1) Create a Database called student

```
> use student
switched to db student
> db.createCollection("studentmarks")
{ "ok" : 1 }
```

2) Create a collection called studentmarks

```
> use student
switched to db student
> db.createCollection("studentmarks")
{ "ok" : 1 }
```

3) Create the documents listed in above table.

```
> db.studentmarks.insert({name:"Mala",maths_marks:45,english_marks:53,science_marks:72})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"Vanu",maths_marks:80,english_marks:75,science_marks:85})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"Kala",maths_marks:32,english_marks:46,science_marks:53})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"Aruli",maths_marks:78,english_marks:85,science_marks:80})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"Shayu",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:45,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 })
```

4) Increase the maths marks of Mala by 6 marks

```
> db.studentmarks.update({name:"Mala"},{$inc:{"maths_marks":+6}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentmarks.find().pretty()
{
        "_id" : ObjectId("5d14502adf814fd74015ba07"),
        "name" : "Mala",
        "maths_marks" : 51,
        "english_marks" : 53,
        "science_marks" : 72
}
```

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

```
> db.studentmarks.find({"maths_marks":{$gt:50}},{_id:0,english_marks:0,maths_marks:0,science_marks:0}).pretty(
{ "name" : "Mala" }
{ "name" : "Vanu" }
{ "name" : "Aruli" }
{ "name" : "Shayu" }
{ "name" : "Lucky" }
{ "name" : "Gva" }
```

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

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

7) Update Marks_Science=75 to Lucky .

```
> db.studentmarks.update({name:"Lucky"},{$set:{"science_marks":75}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

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

```
> db.studentmarks.find({$and:[{"maths_marks":{$gt:50}},{"english_marks":{$gt:50}},{"science_marks":{$gt:50}}]},{english_marks:0,science_marks:0
,maths_marks:0,_id:0}).pretty()
{ "name" : "Mala" }
{ "name" : "Vanu" }
{ "name" : "Aruli" }
{ "name" : "Shayu" }
{ "name" : "Lucky" }
{ "name" : "Gva" }
```

9) 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}}]},{_id:0,maths_marks:0,science_marks:0,english_marks:0}).pret
ty()
{ "name" : "Kumaran" }
{ "name" : "Raam" }
```

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

```
> db.studentmarks.find({$and:[{"maths_marks":{$lt:40}},{"science_marks":{$lt:40}}]},{_id:0,maths_marks:0,science_marks:0,english_marks:0}).pret
ty()
```

11) Remove Science column/field for Raam

```
> db.studentmarks.update({name:"Raam"},{$unset:{science_marks:88}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

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

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

13) Rename the english_marks column/field for John to science_marks

```
> db.studentmarks.update({_id:ObjectId("5d1491b81e36e90f6f2b1abe")},{$rename:{'english_marks':'science_marks'}},{upsert:true})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 0 })
```

14) Remove Kumaran's document from collection

```
> db.studentmarks.remove({"_id" : ObjectId("5d145245df814fd74015ba0c")})
WriteResult({ "nRemoved" : 1 })
```

15) Find Kala's or Aruli's math_marks and science_marks

```
> db.studentmarks.find({$or:[{name:"Kala"},{name:"Aruli"}]},{_id:0,english_marks:0})
{ "name" : "Kala", "maths_marks" : 32, "science_marks" : 53 }
{ "name" : "Aruli", "maths_marks" : 78, "science_marks" : 80 }
```