1.Create a Database called student

2.Create a collection called studentmarks

```
ukistu05@UKIPC05:~$ sudo mongo
[sudo] password for ukistu05:
MongoDB shell version: 3.2.18
connecting to: test
Server has startup warnings:
2017-12-23T21:24:38.415+0000 I CONTROL  [initandlisten]
2017-12-23T21:24:38.415+0000 I CONTROL  [initandlisten]
2017-12-23T21:24:38.415+0000 I CONTROL  [initandlisten]
2017-12-23T21:24:38.415+0000 I CONTROL  [initandlisten]
> use students
switched to db students
> db.createCollection('studentmarks')
{ "ok" : 1 }
>
```

3. Create the documents listed in above table.

```
> db.studentmarks.insert({name: "Mala", maths_marks: 45, english_marks: 53, scince_marks: 72})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.find()
{ "_id" : ObjectId("5a3ecf2cb4989266069202ca"), "name" : "Mala", "maths_marks" : 45, "english_marks" : 53, "scince_marks" : 72 }
> db.studentmarks.insert({name: "Vanu", maths_marks: 80, english_marks: 75, scince_marks: 85})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name: "Kala", maths_marks: 32, english_marks: 46, scince_marks: 53})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name: "Aruli", maths_marks: 78, english_marks: 85, scince_marks: 80})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name: "Shayu", maths_marks: 80, english_marks: 76, scince_marks: 65})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name: "Kumaran", maths_marks: 32, english_marks: 73, scince_marks: 84})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name: "Lucky", maths_marks: 66, english_marks: 90, scince_marks: 45})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name: "Gva", maths_marks: 71, english_marks: 75, scince_marks: 56})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name: "Raam", maths_marks: 41, english_marks: 65, scince_marks: 88})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.find().pretty()
```

4. Increase the maths marks of Mala by 6 marks

```
> db.studentmarks.update({"name": "Mala"}, {$inc:{"maths_marks": +5}})
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}}, {name:1,_id:0})
{ "name" : "Vanu" }
{ "name" : "Aruli" }
{ "name" : "Shayu" }
{ "name" : "Lucky" }
{ "name" : "Gva" }
>
```

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

7.Update Marks_Science=75 to Lucky

```
> db.studentmarks.update({"name": "Lucky"}, {$set:{"scince_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({"maths_marks":{$gt: 50},"english_marks":{$gt: 50},"scince_marks":{$gt: 50}}, {"name":1,_id:0})
{ "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({"maths_marks":{$lt: 50},"english_marks":{$gt: 50}}, {"name":1,_id:0})
{ "name" : "Kumaran" }
{ "name" : "Raam" }
>
```

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

```
> db.studentmarks.find({"maths_marks":{$lt: 40},"scince_marks":{$lt: 40}}, {"name":1,_id:0})
>
```

11.Remove Science column/field for Raam

```
> db.studentmarks.update({"name": "Raam"}, {$unset:{"scince_marks": 75}})
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({"name": "Jhon"}, {$rename:{"english_marks":"science_marks"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
>
```

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_marks

```
> db.studentmarks.find({"name": "Kala"}, {"scince_marks":1,"maths_marks":1,_id:0})
{ "maths_marks" : 32, "scince_marks" : 53 }
>
```