

## 1) Create a Database called student

```
ukistu01@ukipc01: ~  
ukistu01@ukipc01:~$ sudo service mongod start  
[sudo] password for ukistu01:  
ukistu01@ukipc01:~$ sudo mongo  
MongoDB shell version v4.2.2  
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongod  
Implicit session: session { "id" : UUID("6ccd391a-a363-41ed-9a8a-a9ff36cedf06") }  
MongoDB server version: 4.2.2  
Server has startup warnings:  
2020-01-09T10:50:13.002+0530 I STORAGE [initandlisten]  
2020-01-09T10:50:13.002+0530 I STORAGE [initandlisten] ** WARNING: Using the XFS filesystem is strongly recommended with the WiredTiger stor  
age engine  
2020-01-09T10:50:13.002+0530 I STORAGE [initandlisten] ** See http://dochub.mongodb.org/core/prodnotes-filesystem  
2020-01-09T10:50:15.961+0530 I CONTROL [initandlisten]  
2020-01-09T10:50:15.961+0530 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.  
2020-01-09T10:50:15.961+0530 I CONTROL [initandlisten] ** Read and write access to data and configuration is unrestricted.  
2020-01-09T10:50:15.961+0530 I CONTROL [initandlisten]  
---  
Enable MongoDB's free cloud-based monitoring service, which will then receive and display  
metrics about your deployment (disk utilization, CPU, operation statistics, etc).  
  
The monitoring data will be available on a MongoDB website with a unique URL accessible to you  
and anyone you share the URL with. MongoDB may use this information to make product  
improvements and to suggest MongoDB products and deployment options to you.  
  
To enable free monitoring, run the following command: db.enableFreeMonitoring()  
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()  
---  
> showdbs  
2020-01-09T10:51:02.772+0530 E QUERY [js] uncaught exception: ReferenceError: showdbs is not defined :  
@ (shell):1:1  
> show dbs  
admin 0.000GB  
config 0.000GB  
local 0.000GB  
music 0.000GB  
uk16 0.000GB  
> use student  
switched to db student  
> db  
student  
> show collections
```

## 2) Create a collection called studentmarks

```
ukistu01@ukipc01: ~  
ukistu01@ukipc01:~$ sudo service mongod start  
[sudo] password for ukistu01:  
ukistu01@ukipc01:~$ sudo mongo  
MongoDB shell version v4.2.2  
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongod  
Implicit session: session { "id" : UUID("6ccd391a-a363-41ed-9a8a-a9ff36cedf06") }  
MongoDB server version: 4.2.2  
Server has startup warnings:  
2020-01-09T10:50:13.002+0530 I STORAGE [initandlisten]  
2020-01-09T10:50:13.002+0530 I STORAGE [initandlisten] ** WARNING: Using the XFS filesystem is strongly recommended with the WiredTiger stor  
age engine  
2020-01-09T10:50:13.002+0530 I STORAGE [initandlisten] ** See http://dochub.mongodb.org/core/prodnotes-filesystem  
2020-01-09T10:50:15.961+0530 I CONTROL [initandlisten]  
2020-01-09T10:50:15.961+0530 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.  
2020-01-09T10:50:15.961+0530 I CONTROL [initandlisten] ** Read and write access to data and configuration is unrestricted.  
2020-01-09T10:50:15.961+0530 I CONTROL [initandlisten]  
---  
Enable MongoDB's free cloud-based monitoring service, which will then receive and display  
metrics about your deployment (disk utilization, CPU, operation statistics, etc).  
  
The monitoring data will be available on a MongoDB website with a unique URL accessible to you  
and anyone you share the URL with. MongoDB may use this information to make product  
improvements and to suggest MongoDB products and deployment options to you.  
  
To enable free monitoring, run the following command: db.enableFreeMonitoring()  
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()  
---  
> showdbs  
2020-01-09T10:51:02.772+0530 E QUERY [js] uncaught exception: ReferenceError: showdbs is not defined :  
@ (shell):1:1  
> show dbs  
admin 0.000GB  
config 0.000GB  
local 0.000GB  
music 0.000GB  
uk16 0.000GB  
> use student  
switched to db student  
> db  
student  
> show collections  
> show collections  
> db.createCollection("studentmarks")  
{ "ok" : 1 }  
> db.studentmarks.insert({name:"Mala",maths_marks:"45",english_marks:"53",science_marks:"72"})  
WriteResult({ "nInserted" : 1 })
```

### 3) Create the documents listed in above table.

```
ukistu01@ukipc01: ~  
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()  
---  
> showdbs  
2020-01-09T10:51:02.772+0530 E QUERY [js] uncaught exception: ReferenceError: showdbs is not defined :  
@ (shell):1:1  
> show dbs  
admin 0.000GB  
config 0.000GB  
local 0.000GB  
music 0.000GB  
uki6 0.000GB  
> use student  
switched to db student  
> db  
student  
> show collections  
> show collections  
> db.createCollection("studentmarks")  
{ "ok" : 1 }  
> 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"},{name:"Kala",maths_marks:"32",english_marks:"46",science_marks:"53"}}])  
BulkWriteResult({  
  "writeErrors" : [ ],  
  "writeConcernErrors" : [ ],  
  "nInserted" : 2,  
  "nUpserted" : 0,  
  "nMatched" : 0,  
  "nModified" : 0,  
  "nRemoved" : 0,  
  "upserted" : [ ]  
})  
> db.studentmarks.insert([{{name:"Aruli",maths_marks:"78",english_marks:"85",science_marks:"80"},{name:"Shayu",maths_marks:"80",english_marks:"76",science_marks:"65"},{name:"Kumaran",maths_marks:"32",english_marks:"73",science_marks:"84"},{name:"Lucky",maths_marks:"66",english_marks:"90",science_marks:"45"},{name:"Gva",maths_marks:"71",english_marks:"75",science_marks:"56"},{name:"Raam",maths_marks:"41",english_marks:"65",science_marks:"88"}])  
BulkWriteResult({  
  "writeErrors" : [ ],  
  "writeConcernErrors" : [ ],  
  "nInserted" : 6,  
  "nUpserted" : 0,  
  "nMatched" : 0,  
  "nModified" : 0,  
  "nRemoved" : 0,  
  "upserted" : [ ]  
})  
> db.studentmarks.find()  
{ "_id" : ObjectId("5e16b9c47ecfbfa49b1cc12d"), "name" : "Mala", "maths_marks" : "45", "english_marks" : "53", "science_marks" : "72" }  
{ "_id" : ObjectId("5e16ba5e7ecfbfa49b1cc12e"), "name" : "Vanu", "maths_marks" : "80", "english_marks" : "75", "science_marks" : "85" }  
{ "_id" : ObjectId("5e16ba5e7ecfbfa49b1cc12f"), "name" : "Kala", "maths_marks" : "32", "english_marks" : "46", "science_marks" : "53" }  
{ "_id" : ObjectId("5e16bbf57ecfbfa49b1cc130"), "name" : "Aruli", "maths_marks" : "78", "english_marks" : "85", "science_marks" : "80" }  
{ "_id" : ObjectId("5e16bbf57ecfbfa49b1cc131"), "name" : "Shayu", "maths_marks" : "80", "english_marks" : "76", "science_marks" : "65" }  
{ "_id" : ObjectId("5e16bbf57ecfbfa49b1cc132"), "name" : "Kumaran", "maths_marks" : "32", "english_marks" : "73", "science_marks" : "84" }  
{ "_id" : ObjectId("5e16bbf57ecfbfa49b1cc133"), "name" : "Lucky", "maths_marks" : "66", "english_marks" : "90", "science_marks" : "45" }  
{ "_id" : ObjectId("5e16bbf57ecfbfa49b1cc134"), "name" : "Gva", "maths_marks" : "71", "english_marks" : "75", "science_marks" : "56" }  
{ "_id" : ObjectId("5e16bbf57ecfbfa49b1cc135"), "name" : "Raam", "maths_marks" : "41", "english_marks" : "65", "science_marks" : "88" }
```



#### 4) Increase the maths marks of Mala by 6 marks

```
ukistu01@ukipc01: ~
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.find()
{ "_id": ObjectId("5e16c2b57ecbfa49b1cc13f"), "name": "Mala", "maths_marks": 45, "english_marks": 53, "science_marks": 72 }
{ "_id": ObjectId("5e16c2e17ecbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85 }
{ "_id": ObjectId("5e16c2e17ecbfa49b1cc141"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc142"), "name": "Arull", "maths_marks": 78, "english_marks": 85, "science_marks": 80 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc144"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc147"), "name": "Raam", "maths_marks": 41, "english_marks": 65, "science_marks": 88 }
> db.mycol.update({maths_marks:"45db.products.update(")},{ $set:{maths_marks:51}})
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> { sku: "abc123" },
... { $inc: { quantity: -2, "metrics.orders": 1 } }
2020-01-09T11:48:39.541+0530 E QUERY [js] uncaught exception: SyntaxError: expected expression, got ',' :
@($shell):1:17
> db.studentmarks.update({ nama: "Mala" }, { $inc: { quantity: 6, "maths_marks": 45 } })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({maths_marks:"45"},{$set:{maths_marks:51}})
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({ nama: "Mala" }, { $inc: { "maths_marks": 6 } })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({nama:"Mala"},{$inc: {"maths marks":6} })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({nama:"Mala"},{$inc: {maths marks:6} })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({nama:"Mala"},{$inc: {maths marks: 6} })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({name:"Mala"},{$inc: {maths marks: 6} })
WriteResult({ "nMatched": 1, "nUpserted": 0, "nModified": 1 })
> db.studentmarks.find()
{ "_id": ObjectId("5e16c2b57ecbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72 }
{ "_id": ObjectId("5e16c2e17ecbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85 }
{ "_id": ObjectId("5e16c2e17ecbfa49b1cc141"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc142"), "name": "Arull", "maths_marks": 78, "english_marks": 85, "science_marks": 80 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc144"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc147"), "name": "Raam", "maths_marks": 41, "english_marks": 65, "science_marks": 88 }
```

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

```
ukistu01@ukipc01: ~
{ "_id": ObjectId("5e16c347ecbfa49b1cc144"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc147"), "name": "Raam", "maths_marks": 41, "english_marks": 65, "science_marks": 88 }
> db.mycol.update({maths_marks:"45db.products.update(")},{ $set:{maths_marks:51}})
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> { sku: "abc123" },
... { $inc: { quantity: -2, "metrics.orders": 1 } }
2020-01-09T11:48:39.541+0530 E QUERY [js] uncaught exception: SyntaxError: expected expression, got ',' :
@($shell):1:17
> db.studentmarks.update({ nama: "Mala" }, { $inc: { quantity: 6, "maths_marks": 45 } })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({maths_marks:"45"},{$set:{maths_marks:51}})
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({ nama: "Mala" }, { $inc: { "maths_marks": 6 } })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({nama:"Mala"},{$inc: {"maths marks":6} })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({nama:"Mala"},{$inc: {maths marks:6} })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({nama:"Mala"},{$inc: {maths marks: 6} })
WriteResult({ "nMatched": 0, "nUpserted": 0, "nModified": 0 })
> db.studentmarks.update({name:"Mala"},{$inc: {maths marks: 6} })
WriteResult({ "nMatched": 1, "nUpserted": 0, "nModified": 1 })
> db.studentmarks.find()
{ "_id": ObjectId("5e16c2b57ecbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72 }
{ "_id": ObjectId("5e16c2e17ecbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85 }
{ "_id": ObjectId("5e16c2e17ecbfa49b1cc141"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc142"), "name": "Arull", "maths_marks": 78, "english_marks": 85, "science_marks": 80 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc144"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc147"), "name": "Raam", "maths_marks": 41, "english_marks": 65, "science_marks": 88 }
> db.studentmarks.find({maths_marks:{ $gt: 50 }})
{ "_id": ObjectId("5e16c2b57ecbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72 }
{ "_id": ObjectId("5e16c2e17ecbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc142"), "name": "Arull", "maths_marks": 78, "english_marks": 85, "science_marks": 80 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45 }
{ "_id": ObjectId("5e16c347ecbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }
```



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

```
ukistu01@ukipc01: ~  
ukistu01@ukipc01: ~  
{ "id": "ObjectId(\"5e16c2b57ecfbfa49b1cc13f\")", "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72 }  
{ "id": "ObjectId(\"5e16c2e17ecfbfa49b1cc140\")", "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85 }  
{ "id": "ObjectId(\"5e16c2e17ecfbfa49b1cc141\")", "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc142\")", "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc143\")", "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc144\")", "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc145\")", "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc146\")", "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc147\")", "name": "Raam", "maths_marks": 41, "english_marks": 65, "science_marks": 88 }  
> db.studentmarks.find({maths_marks:{$gt:50}})  
{ "id": "ObjectId(\"5e16c2b57ecfbfa49b1cc13f\")", "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72 }  
{ "id": "ObjectId(\"5e16c2e17ecfbfa49b1cc140\")", "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc142\")", "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc143\")", "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc144\")", "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc145\")", "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 45 }  
{ "id": "ObjectId(\"5e16c34c7ecfbfa49b1cc146\")", "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56 }  
> db.studentmarks.update({},{$set: {\"average\":false}},false,true)  
2020-01-09T12:26:47.568+0530 E QUERY [js] uncaught exception: SyntaxError: false is an invalid identifier :  
@(:shell):1:52  
> db.studentmarks.update({},{$set: {\"average\":1}},{$upsert:false,multi:true})  
WriteResult({ \"nMatched\" : 9, \"nUpserted\" : 0, \"nModified\" : 9 })  
>  
> db.studentmarks.find()  
{ \"_id\" : ObjectId(\"5e16c2b57ecfbfa49b1cc13f\"), \"name\" : \"Mala\", \"maths_marks\" : 51, \"english_marks\" : 53, \"science_marks\" : 72, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c2e17ecfbfa49b1cc140\"), \"name\" : \"Vanu\", \"maths_marks\" : 80, \"english_marks\" : 75, \"science_marks\" : 85, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c2e17ecfbfa49b1cc141\"), \"name\" : \"Kala\", \"maths_marks\" : 32, \"english_marks\" : 46, \"science_marks\" : 53, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc142\"), \"name\" : \"Aruli\", \"maths_marks\" : 78, \"english_marks\" : 85, \"science_marks\" : 80, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc143\"), \"name\" : \"Shayu\", \"maths_marks\" : 80, \"english_marks\" : 76, \"science_marks\" : 65, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc144\"), \"name\" : \"Kumaran\", \"maths_marks\" : 32, \"english_marks\" : 73, \"science_marks\" : 84, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc145\"), \"name\" : \"Lucky\", \"maths_marks\" : 66, \"english_marks\" : 90, \"science_marks\" : 45, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc146\"), \"name\" : \"Gva\", \"maths_marks\" : 71, \"english_marks\" : 75, \"science_marks\" : 56, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc147\"), \"name\" : \"Raam\", \"maths_marks\" : 41, \"english_marks\" : 65, \"science_marks\" : 88, \"average\" : 1  
>
```

7) Update Marks\_Science=75 to Lucky .

```
ukistu01@ukipc01: ~  
ukistu01@ukipc01: ~  
WriteResult({ \"nMatched\" : 1, \"nUpserted\" : 0, \"nModified\" : 1 })  
> db.studentmarks.find()  
{ \"_id\" : ObjectId(\"5e16c2b57ecfbfa49b1cc13f\"), \"name\" : \"Mala\", \"maths_marks\" : 51, \"english_marks\" : 53, \"science_marks\" : 72, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c2e17ecfbfa49b1cc140\"), \"name\" : \"Vanu\", \"maths_marks\" : 80, \"english_marks\" : 75, \"science_marks\" : 85, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c2e17ecfbfa49b1cc141\"), \"name\" : \"Kala\", \"maths_marks\" : 32, \"english_marks\" : 46, \"science_marks\" : 53, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc142\"), \"name\" : \"Aruli\", \"maths_marks\" : 78, \"english_marks\" : 85, \"science_marks\" : 80, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc143\"), \"name\" : \"Shayu\", \"maths_marks\" : 80, \"english_marks\" : 76, \"science_marks\" : 65, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc144\"), \"name\" : \"Kumaran\", \"maths_marks\" : 32, \"english_marks\" : 73, \"science_marks\" : 84, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc145\"), \"name\" : \"Lucky\", \"maths_marks\" : 66, \"english_marks\" : 90, \"science_marks\" : 6, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc146\"), \"name\" : \"Gva\", \"maths_marks\" : 71, \"english_marks\" : 75, \"science_marks\" : 56, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc147\"), \"name\" : \"Raam\", \"maths_marks\" : 41, \"english_marks\" : 65, \"science_marks\" : 88, \"average\" : 1  
> db.studentmarks.update({name:\"Lucky\"},{ $set: {science_marks: 75} })  
WriteResult({ \"nMatched\" : 1, \"nUpserted\" : 0, \"nModified\" : 1 })  
> db.studentmarks.find()  
{ \"_id\" : ObjectId(\"5e16c2b57ecfbfa49b1cc13f\"), \"name\" : \"Mala\", \"maths_marks\" : 51, \"english_marks\" : 53, \"science_marks\" : 72, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c2e17ecfbfa49b1cc140\"), \"name\" : \"Vanu\", \"maths_marks\" : 80, \"english_marks\" : 75, \"science_marks\" : 85, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c2e17ecfbfa49b1cc141\"), \"name\" : \"Kala\", \"maths_marks\" : 32, \"english_marks\" : 46, \"science_marks\" : 53, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc142\"), \"name\" : \"Aruli\", \"maths_marks\" : 78, \"english_marks\" : 85, \"science_marks\" : 80, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc143\"), \"name\" : \"Shayu\", \"maths_marks\" : 80, \"english_marks\" : 76, \"science_marks\" : 65, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc144\"), \"name\" : \"Kumaran\", \"maths_marks\" : 32, \"english_marks\" : 73, \"science_marks\" : 84, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc145\"), \"name\" : \"Lucky\", \"maths_marks\" : 66, \"english_marks\" : 90, \"science_marks\" : 75, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc146\"), \"name\" : \"Gva\", \"maths_marks\" : 71, \"english_marks\" : 75, \"science_marks\" : 56, \"average\" : 1  
{ \"_id\" : ObjectId(\"5e16c34c7ecfbfa49b1cc147\"), \"name\" : \"Raam\", \"maths_marks\" : 41, \"english_marks\" : 65, \"science_marks\" : 88, \"average\" : 1  
>
```



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

```

Terminal File Edit View Search Terminal Tabs Help
ukistu01@ukipc01:~

> db.studentmarks.find({$and:[{maths_marks:{>50}}]})
{"_id": ObjectId("5e16c2b5ecfbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72, "average": 1}
{"_id": ObjectId("5e16c2e17ecfbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc142"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1}
> db.studentmarks.find({$and:[{maths_marks:{>50}}, {science_marks:{>50}}]})
{"_id": ObjectId("5e16c2b5ecfbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72, "average": 1}
{"_id": ObjectId("5e16c2e17ecfbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc142"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1}
> db.studentmarks.find({$and:[{maths_marks:{>50}}, {science_marks:{>50}}, {english_marks:{>50}}]})
{"_id": ObjectId("5e16c2b5ecfbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72, "average": 1}
{"_id": ObjectId("5e16c2e17ecfbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc142"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1}

```

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

```

ukistu01@ukipc01:~

{"_id": ObjectId("5e16c2e17ecfbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc142"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1}
> db.studentmarks.find({$and:[{maths_marks:{<50}}, {science_marks:{>50}}]})
{"_id": ObjectId("5e16c2b5ecfbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72, "average": 1}
{"_id": ObjectId("5e16c2e17ecfbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc142"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1}
> db.studentmarks.find({$and:[{maths_marks:{<50}}, {english_marks:{>50}}]})
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc144"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84, "average": 1}
{"_id": ObjectId("5e16c34c7ecfbfa49b1cc147"), "name": "Raam", "maths_marks": 41, "english_marks": 65, "science_marks": 88, "average": 1}

```



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

```
ukistu01@ukipc01: ~
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1 }
{ "id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1 }
> db.studentmarks.find({$and:[{maths_marks:{$gt:50}}, {science_marks:{$gt:50}}]})
{ "_id": ObjectId("5e16c2b57ecfbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72, "average": 1 }
{ "_id": ObjectId("5e16c2e17ecfbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc142"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1 }
{ "id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1 }
> db.studentmarks.find({$and:[{maths_marks:{$gt:50}}, {science_marks:{$gt:50}}, {english_marks:{$gt:50}}]})
{ "_id": ObjectId("5e16c2b57ecfbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72, "average": 1 }
{ "_id": ObjectId("5e16c2e17ecfbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc142"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1 }
{ "id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1 }
> db.studentmarks.find({$and:[{maths_marks:{$lt:50}}, {english_marks:{$gt:50}}]})
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc144"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc147"), "name": "Raam", "maths_marks": 41, "english_marks": 65, "science_marks": 88, "average": 1 }
> db.studentmarks.find({$and:[{maths_marks:{$lt:40}}, {science_marks:{$lt:40}}]})
> db.studentmarks.find({$and:[{maths_marks:{$lt:40}}]})
{ "_id": ObjectId("5e16c2e17ecfbfa49b1cc141"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53, "average": 1 }
{ "id": ObjectId("5e16c34c7ecfbfa49b1cc144"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84, "average": 1 }
> db.studentmarks.find({$and:[{maths_marks:{$lt:40}}, {science_marks:{$lt:40}}]})
```

11) Remove Science column/field for Raam

```
ukistu01@ukipc01: ~
1 }
{ db.studentmarks.update({ sku: "unknown" }, { $unset: { quantity: "", instock: "" } })
...
> db.studentmarks.find()
{ "_id": ObjectId("5e16c2b57ecfbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72, "average": 1 }
{ "_id": ObjectId("5e16c2e17ecfbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "average": 1 }
{ "_id": ObjectId("5e16c2e17ecfbfa49b1cc141"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc142"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc144"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1 }
{ "id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc147"), "name": "Raam", "maths_marks": 41, "english_marks": 65, "science_marks": 88, "average": 1 }
> db.studentmarks.update({name:"Raam"}, {$unset:{science_marks:""}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentmarks.find()
{ "_id": ObjectId("5e16c2b57ecfbfa49b1cc13f"), "name": "Mala", "maths_marks": 51, "english_marks": 53, "science_marks": 72, "average": 1 }
{ "_id": ObjectId("5e16c2e17ecfbfa49b1cc140"), "name": "Vanu", "maths_marks": 80, "english_marks": 75, "science_marks": 85, "average": 1 }
{ "_id": ObjectId("5e16c2e17ecfbfa49b1cc141"), "name": "Kala", "maths_marks": 32, "english_marks": 46, "science_marks": 53, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc142"), "name": "Aruli", "maths_marks": 78, "english_marks": 85, "science_marks": 80, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc143"), "name": "Shayu", "maths_marks": 80, "english_marks": 76, "science_marks": 65, "average": 1 }
{ "id": ObjectId("5e16c34c7ecfbfa49b1cc144"), "name": "Kumaran", "maths_marks": 32, "english_marks": 73, "science_marks": 84, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc145"), "name": "Lucky", "maths_marks": 66, "english_marks": 90, "science_marks": 75, "average": 1 }
{ "id": ObjectId("5e16c34c7ecfbfa49b1cc146"), "name": "Gva", "maths_marks": 71, "english_marks": 75, "science_marks": 56, "average": 1 }
{ "_id": ObjectId("5e16c34c7ecfbfa49b1cc147"), "name": "Raam", "maths_marks": 41, "english_marks": 65, "average": 1 }
```

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

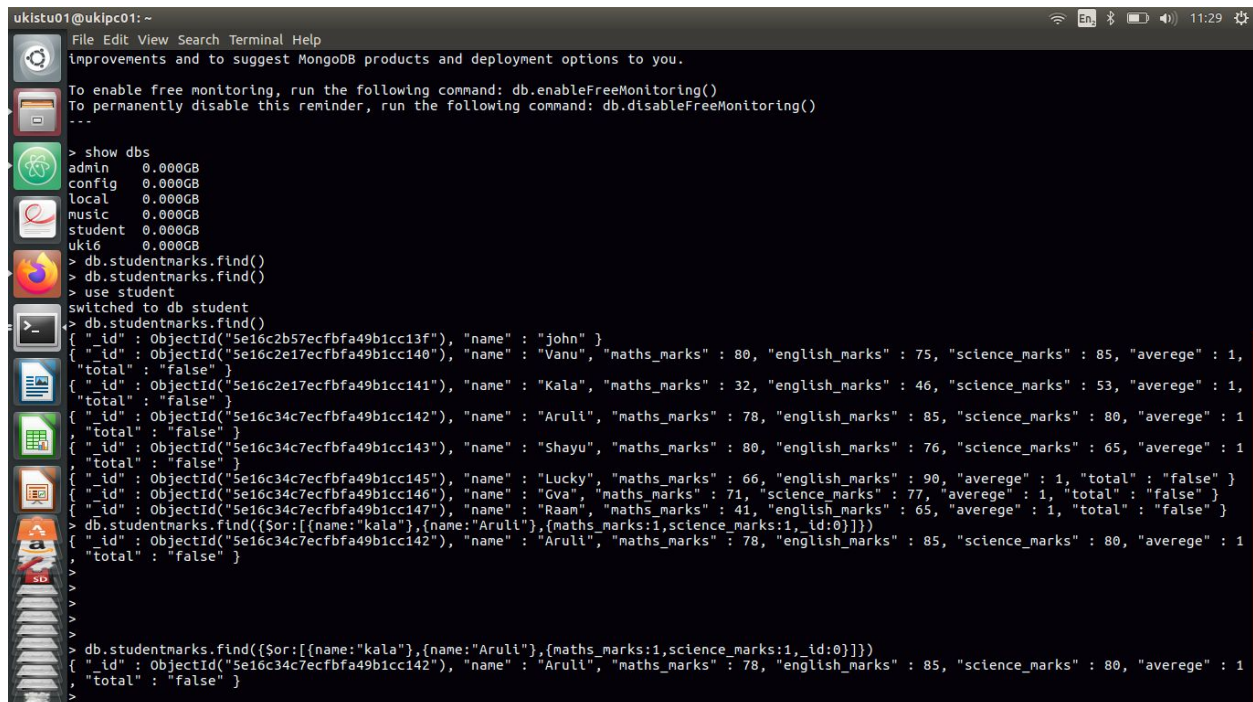
13) Rename the english\_marks column/field for John to science\_marks

```
> db.studentmarks.update({name:"Gva"},{$set:{"english_marks":"science_marks"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentmarks.find().pretty()
{ "_id" : ObjectId("5e16c2b57ecfbfa49b1cc13f"), "name" : "john" }
{
  "_id" : ObjectId("5e16c2e17ecfbfa49b1cc140")
}
```

14) Remove Kumaran's document from collection

```
> db.studentmarks.remove({"_id" : ObjectId("5e16c34c7ecfbfa49b1cc144")})
WriteResult({ "nRemoved" : 1 })
> db.studentmarks.find().pretty()
{ "_id" : ObjectId("5e16c2b57ecfbfa49b1cc13f"), "name" : "john" }
```

15) Find Kala's or Aruli's math\_marks and science\_marks



```
ukistu01@ukipc01: ~
File Edit View Search Terminal Help
Improvements and to suggest MongoDB products and deployment options to you.

To enable free monitoring, run the following command: db.enableFreeMonitoring()
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---

> show dbs
admin 0.000GB
config 0.000GB
local 0.000GB
music 0.000GB
student 0.000GB
uki6 0.000GB

> db.studentmarks.find()
> db.studentmarks.find()
> use student
switched to db student
> db.studentmarks.find()
{ "_id" : ObjectId("5e16c2b57ecfbfa49b1cc13f"), "name" : "john" }
{ "_id" : ObjectId("5e16c2e17ecfbfa49b1cc140"), "name" : "Vanu", "maths_marks" : 80, "english_marks" : 75, "science_marks" : 85, "average" : 1,
  "total" : "false" }
{ "_id" : ObjectId("5e16c2e17ecfbfa49b1cc141"), "name" : "Kala", "maths_marks" : 32, "english_marks" : 46, "science_marks" : 53, "average" : 1,
  "total" : "false" }
{ "_id" : ObjectId("5e16c34c7ecfbfa49b1cc142"), "name" : "Aruli", "maths_marks" : 78, "english_marks" : 85, "science_marks" : 80, "average" : 1,
  "total" : "false" }
{ "_id" : ObjectId("5e16c34c7ecfbfa49b1cc143"), "name" : "Shayu", "maths_marks" : 80, "english_marks" : 76, "science_marks" : 65, "average" : 1,
  "total" : "false" }
{ "_id" : ObjectId("5e16c34c7ecfbfa49b1cc145"), "name" : "Lucky", "maths_marks" : 66, "english_marks" : 90, "average" : 1, "total" : "false" }
{ "_id" : ObjectId("5e16c34c7ecfbfa49b1cc146"), "name" : "Gva", "maths_marks" : 71, "science_marks" : 77, "average" : 1, "total" : "false" }
{ "_id" : ObjectId("5e16c34c7ecfbfa49b1cc147"), "name" : "Raan", "maths_marks" : 41, "english_marks" : 65, "average" : 1, "total" : "false" }
> db.studentmarks.find({'$or':[{name:"kala"},{name:"Aruli"}]})
{ "_id" : ObjectId("5e16c34c7ecfbfa49b1cc142"), "name" : "Aruli", "maths_marks" : 78, "english_marks" : 85, "science_marks" : 80, "average" : 1,
  "total" : "false" }
> db.studentmarks.find({'$or':[{name:"kala"},{name:"Aruli"}]})
{ "_id" : ObjectId("5e16c34c7ecfbfa49b1cc142"), "name" : "Aruli", "maths_marks" : 78, "english_marks" : 85, "science_marks" : 80, "average" : 1,
  "total" : "false" }
```