

## **1. Create a Database called the student**

```
> show dbs
admin    0.000GB
config   0.000GB
local    0.000GB
music    0.000GB
student  0.000GB
> use student
switched to db student
```

## **2. Create a collection called student marks**

```
> db.createCollection("studentsmarks")
{
    "ok" : 0
```

## **3. Create the documents listed in the above table.**

```
> db.studentsmarks.insert([{"name": "Mala", "maths_marks": 45, "english_marks": 53, "science_marks": 72}, {"name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85}, {"name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53}, {"name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80}, {"name": "Shaya", "maths_marks": 80, "english_marks": 76, "science_marks": 65}, {"name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84}, {"name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45}, {"name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56}, {"name": "Raam", "maths_marks": 41, "english_marks": 65, "science_marks": 88}])
BulkWriteResult({
    "writeErrors" : [ ],
    "writeConcernErrors" : [ ],
    "nInserted" : 9,
    "nUpserted" : 0,
    "nMatched" : 0,
    "nModified" : 0,
    "nRemoved" : 0,
    "upserted" : [ ]
})
```

#### **4. Increase the maths marks of Mala by 6 marks**

```
2019-08-18T09:59:51.994+05:30 E QUERY    [js] SyntaxError: missing . after property id @shett.1.7.5
> db.studentsmarks.update({"name":"Mala"},{$inc:{"maths_marks":6}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

#### **5. List the names of students who got more than 50 marks in Maths Subject.**

```
}
```

```
> db.studentsmarks.find({maths_marks:{$gt:50}}).pretty()
```

```
{
```

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

```
> db.studentsmarks.aggregate({$addFields:{average:{$avg:["$maths_marks","$english_marks","$science_marks"]}}})
[{"_id": ObjectId("5d0867bda6a86d21adb2b50a"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72, "responded": false, "average": 51}, {"_id": ObjectId("5d0867bda6a86d21adb2b50b"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "responded": false, "average": 80}, {"_id": ObjectId("5d0867bda6a86d21adb2b50c"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53, "responded": false, "average": 32}, {"_id": ObjectId("5d0867bda6a86d21adb2b50d"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "responded": false, "average": 78}, {"_id": ObjectId("5d0867bda6a86d21adb2b50e"), "name": "Shaya", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "responded": false, "average": 80}, {"_id": ObjectId("5d0867bda6a86d21adb2b510"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "responded": false, "average": 66}, {"_id": ObjectId("5d0867bda6a86d21adb2b511"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "responded": false, "average": 71}, {"_id": ObjectId("5d0867bda6a86d21adb2b512"), "name": "Raam", "maths_marks": 41, "english_marks": 65, "responded": false, "average": 41}, {"_id": ObjectId("5d087c60ffc0712e3dd2124b"), "name": "Jhon", "maths_marks": 87, "science_marks": 23, "responded": false, "average": 87}]
```

#### **7. Update Marks\_Science=75 to Lucky.**

```
J
> db.studentsmarks.update({science_marks:45},{$set:{name:"Lucky",maths_marks:66,english_marks:90,science_marks:75}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentsmarks.find().pretty()
{
```

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

```
}
```

```
> db.studentsmarks.find({maths_marks:{$gt:50},science_marks:{$gt:50},english_marks:{$gt:50}}).pretty()
```

```
{
```

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

```
}
```

```
> db.studentsmarks.find({maths_marks:{$gt:50},english_marks:{$gt:50}}).pretty()
```

```
{
```

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

```
}
```

```
> db.studentsmarks.find({maths_marks:{$lt:40},science_marks:{$lt:40}}).pretty()
```

```
> db.studentsmarks.update({"_id":ObjectId("5d0867bda6a86d21adb2b512")},{$unset:{science_mark:
```

**11. Remove Science column/field for Raam.**

```
> db.studentsmarks.update({"_id":ObjectId("5d0867bda6a86d21adb2b512")},{$unset:{science_marks:1}},false,true)
```

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

```
the student's science mark
```

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

```
> db.studentsmarks.update({name:"Jhon"},{$set:{maths_marks:87,english_marks:23}},{upsert:true})
WriteResult({
    "nMatched" : 0,
    "nUpserted" : 1,
    "nModified" : 0,
    "_id" : ObjectId("5d087c60ffc0712e3dd2124b")
})
```

### 13. Rename the `english_marks` column/field for John to `science_marks`

```
}
```

```
> db.studentsmarks.update({"_id" : ObjectId("5d087c60ffc0712e3dd2124b")},{$rename:{"english_marks":"science_marks"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentsmarks.find().pretty()
{
```

### 14. Remove Kumaran's document from the collection

```
}
```

```
> db.studentsmarks.remove({"_id" : ObjectId("5d0867bda6a86d21adb2b50f")})
WriteResult({ "nRemoved" : 1 })
{
```

### 15. Find Kala's or Aruli's `math_marks` and `science_marks`

```
> db.studentsmarks.find({"_id" : ObjectId("5d0867bda6a86d21adb2b50d")}, {"maths_marks":1,"science_marks":1}).pretty()
{
    "_id" : ObjectId("5d0867bda6a86d21adb2b50d"),
    "maths_marks" : 78,
    "science_marks" : 80
}
```

