2. Complete mongodb ex1 and mongodb ex2 with the mongoclient object you just created in Node.js.

1) Create a Database called student

```
1  var MongoClient = require('mongodb').MongoClient;
2  //Create a database named "mydb":
3  var url = "mongodb://localhost:27017/student";
4
5  MongoClient.connect(url, function(err, db) {
6    if (err) throw err;
7    console.log("Database created!");
8    db.close();
9  });
10
```

2) Create a collection called student marks

```
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 uki = db.db("student");
7    uki.createCollection("student_marks", function(err, res) {
8      if (err) throw err;
9      console.log("Collection created!");
10     db.close();
11   });
12 });
13
```

3) Create the documents listed in above table.

```
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    var myobj = [
8      { name: 'Mala', maths_marks: 45, english_marks: 53, science_marks: 72},
9      { name: 'Venu', maths_marks: 80, english_marks: 75, science_marks: 85},
10     { name: 'Kala', maths_marks: 32, english_marks: 46, science_marks: 53},
11     { name: 'Aruli', maths_marks: 78, english_marks: 85, science_marks: 80},
12     { name: 'Shayu', maths_marks: 80, english_marks: 76, science_marks: 65},
13     { name: 'Kumaran', maths_marks: 32, english_marks: 73, science_marks: 84},
14     { name: 'Lucky', maths_marks: 66, english_marks: 90, science_marks: 45},
15     { name: 'Gva', maths_marks: 71, english_marks: 75, science_marks: 56},
16     { name: 'Raam', maths_marks: 41, english_marks: 65, science_marks: 88}
17
18   ];
19   dbo.collection("student_marks").insertMany(myobj, function(err, res) {
20     if (err) throw err;
21     console.log("Number of documents inserted: " + res.insertedCount);
22     db.close();
23   });
```

4) Increase the maths marks of Mala by 6 marks

```
File  Edit  View  Selection  Find  Packages  Help
 qus1.js    qus2.js    qus3.js    | qus4.js    qus5.js    qus6.js    qus7.js    qus8.js    qus9.js    qus10.js    qus11.js    qus12.js    qus13.js    qus14.js    qus15.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    var myquery = {name: "Mala"};
 8    var newvalues = {$inc: {maths_marks: 6}};
 9    dbo.collection("student_marks").updatetOne(myquery, newvalues, function(err, res) {
10      if (err) throw err;
11      console.log("1 document updated");
12      db.close();
13    });
14  });
15
```

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/";
 3
 4  MongoClient.connect(url, function(err, db) {
 5    if (err) throw err;
 6    var dbo = db.db("student");
 7    dbo.collection("student_marks").find({maths_marks: {$gt :50}, {name: true, _id: false}}).toArray(function(err, result) {
 8      if (err) throw err;
 9      console.log(result);
10      db.close();
11    });
12  });
13
```

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

```
File  Edit  View  Selection  Find  Packages  Help
 qus1.js    qus2.js    qus3.js    qus4.js    qus5.js    | qus6.js    qus7.js    qus8.js    qus9.js    qus10.js    qus11.js    qus12.js    qus13.js    qus14.js    qus15.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    var myquery = {}
 8    var newvalues = {$set: {Average: ""}};
 9    dbo.collection("student_marks").updatetMany(myquery, newvalues, function(err, res) {
10      if (err) throw err;
11      console.log(res.result.nModified + "document(s) updated");
12      db.close();
13    });
14  });
15
```

7) Update Marks_Science=75 to Lucky .

```
 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    var myquery = {}
 8    var newvalues = {$set: {science_marks: 75}};
 9    dbo.collection("student_marks").updatetMany(myquery, newvalues, function(err, res) {
10      if (err) throw err;
11      console.log("1 document updated");
12      db.close();
13    });
14  });
15
```

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

```
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("student_marks").find({maths_marks: {$gt :50}, english_marks: {$gt :50}, science_marks: {$gt :50}, {name: true, _id: false}}).toArray(function(err, result) {
8      if (err) throw err;
9      console.log(result);
10     db.close();
11   });
12 });
13
```

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("student_marks").find({maths_marks: {$lt :50}, english_marks: {$gt :50}, {name: true, _id: false}}).toArray(function(err, result) {
8      if (err) throw err;
9      console.log(result);
10     db.close();
11   });
12 });
13
```

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("student_marks").find({maths_marks: {$lt :40}, science_marks: {$lt :40}, {name: true, _id: false}}).toArray(function(err, result) {
8      if (err) throw err;
9      console.log(result);
10     db.close();
11   });
12 });
13
```

11) Remove Science column/field for Raam.

```
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    var myquery = {name: 'Raam'}
8    var newvalues = {$unset: {science_marks: 75}};
9    dbo.collection("student_marks").updatetMany(myquery, newvalues, function(err, res) {
10     if (err) throw err;
11     console.log("1 document updated");
12     db.close();
13   });
14 });
15
```

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

```
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    var myobj = { name: 'Jhon', maths_marks: 87, english_marks: 27}
8    dbo.collection("student_marks").insertOne(myobj, function(err, res) {
9      if (err) throw err;
10     console.log("1 documents inserted");
11     db.close();
12   });
13 });
14
```

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

```
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    var myquery = {name: 'Jhon'}
8    var newvalues = {$rename: {english_marks : "science_marks"}};
9    dbo.collection("student_marks").updateOne(myquery, newvalues, function(err, res) {
10     if (err) throw err;
11     console.log("1 document updated");
12     db.close();
13   });
14 });
15
```

14) Remove Kumaran's document from collection

```
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     var myquery = {name: 'Kumaran'}
8     dbo.collection("student_marks").deleteOne(myquery, newvalues, function(err, res) {
9       if (err) throw err;
10      console.log("1 document deleted");
11      db.close();
12    });
13  });
14
```

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

```
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("student_marks").find({$or:[{name:'Aruli'},{name:'kala'}]}, {maths_marks: true, science_marks: true}).toArray(function(err, result) {
8       if (err) throw err;
9       console.log(result);
10      db.close();
11    });
12  });
13
```