

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

```
mongo> show dbs;
```

```
admin 40.00 KiB
```

```
config 72.00 KiB
```

```
local 40.00 KiB
```

```
mongo> use demo;
```

```
switched to db demo
```

//insert operation

```
demo> db.stud.insertOne({Name:'Shital',rollno:101,marks:45,age:15,class:'TE'});
```

```
{
  acknowledged: true,
  insertedId: ObjectId("67136e8081acba2f2c67c486")
}
```

```
demo> db.stud.insertOne({Name:'Priya',rollno:102,marks:55,age:21,class:'TE'});
```

```
{
  acknowledged: true,
  insertedId: ObjectId("67136eae81acba2f2c67c487")
}
```

```
demo> db.stud.insertOne({Name:'Kiran',rollno:103,marks:65,age:20,class:'TE'});
```

```
{
  acknowledged: true,
  insertedId: ObjectId("67136ece81acba2f2c67c488")
}
```

```
demo> db.stud.insertOne({Name:'Salman',rollno:104,marks:75,age:21,class:'TE'});
```

```
{
  acknowledged: true,
  insertedId: ObjectId("67136ef281acba2f2c67c489")
}
```

//find operation

```
demo> db.stud.find().pretty();
```

```
[
  {
    _id: ObjectId("67136e8081acba2f2c67c486"),
    Name: 'Shital',
    rollno: 101,
    marks: 45,
    age: 15,
    class: 'TE'
  },
  {
    _id: ObjectId("67136eae81acba2f2c67c487"),
    Name: 'Priya',
    rollno: 102,
    marks: 55,
    age: 21,
    class: 'TE'
  },
  {
    _id: ObjectId("67136ece81acba2f2c67c488"),
    Name: 'Kiran',
    rollno: 103,
    marks: 65,
    age: 20,
    class: 'TE'
  },
  {
    _id: ObjectId("67136ef281acba2f2c67c489"),
    Name: 'Salman',
    rollno: 104,
    marks: 75,
```

```
    age: 21,  
    class: 'TE'  
  }  
]
```

//Shows all documents whose rollno>103

```
demo> db.stud.find({rollno:{>103}});  
  
[  
  {  
    _id: ObjectId("67136ef281acba2f2c67c489"),  
    Name: 'Salman',  
    rollno: 104,  
    marks: 75,  
    age: 21,  
    class: 'TE'  
  }  
]
```

//Shows all documents whose rno<103

```
demo> db.stud.find({rollno:{<103}});  
  
[  
  {  
    _id: ObjectId("67136e8081acba2f2c67c486"),  
    Name: 'Shital',  
    rollno: 101,  
    marks: 45,  
    age: 15,  
    class: 'TE'  
  },  
  {  
    _id: ObjectId("67136eae81acba2f2c67c487"),  
    Name: 'Priya',
```

```
rollno: 102,  
marks: 55,  
age: 21,  
class: 'TE'  
}  
]
```

//Shows all documents whose rollno greater than 101 and less than 104

```
demo> db.stud.find({rollno:{$gt:101,$lt:104}});  
  
[  
  {  
    _id: ObjectId("67136eae81acba2f2c67c487"),  
    Name: 'Priya',  
    rollno: 102,  
    marks: 55,  
    age: 21,  
    class: 'TE'  
  },  
  {  
    _id: ObjectId("67136ece81acba2f2c67c488"),  
    Name: 'Kiran',  
    rollno: 103,  
    marks: 65,  
    age: 20,  
    class: 'TE'  
  }  
]
```

//Sort on marks field in Descending order(-1)

```
demo> db.stud.find().sort({marks:-1});  
  
[  
  {
```

```
_id: ObjectId("67136ef281acba2f2c67c489"),
Name: 'Salman',
rollno: 104,
marks: 75,
age: 21,
class: 'TE'
},
{
  _id: ObjectId("67136ece81acba2f2c67c488"),
  Name: 'Kiran',
  rollno: 103,
  marks: 65,
  age: 20,
  class: 'TE'
},
{
  _id: ObjectId("67136eae81acba2f2c67c487"),
  Name: 'Priya',
  rollno: 102,
  marks: 55,
  age: 21,
  class: 'TE'
},
{
  _id: ObjectId("67136e8081acba2f2c67c486"),
  Name: 'Shital',
  rollno: 101,
  marks: 45,
  age: 15,
  class: 'TE'
}
```

```
]
```

//Returns no of documents in the collection

```
demo> db.stud.find().count();
```

```
4
```

//Returns only first 2 documents

```
demo> db.stud.find().limit(2);
```

```
[
  {
    _id: ObjectId("67136e8081acba2f2c67c486"),
    Name: 'Shital',
    rollno: 101,
    marks: 45,
    age: 15,
    class: 'TE'
  },
  {
    _id: ObjectId("67136eae81acba2f2c67c487"),
    Name: 'Priya',
    rollno: 102,
    marks: 55,
    age: 21,
    class: 'TE'
  }
]
```

//Returns all documents except first 3 documents

```
demo> db.stud.find().skip(3);
```

```
[
  {
```

```
_id: ObjectId("67136ef281acba2f2c67c489"),
Name: 'Salman',
rollno: 104,
marks: 75,
age: 21,
class: 'TE'
}
]
```

//> Set age = 20 where rollno is 101, Only the age field of one document is updated where condition is matched .

```
demo> db.stud.updateOne({rollno:101},{set:{age:20}}) ;
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

// Set age = 20 where name is "Priya", Only the age field of one document is updated where condition is matched .

```
demo> db.stud.updateOne({name:'Priya'},{$set:{age:20}}) ;
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}
```

//find operation:Shows all the documents

```
demo> db.stud.find();
```

```
[  
  {  
    _id: ObjectId("67136e8081acba2f2c67c486"),  
    Name: 'Shital',  
    rollno: 101,  
    marks: 45,  
    age: 20,  
    class: 'TE'  
  },  
  {  
    _id: ObjectId("67136eae81acba2f2c67c487"),  
    Name: 'Priya',  
    rollno: 102,  
    marks: 55,  
    age: 21,  
    class: 'TE'  
  },  
  {  
    _id: ObjectId("67136ece81acba2f2c67c488"),  
    Name: 'Kiran',  
    rollno: 103,  
    marks: 65,  
    age: 20,  
    class: 'TE'  
  },  
  {  
    _id: ObjectId("67136ef281acba2f2c67c489"),  
    Name: 'Salman',  
    rollno: 104,  
    marks: 75,
```



```
    age: 21,  
    class: 'TE'  
  }  
]
```

//delete operation:Delete the document where roll no is 104

```
demo> db.stud.deleteOne({rollno:104});  
{ acknowledged: true, deletedCount: 1 }  
demo> db.stud.find();  
[  
  {  
    _id: ObjectId("67136e8081acba2f2c67c486"),  
    Name: 'Shital',  
    rollno: 101,  
    marks: 45,  
    age: 20,  
    class: 'TE'  
  },  
  {  
    _id: ObjectId("67136eae81acba2f2c67c487"),  
    Name: 'Priya',  
    rollno: 102,  
    marks: 55,  
    age: 21,  
    class: 'TE'  
  },  
  {  
    _id: ObjectId("67136ece81acba2f2c67c488"),  
    Name: 'Kiran',  
    rollno: 103,  
    marks: 65,
```

```
    age: 20,  
    class: 'TE'  
  }  
]
```