

## LAB ASSIGNMENT-6 NOSQL

Create a database named college and then create a collection named studlist. Insert some values into it [You can use the data in test.json file]. Write a MongoDB Query to:

### 1. Display name (both fname and lname) and mark of all female students in MCA department

```
> db.studlist.find({gender:"female",dept:"MCA"},{name:1,mark:1,_id:0})
```

```
{ "name" : { "fname" : "Lakshmin", "lname" : "Vinod" }, "mark" : 97 }
```

```
{ "name" : { "fname" : "Ancy", "lname" : "John" }, "mark" : 88 }
```

### 2. Display the details of student who secured highest mark in the course MCA

```
> db.studlist.find({dept:"MCA"},{_id:0}).sort({mark:-1}).limit(1)
```

```
{ "name" : { "fname" : "Vineeth", "lname" : "Krishna" }, "gender" : "male", "contact" : {  
"place" : "Kallumthazam", "district" : "Kollam" }, "dept" : "MCA", "mark" : 98, "grade" :  
"A+" }
```

### 3. Display all male students who secured A+ grade.

```
> db.studlist.find({gender:"male",grade:"A+"},{name:1,grade:1,_id:0,mark:1,dept:1})
```

```
{ "name" : { "fname" : "Vineeth", "lname" : "Krishna" }, "dept" : "MCA", "mark" : 98,  
"grade" : "A+" }
```

```
{ "name" : { "fname" : "Sudeesh", "lname" : "MS" }, "dept" : "MCA", "mark" : 90, "grade" :  
"A+" }
```

### 4. Display the names of the top three students in Mechanical department.

```
> db.studlist.find({dept:"Mech"},{_id:0}).sort({mark:-1}).limit(3)
```

```
{ "name" : { "fname" : "Keerthi", "lname" : "Nandana" }, "gender" : "female", "contact" : {  
"place" : "Chinnakada", "district" : "Kollam" }, "dept" : "Mech", "mark" : 96, "grade" : "A+"  
}
```

```
{ "name" : { "fname" : "Nancy", "lname" : "Shaji" }, "gender" : "female", "contact" : {  
"place" : "edukki", "district" : "Edukki" }, "dept" : "Mech", "mark" : 94, "grade" : "A+" }
```

```
{ "name" : { "fname" : "Riya", "lname" : "Sara" }, "gender" : "female", "contact" : { "place" :  
"Karicode", "district" : "Kollam" }, "dept" : "Mech", "mark" : 88, "grade" : "A" }
```

**5. Display the details of female students [fname,lname,grade,mark,contact] who achieved a mark more than 90.**

```
> db.studlist.find({mark:{$gt:90}},{name:1,grade:1,mark:1,contact:1,_id:0})

{ "name" : { "fname" : "Vineeth", "lname" : "Krishna" }, "contact" : { "place" : "Kallumthazam", "district" : "Kollam" }, "mark" : 98, "grade" : "A+" }

{ "name" : { "fname" : "Lakshmin", "lname" : "Vinod" }, "contact" : { "place" : "tvm", "district" : "Tvm" }, "mark" : 97, "grade" : "A+" }

{ "name" : { "fname" : "Keerthi", "lname" : "Nandana" }, "contact" : { "place" : "Chinnakada", "district" : "Kollam" }, "mark" : 96, "grade" : "A+" }

{ "name" : { "fname" : "Nancy", "lname" : "Shaji" }, "contact" : { "place" : "edukki", "district" : "Edukki" }, "mark" : 94, "grade" : "A+" }
```

**6. Display the details of students who secured mark, more than 80 but less than 90.**

```
> db.studlist.find({mark:{$lt:90,$gt:80}},{name:1,grade:1,mark:1,contact:1,_id:0})

{ "name" : { "fname" : "Riya", "lname" : "Sara" }, "contact" : { "place" : "Karicode", "district" : "Kollam" }, "mark" : 88, "grade" : "A" }

{ "name" : { "fname" : "Ancy", "lname" : "John" }, "contact" : { "place" : "ktm", "district" : "Kottayam" }, "mark" : 88, "grade" : "A" }
```

**7. Display the details of students whose name starts with 'V'**

```
> db.studlist.find({'name.fname':{$regex:/^V/}},{_id:0})

{ "name" : [ { "fname" : "Vineeth", "lname" : "Krishna" } ], "gender" : "male", "contact" : { "place" : "Kallumthazam", "district" : "Kollam" }, "dept" : "MCA", "mark" : 98, "grade" : "A+" }
```

**8. Display all students from Kollam**

```
> db.studlist.find({'contact.district':"Kollam"},{name:1,'contact.district':1,_id:0})

{ "name" : [ { "fname" : "Riya", "lname" : "Sara" } ], "contact" : { "district" : "Kollam" } }

{ "name" : [ { "fname" : "Vineeth", "lname" : "Krishna" } ], "contact" : { "district" : "Kollam" } }

{ "name" : [ { "fname" : "Keerthi", "lname" : "Nandana" } ], "contact" : { "district" : "Kollam" } }
```

**9. Display all students who does not belong to neither Kollam nor Thiruvananthapuram**

>

```
db.studlist.find({$nor:[{"contact.district":"Kollam"}, {"contact.district":"Tvm"}]}, {_id:0})
```

```
{ "name" : [ { "fname" : "Sudeesh", "lname" : "MS" } ], "gender" : "male", "contact" : {  
  "place" : "Thiruvalla", "district" : "Pathanamthitta" }, "dept" : "MCA", "mark" : 90, "grade" :  
  "A+" }
```

```
{ "name" : [ { "fname" : "Ancy", "lname" : "John" } ], "gender" : "female", "contact" : {  
  "place" : "ktm", "district" : "Kottayam" }, "dept" : "MCA", "mark" : 88, "grade" : "A" }
```

```
{ "gender" : "female", "contact" : { "place" : "edukki", "district" : "Edukki" }, "dept" :  
  "Mech", "mark" : 94, "grade" : "A+", "name" : [ { "fname" : "Nancy", "lname" : "Shaji" } ] }
```

#### 10. Display all female students who belong to either Kollam or Thiruvananthapuram

>

```
db.studlist.find({$or:[{"contact.district":"Kollam"}, {"contact.district":"Tvm"}]}, {_id:0})
```

```
{ "name" : [ { "fname" : "Riya", "lname" : "Sara" } ], "gender" : "female", "contact" : {  
  "place" : "Karicode", "district" : "Kollam" }, "dept" : "Mech", "mark" : 88, "grade" : "A" }
```

```
{ "name" : [ { "fname" : "Vineeth", "lname" : "Krishna" } ], "gender" : "male", "contact" : {  
  "place" : "Kallumthazam", "district" : "Kollam" }, "dept" : "MCA", "mark" : 98, "grade" :  
  "A+" }
```

```
{ "name" : [ { "fname" : "Lakshmi", "lname" : "Vinod" } ], "gender" : "female", "contact" : {  
  "place" : "tvm", "district" : "Tvm" }, "dept" : "MCA", "mark" : 97, "grade" : "A+" }
```

```
{ "name" : [ { "fname" : "Keerthi", "lname" : "Nandana" } ], "gender" : "female", "contact" :  
  { "place" : "Chinnakada", "district" : "Kollam" }, "dept" : "Mech", "mark" : 96, "grade" :  
  "A+" }
```