Q1, Create a Database called student

```
ukistu13@ukipc13: ~
> use student
switched to db student
```

Q2,Create a collection called studentmarks

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

Q3,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":66,"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 })
```

Q4,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 })
```

Q5,List the names of students who got more than 50 marks in Maths Subject.

```
> db.studentmarks.find({maths_marks:{$gt:50}}).pretty()
{
        "_id" : ObjectId("5c3c635721fb0c846a46c166"),
        "name" : "mala",
        "maths_marks" : 51,
        "english_marks" : 53,
        "science_marks" : 72
}
{
        "_id" : ObjectId("5c3c637521fb0c846a46c167"),
        "name" : "vanu",
        "maths_marks" : 80,
        "english_marks" : 75,
        "science_marks" : 85
}
{
        "_id" : ObjectId("5c3c63d921fb0c846a46c169"),
        "name" : "Aruli",
        "maths_marks" : 78,
        "english_marks" : 85,
        "science_marks" : 80
}
{
        "_id" : ObjectId("5c3c641f21fb0c846a46c16a"),
        "name" : "Shayu",
        "maths_marks" : 80,
        "english_marks" : 76,
        "science_marks" : 65
}
{
        "_id" : ObjectId("5c3eba27168cfdff4a7ebed6"),
        "name" : "Lucky",
        "maths_marks" : 66,
        "english_marks" : 90,
        "science_marks" : 45
}
{
        "_id" : ObjectId("5c3eba3d168cfdff4a7ebed7"),
        "name" : "Gva",
        "maths_marks" : 71,
        "english_marks" : 75,
        "science_marks" : 56
}
```

Q6,Add a new column(field) for Average for all students.

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

Q7,Update Marks_Science=75 to Lucky .

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

Q8,List the names who got more than 50 marks in all subjects.

```
> db.studentmarks.find({$and: [{"english_marks": {$gt:50}},{"science_marks": {$gt:50}},{"maths_marks": {$gt:50}}]},{"name":1,_id:0})
{ "name" : "mala" }
{ "name" : "vanu" }
{ "name" : "Aruli" }
{ "name" : "Shayu" }
{ "name" : "Gva" }
>
```

Q9,List the names who got less than 50 marks in Maths subject and more than 50 marks in English

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

Q10,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})
{ "name" : "kala" }
{ "name" : "kumaran" }
```

Q11,Remove Science column/field for Raam

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

Q12,Update John's Math mark as 87 and English mark as 23, if john not available upsert.

```
>  db.studentmarks.update({ name: "John" }, {"name":"John", "maths_marks": 87, "english_marks": 23}, { upsert: true })
WriteResult({
        "nMatched" : 0,
        "nUpserted" : 1,
        "nModified" : 0,
        "_id" : ObjectId("5c3f0283007bfb17c5c08cf9")
})
```

Q13,Rename the english_marks column/field for John to science_marks

```
> db.studentmarks.update({"_id" : ObjectId("5c3f0283007bfb17c5c08cf9")},{$rename:{"english_marks":"science_marks"}})
WriteResult({ "nMatched" : 0, "nUpserted" : 0, "nModified" : 0 })
```

Q14,Remove Kumaran's document from collection

```
> db.studentmarks.remove({"name":"Kumaran"},{})
WriteResult({ "nRemoved" : 0 })
```

Q15,Find Kala's or Aruli's math_marks and science_marks

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