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Roll no:- 55

Batch:- T4

## Group B:-Practical No. 01

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

---

```
dipti@dipti-VPCEG28FN:~$ mongo
```

```
MongoDB shell version v3.6.3
```

```
connecting to: mongod://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"}
```