

1) Create a Database called student

```
node1.js | nodemongo1.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
```

```
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:4584) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Database created!
ukistu01@ukipc01:~/Desktop/node$
```

2) Create a collection called studentmarks

```
node1.js | nodemongo1.js
1  var MongoClient = require('mongodb').MongoClient;
2  var url = "mongodb://localhost:27017/";
3
4  MongoClient.connect(url, function(err, db) {
5    if (err) throw err;
6    var dbo = db.db("student");
7    dbo.createCollection("studentmarks", function(err, res) {
8      if (err) throw err;
9      console.log("Collection created!");
10     db.close();
11   });
12 });
13
```

```
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:4825) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Collection created!
ukistu01@ukipc01:~/Desktop/node$
```

3) Create the documents listed in above table.

javas.js	nodemongo1.js
1	<code>var MongoClient = require('mongodb').MongoClient;</code>
2	<code>var url = "mongodb://localhost:27017/";</code>
3	
4	<code>MongoClient.connect(url, function(err, db) {</code>
5	<code>  if (err) throw err;</code>
6	<code>  var dbo = db.db("student");</code>
7	<code>  var myobj = [</code>
8	<code>    { name: 'Mala', maths_marks: 45 , english_marks: 53 , science_marks:72},</code>
9	<code>    { name: 'Vanu', maths_marks: 80 , english_marks: 75 , science_marks:85},</code>
10	<code>    { name: 'Kala', maths_marks: 32 , english_marks: 46 , science_marks:53},</code>
11	<code>    { name: 'Aruli', maths_marks: 78 , english_marks: 85 , science_marks:80},</code>
12	<code>    { name: 'Shayu', maths_marks: 80 , english_marks: 76 , science_marks:65},</code>
13	<code>    { name: 'Kumaran', maths_marks: 32 , english_marks: 73 , science_marks:84},</code>
14	<code>    { name: 'Lucky', maths_marks: 66 , english_marks: 90 , science_marks:45},</code>
15	<code>    { name: 'Gva', maths_marks: 71 , english_marks: 75 , science_marks:56},</code>
16	<code>    { name: 'Raam', maths_marks: 41 , english_marks: 65 , science_marks:88},</code>
17	<code>  ];</code>
18	<code>  dbo.collection("studentmarks").insertMany(myobj, function(err, res) {</code>
19	<code>    if (err) throw err;</code>
20	<code>    console.log("Number of documents inserted: " + res.insertedCount);</code>
21	<code>    db.close();</code>
22	<code>  });</code>
23	<code>});</code>
24	

```
uk1stu01@uk1pc01:~/Desktop/node$ node nodemongo1.js
(node:5132) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Number of documents inserted: 9
uk1stu01@uk1pc01:~/Desktop/node$
```

4) Increase the maths marks of Mala by 6 marks

```
node1.js      javas.js      nodemongo1.js
1
2 var MongoClient = require('mongodb').MongoClient;
3 var url = "mongodb://127.0.0.1:27017/";
4
5 MongoClient.connect(url, function(err, db) {
6   if (err) throw err;
7   var dbo = db.db("student");
8   var myquery = { name: 'Mala' };
9   var newvalues = { $inc: { maths_marks: 6 } };
10  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
11    if (err) throw err;
12    console.log("1 document updated");
13    db.close();
14  });
15 });
16
```

```
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:4440) DeprecationWarning: current Server Discovery and Monitoring
engine is deprecated, and will be removed in a future version. To use
the new Server Discover and Monitoring engine, pass option { useUnified
Topology: true } to the MongoClient constructor.
1 document updated
ukistu01@ukipc01:~/Desktop/node$
```

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

```
1
2 var MongoClient = require('mongodb').MongoClient;
3 var url = "mongodb://localhost:27017/";
4
5 MongoClient.connect(url, function(err, db) {
6   if (err) throw err;
7   var dbo = db.db("student");
8   dbo.collection("studentmarks").find({maths_marks:{$gt:50}}).toArray(function(err, result) {
9     if (err) throw err;
10    console.log(result);
11    db.close();
12  });
13 });
14
```

```
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:4934) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
```

```
[
  {
    _id: 5e329ca7afdee810fe5a8bd2,
    name: 'Mala',
    maths_marks: 51,
    english_marks: 53,
    science_marks: 72
  },
  {
    _id: 5e329ca7afdee810fe5a8bd3,
    name: 'Vanu',
    maths_marks: 80,
    english_marks: 75,
    science_marks: 85
  },
  {
    _id: 5e329ca7afdee810fe5a8bd5,
    name: 'Aruli',
    maths_marks: 78,
    english_marks: 85,
    science_marks: 80
  },
  {
    _id: 5e329ca7afdee810fe5a8bd6,
    name: 'Shayu',
    maths_marks: 80,
    english_marks: 76,
    science_marks: 65
  },
  {
    _id: 5e329ca7afdee810fe5a8bd8,
    name: 'Lucky',
    maths_marks: 66,
```



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

```
nodemongo1.js      node3.js
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.collection("studentmarks").aggregate([{"$addFields":{"average":"0"}}]).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
|
```

```
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:7905) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
```

```
[
  {
    _id: 5e329ca7afdee810fe5a8bd2,
    name: 'Mala',
    maths_marks: 51,
    english_marks: 53,
    science_marks: 72,
    average: '0'
  },
  {
    _id: 5e329ca7afdee810fe5a8bd3,
    name: 'Vanu',
    maths_marks: 80,
    english_marks: 75,
    science_marks: 85,
    average: '0'
  },
  {
    _id: 5e329ca7afdee810fe5a8bd4,
    name: 'Kala',
    maths_marks: 32,
    english_marks: 46,
    science_marks: 53,
    average: '0'
  },
  {
    _id: 5e329ca7afdee810fe5a8bd5,
    name: 'Aruli',
    maths_marks: 78,
    english_marks: 85,
    science_marks: 80,
    average: '0'
  },
  {
    _id: 5e329ca7afdee810fe5a8bd6
```

7) Update Marks\_Science=75 to Lucky .

```
1
2  var MongoClient = require('mongodb').MongoClient;
3  var url = "mongodb://127.0.0.1:27017/";
4
5  MongoClient.connect(url, function(err, db) {
6    if (err) throw err;
7    var dbo = db.db("student");
8    var myquery = { science_marks: 45 };
9    var newvalues = { $set: {name: 'Lucky', maths_marks: 66 , english_marks: 90 , science_marks:75 } };
10   dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
11     if (err) throw err;
12     console.log("1 document updated");
13     db.close();
14   });
15 });
16
```

```
ukistu01@uklpc01:~/Desktop/node$ node nodemongo1.js
(node:5206) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
1 document updated
```

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

```

1  .ent = require('mongodb').MongoClient;
2  mongodb://localhost:27017/";
3
4  connect(url, function(err, db) {
5    throw err;
6    db.db("student");
7    tion("studentmarks").find({maths_marks:{$gt:50},science_marks:{$gt:50},english_marks:{$gt:50}}).toArray(function(err, result)
8    throw err;
9    log(result);
10   };
11
12

```

```

uk1stu01@uk1pc01:~/Desktop/node$ node nodemongo1.js
(node:5587) DeprecationWarning: current Server Discovery and Monitoring engine is
deprecated, and will be removed in a future version. To use the new Server Dis
cover and Monitoring engine, pass option { useUnifiedTopology: true } to the Mon
goClient constructor.
[
  {
    _id: 5e329ca7afdee810fe5a8bd2,
    name: 'Mala',
    maths_marks: 51,
    english_marks: 53,
    science_marks: 72
  },
  {
    _id: 5e329ca7afdee810fe5a8bd3,
    name: 'Vanu',
    maths_marks: 80,
    english_marks: 75,
    science_marks: 85
  },
  {
    _id: 5e329ca7afdee810fe5a8bd5,
    name: 'Aruli',
    maths_marks: 78,
    english_marks: 85,
    science_marks: 80
  },
  {
    _id: 5e329ca7afdee810fe5a8bd6,
    name: 'Shayu',
    maths_marks: 80,
    english_marks: 76,
    science_marks: 65
  },
  {
    _id: 5e329ca7afdee810fe5a8bd8,
    name: 'Lucky',
    maths_marks: 66,

```

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

```
1  var MongoClient = require('mongodb').MongoClient;
2  var url = "mongodb://localhost:27017/";
3
4  MongoClient.connect(url, function(err, db) {
5    if (err) throw err;
6    var dbo = db.db("student");
7    dbo.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
```

```
uk1stu01@uk1pc01:~/Desktop/node$ node nodemongo1.js
(node:5734) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[
  {
    _id: 5e329ca7afdee810fe5a8bd7,
    name: 'Kumaran',
    maths_marks: 32,
    english_marks: 73,
    science_marks: 84
  },
  {
    _id: 5e329ca7afdee810fe5a8bda,
    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.

```

1  var MongoClient = require('mongodb').MongoClient;
2  var url = "mongodb://localhost:27017/";
3
4  MongoClient.connect(url, function(err, db) {
5    if (err) throw err;
6    var dbo = db.db("student");
7    dbo.collection("studentmarks").find({maths_marks:{$lt:40},science_marks:{$lt:40}}).toArray(function(err, result) {
8      if (err) throw err;
9      console.log(result);
10     db.close();
11   });
12 });
13
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:5883) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[]
```

11) Remove Science column/field for Raam

```

1
2  var MongoClient = require('mongodb').MongoClient;
3  var url = "mongodb://127.0.0.1:27017/";
4
5  MongoClient.connect(url, function(err, db) {
6    if (err) throw err;
7    var dbo = db.db("student");
8    var myquery = { name: 'Raam' };
9    var newvalues = { $set: {name: 'Raam', maths_marks: 41 , english_marks: 65} };
10    dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
11      if (err) throw err;
12      console.log("1 document removed");
13      db.close();
14    });
15  });
16
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:6127) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
1 document removed
```

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

```
nodemongo1.js      javas.js
1
2 var MongoClient = require('mongodb').MongoClient;
3 var url = "mongodb://localhost:27017/";
4
5 MongoClient.connect(url, function(err, db) {
6   if (err) throw err;
7   var dbo = db.db("student");
8   var myobj = { name: 'John', maths_marks: 87, english_marks:23 };
9   dbo.collection("studentmarks").insertOne(myobj, function(err, res) {
10    if (err) throw err;
11    console.log("1 document inserted");
12    db.close();
13  });
14 });
15
```

```
uk1stu01@uk1pc01:~/Desktop/node$ node nodemongo1.js
(node:6451) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
1 document inserted
```

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

```
nodemongo1.js      node3.js
1
2  var MongoClient = require('mongodb').MongoClient;
3  var url = "mongodb://127.0.0.1:27017/";
4
5  MongoClient.connect(url, function(err, db) {
6    if (err) throw err;
7    var dbo = db.db("student");
8    var myquery = { name: 'John' };
9    var newvalues = { $set: {name: 'John', maths_marks:87, science_marks:23 } };
10   dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
11     if (err) throw err;
12     console.log("1 document updated");
13     db.close();
14   });
15 });
16
```

```
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:6780) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
1 document updated
```

14) Remove Kumaran's document from collection

```
nodemongo1.js      node3.js
1
2  var MongoClient = require('mongodb').MongoClient;
3  var url = "mongodb://localhost:27017/";
4
5  MongoClient.connect(url, function(err, db) {
6    if (err) throw err;
7    var dbo = db.db("student");
8    var myquery = { name: 'Kumaran' };
9    dbo.collection("studentmarks").deleteOne(myquery, function(err, obj) {
10     if (err) throw err;
11     console.log("1 document deleted");
12     db.close();
13   });
14 });
15
```

```
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:7055) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
1 document deleted
ukistu01@ukipc01:~/Desktop/node$
```

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

```
nodemongo1.js      node1.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("student");
7   dbo.collection("studentmarks").find({$or:[{name:'Aryli'},{name:'Kala'}]}).toArray(
8     if (err) throw err;
9     console.log(result);
10    db.close();
11  });
12 });
13 |
```

```
ukistu01@ukipc01:~/Desktop/node$ node nodemongo1.js
(node:7246) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[
  {
    _id: 5e329ca7afdee810fe5a8bd4,
    name: 'Kala',
    maths_marks: 32,
    english_marks: 46,
    science_marks: 53
  }
]
ukistu01@ukipc01:~/Desktop/node$
```