

BDA LAB 3  
1BM19CS085

1)

1.1

>use Faculty

> db.createCollection("faculty")

1.2

> db.faculty.insert({\_id:1,name:"abc",designation:"assistant  
prof",department:"mech",age:31,salary:90000,specialization:['python','mysql','autocad']});

1.3

> db.faculty.aggregate ( {\$match:{department:"mech"}}, {\$group : {\_id : "\$designation",  
AverageSal :{\$avg:"\$salary"} } }, {\$match:{AverageSal:{\$gt:50000}}});

{ "\_id" : " associate prof", "AverageSal" : 85000 }

{ "\_id" : "assistant prof", "AverageSal" : 70000 }

2)

> use Products

switched to db Products

> db.createCollection("product");

{ "ok" : 1 }

> db.product.insert({pid:1,pname:"keyboard",mdate:2001,price:1800,quantity:2});

WriteResult({ "nInserted" : 1 })

2.1

> db.product.find({}, {pname:1,\_id:0})

{ "pname" : "keyboard" }

{ "pname" : "mouse" }

{ "pname" : "motherboard" }

2.2

> db.product.find({pid:1},{pid:1,\_id:0,mdate:1,quantity:1});

{ "pid" : 1, "mdate" : 2001, "quantity" : 2 }

2.3

> db.product.find({price:{\$ne:45000}},{pname:1,\_id:0});

{ "pname" : "keyboard" }

{ "pname" : "mouse" }

{ "pname" : "motherboard" }

2.4

> db.product.find({\$and:[{quantity:{\$eq:30}},{pname:{\$eq:"LED TV"}}]},{pname:1,\_id:0})

```
{ "pname" : "LED TV" }
```

2.5

```
> db.product.find({pname:/d$/},{pname:1,quantity:1,_id:0})
```

```
{ "pname" : "keyboard", "quantity" : 2 }
```

```
{ "pname" : "motherboard", "quantity" : 150 }
```

3

3.1

```
> use Hospital
```

switched to db Hospital

```
> db.createCollection("hospital");
```

```
{ "ok" : 1 }
```

```
> db.hospital.insert({_id:1,name:"xyz",diseases:["diabetes","high bp","fever"]});
```

```
WriteResult({ "nInserted" : 1 })
```

3.2.1

```
> db.hospital.updateMany({},{$pull:{diseases:"fever"}});
```

```
{ "acknowledged" : true, "matchedCount" : 3, "modifiedCount" : 2 }
```

3.2.2

```
> db.hospital.updateOne({_id:1},{$pop:{diseases:-1}});
```

```
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
```

3.3

```
> db.hospital.find({"diseases.2":"nausea"});
```

```
{ "_id" : 3, "name" : "mno", "diseases" : [ "covid", "sarscov", "nausea" ] }
```

3.4

```
> db.hospital.find({}).count();
```

```
3
```

```
> db.hospital.find({}).limit(2);
```

```
{ "_id" : 1, "name" : "xyz", "diseases" : [ "high bp" ] }
```

```
{ "_id" : 2, "name" : "abc", "diseases" : [ "typhoid", "cholera" ] }
```

```
> db.hospital.find({}).size();
```

```
3
```

3.5

```
> db.hospital.update({_id:3},{$set:{'diseases.1':'sarscov'}});
```

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

