

Create a Database called student

```
use Student1  
switched to db Student1
```

Create a collection called studentmarks

```
db.createCollection("Studentmarks")  
{"ok" : 1 }
```

Create the documents listed in above table.

```
db.StudentMarks.find().pretty()  
  
  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd4d"),  
  "name" : "mala",  
  "maths_marks" : 45,  
  "english_marks" : 53,  
  "science_marks" : 72  
  
  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd4e"),  
  "name" : "vanu",  
  "maths_marks" : 80,  
  "english_marks" : 75,  
  "science_marks" : 85  
  
  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd4f"),  
  "name" : "kala",  
  "maths_marks" : 32,  
  "english_marks" : 46,  
  "science_marks" : 53  
  
  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd50"),  
  "name" : "aruli",  
  "maths_marks" : 78,  
  "english_marks" : 85,  
  "science_marks" : 80  
  
  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd51"),  
  "name" : "shayu",  
  "maths_marks" : 80,  
  "english_marks" : 76,  
  "science_marks" : 65  
  
  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd52"),  
  "name" : "kumaran",  
  "maths_marks" : 32,
```

Increase the maths marks of Mala by 6 marks

```

db.studentmarks.update({"name":"mala"},{$inc:{"maths_marks":6}})
iteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
db.studentmarks.find().pretty()

  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd4d"),
  "name" : "mala",
  "maths_marks" : 51,
  "english_marks" : 53,
  "science_marks" : 72

```

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

```

db.studentmarks.update({"name":"mala"},{$inc:{"maths_marks":6}})
iteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
db.studentmarks.find().pretty()

  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd4d"),
  "name" : "mala",
  "maths_marks" : 51,
  "english_marks" : 53,
  "science_marks" : 72

```

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

```

b.studentmarks.aggregate({$addFields:{"avarage":null}}).pretty()

  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd4d"),
  "name" : "mala",
  "maths_marks" : 57,
  "english_marks" : 53,
  "science_marks" : 72,
  "avarage" : null

  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd4e"),
  "name" : "vanu",
  "maths_marks" : 80,
  "english_marks" : 75,
  "science_marks" : 85,
  "avarage" : null

```

Update Marks\_Science=75 to Lucky .

```

  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd53"),
  "name" : "lucky",
  "maths_marks" : 66,
  "english_marks" : 90,
  "science_marks" : 75

```

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

```
> db.studentmarks.find({$and:[{"maths_marks":{$lt:40}},{"english_marks":{$gt: 40}}]}).pretty()
{
  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd4f"),
  "name" : "kala",
  "maths_marks" : 32,
  "english_marks" : 46,
  "science_marks" : 53
}
{
  "_id" : ObjectId("5b3f0fa74bd7f078d40fcd52"),
  "name" : "kumaran",
  "maths_marks" : 32,
  "english_marks" : 73,
  "science_marks" : 84
}
{
  "_id" : ObjectId("5b443ec1761ce941518a4858"),
  "name" : "kala",
  "maths_marks" : 32,
  "english_marks" : 46,
  "science_marks" : 53
}
{
  "_id" : ObjectId("5b443ec1761ce941518a485b"),
  "name" : "kumaran",
  "maths_marks" : 32,
  "english_marks" : 73,
  "science_marks" : 84
}
```

Remove Science column/field for Raam

```
> db.studentmarks.update({"name":"raam"},{$unset:{"science_marks":""}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
>
```

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

```
> db.collection.insert({"name":"jhon","maths_marks":87,"english_marks":23},{upsert:true})
WriteResult({ "nInserted" : 1 })
>
```

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

```
> db.collection.insert({"name":"jhon","maths_marks":87,"english_marks":23},{upsert:true})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.update({"name":"jhon"},{$rename:{"maths_marks":"science_marks"}})
```

Remove Kumaran's document from collection

```
> db.studentmarks.deleteMany({"name":"kumaran","maths_marks":32,"english_marks":73,"science_marks":84})
{ "acknowledged" : true, "deletedCount" : 2 }
```

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

```
db.studentmarks.find({$and:[{"maths_marks":{$lt:50}},{"english_marks":$gt:50}]}).pretty()
```