

- 1) Create a Database called student
- 2) Create a collection called studentmarks
- 3) Create the documents listed in above table.

```

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Terminal
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> db.dropDatabase()
{ "dropped" : "student", "ok" : 1 }
> show dbs
admin    0.000GB
config  0.000GB
kkk      0.000GB
local    0.000GB
music    0.000GB
> use student
switched to db student
> db
student
> db.createCollection("studentmarks")
{ "ok" : 1 }
> db.find().pretty()
2019-06-27T11:02:50.454+0530 E QUERY    [thread1] TypeError: db.find is not a function :
@(:shell):1:1
> db.studentmarks.find().pretty()
>
> db.studentmarks.insert([
  {name:"Mala", maths_marks:45, english_marks:53, sceince_marks:72},
  {name:"Vanu", maths_marks:80, english_marks:75, sceince_marks:85},
  {name:"Kala", maths_marks:32, english_marks:46, sceince_marks:53},
  {name:"Aruli", maths_marks:78, english_marks:85, sceince_marks:80},
  {name:"Shayu", maths_marks:80, english_marks:76, sceince_marks:65},
  {name:"Kumaran", maths_marks:32, english_marks:73, sceince_marks:84},
  {name:"Lucky", maths_marks:66, english_marks:90, sceince_marks:45},
  {name:"Gva", maths_marks:71, english_marks:75, sceince_marks:56},
  {name:"Raam", maths_marks:41, english_marks:65, sceince_marks:88}
])
BulkWriteResult({
  "writeErrors" : [ ],
  "writeConcernErrors" : [ ],
  "nInserted" : 9,
  "nUpserted" : 0,
  "nMatched" : 0,
  "nModified" : 0,
  "nRemoved" : 0,
  "upserted" : [ ]
})
> db.studentmarks.find().pretty()

```

```

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nRemoved" : 0,
"nRemoved" : 0,
"upserted" : [ ]
})
> db.studentmarks.find().pretty()
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e71"),
  "name" : "Mala",
  "maths_marks" : 45,
  "english_marks" : 53,
  "sceince_marks" : 72
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e72"),
  "name" : "Vanu",
  "maths_marks" : 80,
  "english_marks" : 75,
  "sceince_marks" : 85
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e73"),
  "name" : "Kala",
  "maths_marks" : 32,
  "english_marks" : 46,
  "sceince_marks" : 53
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e74"),
  "name" : "Aruli",
  "maths_marks" : 78,
  "english_marks" : 85,
  "sceince_marks" : 80
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e75"),
  "name" : "Shayu",
  "maths_marks" : 80,

```

```
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Terminal
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e75"),
  "name" : "Shayu",
  "maths_marks" : 80,
  "english_marks" : 76,
  "sceince_marks" : 65
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e76"),
  "name" : "Kumaran",
  "maths_marks" : 32,
  "english_marks" : 73,
  "sceince_marks" : 84
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e77"),
  "name" : "Lucky",
  "maths_marks" : 66,
  "english_marks" : 90,
  "sceince_marks" : 45
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e78"),
  "name" : "Gva",
  "maths_marks" : 71,
  "english_marks" : 75,
  "sceince_marks" : 56
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e79"),
  "name" : "Raam",
  "maths_marks" : 41,
  "english_marks" : 65,
  "sceince_marks" : 88
}
}
> db.studentmarks.update({"name":"Mala"},{$inc:{"maths_marks":6}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 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()
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e71"),
  "name" : "Mala",
  "maths_marks" : 51,
  "english_marks" : 53,
  "sceince_marks" : 72
}
```

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

```
Terminal
> db.studentmarks.find({"maths_marks":{$gt:50}}).pretty()
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e71"),
  "name" : "Mala",
  "maths_marks" : 51,
  "english_marks" : 53,
  "sceince_marks" : 72
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e72"),
  "name" : "Vanu",
  "maths_marks" : 80,
  "english_marks" : 75,
  "sceince_marks" : 85
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e74"),
  "name" : "Aruli",
  "maths_marks" : 78,
  "english_marks" : 85,
  "sceince_marks" : 80
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e75"),
  "name" : "Shayu",
  "maths_marks" : 80,
  "english_marks" : 76,
  "sceince_marks" : 65
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e77"),
  "name" : "Lucky",
  "maths_marks" : 66,
  "english_marks" : 90,
  "sceince_marks" : 45
}
```

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

```
Activities Terminal Thu 12:51
Terminal
File Edit View Search Terminal Tabs Help
@ (shell):1:1
> db.studentmarks.update({},{$set:{"average":1}},false,true)
WriteResult({ "nMatched" : 9, "nUpserted" : 0, "nModified" : 9 })
> db.studentmarks.find().pretty()
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e71"),
  "name" : "Mala",
  "maths_marks" : 51,
  "english_marks" : 53,
  "sceince_marks" : 72,
  "average" : 1
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e72"),
  "name" : "Vanu",
  "maths_marks" : 80,
  "english_marks" : 75,
  "sceince_marks" : 85,
  "average" : 1
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e73"),
  "name" : "Kala",
  "maths_marks" : 32,
  "english_marks" : 46,
  "sceince_marks" : 53,
  "average" : 1
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e74"),
  "name" : "Aruli",
  "maths_marks" : 78,
  "english_marks" : 85,
  "sceince_marks" : 80,
  "average" : 1
}
```

7) Update Marks\_Science=75 to Lucky .

```
2019-06-27T12:25:34.745+0530 E QUERY [thread1] SyntaxError: missing : after property id @ (shell):1:75
> db.studentmarks.update({"_id" : ObjectId("5d14557d9e460b86b59d8e77")},{$set:{"sceince_marks" : 75}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentmarks.find().pretty()
{
```

```
Activities Terminal Thu 12:52
Terminal
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"english_marks" : 65,
"sceince_marks" : 88,
"average" : 1
}
> db.studentmarks.update({"_id" : ObjectId("5d14557d9e460b86b59d8e77")}:{"sceince_marks" : 45,"sceince_marks" : 75}})
2019-06-27T12:09:31.352+0530 E QUERY [thread1] SyntaxError: missing ) after argument list @ (shell):1:29
> db.studentmarks.update({"_id" : ObjectId("5d14557d9e460b86b59d8e77")}:{"sceince_marks" : 45,"sceince_marks" : 75}})
2019-06-27T12:10:48.098+0530 E QUERY [thread1] SyntaxError: missing ) after argument list @ (shell):1:27
> db.studentmarks.update({"_id" : ObjectId("5d14557d9e460b86b59d8e77")}:{"sceince_marks" : 45,"sceince_marks" : 75}})
2019-06-27T12:11:37.879+0530 E QUERY [thread1] SyntaxError: identifier starts immediately after numeric literal @ (shell):1:40
> db.studentmarks.update({"_id" : ObjectId("5d14557d9e460b86b59d8e77")}:{"sceince_marks" : 45,"sceince_marks" : 75}})
2019-06-27T12:18:28.632+0530 E QUERY [thread1] SyntaxError: missing ) after argument list @ (shell):1:29
> db.studentmarks.update({"_id" : ObjectId("5d14557d9e460b86b59d8e77")},{$set:"sceince_marks" : 75}})
2019-06-27T12:25:04.504+0530 E QUERY [thread1] SyntaxError: invalid property id @ (shell):1:24
> db.studentmarks.update({"_id" : ObjectId("5d14557d9e460b86b59d8e77")},{$set:"sceince_marks" : 75}})
2019-06-27T12:25:34.745+0530 E QUERY [thread1] SyntaxError: missing : after property id @ (shell):1:75
> db.studentmarks.update({"_id" : ObjectId("5d14557d9e460b86b59d8e77")},{$set:{"sceince_marks" : 75}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentmarks.find().pretty()
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e71"),
  "name" : "Mala",
  "maths_marks" : 51,
  "english_marks" : 53,
  "sceince_marks" : 72,
  "average" : 1
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e72"),
  "name" : "Vanu",
  "maths_marks" : 80,
  "english_marks" : 75,
  "sceince_marks" : 85,
  "average" : 1
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e73"),
```

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

```
> db.studentmarks.find({$and:[{"maths_marks":{$gt:50}},{"sceince_marks":{$gt:50}},{"english_marks":{$gt:50}}},{_id:0,maths_marks:0,english_ma
rks:0,sceince_marks:0})
{
  "name" : "Mala", "average" : 1 }
{
  "name" : "Vanu", "average" : 1 }
{
  "name" : "Aruli", "average" : 1 }
{
  "name" : "Shayu", "average" : 1 }
{
  "name" : "Lucky", "average" : 1 }
{
  "name" : "Cva", "average" : 1 }
}
```

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":{$gt:50}}},{_id:0,maths_marks:0,english_marks:0,sceince_marks:0})
{
  "name" : "Kumaran", "average" : 1 }
{
  "name" : "Raam", "average" : 1 }
> db.studentmarks.find({$and:[{"maths_marks":{$lt:50}},{"english_marks":{$gt:50}}},{_id:0,maths_marks:0,english_marks:0,sceince_marks:0,avera
ge:0})
{
  "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}},{"sceince_marks":{$lt:40}}},{_id:0,maths_marks:0,english_marks:0,sceince_marks:0})
}
```

11) Remove Science column/field for Raam

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

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,sceince_marks:23},{upsert:true})
WriteResult({ "nInserted" : 1 })
> db.studentmarks.find().pretty()
{
```

```
  "_id" : ObjectId("5d1482edf502bfb959a13f4e"),
  "name" : "john",
  "maths_marks" : 87,
  "sceince_marks" : 23
}
```

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

```
> db.studentmarks.update({"_id" : ObjectId("5d14855bf502bfb959a13f4f")},{$rename:{sceince_marks:"english_marks"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.studentmarks.find().pretty()
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e71"),
  "name" : "Mala",
  "maths_marks" : 51,
  "english_marks" : 53,
  "sceince_marks" : 72,
  "average" : 1
}
{
  "_id" : ObjectId("5d14557d9e460b86b59d8e72"),
```



14) Remove Kumaran's document from collection

```
}  
> db.studentmarks.remove({name:"Kumaran"},1)  
writeResult({ "nRemoved" : 1 })  
> db.studentmarks.find().pretty()  
{
```

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

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