

MongoDB Assignment

1. Write an Example of JSON

```
{
  "Name": "Mongodb",
  "Description": "no sql database",
  "Type": "document oriented",
  "Port": 27017
},

{
  "Name": "Mysql",
  "Description": "sql database",
  "Type": "Object oriented RDBMS",
  "Port": 3306
}
```

2. Perform CRUD operation

https://github.com/Samiranghosh07/mongodb/blob/master/training_database_assignment.js

```
use training

show dbs

//===== Table Creation =====//

db.createCollection("employee")

//===== Insert Bulk Record =====//

db.employee.insertMany([

  { name:"cook", company:"xyz", gender:"male", dsg:"it engineer", salary:15000, rating:75,
  contact:123456, address:[

    {city:"newyork",country:"us",zipcode:123}

  ]},

  { name:"briyard", company:"abc", gender:"female", dsg:"sales executive", salary:10000,
  rating:45, contact:121645, address:[

    {city:"lipcon",country:"canada",zipcode:456}

  ]},

  { name:"alex", company:"xyz", gender:"male", dsg:"it engineer", salary:20000, rating:65,
  contact:122325, address:[
```

```
{city:"london",country:"uk",zipcode:333}

}},

{ name:"zylin", company:"ijk", gender:"female", dsg:"accounts executive", salary:8000,
rating:35, contact:125631, address:[

{city:"kapetown",country:"sa",zipcode:256}

}},

{ name:"nitin", company:"wipro", gender:"male", dsg:"it engineer", salary:12000, rating:70,
contact:523689, address:[

{city:"delhi",country:"india",zipcode:912}

}},

{ name:"sam", company:"cts", gender:"male", dsg:"it engineer", salary:20000, rating:45,
contact:189611, address:[

{city:"paris",country:"france",zipcode:444}

}},

{ name:"ijol", company:"tcs", gender:"female", dsg:"sales executive", salary:9000, rating:85,
contact:444444, address:[

{city:"newjurcy",country:"us",zipcode:226}

}},

{ name:"hemond", company:"abc", gender:"male", dsg:"civil engineer", salary:21000,
rating:54, contact:772356, address:[

{city:"sisily",country:"italy",zipcode:555}

}},

{ name:"rocky", company:"hcl", gender:"male", dsg:"it engineer", salary:14000, rating:80,
contact:545411, address:[

{city:"oklahoma",country:"us",zipcode:321}

}},

])

//===== Document Identify =====//
```

```

db.employee.find().pretty()

//===== Update Document =====//

db.employee.updateOne(

    //{name:"cookies"},{$set : {name:"cook"}}
    {rating:45},{$set : {rating:50}}
)

//===== Delete Document =====//

db.employee.remove({name:"hemond", company:"abc"})

```

3. Backup and Restore:

- I. Start mongodb service ⇒ services.msc ⇒ mongodb service
- II. Create folder C:\mongodb-dump\1stbkp
- III. Connect database “training” with MongoChef or Robo3T tool.
- IV. Open powershell prompt

	_id	name	company	gender	dsb	salary	rating	contact	address
1	ObjectId("6...)	cook	xyz	male	it engineer	15000.0	75.0	123456.0	[1 element]
2	ObjectId("6...)	briyard	abc	female	sales ...	10000.0	50.0	121645.0	[1 element]
3	ObjectId("6...)	alex	xyz	male	it engineer	20000.0	65.0	122325.0	[1 element]
4	ObjectId("6...)	zylin	ijk	female	accounts ...	8000.0	35.0	125631.0	[1 element]
5	ObjectId("6...)	sam	cts	male	it engineer	20000.0	50.0	189611.0	[1 element]

- V. `c:\> mongodump --host 127.0.0.1 --port 27017 --collection employee --db training --out "C:\mongodb-dump\1stbkp"`

```
Select Windows PowerShell
PS C:\> mongodump --host 127.0.0.1 --port 27017 --collection employee --db training --out "C:\mongodb-dump\1stbkp\"
2021-03-31T17:09:16.505+0530   writing training.employee to c:\mongodb-dump\1stbkp\training\employee.bson
2021-03-31T17:09:16.520+0530   done dumping training.employee (5 documents)
PS C:\> cd .\mongodb-dump\1stbkp\
PS C:\mongodb-dump\1stbkp> ls

Directory: C:\mongodb-dump\1stbkp

Mode                LastWriteTime         Length Name
----                -
d-----          3/31/2021   5:09 PM          training

PS C:\mongodb-dump\1stbkp> cd .\training\
PS C:\mongodb-dump\1stbkp\training> ls

Directory: C:\mongodb-dump\1stbkp\training

Mode                LastWriteTime         Length Name
----                -
-a----          3/31/2021   5:09 PM        1093 employee.bson
-a----          3/31/2021   5:09 PM         155 employee.metadata.json
```

- VI. Open mongo shell and drop “employee” collection to restore further

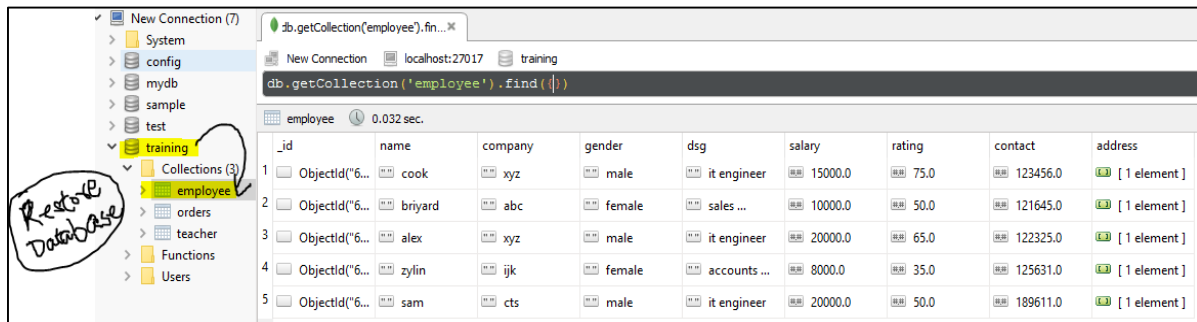
```
mongosh
> use training
switched to db training
> show dbs
admin      102 kB
config    98.3 kB
local     73.7 kB
mydb      131 kB
sample    139 kB
test      9.47 MB
training  201 kB
> show collections
teacher
employee
orders
> db.employee.drop
db.employee.dropIndexes db.employee.dropIndex db.employee.drop
> db.employee.drop("employee")
true
> show collections
teacher
orders
>
```

- VII. Open powershell prompt and type the below command:

`c:\> mongorestore --host 127.0.0.1 --port 27017 "c:\mongodb-dump\1stbkp\"`

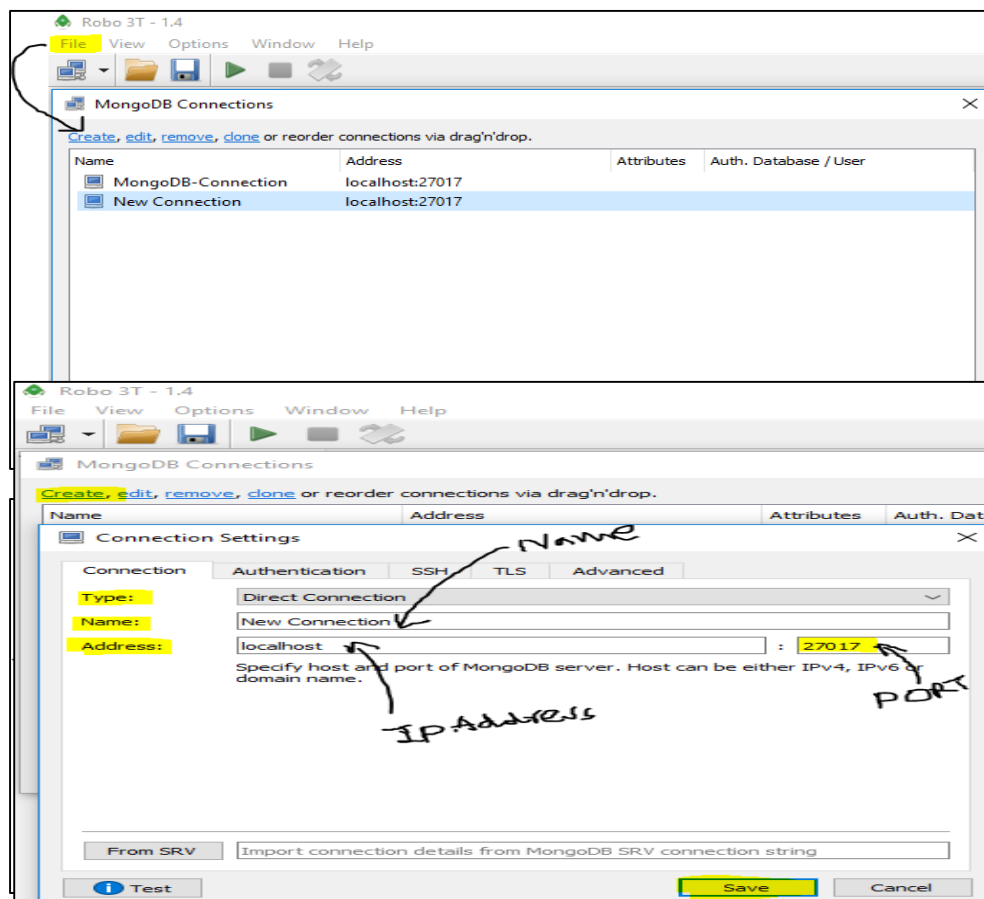
```
Windows PowerShell
PS C:\> mongorestore --host 127.0.0.1 --port 27017 "c:\mongodb-dump\1stbkp\"
2021-03-31T17:22:31.141+0530   preparing collections to restore from
2021-03-31T17:22:31.148+0530   reading metadata for training.employee from c:\mongodb-dump\1stbkp\training\employee.met
adata.json
2021-03-31T17:22:31.245+0530   restoring training.employee from c:\mongodb-dump\1stbkp\training\employee.bson
2021-03-31T17:22:31.281+0530   no indexes to restore
2021-03-31T17:22:31.286+0530   finished restoring training.employee (5 documents, 0 failures)
2021-03-31T17:22:31.288+0530   5 document(s) restored successfully. 0 document(s) failed to restore.
PS C:\>
```

VIII. Open Robo3T tool and “employee” table is restored



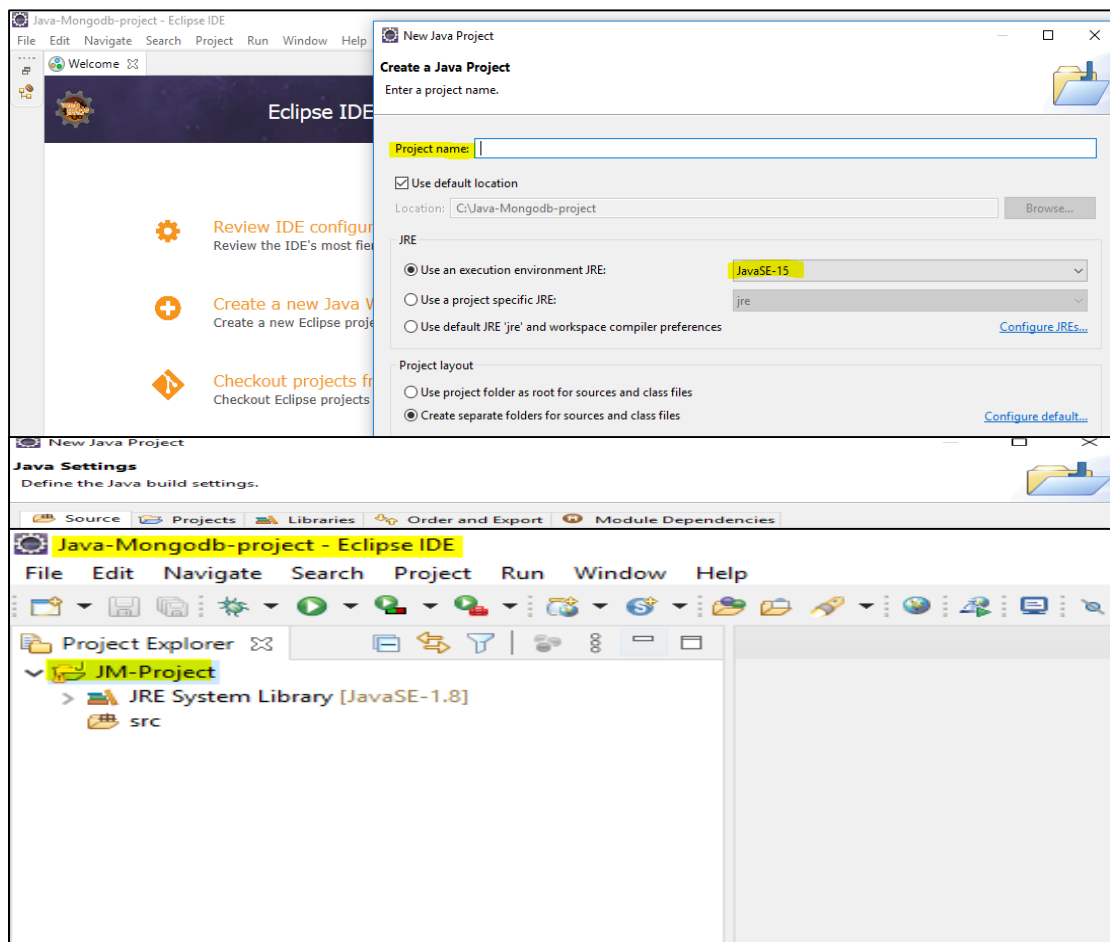
4. Mongodb Connect with Robomongo or Robo3T Tool:

- I. Start mongodb service from services.msc
- II. Open Rono3t tool ⇒ create new connection ⇒ provide ip and port ⇒ check startup option
- III. Connect database and view list of databases if connection is successful.

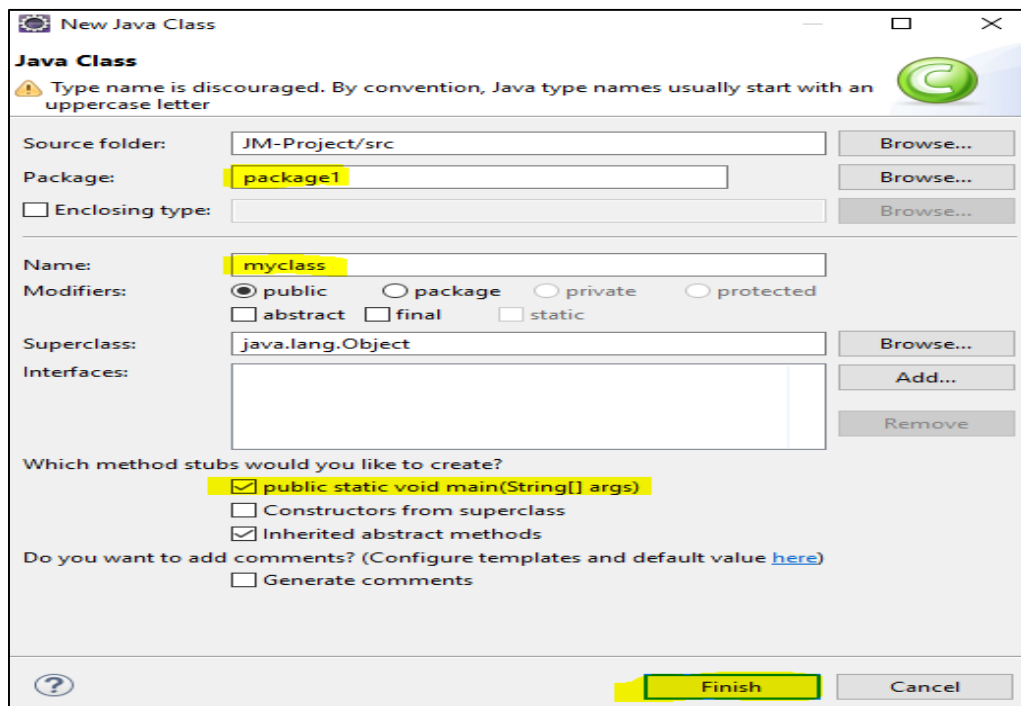


5. MongoDB connect with Java:

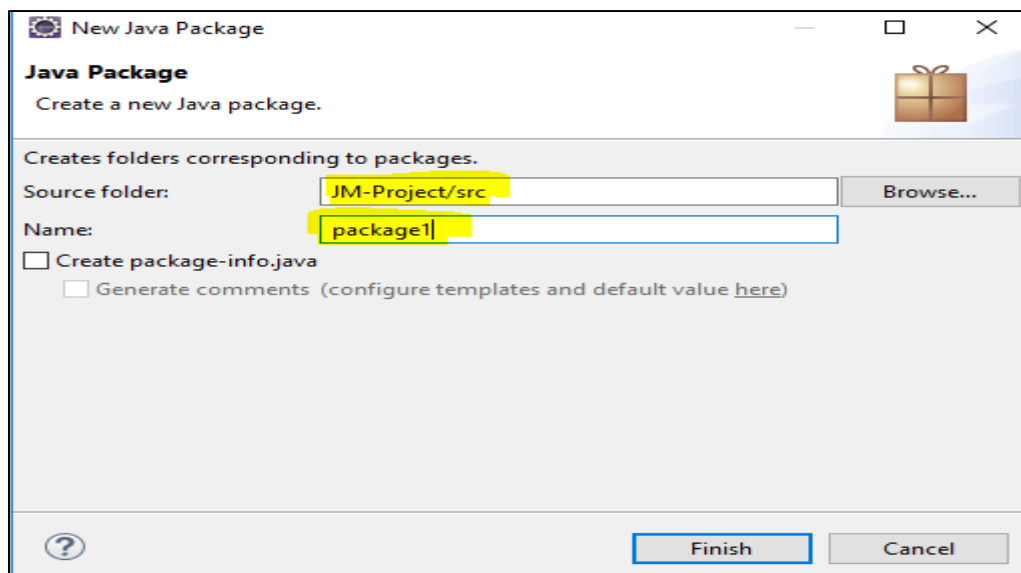
- IV. First Java and Eclipse must be install in the system.
- V. Open eclipse editor and create a java project ⇒ project name : JM-Project



- VI. Right click on src ⇒ create new package
- VII. Right click on package ⇒ create new class



The 'New Java Class' dialog box is shown. It has a title bar with a question mark icon, a close button, and a maximize button. The main area is titled 'Java Class' and contains a warning icon and text: 'Type name is discouraged. By convention, Java type names usually start with an uppercase letter'. Below this, there are fields for 'Source folder:' (JM-Project/src), 'Package:' (package1), and 'Enclosing type:' (empty). There are 'Browse...' buttons for each. The 'Name:' field contains 'myclass'. The 'Modifiers:' section has radio buttons for 'public' (selected), 'package', 'private', and 'protected', and checkboxes for 'abstract', 'final', and 'static'. The 'Superclass:' field contains 'java.lang.Object'. The 'Interfaces:' section is empty. Below these, there is a section 'Which method stubs would you like to create?' with checkboxes for 'public static void main(String[] args)' (checked), 'Constructors from superclass', and 'Inherited abstract methods'. There is also a checkbox for 'Do you want to add comments? (Configure templates and default value [here](#))' and a checkbox for 'Generate comments'. At the bottom, there is a 'Finish' button and a 'Cancel' button.

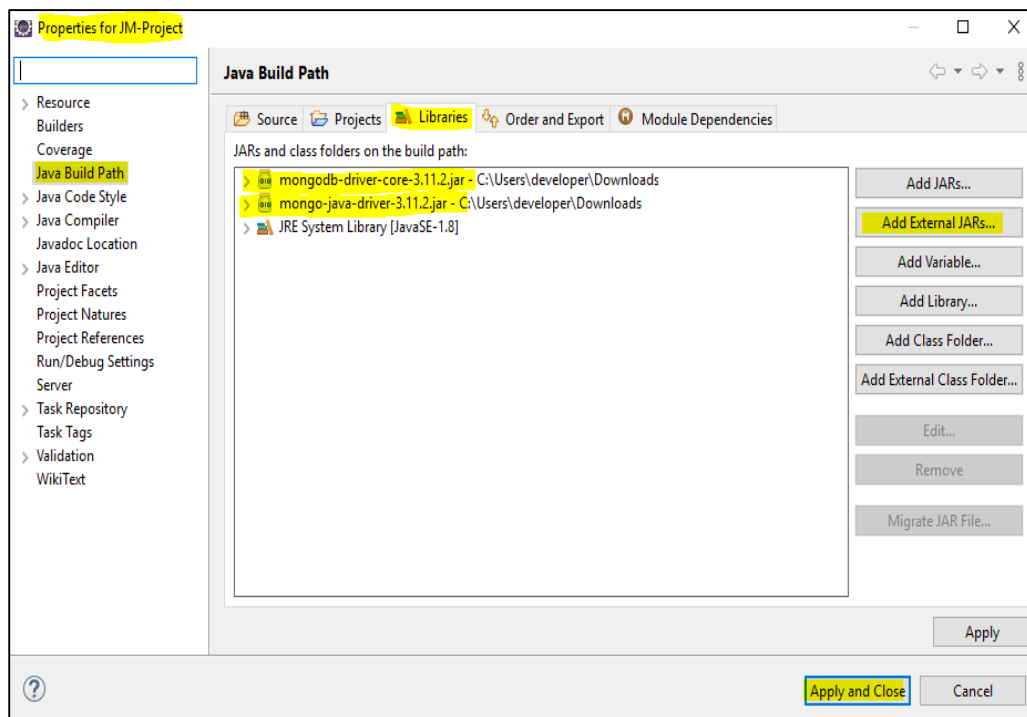
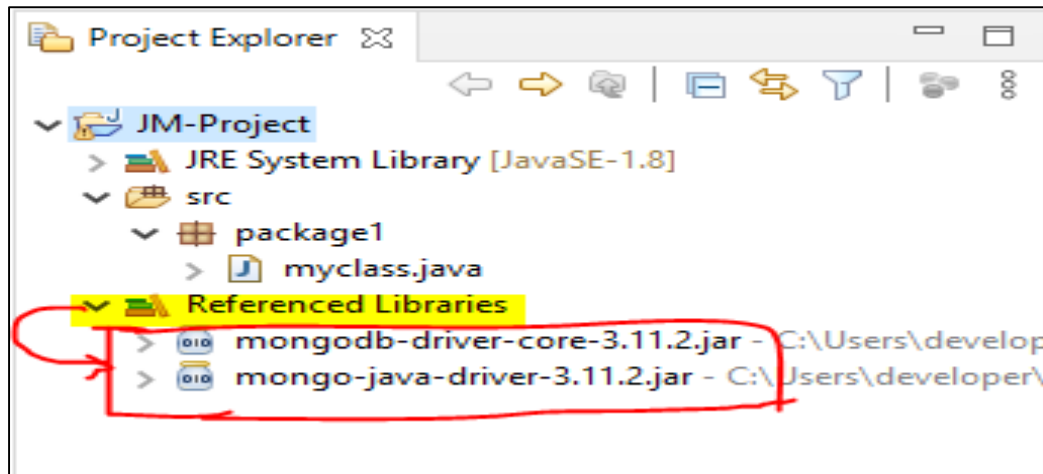


The 'New Java Package' dialog box is shown. It has a title bar with a question mark icon, a close button, and a maximize button. The main area is titled 'Java Package' and contains a gift icon and text: 'Create a new Java package.'. Below this, there is a section 'Creates folders corresponding to packages.' with fields for 'Source folder:' (JM-Project/src) and 'Name:' (package1). There are 'Browse...' buttons for each. There is a checkbox for 'Create package-info.java' and a checkbox for 'Generate comments (configure templates and default value [here](#))'. At the bottom, there is a 'Finish' button and a 'Cancel' button.

Note: Download External Jar files from Internet:

- 1) **mongodb-driver-core-3.11.2**
- 2) **mongo-java-driver-3.11.2**

- VIII. Right click on project "JM_Project" ⇒ Build Path ⇒ create build path ⇒ go to libraries ⇒ Add External Jars ⇒ Apply



GitHub Link: <https://github.com/Samiranghosh07/java-mongodb-connection>

