

1) Create a Database called student

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

2) Create a collection called studentmarks..3) .Create the documents listed in above table.

```
db.studentmarks.find()
{"_id": ObjectId("5d13905926ce4c26058aff4a"), "name": "Mala", "maths_marks": 45, "english_marks": 53, "science_marks": 72 }
{"_id": ObjectId("5d1390a726ce4c26058aff4b"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85 }
{"_id": ObjectId("5d1390d226ce4c26058aff4c"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53 }
{"_id": ObjectId("5d1390fd26ce4c26058aff4d"), "name": "Arulli", "maths_marks": 78, "english_marks": 85, "science_marks": 80 }
{"_id": ObjectId("5d1394c226ce4c26058aff4e"), "name": "Shayuu", "maths_marks": 80, "english_marks": 76, "science_marks": 65 }
{"_id": ObjectId("5d1394e626ce4c26058aff4f"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84 }
{"_id": ObjectId("5d13950c26ce4c26058aff50"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45 }
{"_id": ObjectId("5d13953526ce4c26058aff51"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }
{"_id": ObjectId("5d13955226ce4c26058aff52"), "name": "Ram", "maths_marks": 41, "english_marks": 65, "science_marks": 88 }
```

4) Increase the maths marks of Mala by 6 marks

```
db.studentmarks.update({'_id': ObjectId("5d13905926ce4c26058aff4a")}, {'$inc': {'maths_marks': 6}})
WriteResult({'nMatched': 1, 'nUpserted': 0, 'nModified': 1})
db.studentmarks.find()
{"_id": ObjectId("5d13905926ce4c26058aff4a"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72 }
{"_id": ObjectId("5d1390a726ce4c26058aff4b"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85 }
{"_id": ObjectId("5d1390d226ce4c26058aff4c"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53 }
{"_id": ObjectId("5d1390fd26ce4c26058aff4d"), "name": "Arulli", "maths_marks": 78, "english_marks": 85, "science_marks": 80 }
{"_id": ObjectId("5d1394c226ce4c26058aff4e"), "name": "Shayuu", "maths_marks": 80, "english_marks": 76, "science_marks": 65 }
{"_id": ObjectId("5d1394e626ce4c26058aff4f"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84 }
{"_id": ObjectId("5d13950c26ce4c26058aff50"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45 }
{"_id": ObjectId("5d13953526ce4c26058aff51"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }
{"_id": ObjectId("5d13955226ce4c26058aff52"), "name": "Ram", "maths_marks": 41, "english_marks": 65, "science_marks": 88 }
```

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

```
db.studentmarks.find({'maths_marks': {'$gt': 50}}, {'name': 1})
{"_id": ObjectId("5d1390fd26ce4c26058aff4d"), "name": "Arulli" }
{"_id": ObjectId("5d1394c226ce4c26058aff4e"), "name": "Shayuu" }
{"_id": ObjectId("5d13950c26ce4c26058aff50"), "name": "Lucky" }
{"_id": ObjectId("5d13953526ce4c26058aff51"), "name": "Gva" }
{"_id": ObjectId("5d13905926ce4c26058aff4a"), "name": "Mala" }
{"_id": ObjectId("5d1390a726ce4c26058aff4b"), "name": "Vanu" }
db.studentmarks.find({'maths_marks': {'$gt': 50}}, {'name': 1, '_id': 0})
{"name": "Arulli" }
{"name": "Shayuu" }
{"name": "Lucky" }
{"name": "Gva" }
{"name": "Mala" }
```

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 })
db.studentmarks.find()
```

7) Update Marks_Science=75 to Lucky .

```

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

```

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

```

db.studentmarks.find({$and:[{"maths_marks":{$gt:50}},{"science_marks":{$gt:50}},
{"english_marks":{$gt:50}}]}, {name:1, _id:0})
{ "name" : "Aruli" }
{ "name" : "Shayu" }
{ "name" : "Lucky" }
{ "name" : "Gva" }
{ "name" : "Mala" }
{ "name" : "Vanu" }

```

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

```

{ "name" : "Vanu" }
> db.studentmarks.find({$and:[{"maths_marks":{$lt:50}},{"english_marks":{$gt:50}}]}, {name:1, _id:0})
{ "name" : "Kumaran" }
{ "name" : "Ram" }
>

```

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}}]}, {name:1, _id:0})

```

11) Remove Science column/field for Raam

```

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

```

```

{ "_id" : ObjectId("5d13955226ce4c26058aff52"), "name" : "Ram", "maths_marks" : 41, "english_marks" : 65 }
> db.studentmarks.find({$and:[{"maths_marks":{$lt:40}},{"science_marks":{$lt:40}}]}, {name:1, _id:0})

```

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 })
>

```


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

```
> db.studentmarks.update({'_id': ObjectId("5d148fe5e910b87e6665b973")},{$rename:{'english_marks':'science_marks'}})
WriteResult({ "nMatched": 1, "nUpserted": 0, "nModified": 1 })
> db.studentmarks.find()
{"_id": ObjectId("5d1390a726ce4c26058aff4b"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "Average": 80 }
{"_id": ObjectId("5d1390d226ce4c26058aff4c"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53, "Average": 44 }
{"_id": ObjectId("5d1390f026ce4c26058aff4d"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "Average": 81 }
{"_id": ObjectId("5d1394c226ce4c26058aff4e"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "Average": 74 }
{"_id": ObjectId("5d13950c26ce4c26058aff50"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "Average": 77 }
{"_id": ObjectId("5d13953526ce4c26058aff51"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "Average": 67 }
{"_id": ObjectId("5d13955226ce4c26058aff52"), "name": "Ram", "maths_marks": 41, "english_marks": 65, "science_marks": 72, "Average": 59 }
{"_id": ObjectId("5d1390a726ce4c26058aff4b"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "Average": 80 }
{"_id": ObjectId("5d148fe5e910b87e6665b973"), "name": "John", "maths_marks": 87, "science_marks": 23 }
```

14) Remove Kumaran's document from collection

```
db.studentmarks.remove({'name':'Kumaran'})
WriteResult({ "nRemoved": 1 })
db.studentmarks.find()
{"_id": ObjectId("5d1390d226ce4c26058aff4c"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53 }
{"_id": ObjectId("5d1390f026ce4c26058aff4d"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80 }
{"_id": ObjectId("5d1394c226ce4c26058aff4e"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65 }
{"_id": ObjectId("5d13950c26ce4c26058aff50"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75 }
{"_id": ObjectId("5d13953526ce4c26058aff51"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }
{"_id": ObjectId("5d13955226ce4c26058aff52"), "name": "Ram", "maths_marks": 41, "english_marks": 65, "science_marks": 72 }
{"_id": ObjectId("5d1390a726ce4c26058aff4b"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85 }
```

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

```
2019-06-27 14:17:34.005+0530 SyntaxError: Unexpected token {
db.studentmarks.find({'$or':[{'name':'Kala'},{'name':'Aruli'}]},{'maths_marks:1,science_marks:1,_id:0})
{"maths_marks": 32, "science_marks": 53 }
{"maths_marks": 78, "science_marks": 80 }
```