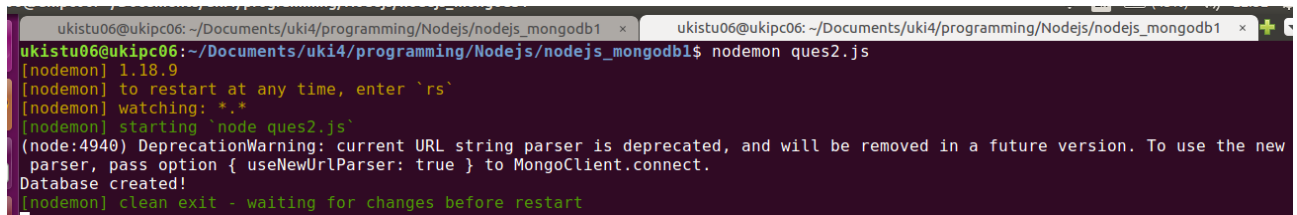## 1) Create a Database called student

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  console.log("Database created!");
  db.close();
});
```
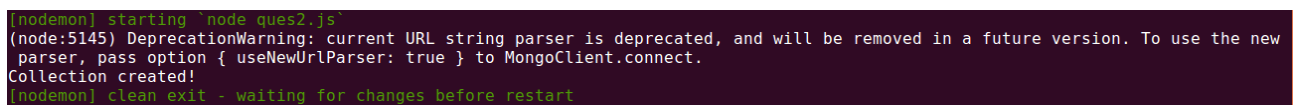
```
ukistu06@ukipc06: ~/Documents/uki4/programming/Nodejs/nodejs_mongodb1  ×     ukistu06@ukipc06: ~/Documents/uki4/programming/Nodejs/nodejs_mongodb1  ×
ukistu06@ukipc06:~/Documents/uki4/programming/Nodejs/nodejs_mongodb1$ nodemon ques2.js
[nodemon] 1.18.9
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node ques2.js`
(node:4940) 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.
Database created!
[nodemon] clean exit - waiting for changes before restart
```

2) Create a collection called studentmarks

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.createCollection("studentmarks", function(err, res) {
  if (err) throw err;
  console.log("Collection created!");
  db.close();
  });
});
```

```
[nodemon] starting `node ques2.js`
(node:5145) 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.
Collection created!
[nodemon] clean exit - waiting for changes before restart
```

3) Create the documents listed in above table.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  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,cience_marks : 56
},
  {
    name: "Raam",maths_marks: 41,english_marks: 65,science_marks: 88
}

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

```
[nodemon] starting `node ques2.js`
(node:5258) 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: 9
[nodemon] clean exit - waiting for changes before restart
```

4) Increase the maths marks of Mala by 6 marks

```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/student";
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  var myquery = { name: "Mala" };
  var newvalues = { $inc: {maths_marks:6 } };
  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
  if (err) throw err;
  console.log("1 document updated");
  db.close();
  });
});
```

```
(node:5497) 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
```

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/student";

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

(node:5612) DeprecationWarning: current URL string parser is deprecated, and will be remove
 parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[{ _id: 5c51de356a69ca148a8208a4,
    name: 'Mala',
    maths_marks: 51,
    english_marks: 53,
    science_marks: 72 },
  { _id: 5c51de356a69ca148a8208a5,
    name: 'Vanu',
    maths_marks: 80,
    english_marks: 75,
    science_marks: 85 },
  { _id: 5c51de356a69ca148a8208a7,
    name: 'Aruli',
    maths_marks: 78,
    english_marks: 85,
    science_marks: 80 },
  { _id: 5c51de356a69ca148a8208a8,
    name: 'Shayu',
    maths_marks: 80,
    english_marks: 76,
    science_marks: 65 },
  { _id: 5c51de356a69ca148a8208aa,
    name: 'Lucky',
    maths_marks: 66,
    english_marks: 90,
    science_marks: 45 },
  { _id: 5c51de356a69ca148a8208ab,
    name: 'Gva',
    maths_marks: 71,
    english_marks: 75,
    cience_marks: 56 }]
[nodemon] clean exit - waiting for changes before restart

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

```
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 dbo = db.db("student");
  var myquery = {};
  var newvalues = {$set: {Average: ""}};
  dbo.collection("studentmarks").updateMany(myquery, newvalues, function(err, res) {
  if (err) throw err;
  console.log("Average inputed");
  db.close();
  });
});
```

(node:5823) DeprecationWarning: current URL string parser is deprecated, and will be removed in
 parser, pass option { useNewUrlParser: true } to MongoClient.connect.
Average inputed
[nodemon] clean exit - waiting for changes before restart

7) Update Marks_Science=75 to Lucky .

```javascript
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 dbo = db.db("student");
  var myquery = { name: "Lucky" };
  var newvalues = { $set: {science_marks:75 }};
  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
  if (err) throw err;
  console.log(" updated");
  db.close();
  });
});
```

```
node:6030) DeprecationWarning: current URL string parser is depr
parser, pass option { useNewUrlParser: true } to MongoClient.con
updated
nodemon] clean exit - waiting for changes before restart
```

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

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

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

```
(node:6142) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future
arser: true } to MongoClient.connect.
[ { _id: 5c51de356a69ca148a8208a4,
    name: 'Mala',
    maths_marks: 51,
    english_marks: 53,
    science_marks: 72,
    Average: '' },
  { _id: 5c51de356a69ca148a8208a5,
    name: 'Vanu',
    maths_marks: 80,
    english_marks: 75,
    science_marks: 85,
    Average: '' },
  { _id: 5c51de356a69ca148a8208a7,
    name: 'Aruli',
    maths_marks: 78,
    english_marks: 85,
    science_marks: 80,
    Average: '' },
  { _id: 5c51de356a69ca148a8208a8,
    name: 'Shayu',
    maths_marks: 80,
    english_marks: 76,
    science_marks: 65,
    Average: '' },
  { _id: 5c51de356a69ca148a8208aa,
    name: 'Lucky',
    maths_marks: 66,
    english_marks: 90,
    science_marks: 75,
    Average: '' },
  { _id: 5c51de356a69ca148a8208ab,
    name: 'Gva',
    maths_marks: 71,
    english_marks: 75,
    cience_marks: 56,
    Average: '' } ]
[nodemon] clean exit - waiting for changes before restart
```

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/student";

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

```
(node:6321) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To us
arser: true } to MongoClient.connect.
[ { _id: 5c51de356a69ca148a8208a9,
    name: 'Kumaran',
    maths_marks: 32,
    english_marks: 73,
    science_marks: 84,
    Average: '' },
  { _id: 5c51de356a69ca148a8208ac,
    name: 'Raam',
    maths_marks: 41,
    english_marks: 65,
    science_marks: 88,
    Average: '' } ]
[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/student";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  dbo.collection("studentmarks").find({$and:[{maths_marks:{$lt:60},science_marks:{$lt:60}}]}).toArray(function(err, result) {
  if (err) throw err;
  console.log(result);
  db.close();
  });
});
```

```
(node:6584) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future ver
arser: true } to MongoClient.connect.
[ { _id: 5c51de356a69ca148a8208a6,
    name: 'Kala',
    maths_marks: 32,
    english_marks: 46,
    science_marks: 53,
    Average: '' } ]
[nodemon] clean exit - waiting for changes before restart
```

11) Remove Science column/field for Raam

```
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 dbo = db.db("student");
  var myquery = { name: "Raam" };
  var newvalues = { $unset: {science_marks:75 } };
  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
  if (err) throw err;
  console.log("deleted");
  db.close();
  });
});
```

```
(node:6686) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future ve
arser: true } to MongoClient.connect.
deleted
[nodemon] clean exit - waiting for changes before restart
```

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

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  var myobj = [
  { name: 'John', maths_marks:87, english_marks:23}
  ];
  dbo.collection("studenmarks").insertMany(myobj, function(err, res) {
  if (err) throw err;
  console.log("Number of documents changed: " + res.insertedCount);
  db.close();
  });
});
```

```
(node:6777) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future
arser: true } to MongoClient.connect.
Number of documents changed: 1
[nodemon] clean exit - waiting for changes before restart
```

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

```javascript
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 dbo = db.db("student");
  var myquery = { name:"John" };
  var newvalues = { $rename: {english_marks: "science_marks"} };
  dbo.collection("studentmarks").updateOne(myquery, newvalues, function(err, res) {
  if (err) throw err;
  console.log("document rename updated");
  db.close();
  });
});
```

```
(node:6886) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { us
arser: true } to MongoClient.connect.
document rename updated
[nodemon] clean exit - waiting for changes before restart
```

14) Remove Kumaran's document from collection

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
  var myquery = { address: 'Mountain 21' };
  dbo.collection("studentmarks").deleteOne(myquery, function(err, obj) {
  if (err) throw err;
  console.log("document deleted");
  db.close();
  });
});
```

```
(node:6969) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future versi
arser: true } to MongoClient.connect.
document deleted
[nodemon] clean exit - waiting for changes before restart
```

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

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("student");
      dbo.collection("studentmarks").find({$or:[{name:"Aruli"},{name: "Kala"}]},{maths_marks:1, science_marks:1}).toArray(function(err, result) {
  if (err) throw err;
  console.log(result);
  db.close();
  });
});
```

```
(node:7356) DeprecationWarning: current URL string parser is deprecated, and will be
arser: true } to MongoClient.connect.
[ { _id: 5c51de356a69ca148a8208a6,
    name: 'Kala',
    maths_marks: 32,
    english_marks: 46,
    science_marks: 53,
    Average: '' },
  { _id: 5c51de356a69ca148a8208a7,
    name: 'Aruli',
    maths_marks: 78,
    english_marks: 85,
    science_marks: 80,
    Average: '' } ]
[nodemon] clean exit - waiting for changes before restart
```