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
```

2) Create a collection called studentmarks

```
   createCollection.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 })
```

3) Create the documents listed in above table.

```javascript
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');
  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('studentmarks').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

```javascript
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 = { name: 'Mala'};
  var newvalues = { $set: {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.

```
                greaterAll.js              |              greaterThan.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({maths_marks:{$gt: 50}}).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.

7) Update Marks_Science=75 to Lucky

```
                greaterAll.js              |              updateScienceMarks.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 = { english_marks: 76 };
8      var newvalues = {$rename: {science_marks: 65} };
9      dbo.collection("studentmarks").(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.

```
greaterAll.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({$and:[{maths_marks: {$gt: 50}},
8       {science_marks: {$gt: 50}},
9       {english_marks: {$gt: 50}}]}).toArray(function(err, result) {
10      if (err) throw err;
11      console.log(result);
12      db.close();
13    });
14  });
15
```

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

```
delete.js            rename.js            deleteKumaran.js          lessAndGreater.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({$and:[{maths_marks: {$lt: 50}},{english_marks: {$gt: 50}}]]
8       if (err) throw err;
9       console.log(result);
10      db.close();
11    });
12  });
```

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

```
        lessAndLess.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({$or:[{maths_marks: {$lt: 40}},
8       {science_marks: {$lt: 40}}]}).toArray(function(err, result) {
9       if (err) throw err;
10      console.log(result);
11      db.close();
12    });
13  });
14  |
```

11) Remove Science column/field for Raam

```
        delete.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: "Raam" };
8     var newvalues = {$unset: {science_marks: 88} };
9     dbo.collection("studentmarks").deleteOne(myquery, 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.

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

```
                delete.js                    rename.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 = { english_marks: 76 };
8      var newvalues = {$rename: {science_marks: 65} };
9      dbo.collection("studentmarks").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

```
                delete.js                    rename.js                    deleteKumaran.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: "Kumaran" };
8      var newvalues = {$unset: {science_marks: 84} };
9      dbo.collection("studentmarks").deleteOne(myquery,newvalues, function(err, res) {
10       if (err) throw err;
11       console.log("1 document updated");
12       db.close();
13     });
14   });
15
```

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