

## **Group B : Lab Assignment no. 10**

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

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```
dipti@dipti-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
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':'Pratik','Class':'TE COMP'});
WriteResult({ "nInserted" : 1 })

> db.Student.insert({'Rno':'6','Name':'Pratik','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" : "Pratik", "Class" : "TE COMP" }
{ "_id" : ObjectId("5ba1d66df5bbacd4ad815692"), "Rno" : "6",
  "Name" : "Pratik", "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" : "Pratik",
  "Class" : "TE COMP"
}
{
  "_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
  "Rno" : "6",
  "Name" : "Pratik",
  "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" : "Pratik",
"Class" : "TE COMP"
}
{
"_id" : ObjectId("5b8fada4f00832a0a50b503b"), "Rno" : "6",
"Name" : "Pratik",
"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" : "Pratik",
  "Class" : "TE COMP"
}
{
  "_id" : ObjectId("5b8fada4f00832a0a50b503b"),
  "Rno" : "6",
  "Name" : "Pratik",
  "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" : "Pratik",
  "Class" : "TE COMP"
}
{
  "_id" : ObjectId("5b8fada4f00832a0a50b503b"),
  "Rno" : "6",
  "Name" : "Pratik",
  "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" : "Pratik",
"Class" : "TE COMP"
}
{
"_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
"Rno" : "6",
"Name" : "Pratik",
"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" : "Pratik",
"Class" : "TE COMP"
}
{
"_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
"Rno" : "6",
"Name" : "Pratik",
"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" : "Pratik",
"Class" : "TE COMP"
}
{
"_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
"Rno" : "6",
"Name" : "Pratik",
"Class" : "TE COMP"
}
```

```
> db.Student.find( {"Rno": { $eq:"5"} }).pretty();
{
  "_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
  "Rno" : "5",
  "Name" : "Pratik",
  "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" : "Pratik",
"Class" : "TE COMP"
}
> db.Student.find( {"Rno": { $gt:"5"} }).pretty();
{
"_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
"Rno" : "6",
"Name" : "Pratik",
"Class" : "TE COMP"
}
> db.Student.find( {"Rno": { $gte:"5"} }).pretty();
{
"_id" : ObjectId("5ba1d65ef5bbacd4ad815691"),
"Rno" : "5",
"Name" : "Pratik",
"Class" : "TE COMP"
}
{
"_id" : ObjectId("5ba1d66df5bbacd4ad815692"),
"Rno" : "6",
"Name" : "Pratik",
"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" : "Pratik",
  "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" : "Pratik",
  "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" : "Pratik",
"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"}  
 
```