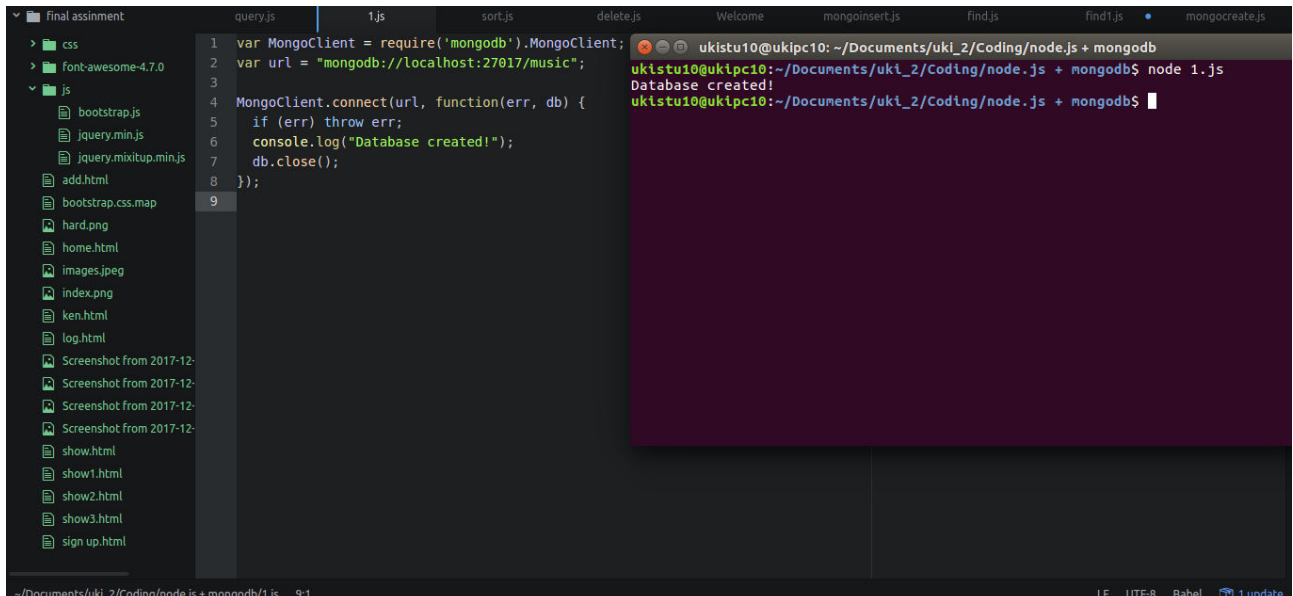


# MongoDB Exercise 1

## 1) Create a Database called music

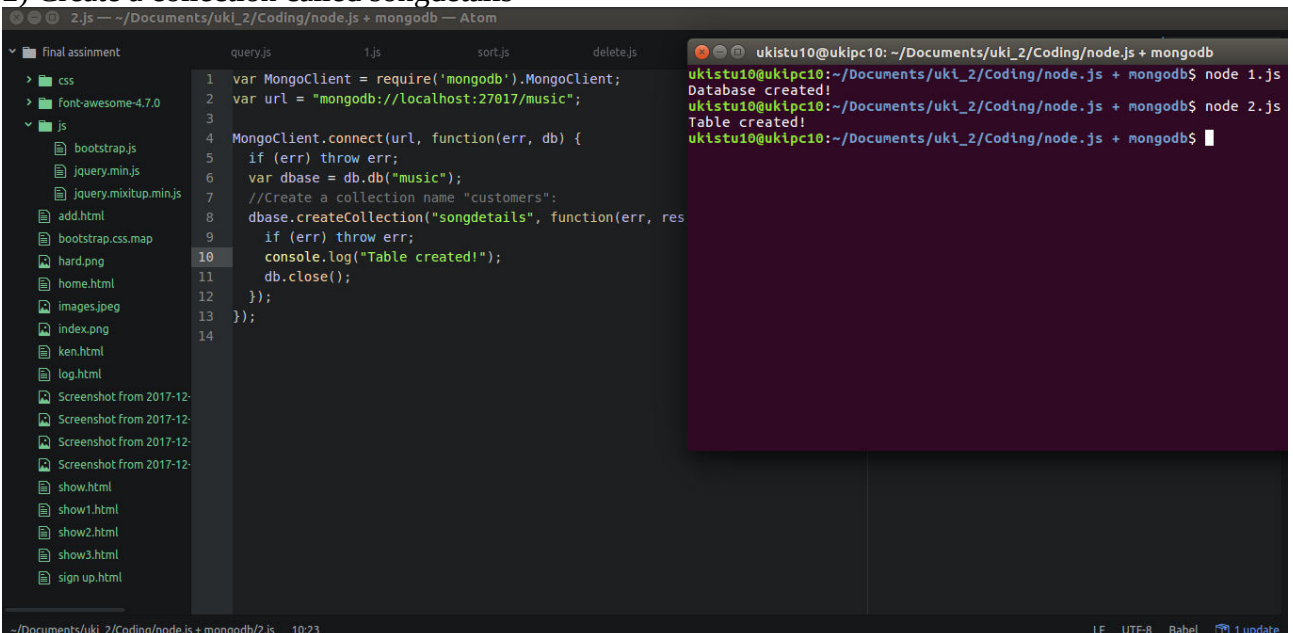


The screenshot shows a code editor with a file explorer on the left displaying a project structure for 'final assiment'. The main editor window shows a file named '1.js' with the following JavaScript code:

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

On the right, a terminal window shows the command prompt at 'ukistu10@ukipc10: ~/Documents/uki\_2/Coding/node.js + mongodb'. The user has run 'node 1.js', and the terminal output shows 'Database created!'.

## 2) Create a collection called songdetails



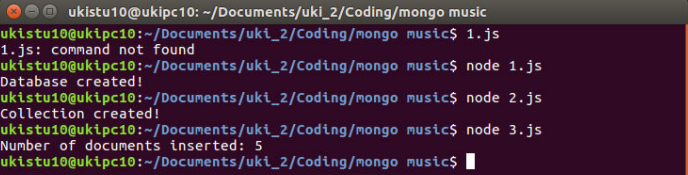
The screenshot shows the same code editor and terminal as the previous step. The code in '2.js' is updated to create a collection named 'songdetails' within the 'music' database:

```
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/music";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbase = db.db("music");
7   //Create a collection name "customers":
8   dbase.createCollection("songdetails", function(err, res) {
9     if (err) throw err;
10    console.log("Table created!");
11    db.close();
12  });
13 });
14
```

The terminal window shows the command prompt at 'ukistu10@ukipc10: ~/Documents/uki\_2/Coding/node.js + mongodb'. The user has run 'node 2.js', and the terminal output shows 'Table created!'.

### 3) Create the above 5 song documents.

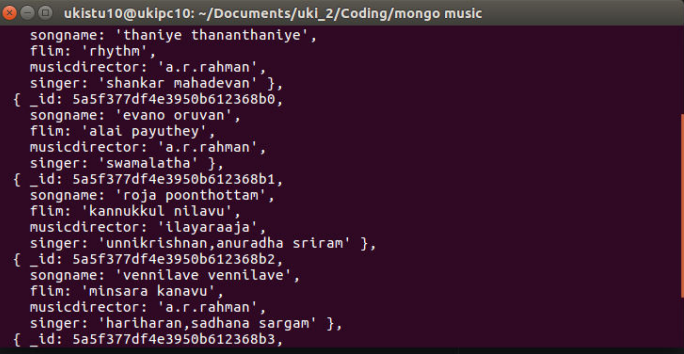
```
1.js 2.js 3.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/music";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("music");
7   var myobj = [
8     { songname: 'thaniye thananthaniye', flim: 'rhythm', musicdirector: 'a.r.rahman', singer: 'shankar mahadevan'},
9     { songname: 'evano oruvan', flim: 'alai payuthey', musicdirector: 'a.r.rahman', singer: 'swamalatha'},
10    { songname: 'roja poonthottam', flim: 'kannukkul nilavu', musicdirector: 'ilayaraaja', singer: 'unnikrishnan, anuradha sriram'},
11    { songname: 'vennilave vennilave', flim: 'minsara kanavu', musicdirector: 'a.r.rahman', singer: 'hariharan, sadhana sargam'},
12    { songname: 'sollamal thottu chellum', flim: 'dheena', musicdirector: 'yuvan shankar raja', singer: 'hariharan'},
13  ];
14  dbo.collection("songdetails").insertMany(myobj, function(err, res) {
15    if (err) throw err;
16    console.log("Number of documents inserted: " + res.insertedCount);
17    db.close();
18  });
19 });
20
```



```
ukistu10@ukipc10: ~/Documents/uki_2/Coding/mongo music
ukistu10@ukipc10:~/Documents/uki_2/Coding/mongo music$ 1.js
1.js: command not found
ukistu10@ukipc10:~/Documents/uki_2/Coding/mongo music$ node 1.js
Database created!
ukistu10@ukipc10:~/Documents/uki_2/Coding/mongo music$ node 2.js
Collection created!
ukistu10@ukipc10:~/Documents/uki_2/Coding/mongo music$ node 3.js
Number of documents inserted: 5
ukistu10@ukipc10:~/Documents/uki_2/Coding/mongo music$
```

### 4) List all documents created.

```
1.js 2.js 3.js 4.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("music");
7   dbo.collection("songdetails").find({}).toArray(function(err, result){
8     if (err) throw err;
9     console.log(result);
10    db.close();
11  });
12 });
13
```



```
ukistu10@ukipc10: ~/Documents/uki_2/Coding/mongo music
songname: 'thaniye thananthaniye',
flim: 'rhythm',
musicdirector: 'a.r.rahman',
singer: 'shankar mahadevan',
{ _id: 5a5f377df4e3950b612368b0,
  songname: 'evano oruvan',
  flim: 'alai payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
{ _id: 5a5f377df4e3950b612368b1,
  songname: 'roja poonthottam',
  flim: 'kannukkul nilavu',
  musicdirector: 'ilayaraaja',
  singer: 'unnikrishnan, anuradha sriram' },
{ _id: 5a5f377df4e3950b612368b2,
  songname: 'vennilave vennilave',
  flim: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'hariharan, sadhana sargam' },
{ _id: 5a5f377df4e3950b612368b3,
```

```

> db.songdetails.find()
{ "_id" : ObjectId("5a5f377df4e3950b612368af"), "songname" : "thaniye thananthaniye", "flin" : "rhythm", "musicdirector" : "a.r.rahman", "singer" : "shankar mahadevan" }
{ "_id" : ObjectId("5a5f377df4e3950b612368b0"), "songname" : "evano oruvan", "flin" : "alai payuthey", "musicdirector" : "a.r.rahman", "singer" : "swamalatha" }
{ "_id" : ObjectId("5a5f377df4e3950b612368b1"), "songname" : "roja poonthottan", "flin" : "kannukkul nilavu", "musicdirector" : "ilayaraaja", "singer" : "unnikrishnan,anuradha sritam" }
{ "_id" : ObjectId("5a5f377df4e3950b612368b2"), "songname" : "vennilave vennilave", "flin" : "minsara kanavu", "musicdirector" : "a.r.rahman", "singer" : "haritharan,sadhana sargam" }
{ "_id" : ObjectId("5a5f377df4e3950b612368b3"), "songname" : "sollamal thottu chellum", "flin" : "dheena", "musicdirector" : "yuvan shankar raja", "singer" : "haritharan" }
>

```

## 5) List A.R.Rahman's songs.

```

1.js      2.js      3.js      5.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("music");
7    var query = { musicdirector: "a.r.rahman" };
8    dbo.collection("songdetails").find({musicdirector:"a.r.rahman"},{songname:1,id:0}).toArray(function(err, result) {
9      if (err) throw err;
10     console.log(result);
11     db.close();
12   });
13   });
14

```

```

uklstu10@uklpc10: ~/Documents/ukl_2/Coding/mongo music
uklstu10@uklpc10:~/Documents/ukl_2/Coding/mongo music$ node 5.js
[ { _id: 5a5f377df4e3950b612368af,
  songname: 'thaniye thananthaniye',
  flin: 'rhythm',
  musicdirector: 'a.r.rahman',
  singer: 'shankar mahadevan' },
  { _id: 5a5f377df4e3950b612368b0,
  songname: 'evano oruvan',
  flin: 'alai payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
  { _id: 5a5f377df4e3950b612368b2,
  songname: 'vennilave vennilave',
  flin: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'haritharan,sadhana sargam' } ]
uklstu10@uklpc10:~/Documents/ukl_2/Coding/mongo music$

```

Babel master +14

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

```
1.js 2.js 3.js 6.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("music");
7   var query = { musicdirector: "a.r.rahman" };
8   dbo.collection("songdetails").find({musicdirector:"a.r.rahman",singer:"unnikrishnan"},{songname:1,id:0}).toArray(function(err, result) {
9     if (err) throw err;
10    console.log(result);
11    db.close();
12  });
13 });
14
```

```
ukistui0@uklpc10: ~/Documents/uki_2/Coding/mongo music
ukistui0@uklpc10:~/Documents/uki_2/Coding/mongo music$ node 5.js
[ { _id: '5a5f377df4e3950b612368af',
  songname: 'thanaye thananthaniye',
  flim: 'rhythm',
  musicdirector: 'a.r.rahman',
  singer: 'shankar mahadevan' },
  { _id: '5a5f377df4e3950b612368b0',
  songname: 'evano oruvan',
  flim: 'alai payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
  { _id: '5a5f377df4e3950b612368b2',
  songname: 'vennilave vennilave',
  flim: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'hartharan,sadhana sargam' } ]
ukistui0@uklpc10:~/Documents/uki_2/Coding/mongo music$ node 6.js
[]
ukistui0@uklpc10:~/Documents/uki_2/Coding/mongo music$
```

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

```
1.js 2.js 3.js 7.js 8.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("music");
7   var myquery = { songname: 'roja poonthottam' };
8   dbo.collection("songdetails").deleteOne(myquery, function(err, obj) {
9     if (err) throw err;
10    console.log("1 document deleted");
11    db.close();
12  });
13 });
14
```

```
ukistui0@uklpc10: ~/Documents/uki_2/Coding/mongo music
ukistui0@uklpc10:~/Documents/uki_2/Coding/mongo music$ node 5.js
[ { _id: '5a5f377df4e3950b612368af',
  songname: 'thanaye thananthaniye',
  flim: 'rhythm',
  musicdirector: 'a.r.rahman',
  singer: 'shankar mahadevan' },
  { _id: '5a5f377df4e3950b612368b0',
  songname: 'evano oruvan',
  flim: 'alai payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
  { _id: '5a5f377df4e3950b612368b2',
  songname: 'vennilave vennilave',
  flim: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'hartharan,sadhana sargam' } ]
ukistui0@uklpc10:~/Documents/uki_2/Coding/mongo music$ node 6.js
[]
ukistui0@uklpc10:~/Documents/uki_2/Coding/mongo music$ node 7.js
1 document deleted
ukistui0@uklpc10:~/Documents/uki_2/Coding/mongo music$
```

8) Add new song which is your favourite.

```
8.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("music");
7   var myobj = { songname: "kanmani anpodu", flim:"guna"
8   dbo.collection("songdetails").insertOne(myobj, functi
9   if (err) throw err;
10  console.log("1 document inserted");
11  db.close();
12 });
13
14

ukistui10@ukipc10: ~/Documents/uki_2/Coding/mongo music
ukistui10@ukipc10:~/Documents/uki_2/Coding/mongo music$ node 5.js
[ { _id: 5a5f377df4e3950b612368af,
  songname: 'thaniye thananthaniye',
  flim: 'rhythm',
  musicdirector: 'a.r.rahman',
  singer: 'shankar mahadevan' },
  { _id: 5a5f377df4e3950b612368b0,
  songname: 'evano oruvan',
  flim: 'alal payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
  { _id: 5a5f377df4e3950b612368b2,
  songname: 'vennilave vennilave',
  flim: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'hariharan,sadhana sargam' } ]
ukistui10@ukipc10:~/Documents/uki_2/Coding/mongo music$ node 6.js
[]
ukistui10@ukipc10:~/Documents/uki_2/Coding/mongo music$ node 7.js
1 document deleted
ukistui10@ukipc10:~/Documents/uki_2/Coding/mongo music$ node 8.js
1 document inserted
ukistui10@ukipc10:~/Documents/uki_2/Coding/mongo music$
```

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

```
9.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("music");
7   dbo.collection("songdetails").find({singer:"hariharan",flim:"dheena"}, { _id: false, name: true, address: true }).toArray(function
8   if (err) throw err;
9   console.log(result);
10  db.close();
11 });
12
13

ukistui10@ukipc10: ~/Documents/uki_2/Coding/mongo music
ukistui10@ukipc10:~/Documents/uki_2/Coding/mongo music$ node 9.js
[ { _id: 5a5f377df4e3950b612368b3,
  songname: 'sollamal thottu chellum',
  flim: 'dheena',
  musicdirector: 'yuvan shankar raja',
  singer: 'hariharan' } ]
ukistui10@ukipc10:~/Documents/uki_2/Coding/mongo music$
```

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

```
10.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("music");
7   dbo.collection("songdetails").find({singer:true, id: false, name: true, address: true }).toArray(function(err, result) {
8     if (err) throw err;
9     console.log(result);
10    db.close();
11  });
12 });
13
```

```
ukistu10@ukipc10: ~/Documents/uki_2/Coding/mongo music
ukistu10@ukipc10:~/Documents/uki_2/Coding/mongo music$ node 10.js
[ { _id: 5a5f377df4e3950b612368af,
  songname: 'thaniye thananthaniye',
  flim: 'rhythm',
  musicdirector: 'a.r.rahman',
  singer: 'shankar mahadevan' },
  { _id: 5a5f377df4e3950b612368b0,
  songname: 'evano oruvan',
  flim: 'alai payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
  { _id: 5a5f377df4e3950b612368b2,
  songname: 'vennilave vennilave',
  flim: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'hariharan,sadhana sargam' },
  { _id: 5a5f377df4e3950b612368b3,
  songname: 'sollamal thottu chellun',
  flim: 'dheena',
  musicdirector: 'yuvan shankar raja',
  singer: 'hariharan' },
  { _id: 5a5f4f3801e07b12aff8cd0c,
  songname: 'kanmani anpodu',
  flim: 'guna',
  musicdirector: 'ilayarajah',
  singer: 'HamalaHasan' } ]
```