

1) Create a Database called student

```
ukistu01@ukipc01:~/Documents/uki4/programming/Backend/Node.js MongoDB$ nodemon m
ongo2.js
[nodemon] 1.18.9
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node mongo2.js`
(node:3138) DeprecationWarning: current URL string parser is deprecated, and wil
l be removed in a future version. To use the new parser, pass option { useNewUrl
Parser: true } to MongoClient.connect.
created!
[nodemon] clean exit - waiting for changes before restart
```

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/Students";
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  console.log(" created!");
  db.close();
});
```

2) Create a collection called studentmarks

```
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting `node mongo2.js`
(node:3499) DeprecationWarning: current URL string parser is deprecated, and wil
l be removed in a future version. To use the new parser, pass option { useNewUrl
Parser: true } to MongoClient.connect.
Collection created!
[nodemon] clean exit - waiting for changes before restart
```

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  dbo.createCollection("studentmarks", function(err, res) {
    if (err) throw err;
    console.log("Collection created!");
    db.close();
  });
});
```

3) Create the documents listed in above table.

```
ukistu01@ukipc01:~/Documents/uki4/programming/Backend/Node.js MongoDB$ nodemon m
ongo2.js
[nodemon] 1.18.9
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node mongo2.js`
(node:3866) DeprecationWarning: current URL string parser is deprecated, and wil
l be removed in a future version. To use the new parser, pass option { useNewUrl
Parser: true } to MongoClient.connect.
Number of documents inserted: 9
[nodemon] clean exit - waiting for changes before restart
```

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  var myobj = [
    {name: 'Mala',   maths_marks: '45', english_marks: '53', science_marks: '72' },
    {name: 'Vanu',   maths_marks: '80', english_marks: '75', science_marks: '85' },
    {name: 'Kala',   maths_marks: '32', english_marks: '46', science_marks: '53' },
    {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' }];
  dbo.collection("NodeStudentDetails").insertMany(myobj, function(err, res) {
    if (err) throw err;
    console.log("Number of documents inserted: " + res.insertedCount);
    db.close();
  });
});
```

4) Increase the maths marks of Mala by 6 marks

```
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting 'node mongo2.js'
(node:4006) DeprecationWarning: current URL string parser is deprecated, and will
be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
1 document updated
[nodemon] clean exit - waiting for changes before restart
```

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://127.0.0.1:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  var myquery = { maths_marks: '45' };
  var newvalues = { $set: {name: "Mala", maths_marks: "51" } };
  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log("1 document updated");
    db.close();
  });
});
```

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

```
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").find({maths_marks:{$gt:'50'}, science_marks: {$gt:'50'}, english_mar
  if (err) throw err;
  console.log(result);
  db.close();
});
});
```

```

[nodenon] clean exit - waiting for changes before restart
[nodenon] restarting due to changes...
[nodenon] starting node mongo2.js
(node:6961) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[ { _id: 5c52580a2801871ab77c6e31,
  name: 'Mala',
  maths_marks: '51',
  english_marks: '53',
  science_marks: '72' },
  { _id: 5c52580a2801871ab77c6e32,
  name: 'Vanu',
  maths_marks: '80',
  english_marks: '75',
  science_marks: '85' },
  { _id: 5c52580a2801871ab77c6e34,
  name: 'Aruli',
  maths_marks: '78',
  english_marks: '85',
  science_marks: '80' },
  { _id: 5c52580a2801871ab77c6e35,
  name: 'Shayu',
  maths_marks: '80',
  english_marks: '76',
  science_marks: '65' },
  { _id: 5c52580a2801871ab77c6e38,
  name: 'Gva',
  maths_marks: '71',
  english_marks: '75',
  science_marks: '56' },
  { _id: 5c52580cf53c971ab8df17fb,
  name: 'Mala',
  maths_marks: '51',
  english_marks: '53',
  science_marks: '72' },
  { _id: 5c52580cf53c971ab8df17fc,
  name: 'Vanu',
  maths_marks: '80',
  english_marks: '75',
  science_marks: '85' },
  { _id: 5c52580cf53c971ab8df17fe,
  name: 'Aruli',
  maths_marks: '78',
  english_marks: '85',
  science_marks: '80' },
  { _id: 5c52580cf53c971ab8df17ff,
  name: 'Shayu',
  maths_marks: '80',
  english_marks: '76',
  science_marks: '65' },
  { _id: 5c52580cf53c971ab8df1802,
  name: 'Gva',
  maths_marks: '71',
  english_marks: '75',
  science_marks: '56' },

```

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

```

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").updateOne({}, {$set: {Average: ""}}, {multi: true})(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});

```

7) Update Marks\_Science=75 to Lucky .

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://127.0.0.1:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  var myquery = { science_marks: '45' };
  var newvalues = { $set: {name: "Lucky", Marks_science: '75' } };
  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log("1 document updated");
    db.close();
  });
});
```

```
ukistu01@ukip01:~/Documents/uki4/programming/Backend/Node.js MongoDB$ nodemon mongo2.js
[nodemon] 1.18.9
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting 'node mongo2.js'
(node:4985) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
1 document updated
[nodemon] clean exit - waiting for changes before restart
```

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

```
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").find({maths_marks:{$gt:'50'}, science_marks: {$gt:'50'}, english_mar
  if (err) throw err;
  console.log(result);
  db.close();
});
```

```

[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting 'node mongo2.js'
(node:6961) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[ { _id: 5c52580a2801871ab77c6e31,
  name: 'Mala',
  maths_marks: '51',
  english_marks: '53',
  science_marks: '72' },
  { _id: 5c52580a2801871ab77c6e32,
  name: 'Vanu',
  maths_marks: '80',
  english_marks: '75',
  science_marks: '85' },
  { _id: 5c52580a2801871ab77c6e34,
  name: 'Aruli',
  maths_marks: '78',
  english_marks: '85',
  science_marks: '80' },
  { _id: 5c52580a2801871ab77c6e35,
  name: 'Shayu',
  maths_marks: '80',
  english_marks: '76',
  science_marks: '65' },
  { _id: 5c52580a2801871ab77c6e38,
  name: 'Gva',
  maths_marks: '71',
  english_marks: '75',
  science_marks: '56' },
  { _id: 5c52580cf53c971ab8df17fb,
  name: 'Mala',
  maths_marks: '51',
  english_marks: '53',
  science_marks: '72' },
  { _id: 5c52580cf53c971ab8df17fc,
  name: 'Vanu',
  maths_marks: '80',
  english_marks: '75',
  science_marks: '85' },
  { _id: 5c52580cf53c971ab8df17fe,
  name: 'Aruli',
  maths_marks: '78',
  english_marks: '85',
  science_marks: '80' },
  { _id: 5c52580cf53c971ab8df17ff,
  name: 'Shayu',
  maths_marks: '80',
  english_marks: '76',
  science_marks: '65' },
  { _id: 5c52580cf53c971ab8df1802,
  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

```

var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  dbo.collection("studentmarks").find({maths_marks:{$lt:'50'}, english_marks: {$gt:'50'}}).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});

```

```

[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting 'node mongo2.js'
(node:5159) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[]
[nodemon] clean exit - waiting for changes before restart

```

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

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  dbo.collection("studentmarks").find({maths_marks:{$lt:'40'}, science_marks:{$lt:'40'}}).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});*/
```

11) Remove Science column/field for Raam

```
[nodemon] restarting due to changes...
[nodemon] starting 'node mongo2.js'
(node:7879) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
(node:7879) DeprecationWarning: collection.remove is deprecated. Use deleteOne, deleteMany, or bulkWrite instead.
1 document deleted
[nodemon] clean exit - waiting for changes before restart
```

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  dbo.collection("studentmarks").remove({name: "Raam"}, function(err, result) {
    if (err) throw err;
    console.log("1 document deleted");
    db.close();
  });
});
```

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

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  var myobj = [
{name : 'John' ,   maths_marks : '87' , english_marks : '23'}];

  dbo.collection("studentmarks").insertMany(myobj, function(err, res) {
    if (err) throw err;
    console.log("Number of documents inserted: " + res.insertedCount);
    db.close();
  });
});
```

```
(node:8155) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
Number of documents inserted: 1
[nodenon] clean exit - waiting for changes before restart
```

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

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  dbo.collection("studentmarks").update({name: "John"}, {$rename: {"english_marks":"science_marks"}}, function(err, result) {
    if (err) throw err;
    console.log("rename!");
  });
  db.close();
});
```



```
(node:8431) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.prototype.connect.
(node:8431) DeprecationWarning: collection.update is deprecated. Use updateOne, updateMany, or bulkWrite instead.
rename!
[nodemon] clean exit - waiting for changes before restart
```

#### 14) Remove Kumaran's document from collection

```
(node:8606) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.prototype.connect.
(node:8606) DeprecationWarning: collection.remove is deprecated. Use deleteOne, deleteMany, or bulkWrite instead.
kumaran doc deleted!
[nodemon] clean exit - waiting for changes before restart
```

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  dbo.collection("studentmarks").remove({name: "Kumaran"}, function(err, result) {
    if (err) throw err;
    console.log("kumaran doc deleted!");
    db.close();
  });
});
```

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

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("Students");
  dbo.collection("studentmarks").find({science_marks: '84'}, {name: 'Aruli'}).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

```
[nodemon] restarting due to changes...
[nodemon] starting node mongo2.js
(node:7243) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.prototype.connect.
[ { _id: 5c52580a2801871ab77c6e36,
  name: 'Kumaran',
  maths_marks: '32',
  english_marks: '73',
  science_marks: '84' },
  { _id: 5c52580a2801871ab77c6e39,
    name: 'Raam',
    maths_marks: '41',
    english_marks: '65',
    science_marks: '88' },
  { _id: 5c52580cf53c971ab8df1800,
    name: 'Kumaran',
    maths_marks: '32',
    english_marks: '73',
    science_marks: '84' },
  { _id: 5c52580cf53c971ab8df1803,
    name: 'Raam',
    maths_marks: '41',
    english_marks: '65',
    science_marks: '88' },
  { _id: 5c52580c3b194f1ab6ceba25,
    name: 'Kumaran',
    maths_marks: '32',
    english_marks: '73',
    science_marks: '84' },
  { _id: 5c52580c3b194f1ab6ceba28,
    name: 'Raam',
    maths_marks: '41',
    english_marks: '65',
    science_marks: '88' } ]
```