

1) Create a Database called student

```
qu_1.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/student";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   console.log("Database created!");
7   db.close();
8 });
9
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_1.js
Database created!
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$
```

2) Create a collection called studentmarks

```
qu_1.js
qu_2.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/student";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   db.createCollection("studentmarks", function(err, res) {
7     if (err) throw err;
8     console.log("Table created!");
9     db.close();
10  });
11 });
12
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_2.js
Table created!
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$
```

3) Create the documents listed in above table.

```
qu_3.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/student";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var studentmarks = [
7     { name: 'Mala', maths_marks: '45', english_marks: '53', science_marks: '72'},
8     { name: 'Vanu', maths_marks: '80', english_marks: '75', science_marks: '85'},
9     { name: 'Kala', maths_marks: '32', english_marks: '46', science_marks: '53'},
10    { name: 'Aruli', maths_marks: '78', english_marks: '85', science_marks: '80'},
11    { name: 'Shayu', maths_marks: '80', english_marks: '76', science_marks: '65'},
12    { name: 'Kumaran', maths_marks: '32', english_marks: '73', science_marks: '84'},
13    { name: 'Lucky', maths_marks: '66', english_marks: '90', science_marks: '45'},
14    { name: 'Gva', maths_marks: '71', english_marks: '75', science_marks: '56'},
15    { name: 'Raam', maths_marks: '41', english_marks: '65', science_marks: '88'},
16  ];
17
18  db.collection("studentmarks").insert(studentmarks, function(err, res) {
19    if (err) throw err;
20    console.log("Number of records inserted: " + res.insertedCount);
21    db.close();
22  });
23
24 }
```

```

ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_3.js
Number of records inserted: 9
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$

```

4) Increase the maths marks of Mala by 6 marks

```

qu_5.js      qu_4.js
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://127.0.0.1:27017/student";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var myquery = {maths_marks: '45' };
  var newvalues = { name: 'Mala', maths_marks: '51', english_marks: '53', science_marks: '72'};
  db.collection("studentmarks").update(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log(res.result.nModified + " record updated");
    db.close();
  });
});

```

```

ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_4.js
1 record updated
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$

```

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

```

qu_5.js      qu_4.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/student";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   db.collection("studentmarks").find({maths_marks:{$gt:50}} ).toArray(function(err, result) {
7     if (err) throw err;
8     console.log(result);
9     db.close();
10  });
11 });
12

```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_5
[ { _id: 5937cc0c54b63a22cb486649,
  name: 'Mala',
  maths_marks: '51',
  english_marks: '53',
  science_marks: '72' },
  { _id: 5937cc0c54b63a22cb48664a,
  name: 'Vanu',
  maths_marks: '80',
  english_marks: '75',
  science_marks: '85' },
  { _id: 5937cc0c54b63a22cb48664c,
  name: 'Aruli',
  maths_marks: '78',
  english_marks: '85',
  science_marks: '80' },
  { _id: 5937cc0c54b63a22cb48664d,
  name: 'Shayu',
  maths_marks: '80',
  english_marks: '76',
  science_marks: '65' },
  { _id: 5937cc0c54b63a22cb48664f,
  name: 'Lucky',
  maths_marks: '66',
  english_marks: '90',
  science_marks: '75' },
  { _id: 5937cc0c54b63a22cb486650,
  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 .

```
qu_7.js      qu_3.js
1  var MongoClient = require('mongodb').MongoClient;
2  var url = "mongodb://127.0.0.1:27017/student";
3
4  MongoClient.connect(url, function(err, db) {
5    if (err) throw err;
6    var myquery = {science_marks: '45' };
7    var newvalues = { name: 'Lucky', maths_marks: '66', english_marks: '90', science_marks: '75'};
8    db.collection("studentmarks").update(myquery, newvalues, function(err, res) {
9      if (err) throw err;
10     console.log(res.result.nModified + " record updated");
11     db.close();
12   });
13 });
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_7.js
1 record updated
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$
```

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

```
qu_8.js      qu_3.js
1
2  var MongoClient = require('mongodb').MongoClient;
3  var url = "mongodb://localhost:27017/student";
4
5  MongoClient.connect(url, function(err, db) {
6    if (err) throw err;
7    db.collection("studentmarks").find({"maths_marks":{$gt:'50'},"english_marks":{$gt:'50'},"science_marks":{$gt:'50'}}).toArray(function(err, res) {
8      if (err) throw err;
9      console.log(result);
10     db.close();
11   });
12 });
13
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_8.js
[ { _id: 5937cc0c54b63a22cb486649,
  name: 'Mala',
  maths_marks: '51',
  english_marks: '53',
  science_marks: '72' },
  { _id: 5937cc0c54b63a22cb48664a,
  name: 'Vanu',
  maths_marks: '80',
  english_marks: '75',
  science_marks: '85' },
  { _id: 5937cc0c54b63a22cb48664c,
  name: 'Aruli',
  maths_marks: '78',
  english_marks: '85',
  science_marks: '80' },
  { _id: 5937cc0c54b63a22cb48664d,
  name: 'Shayu',
  maths_marks: '80',
  english_marks: '76',
  science_marks: '65' },
  { _id: 5937cc0c54b63a22cb48664f,
  name: 'Lucky',
  maths_marks: '66',
  english_marks: '90',
  science_marks: '75' },
  { _id: 5937cc0c54b63a22cb486650,
  name: 'Gva',
  maths_marks: '71',
  english_marks: '75',
  science_marks: '56' } ]
```

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

```
qu_8.js | qu_9.js
1
2 var MongoClient = require('mongodb').MongoClient;
3 var url = "mongodb://localhost:27017/student";
4
5 MongoClient.connect(url, function(err, db) {
6   if (err) throw err;
7   db.collection("studentmarks").find({"maths_marks":{"$lt":'50'}, "english_marks":{"$gt":'50'}}).toArray(function(err, result) {
8     if (err) throw err;
9     console.log(result);
10    db.close();
11  });
12 });
13
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_9.js
[
  { _id: 5937cc0c54b63a22cb48664e,
    name: 'Kumaran',
    maths_marks: '32',
    english_marks: '73',
    science_marks: '84' },
  { _id: 5937cc0c54b63a22cb486651,
    name: 'Raam',
    maths_marks: '41',
    english_marks: '65',
    science_marks: '88' } ]
```

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

```
qu_10.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/student";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   db.collection("studentmarks").find({"maths_marks":{"$lt":'40'}, "science_marks":{"$lt":'40'}}).toArray(function(err, result) {
7     if (err) throw err;
8     console.log(result);
9     db.close();
10  });
11 });
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_10.js
[]
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$
```

11) Remove Science column/field for Raam

```
qu_10.js      qu_11.js      qu_9.js
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://127.0.0.1:27017/student";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var myquery = { name:"Raam" };
  var newvalues = { name:"Raam",maths_marks:'41',english_marks:'65' };
  db.collection("studentmarks").update(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log(res.result.nModified + " record updated");
    db.close();
  });
})
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_11.js
1 record updated
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$
```

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

```
qu_10.js      qu_12.js      qu_
1  var MongoClient = require('mongodb').MongoClient;
2  var url = "mongodb://localhost:27017/student";
3
4  MongoClient.connect(url, function(err, db) {
5    if (err) throw err;
6    var myobj = { name:'John',maths_marks:'87',english_marks:'23' };
7    db.collection("studentmarks").insertOne(myobj, function(err, res) {
8      if (err) throw err;
9      console.log("1 record inserted");
10     db.close();
11   });
12 })
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_12.js
1 record inserted
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$
```

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

```
qu_10.js      qu_6.js      qu_13.js
1  var MongoClient = require('mongodb').MongoClient;
2  var url = "mongodb://127.0.0.1:27017/student";
3
4  MongoClient.connect(url, function(err, db) {
5    if (err) throw err;
6    var myquery = { name:'John' };
7    var newvalues = { name:'John',maths_marks:'87',science_marks:'23' };
8    db.collection("studentmarks").update(myquery, newvalues, function(err, res) {
9      if (err) throw err;
10     console.log(res.result.nModified + " record updated");
11     db.close();
12   });
13 })
14
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_13.js
1 record updated
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$
```

14) Remove Kumaran's document from collection

```
qu_10.js      qu_14.js
1  var http = require('http');
2  var MongoClient = require('mongodb').MongoClient;
3  var url = "mongodb://localhost:27017/student";
4
5  MongoClient.connect(url, function(err, db) {
6    if (err) throw err;
7    var myquery = { name:'Kumaran'};
8    db.collection("studentmarks").remove(myquery, function(err, obj) {
9      if (err) throw err;
10     console.log(obj.result.n + " document(s) deleted");
11     db.close();
12   });
13 })
14
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_14.js
1 document(s) deleted
```

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

```
qu_10.js      qu_14.js      qu_15.js
1  var MongoClient = require('mongodb').MongoClient;
2  var url = "mongodb://localhost:27017/student";
3
4  MongoClient.connect(url, function(err, db) {
5    if (err) throw err;
6    db.collection("studentmarks").find({$or:[{name:'Aruli'},{name:'Kala'}]},{name:1,maths_marks:1,science_marks:1}).toArray(function(err, result) {
7      if (err) throw err;
8      console.log(result);
9      db.close();
10    });
11  });
12
```

```
ukistu12@ukipc12:~/Documents/uki_exercises/node.js/in_ex_2/qu2$ node qu_15.js
[ { _id: 5937cc0c54b63a22cb48664b,
  name: 'Kala',
  maths_marks: '32',
  science_marks: '53' },
  { _id: 5937cc0c54b63a22cb48664c,
  name: 'Aruli',
  maths_marks: '78',
  science_marks: '80' } ]
```