Group B : Lab Assignment no. 9

**Title : Design and Develop MongoDB Queries using CRUD operations. (Use CRUD operations, SAVE method, logical operators)**

**prashant@prashant-VPCEG28FN:~$ mongo MongoDB shell version v3.6.3**

**connecting to: mongodb://127.0.0.1:27017 MongoDB server version: 3.6.3**

**Server has startup warnings:**

**2020-10-15T14:26:28.786+0530 I STORAGE [initandlisten]**

**2020-10-15T14:26:28.786+0530 I STORAGE [initandlisten] \*\* WARNING:**

**Using the XFS filesystem is strongly recommended with the WiredTiger storage engine**

**2020-10-15T14:26:28.786+0530 I STORAGE [initandlisten] \*\* See** [**http://dochub.mongodb.org/core/prodnotes-filesystem**](http://dochub.mongodb.org/core/prodnotes-filesystem)

**2020-10-15T14:26:36.417+0530 I CONTROL [initandlisten]**

**2020-10-15T14:26:36.417+0530 I CONTROL [initandlisten] \*\* WARNING:**

**Access control is not enabled for the database.**

**2020-10-15T14:26:36.417+0530 I CONTROL [initandlisten] \*\* Read and write access to data and configuration is unrestricted.**

**2020-10-15T14:26:36.417+0530 I CONTROL [initandlisten]**

**>**

* **use Abhi; switched to db Abhi**
* **db.createCollection('Student');**

**{ "ok" : 1 }**

* **db.Student.insert({'Rno':'1','Name':'Piyush','Class':'TE COMP'}); WriteResult({ "nInserted" : 1 })**
* **db.Student.insert({'Rno':'2','Name':'Abhi','Class':'TE COMP'}); WriteResult({ "nInserted" : 1 })**

**>db.Student.insert({'Rno':'3','Name':'Ashley','Class':'TE COMP'}); WriteResult({ "nInserted" : 1 })**

* **db.Student.insert({'Rno':'4','Name':'Hitesh','Class':'TE COMP'}); WriteResult({ "nInserted" : 1 })**
* **db.Student.insert({'Rno':'5','Name':'Somesh','Class':'TE COMP'}); WriteResult({ "nInserted" : 1 })**
* **db.Student.insert({'Rno':'6','Name':'Somesh','Class':'TE COMP'}); WriteResult({ "nInserted" : 1 })**
* **db.Student.find();**

**{ "\_id" : ObjectId("5ba1d618f5bbacd4ad81568d"), "Rno" : "1", "Name" : "Piyush", "Class" : "TE COMP" }**

**{ "\_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2", "Name" : "Abhi", "Class" : "TE COMP" }**

**{ "\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3", "Name" : "Ashley", "Class" : "TE COMP" }**

**{ "\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4", "Name" : "Hitesh", "Class" : "TE COMP" }**

**{ "\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5", "Name" : "Somesh", "Class" : "TE COMP" }**

**{ "\_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6", "Name" : "Somesh", "Class" : "TE COMP" }**

* **db.Student.find().pretty();**

**{**

**"\_id" : ObjectId("5ba1d618f5bbacd4ad81568d"), "Rno" : "1",**

**"Name" : "Piyush",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2","Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.update({'Name':'Hitesh'},{$set: {'Name':'Henry'}}); WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1})**
* **db.Student.find().pretty();**

**{**

**"\_id" : ObjectId("5b8fad4ef00832a0a50b5036"), "Rno" : "1",**

**"Name" : "Piyush",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad62f00832a0a50b5037"), "Rno" : "2",**

**"Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad70f00832a0a50b5038"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad7ff00832a0a50b5039"), "Rno" : "4",**

**"Name" : "Henry",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad8df00832a0a50b503a"),**

**"Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fada4f00832a0a50b503b"),"Rno" : "6", "Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.remove({'ADD':'MP'}); WriteResult({ "nRemoved" : 1 })**
* **db.Student.find().pretty();**

**{**

**"\_id" : ObjectId("5b8fad62f00832a0a50b5037"), "Rno" : "2",**

**"Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad70f00832a0a50b5038"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad7ff00832a0a50b5039"), "Rno" : "4",**

**"Name" : "Henry",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad8df00832a0a50b503a"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**{"\_id" : ObjectId("5b8fada4f00832a0a50b503b"), "Rno" : "6",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**>db.Student.save({\_id:ObjectId("5b8fad4ef00832a0a50b5036"),"RNO ":"1","NAME":"PIYUSH","CLASS":"TE COMP","ADD":"MP"});**

**WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1})**

* **db.Student.find().pretty();**

**{**

**"\_id" : ObjectId("5b8fad4ef00832a0a50b5036"), "RNO" : "1",**

**"NAME" : "PIYUSH",**

**"CLASS" : "TE COMP",**

**"ADD" : "MP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad62f00832a0a50b5037"), "Rno" : "2",**

**"Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad70f00832a0a50b5038"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad7ff00832a0a50b5039"), "Rno" : "4","Name" : "Henry",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fad8df00832a0a50b503a"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5b8fada4f00832a0a50b503b"), "Rno" : "6",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find({$and:[{"Name":"Piyush"},{"Rno":"2"}]});**
* **db.Student.find({$and:[{"Name":"Piyush"},**

**{"Rno":"1"}]}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d618f5bbacd4ad81568d"), "Rno" : "1",**

**"Name" : "Piyush",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find({$and:[{"Name":"Piyush"},{"Rno":"2"}]}).pretty();**
* **db.Student.find({$or:[{"Name":"Piyush"},{"Rno":"2"}]}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d618f5bbacd4ad81568d"), "Rno" : "1",**

**"Name" : "Piyush","Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2",**

**"Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find({$or:[{"Name":"Piyush"},{"Class":"TE COMP"}]}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d618f5bbacd4ad81568d"), "Rno" : "1",**

**"Name" : "Piyush",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2",**

**"Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh","Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find({$nor:[{"Name":"Piyush"},{"Class":"TE COMP"}]}).pretty();**
* **db.Student.find({$nor:[{"Name":"Piyush"},**

**{"Rno":"2"}]}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),"Rno" : "5", "Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**db.Student.find( {"Rno": { $not:{$lt:"3"}}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),**

**"Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6","Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $eq:"5"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $ne:"5"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d618f5bbacd4ad81568d"), "Rno" : "1",**

**"Name" : "Piyush",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2",**

**"Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"),**

**"Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4","Name" : "Hitesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $gt:"5"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $gte:"5"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $lt:"5"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d618f5bbacd4ad81568d"),"Rno" : "1", "Name" : "Piyush",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2",**

**"Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $lte:"5"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d618f5bbacd4ad81568d"), "Rno" : "1",**

**"Name" : "Piyush",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2","Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $lt:"5",$gt:"2"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh","Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $lte:"5",$gte:"2"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2",**

**"Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $lte:"5",$gt:"2"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",**

**"Name" : "Ashley","Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d65ef5bbacd4ad815691"), "Rno" : "5",**

**"Name" : "Somesh",**

**"Class" : "TE COMP"**

**}**

* **db.Student.find( {"Rno": { $lt:"5",$gte:"2"}}).pretty();**

**{**

**"\_id" : ObjectId("5ba1d625f5bbacd4ad81568e"), "Rno" : "2",**

**"Name" : "Abhi",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d63af5bbacd4ad81568f"), "Rno" : "3",**

**"Name" : "Ashley",**

**"Class" : "TE COMP"**

**}**

**{**

**"\_id" : ObjectId("5ba1d647f5bbacd4ad815690"), "Rno" : "4",**

**"Name" : "Hitesh",**

**"Class" : "TE COMP"}**