1) Create a Database called music .

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  console.log("Database created!");
  db.close();
});
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m1.js
Database created!
```

2) Create a collection called songdetails .

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  db.createCollection("songdetails", function(err, res) {
    if (err) throw err;
    console.log("Table created!");
    db.close();
  });
});
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m2.js
Table created!
```

3) Create the above 5 song documents.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var insert = [
    { songName: 'thaniye thannandhaniye', film: 'rhythm', musicDirector: 'AR Rahman', singer: 'shankar mahadhevan'},
    { songName: 'evano oruvan', film: 'alaipayudhe', musicDirector: 'AR Rahman', singer: 'swarnalatha'},
    { songName: 'Roja poondhottam', film: 'kannukkul nilavu', musicDirector: 'ilayaraja', singer: 'unni krishnan'},
    { songName: 'vennilave vennilave', film: 'minsara kanavu', musicDirector: 'AR Rahman', singer: 'Hariharan'},
    { songName: 'sollamal thottu sellum', film: 'Dheena', musicDirector: 'Yuvana shankar raja', singer: 'Hariharan'}
  ];
    db.collection("songdetails").insert(insert, function(err, res) {
      if (err) throw err;
      console.log("Number of records inserted: " + res.insertedCount);
      db.close();
    });
  });
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m3.js
Number of records inserted: 5
```

4) List all documents created.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  db.collection("songdetails").find({}).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m4.js
[ { _id: 59240ef9cfe76f2e72a50ad6,
    songname: 'evanooruvan',
    film: 'alaipayuthe',
    musicdirector: 'ARrahman',
    singer: 'swarnalatha' },
  { _id: 5924103ccfe76f2e72a50ad7,
    songname: 'rojapoonthoddam',
    film: 'kannukkulnilavu',
    musicdirector: 'illaiyaraja',
    singer: 'anuradha,unnikrishnan' },
  { _id: 592410d7cfe76f2e72a50ad8,
    songname: 'vennilavee vennilavee vinnaithandi',
    film: 'minsarakanavu',
    musicdirector: 'ARrahman',
    singer: 'hariharan,saathanasargam' },
  { _id: 59241130cfe76f2e72a50ad9,
    songname: 'sollamal thoddu sellum',
    film: 'deena',
    musicdirector: 'juvansangarraja',
    singer: 'hariharan' },
  { _id: 592418efcfe76f2e72a50ada,
    songname: 'oru naal mattum sirikka',
    film: 'seedan',
    musicdirector: 'juvansangarraja',
    singer: 'chithra' },
```

5) List A.R.Rahman’s songs.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var query = { musicDirector: 'AR Rahman' };
  db.collection("songdetails").find(query).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m5.js
[ { _id: 5934dd844bddc60ec353da78,
    songName: 'thaniye thannandhaniye',
    film: 'rhythm',
    musicDirector: 'AR Rahman',
    singer: 'shankar mahadhevan' },
  { _id: 5934dd844bddc60ec353da79,
    songName: 'evano oruvan',
    film: 'alaipayudhe',
    musicDirector: 'AR Rahman',
    singer: 'swarnalatha' },
  { _id: 5934dd844bddc60ec353da7b,
    songName: 'vennilave vennilave',
    film: 'minsara kanavu',
    musicDirector: 'AR Rahman',
    singer: 'Hariharan' } ]
```

6) List A.R.Rahman’s songs sung by Unnikrishnan.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var query = { musicDirector: 'AR Rahman',singer: 'unni krishnan' };
  db.collection("songdetails").find(query).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m6.js
[]
```

7) Delete the song which you don’t like.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var myquery = {songName: 'Roja poondhottam', film: 'kannukkul nilavu', musicDirector: 'ilayaraja', singer: 'unni krishna
  db.collection("songdetails").remove(myquery, function(err, obj) {
    if (err) throw err;
    console.log(obj.result.n + " document(s) deleted");
    db.close();
  });
});
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m7.js
1 document(s) deleted
```

8) Add new song which is your favourite.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var insert = [
    { songName: 'oru naal mattum', film: 'seedan', musicDirector: 'AR Rahman', singer: 'shankar mahadhevan'}
  ];
    db.collection("songdetails").insert(insert, function(err, res) {
      if (err) throw err;
      console.log("Number of records inserted: " + res.insertedCount);
      db.close();
    });
  });
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m8.js
Number of records inserted: 1
```

9) List Songs sung by Hariharan from Minsara kanavu film.

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

ngoClient.connect(url, function(err, db) {
if (err) throw err;
var query = {  songName: 'vennilave vennilave', film: 'minsara kanavu', musicDirector: 'AR Rahman', singer: 'Hariharan' };
db.collection("songdetails").find(query).toArray(function(err, result) {
  if (err) throw err;
  console.log(result);
  db.close();
});
;
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m9.js
[ { _id: 5934dd844bddc60ec353da7b,
    songName: 'vennilave vennilave',
    film: 'minsara kanavu',
    musicDirector: 'AR Rahman',
    singer: 'Hariharan' } ]
```

10)List out the singers' names in your document.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  db.collection("songdetails").find({},{singer:1,_id:0}).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m23.js
[ { singer: 'swarnalatha' },
  { singer: 'anuradha,unnikrishnan' },
  { singer: 'hariharan,saathanasargam' },
  { singer: 'hariharan' },
  { singer: 'chithra' },
  { singer: 'shankar mahadhevan' },
  { singer: 'swarnalatha' },
  { singer: 'Hariharan' },
  { singer: 'Hariharan' },
  { singer: 'shankar mahadhevan' } ]
```

EXERCISE2

1) Create a Database called student

```
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();
});
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m10.js
Database created!
```

2) Create a collection called studentmarks

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

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

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m11.js
Table created!
```

3) Create the documents listed in above table.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var insert = [
    { name:"mala",maths_marks:45,english_marks:53,science_marks:75},
      { name:"venu",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:"Sharu",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},
  ];
    db.collection("studentmarks").insert(insert, function(err, res) {
      if (err) throw err;
      console.log("Number of records inserted: " + res.insertedCount);
      db.close();
    });
  });
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m12.js
Number of records inserted: 9
```

4) Increase the maths marks of Mala by 6 marks

```
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 myquery = { maths_marks:45 };
  var newvalues = { name:"mala",maths_marks:51,english_marks:53,science_marks:75 };
  db.collection("studentmarks").update(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log(res.result.nModified + " record updated");
    db.close();
  });
})
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m13.js
1 record updated
```

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;
  db.collection("studentmarks").find({maths_marks:{$gt:50}}).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m14.js
[ { _id: 593636490e49180eae9e65c4,
    name: 'mala',
    maths_marks: 51,
    english_marks: 53,
    science_marks: 75 },
  { _id: 593636490e49180eae9e65c5,
    name: 'venu',
    maths_marks: 80,
    english_marks: 75,
    science_marks: 85 },
  { _id: 593636490e49180eae9e65c7,
    name: 'Aruli',
    maths_marks: 78,
    english_marks: 85,
    science_marks: 80 },
  { _id: 593636490e49180eae9e65c8,
    name: 'Sharu',
    maths_marks: 80,
    english_marks: 76,
    science_marks: 65 },
  { _id: 593636490e49180eae9e65ca,
    name: 'Lucky',
    maths_marks: 66,
    english_marks: 90,
    science_marks: 45 },
  { _id: 593636490e49180eae9e65cb,
    name: 'Gva',
    maths_marks: 71,
    english_marks: 75,
    science_marks: 56 } ]
```

7) Update Marks_Science=75 to Lucky .

```
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 myquery = { science_marks:45};
  var newvalues = { name:"Lucky",maths_marks:66,english_marks:90,science_marks:75};
  db.collection("studentmarks").update(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log(res.result.nModified + " record updated");
    db.close();
  });
})
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m17.js
1 record updated
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$
```

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

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

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

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m16.js
[ { _id: 593636490e49180eae9e65c4,
    name: 'mala',
    maths_marks: 51,
    english_marks: 53,
    science_marks: 75 },
  { _id: 593636490e49180eae9e65c5,
    name: 'venu',
    maths_marks: 80,
    english_marks: 75,
    science_marks: 85 },
  { _id: 593636490e49180eae9e65c7,
    name: 'Aruli',
    maths_marks: 78,
    english_marks: 85,
    science_marks: 80 },
  { _id: 593636490e49180eae9e65c8,
    name: 'Sharu',
    maths_marks: 80,
    english_marks: 76,
    science_marks: 65 },
  { _id: 593636490e49180eae9e65ca,
    name: 'Lucky',
    maths_marks: 66,
    english_marks: 90,
    science_marks: 75 },
  { _id: 593636490e49180eae9e65cb,
    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/student";

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

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m15.js
[ { _id: 593636490e49180eae9e65c9,
    name: 'Kumaran',
    maths_marks: 32,
    english_marks: 73,
    science_marks: 84 },
  { _id: 593636490e49180eae9e65cc,
    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.

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

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

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m15.js
[]
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$
```

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 myquery = { name:"Raam" };
  var newvalues = {  name:"Raam",maths_marks:41,english_marks:65 };
  db.collection("studentmarks").update(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log(res.result.nModified + " record updated");
    db.close();
  });
})
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m18.js
1 record updated
```

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/student";

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var myobj = { name:"John",maths_marks:87,english_marks:23 };
  db.collection("studentmarks").insertOne(myobj, function(err, res) {
    if (err) throw err;
    console.log("1 record inserted");
    db.close();
  });
})
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m19.js
1 record inserted
```

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

```
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 myquery = { name:"John" };
  var newvalues = { name:"John",maths_marks:87,science_marks:23 };
  db.collection("studentmarks").update(myquery, newvalues, function(err, res) {
    if (err) throw err;
    console.log(res.result.nModified + " record updated");
    db.close();
  });
})
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m20.js
1 record updated
```

14) Remove Kumaran's document from collection

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var myquery = { name:"Kumaran"};
  db.collection("studentmarks").remove(myquery, function(err, obj) {
    if (err) throw err;
    console.log(obj.result.n + " document(s) deleted");
    db.close();
  });
});
```

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m21.js
1 document(s) deleted
```

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

```
ukistu15@ukipc15:~/Documents/ukiexercises/mongodb$ node m22.js
[ { _id: 593636490e49180eae9e65c6,
    name: 'Kala',
    maths_marks: 32,
    science_marks: 53 },
  { _id: 593636490e49180eae9e65c7,
    name: 'Aruli',
    maths_marks: 78,
    science_marks: 80 } ]
```