1) Create a Database called student

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

2) Create a collection called studentmarks

```
> db.studentmarks
student.studentmarks
>
```

3) Create the documents listed in above table.

```
switched to db student
> db.studentmarks.insert({name:"mala",mathsmarks:"45",englishmarks:"53",sciencemarks:"72"})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"vanu",mathsmarks:"80",englishmarks:"75",sciencemarks:"85"})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"kala",mathsmarks:"32",englishmarks:"46",sciencemarks:"53"})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"aruli",mathsmarks:"78",englishmarks:"85",sciencemarks:"80"})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"shayu",mathsmarks:"80",englishmarks:"76",sciencemarks:"65"})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"kumaran",mathsmarks:"32",englishmarks:"73",sciencemarks:"84"})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"lucky",mathsmarks:"46",englishmarks:"90",sciencemarks:"45"})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"gva",mathsmarks:"71",englishmarks:"75",sciencemarks:"56"})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.insert({name:"ram",mathsmarks:"41",englishmarks:"65",sciencemarks:"88"})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.find().pretty()
{
```

4) Increase the maths marks of Mala by 6 marks

```
> db.studentmarks.update({name:"mala"},{$set:{mathsmarks:"51"}})
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}})
{ "_id" : ObjectId("59269c063292c5cfba01b73e"), "name" : "mala", "maths_marks" : 51, "english_marks" : 53, "science_marks" : 72 }
{ "_id" : ObjectId("59269c2f3292c5cfba01b73f"), "name" : "vanu", "maths_marks" : 80, "english_marks" : 75, "science_marks" : 85 }
{ "_id" : ObjectId("59269c783292c5cfba01b741"), "name" : "Aruli", "maths_marks" : 78, "english_marks" : 85, "science_marks" : 80 }
{ "_id" : ObjectId("59269cae3292c5cfba01b742"), "name" : "shayu", "maths_marks" : 80, "english_marks" : 76, "science_marks" : 65 }
{ "_id" : ObjectId("59269cf73292c5cfba01b744"), "name" : "lucky", "maths_marks" : 66, "english_marks" : 90, "science_marks" : 45 }
{ "_id" : ObjectId("59269d2b3292c5cfba01b745"), "name" : "Gva", "maths_marks" : 71, "english_marks" : 75, "science_marks" : 56 }
>
```

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

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({$or:[{"maths_marks":{$gt:50}},{"science_marks":{$gt:50}},{"english_marks":{$gt:50}}]},{"name":1,_id:0}).pretty()
{ "name" : "mala" }
{ "name" : "vanu" }
{ "name" : "kala" }
{ "name" : "Aruli" }
{ "name" : "shayu" }
{ "name" : "kumaran" }
{ "name" : "lucky" }
```

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

```
> db.studentmarks.find({$or:[{"maths_marks":{$lt:50}},{"english_marks":{$gt:50}}]},{"name":1,_id:0}).pretty()
{ "name" : "mala" }
{ "name" : "vanu" }
{ "name" : "kala" }
{ "name" : "Aruli" }
{ "name" : "shayu" }
{ "name" : "kumaran" }
{ "name" : "lucky" }
{ "name" : "Gva" }
{ "name" : "raam" }
>
```

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

```
> db.studentmarks.find({$or:[{"maths_marks":{$lt:40}},{"science_marks":{$lt:40}}]},{"name":1,_id:0}).pretty()
{ "name" : "kala" }
{ "name" : "kumaran" }
>
```

11) Remove Science column/field for Raam

12) Update John’s Math mark as 87 and English mark as 23, if john not available upsert.
13) Rename the english_marks column/field for John to science_marks
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"}]},{"math_marks":1,"science_marks":1,_id:0,name:1})
{ "name" : "kala", "science_marks" : 53 }
{ "name" : "Aruli", "science_marks" : 80 }
>
```