', 'Telangana','Hyderabad');

Insert into Employee values (3, 'Ram', 'Charan', 'Tamil Nadu','Chennai');

Insert into Employee values (4, 'Mahesh', 'Babu', 'Karnataka','Banglore');

UPDATE Employee

SET LastName= 'Arvind', City= 'KDP' WHERE Id = 2;

Select \* from Employee

### Output:

Output:

Id	FirstName	LastName	Address	City
1	Pawan	Kalyan	Andhra Pradesh	RJY
2	Allu	Arvind	Telangana	KDP
3	Ram	Charan	Tamil Nadu	Chennai
4	Mahesh	Babu	Karnataka	Banglore

### Delete from table

CREATE TABLE Employee(

Id int primary key,

FirstName varchar(50),

LastName varchar(50),

Address varchar(200),

City varchar(50)

);

Insert into Employee values (1, 'Pawan', 'Kalyan', 'Andhra Pradesh','RJY');

Insert into Employee values (2, 'Allu', 'Arjun', 'Telangana','Hyderabad');

Insert into Employee values (3, 'Ram', 'Charan', 'Tamil Nadu','Chennai');

Insert into Employee values (4, 'Mahesh', 'Babu', 'Karnataka','Banglore');

```
DELETE from Employee WHERE Id=4;
```

```
Select * from Employee
```

### Output:

Output:

Id	FirstName	LastName	Address	City
1	Pawan	Kalyan	Andhra Pradesh	RJY
2	Allu	Arjun	Telangana	Hyderabad
3	Ram	Charan	Tamil Nadu	Chennai

### Create tables for Join operation

```
CREATE TABLE Books(  
    Id INT PRIMARY KEY,  
    Name VARCHAR (50) NOT NULL,  
    Price INT,  
    CategoryId INT,  
    AuthorId INT );
```

```
CREATE TABLE Categories(  
    Id INT PRIMARY KEY,  
    Name VARCHAR (50) NOT NULL  
);
```

```
CREATE TABLE Authors(  
    Id INT PRIMARY KEY,  
    Name VARCHAR (50) NOT NULL);
```

```
INSERT INTO Categories VALUES (1, 'Cat-A'),
```

```
(2, 'Cat-B'),  
(3, 'Cat-C'),  
(7, 'Cat-D'),  
(8, 'Cat-E'),  
(4, 'Cat-F'),  
(10, 'Cat-G'),  
(12, 'Cat-H'),  
(6, 'Cat-I');
```

```
INSERT INTO Authors VALUES (1, 'Author-A'),  
(2, 'Author-B'),  
(3, 'Author-C'),  
(10, 'Author-D'),  
(12, 'Author-E');
```

```
INSERT INTO Books VALUES (1, 'Book-A', 100, 1, 2),  
( 2, 'Book-B', 200, 2, 2),  
(3, 'Book-C', 150, 3, 2),  
( 4, 'Book-D', 100, 3, 1),  
(5, 'Book-E', 200, 3, 1),  
(6, 'Book-F', 150, 4, 1),  
(7, 'Book-G', 100, 5, 5),  
(8, 'Book-H', 200, 5, 6),  
(9, 'Book-I', 150, 7, 8);
```

### **Inner Join**

```
SELECT Books.CategoryId, Books.Name, Categories.Id, Categories.Name  
FROM Books  
INNER JOIN Categories  
ON Books.CategoryId = Categories.Id;
```

## Output:

Output:

CategoryId	Name	Id	Name
1	Book-A	1	Cat-A
2	Book-B	2	Cat-B
3	Book-C	3	Cat-C
3	Book-D	3	Cat-C
3	Book-E	3	Cat-C
4	Book-F	4	Cat-F
7	Book-I	7	Cat-D

## Left Join

```
SELECT Books.CategoryId, Books.Name, Categories.id, Categories.Name
FROM Books
LEFT JOIN Categories
ON Books.CategoryId = Categories.Id;
```

Output:

Output:

CategoryId	Name	id	Name
1	Book-A	1	Cat-A
2	Book-B	2	Cat-B
3	Book-C	3	Cat-C
3	Book-D	3	Cat-C
3	Book-E	3	Cat-C
4	Book-F	4	Cat-F
5	Book-G	NULL	NULL
5	Book-H	NULL	NULL
7	Book-I	7	Cat-D

## Right Join

```
SELECT Books.CategoryId, Books.Name, Categories.id, Categories.Name
FROM Books
RIGHT JOIN Categories
ON Books.CategoryId = Categories.Id;
```

## Output:

Output:

CategoryId	Name	id	Name
1	Book-A	1	Cat-A
2	Book-B	2	Cat-B
3	Book-E	3	Cat-C
3	Book-D	3	Cat-C
3	Book-C	3	Cat-C
4	Book-F	4	Cat-F
NULL	NULL	6	Cat-I
7	Book-I	7	Cat-D
NULL	NULL	8	Cat-E
NULL	NULL	10	Cat-G
NULL	NULL	12	Cat-H

## Create update, delete commands in mongodb?

### Update command:

#### Code:

```
db.students.insertMany([
  { id: 1, name: 'Ryan', gender: 'M' },
  { id: 2, name: 'Joanna', gender: 'F' }
]);
db.students.find({ gender: 'F' });
db.students.updateOne(
  { id: 1 },
  { $set: { name: "Ryan Smith", gender: "M" } }
);
```

## Output

```
mycompiler_mongodb> ... .. {
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("6473579aa5217a413cb2340c"),
    '1': ObjectId("6473579aa5217a413cb2340d")
  }
}
mycompiler_mongodb> [
  {
    _id: ObjectId("6473579aa5217a413cb2340d"),
    id: 2,
    name: 'Joanna',
    gender: 'F'
  }
]
mycompiler_mongodb> ... .. {
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
mycompiler_mongodb>
```

## After updating

```
mycompiler_mongodb> [
  {
    _id: ObjectId("647358540fb9148257bd6b6e"),
    id: 1,
    name: 'sujan chowdary',
    gender: 'M'
  },
  {
    _id: ObjectId("647358540fb9148257bd6b6f"),
    id: 2,
    name: 'Joanna',
    gender: 'F'
  }
]
```

**Deleting commands:****Code:**

```
db.students.deleteOne({ id: 2 }); db.students.find()
```

**After deleting:**

```
mycompiler_mongodb> { acknowledged: true, deletedCount: 1 }
mycompiler_mongodb> [
  {
    _id: ObjectId("647358de792c30f523157d69"),
    id: 1,
    name: 'sujan chowdary',
    gender: 'M'
  }
]
mycompiler_mongodb>
```