

Node.js+MongoDB 02

1) Create a Database called student

```
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 |
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-1.js
Database created!
```

2) Create a collection called studentmarks

```
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
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-2.js
Table created!
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```

3) Create the documents listed in above table.

```
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 insert = [
7     { name:"mala",maths_marks:45,english_marks:53,science_marks:75},
8     { name:"venu",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:"Sharu",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  db.collection("studentmarks").insert(insert, function(err, res) {
18    if (err) throw err;
19    console.log("Number of records inserted: " + res.insertedCount);
20    db.close();
21  });
22 });
23
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-3.js
Number of records inserted: 9
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```

4) Increase the maths marks of Mala by 6 marks

```
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 = { maths_marks:45 };
7    var newvalues = { name:"mala",maths_marks:51,english_marks:53,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 })
14 |
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-4.js
1 record updated
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```

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

```
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
```

```
ukistu14@ukipc14:~/Documents/UkiExcersices/NodeJS$ node ex2-5.js
[ { _id: 5936612a24787618dc84db63,
  name: 'mala',
  maths_marks: 51,
  english_marks: 53,
  science_marks: 75 },
  { _id: 5936612a24787618dc84db64,
  name: 'venu',
  maths_marks: 80,
  english_marks: 75,
  science_marks: 85 },
  { _id: 5936612a24787618dc84db66,
  name: 'Aruli',
  maths_marks: 78,
  english_marks: 85,
  science_marks: 80 },
  { _id: 5936612a24787618dc84db67,
  name: 'Sharu',
  maths_marks: 80,
  english_marks: 76,
  science_marks: 65 },
  { _id: 5936612a24787618dc84db69,
  name: 'Lucky',
  maths_marks: 66,
  english_marks: 90,
  science_marks: 45 },
  { _id: 5936612a24787618dc84db6a,
  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 .

```
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 })
14
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-7.js
1 record updated
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```

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

```
ex2-8.js      ex2-9.js      ex2-10.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:{$gt:50},science_marks:{$gt:50},english_marks:{$gt:50}}).toArray(function(err, result)
7    if (err) throw err;
8    console.log(result);
9    db.close();
10  });
11  });
12
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-8.js
[ { _id: 5936612a24787618dc84db63,
  name: 'mala',
  maths_marks: 51,
  english_marks: 53,
  science_marks: 75 },
  { _id: 5936612a24787618dc84db64,
  name: 'venu',
  maths_marks: 80,
  english_marks: 75,
  science_marks: 85 },
  { _id: 5936612a24787618dc84db66,
  name: 'Aruli',
  maths_marks: 78,
  english_marks: 85,
  science_marks: 80 },
  { _id: 5936612a24787618dc84db67,
  name: 'Sharu',
  maths_marks: 80,
  english_marks: 76,
  science_marks: 65 },
  { _id: 5936612a24787618dc84db69,
  name: 'Lucky',
  maths_marks: 66,
  english_marks: 90,
  science_marks: 75 },
  { _id: 5936612a24787618dc84db6a,
  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

```
ex2-8.js | ex2-9.js | ex2-10.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:{$lt:50},english_marks:{$gt:50}}).toArray(function(err, result) {
7     if (err) throw err;
8     console.log(result);
9     db.close();
10  });
11 });
12
```

```
ukistu14@ukipc14:~/Documents/UkiExcersices/NodeJS$ node ex2-9.js
[ { _id: 5936612a24787618dc84db68,
  name: 'Kumaran',
  maths_marks: 32,
  english_marks: 73,
  science_marks: 84 },
  { _id: 5936612a24787618dc84db6b,
  name: 'Raam',
  maths_marks: 41,
  english_marks: 65,
  science_marks: 88 } ]
ukistu14@ukipc14:~/Documents/UkiExcersices/NodeJS$
```

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

```
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 });
12
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-10.js
[]
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```

11) Remove Science column/field for Raam

```
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:"Raam" };
7   var newvalues = { name:"Raam",maths_marks:41,english_marks:65 };
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 |
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-11.js
1 record updated
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```

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

```
ex2-8.js    ex2-11.js    ex2-12.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 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 })
13
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-12.js
1 record inserted
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```

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

```
ex2-12.js | ex2-13.js | ex2-14.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
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-13.js
1 record updated
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```

14) Remove Kumaran's document from collection

```
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 |
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-14.js
1 document(s) deleted
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```

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

```
ex2-15.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,
7     if (err) throw err;
8     console.log(result);
9     db.close();
10  });
11 });
12
```

```
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$ node ex2-15.js
[ { _id: 5936612a24787618dc84db65,
  name: 'Kala',
  maths_marks: 32,
  science_marks: 53 },
  { _id: 5936612a24787618dc84db66,
    name: 'Aruli',
    maths_marks: 78,
    science_marks: 80 } ]
ukistu14@ukipc14:~/Documents/UkiExcercises/NodeJS$
```