1) Create a Database called student

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

2) Create a collection called studentmarks

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

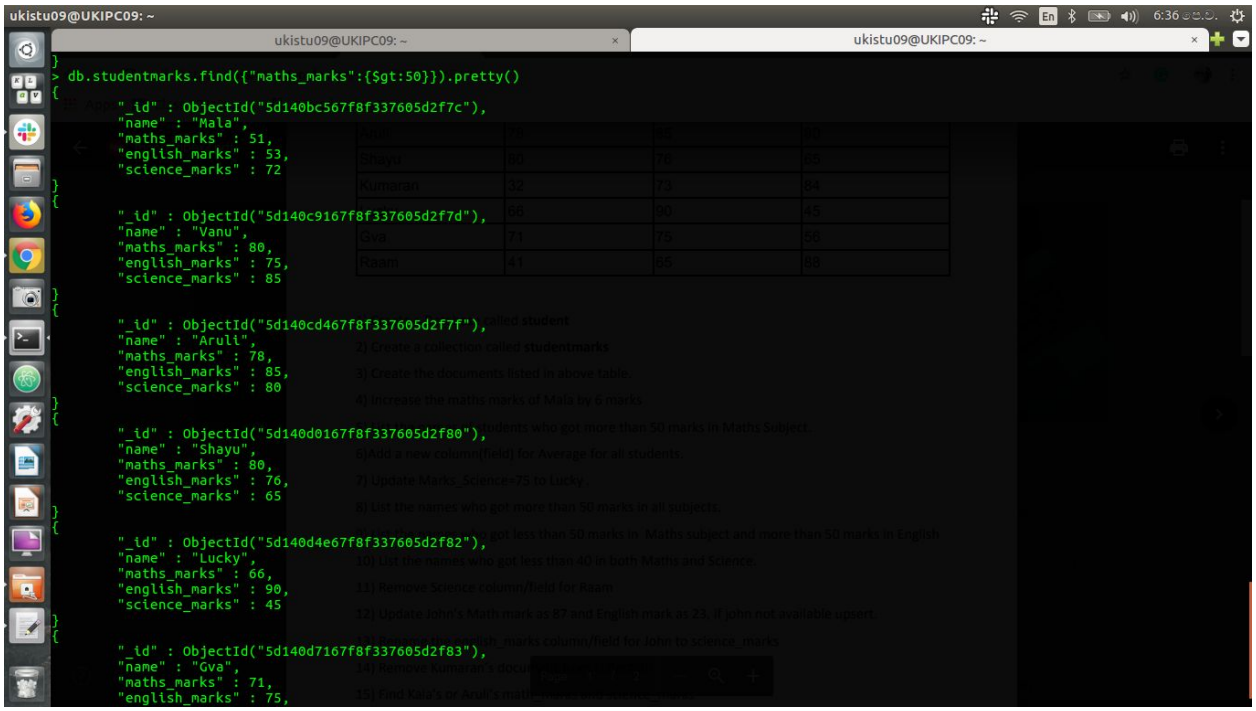
3) Create the documents listed in above table.

```
> db.studentmarks.insert({name:"Mala",maths_marks:45,english_marks:53,science_
marks:72})
WriteResult({ "nInserted" : 1 })
```

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()
```

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



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

```
> db.studentmarks.update({},{$inc:{"Average":1}},false,true)
WriteResult({ "nMatched" : 12, "nUpserted" : 0, "nModified" : 12 })
>
```

7) Update Marks_Science=75 to Lucky

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

```
    "_id" : ObjectId("5d14678667f8f337605d2f8b"),
    "name" : "Lucky",
    "maths_marks" : 66,
    "english_marks" : 90,
    "science_marks" : 75
```

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}}]},{_id:0,name:1}).pretty()
{ "name" : "Vanu" }
{ "name" : "Arull" }
{ "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,name:1}).pretty()
{ "name" : "Mala" }
{ "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,name:1}).pretty()
>
```

11) Remove Science column/field for Raam

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

```
    "_id" : ObjectId("5d14679f67f8f337605d2f8d"),
    "name" : "Raam",
    "maths_marks" : 41,
    "english_marks" : 65
```

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},{upsert:true})
WriteResult({ "nInserted" : 1 })
```

```
"_id" : ObjectId("5d1482c896e0eabdc53c386e"),
"name" : "john",
"maths_marks" : 87,
"english_marks" : 23
```

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

```
> db.studentmarks.update({"_id" : ObjectId("5d14914996e0eabdc53c3874")},{$rename:{"english_marks":"science_marks"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

```
"_id" : ObjectId("5d14914996e0eabdc53c3874"),
"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_marks

```
> db.studentmarks.find({$or:[{name:"Kala"},{name:"Aruli"}]},{_id:0,name:1,maths_marks:1,science_marks:1}).pretty()
{ "name" : "Kala", "maths_marks" : 32, "science_marks" : 53 }
{ "name" : "Aruli", "maths_marks" : 78, "science_marks" : 80 }
```