

## 1) Create a Database called student

```
> use student
switched to db student
>
```

## 2) Create a collection called studentmark

```
> db.studentmarks
student.studentmarks
```

3) Create the documents listed in above table.

```
> db.studentmarks.insert({name:"mala",maths_marks:45,english_marks:53,science_marks:75})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"kala",maths_marks:32,english_marks:46,science_marks:53})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"vanu",maths_marks:80,english_marks:75,science_marks:85})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"aruli",maths_marks:78,english_marks:85,science_marks:80})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"sayu",maths_marks:80,english_marks:76,science_marks:65})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"kumaran",maths_marks:32,english_marks:73,science_marks:84})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"lucky",maths_marks:66,english_marks:90,science_marks:45})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"gva",maths_marks:71,english_marks:75,science_marks:56})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"Raam",maths_marks:41,english_marks:65,science_marks:88})
WriteResult({ "nInserted" : 1 })

> db.studentmarks.find().pretty()
{
  "_id" : ObjectId("5925549ba1ccbf72260741b4"),
  "name" : "mala",
  "maths_marks" : 45,
  "english_marks" : 53,
  "science_marks" : 75
}
{
  "_id" : ObjectId("592554dba1ccbf72260741b5"),
  "name" : "kala",
  "maths_marks" : 32,
  "english_marks" : 46,
  "science_marks" : 53
}
{
  "_id" : ObjectId("5925554da1ccbf72260741b6"),
  "name" : "vanu",
  "maths_marks" : 80,
  "english_marks" : 75,
```

```

    "science_marks" : 85
  }
  {
    "_id" : ObjectId("59255567a1ccbf72260741b7"),
    "name" : "aruli",
    "maths_marks" : 78,
    "english_marks" : 85,
    "science_marks" : 80
  }
  {
    "_id" : ObjectId("59255585a1ccbf72260741b8"),
    "name" : "sayu",
    "maths_marks" : 80,
    "english_marks" : 76,
    "science_marks" : 65
  }
  {
    "_id" : ObjectId("592555a3a1ccbf72260741b9"),
    "name" : "kumaran",
    "maths_marks" : 32,
    "english_marks" : 73,
    "science_marks" : 84
  }
  {
    "_id" : ObjectId("592555caa1ccbf72260741ba"),
    "name" : "lucky",
    "maths_marks" : 66,
    "english_marks" : 90,
    "science_marks" : 45
  }
  {
    "_id" : ObjectId("592555eca1ccbf72260741bb"),
    "name" : "gva",
    "maths_marks" : 71,
    "english_marks" : 75,
    "science_marks" : 56
  }
  {
    "_id" : ObjectId("5925560da1ccbf72260741bc"),
    "name" : "Raam",
    "maths_marks" : 41,
    "english_marks" : 65,
    "science_marks" : 88
  }
}
>

```

) Increase the maths marks of Mala by 6 marks

```

> db.studentmarks.update({"name":"mala"},{$set:{"maths_marks":"51"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })

```

5) List the names of students who got more than 50 marks in Maths Subject

```
> db.studentmarks.find({"maths_marks":{"$gt:50}})
{ "_id" : ObjectId("5925554da1ccbf72260741b6"), "name" : "vanu", "maths_marks" : 80,
"english_marks" : 75, "science_marks" : 85 }
{ "_id" : ObjectId("59255567a1ccbf72260741b7"), "name" : "aruli", "maths_marks" : 78,
"english_marks" : 85, "science_marks" : 80 }
{ "_id" : ObjectId("59255585a1ccbf72260741b8"), "name" : "sayu", "maths_marks" : 80,
"english_marks" : 76, "science_marks" : 65 }
{ "_id" : ObjectId("592555caa1ccbf72260741ba"), "name" : "lucky", "maths_marks" : 66,
"english_marks" : 90, "science_marks" : 45 }
{ "_id" : ObjectId("592555eca1ccbf72260741bb"), "name" : "gva", "maths_marks" : 71,
"english_marks" : 75, "science_marks" : 56 }
>
```

6) Add a new column(field) for Average for all students.

```
> db.studentmarks.update({},{$set:{"average":""}},{$upsert:false,multi:true})
WriteResult({ "nMatched" : 9, "nUpserted" : 0, "nModified" : 9 })
```

7) Update Marks\_Science=75 to Lucky .

```
> db.studentmarks.update({"name":"lucky"},{$rename:
{"science_marks":"Marks_science"}},false,true)
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

8) List the names who got more than 50 marks in all subjects

```
> db.studentmarks.find({$or:[{"maths_marks":{"$gt:50}},{"science_marks":{"$gt:50}},
{"english_marks":{"$gt:50}}]},{$name:1,_id:0}).pretty()
{ "name" : "mala" }
{ "name" : "kala" }
{ "name" : "vanu" }
{ "name" : "aruli" }
{ "name" : "sayu" }
{ "name" : "kumaran" }
{ "name" : "lucky" }
{ "name" : "gva" }
{ "name" : "Raam" }
```

9) List the names who got less than 50 marks in Maths subject and more than 50 marks in English

```
> db.studentmarks.find({$or:[{"maths_marks":{"$gt:50}},{"english_marks":{"$lt:50}}]},
{name:1,_id:0}).pretty()
{ "name" : "kala" }
{ "name" : "vanu" }
{ "name" : "aruli" }
{ "name" : "sayu" }
{ "name" : "lucky" }
{ "name" : "gva" }
```

10) List the names who got less than 40 in both Maths and Science.

```
> db.studentmarks.find({$or:[{"maths_marks":{"$lt:40}},{"science_marks":{"$lt:40}}]},
{name:1,_id:0}).pretty()
{ "name" : "kala" }
{ "name" : "kumaran" }
>
```

11) Remove Science column/field for Raam

```
> db.studentmarks.remove({"name":"Raam"},{"science_marks":88})
WriteResult({ "nRemoved" : 1 })
```

12) Update John's Math mark as 87 and English mark as 23, if john not available upsert.

```
> db.studentmarks.insert({name:"John",maths_marks:87,english_marks:23})
WriteResult({ "nInserted" : 1 })
```

13) Rename the english\_marks column/field for John to science\_marks

```
> db.studentmarks.update({"name":"John"},{$rename:
{"english_marks":"science_marks"}},false,true)
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

```
    "_id" : ObjectId("59269f2a6e3ecf0eeaa97f00"),
    "name" : "John",
    "maths_marks" : 87,
    "science_marks" : 23
}
>
```

14) Remove Kumaran's document from collection

```
}
> db.studentmarks.remove({"name":"kumaran"},{})
WriteResult({ "nRemoved" : 1 })
```

15) Find Kala's or Aruli's math\_marks and science\_mark