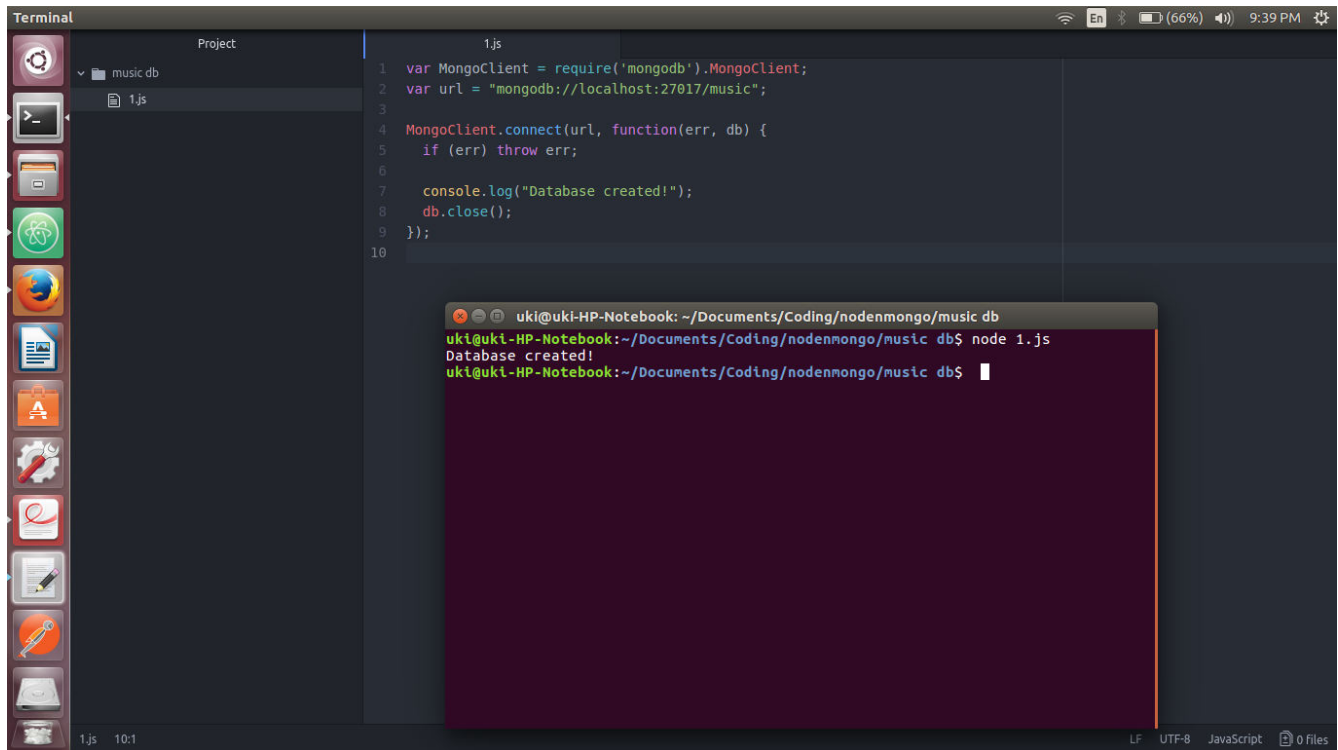


1) Create a Database called music.



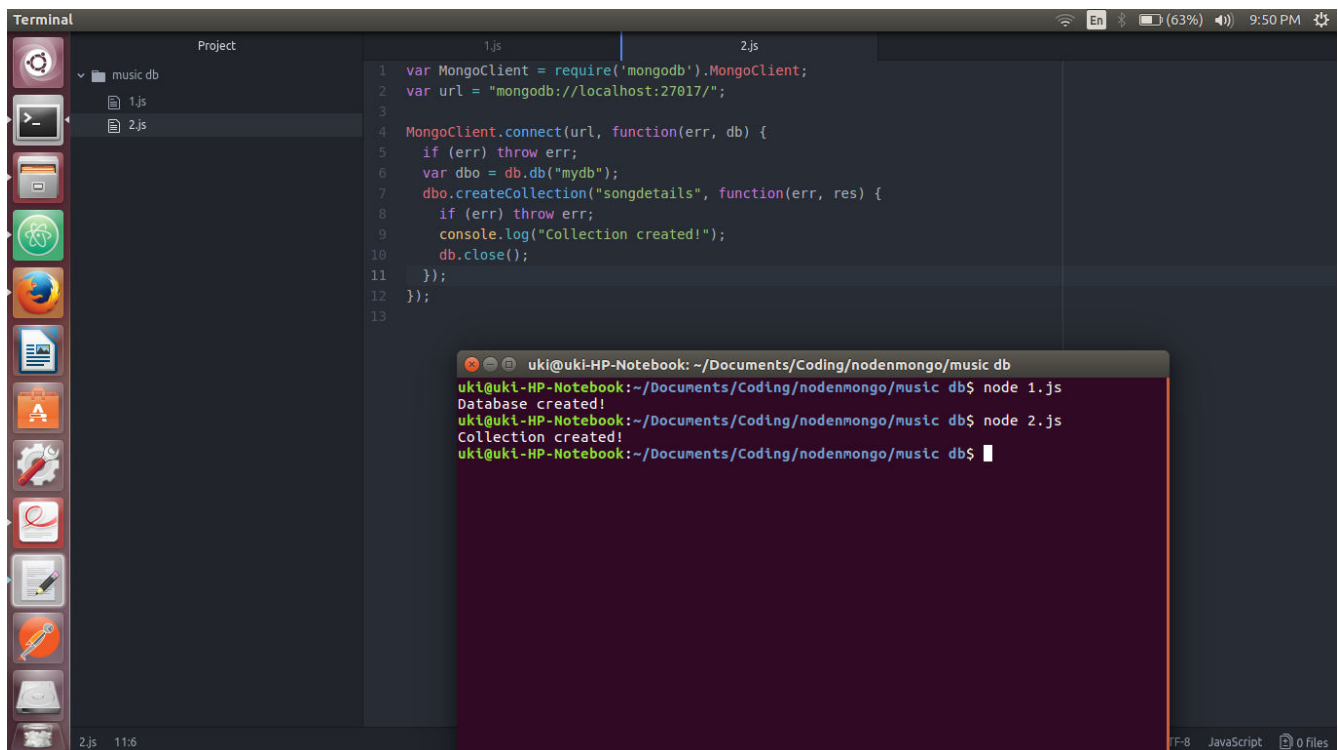
The screenshot shows a code editor with a file named `1.js` in a project folder named `music db`. The code in `1.js` is as follows:

```
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
7   console.log("Database created!");
8   db.close();
9 });
10
```

A terminal window is open in the foreground, showing the command `node 1.js` being executed. The output of the command is:

```
uki@uki-HP-Notebook: ~/Documents/Coding/nodenmongo/music db
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 1.js
Database created!
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$
```

2) Create a collection called song details.



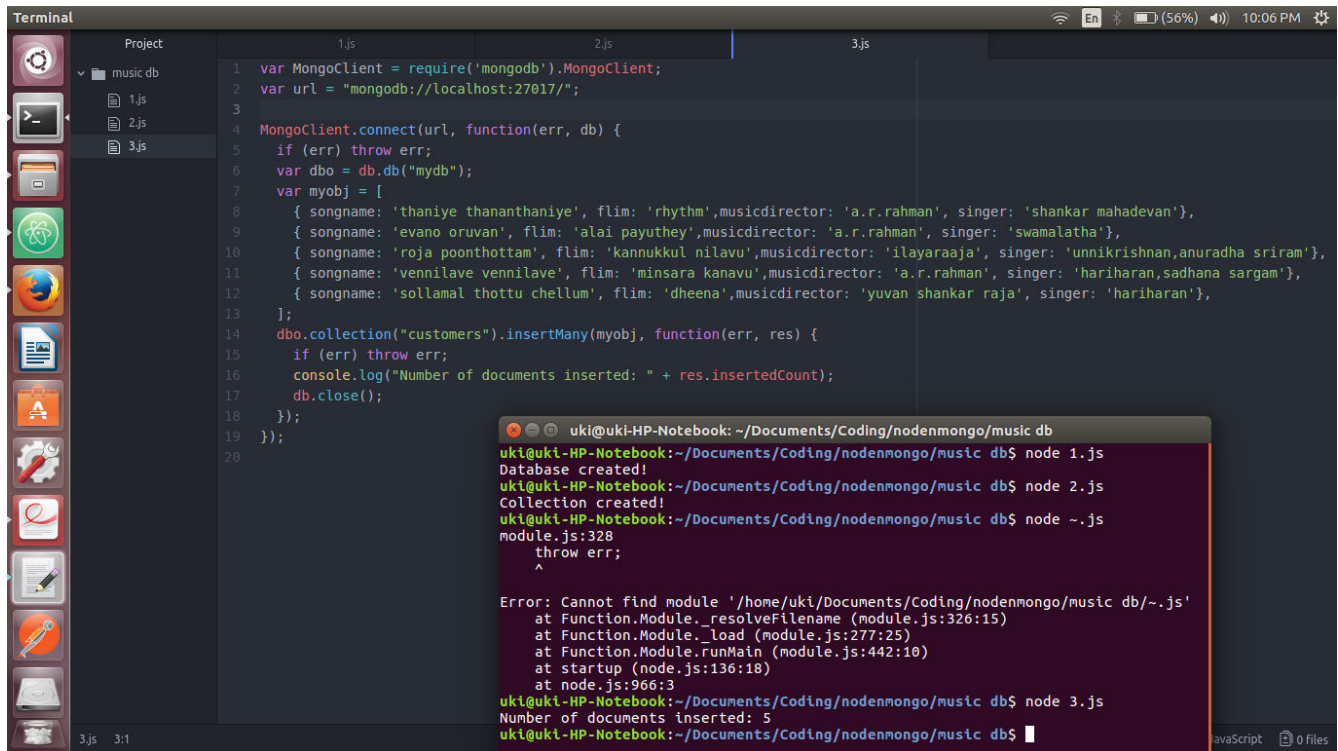
The screenshot shows a code editor with two files, `1.js` and `2.js`, in a project folder named `music db`. The code in `2.js` is as follows:

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

A terminal window is open in the foreground, showing the command `node 2.js` being executed. The output of the command is:

```
uki@uki-HP-Notebook: ~/Documents/Coding/nodenmongo/music db
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 1.js
Database created!
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 2.js
Collection created!
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$
```

3) Create the above 5 song documents.



The screenshot shows a terminal window with a dark background. The top bar indicates the user is 'uki' on a machine named 'uki-HP-Notebook' at 10:06 PM with 56% battery. The terminal shows the execution of a Node.js script named '1.js' which connects to a MongoDB instance at localhost:27017, creates a database named 'music', and inserts 5 song documents into a collection named 'customers'. The documents are:

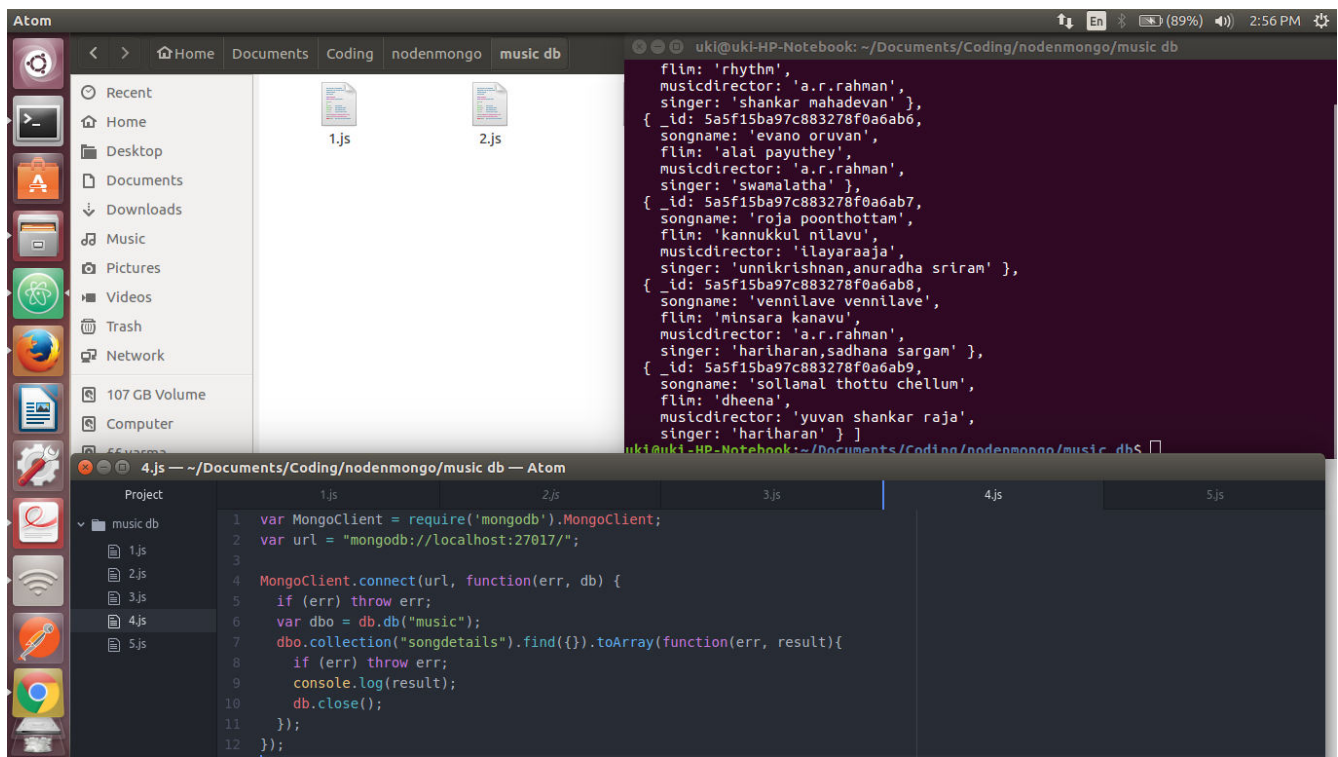
- { songname: 'thaniye thananthaniye', flim: 'rhythm', musicdirector: 'a.r.rahman', singer: 'shankar mahadevan' },
- { songname: 'evano oruvan', flim: 'alai payuthey', musicdirector: 'a.r.rahman', singer: 'swamalatha' },
- { songname: 'roja poonthottam', flim: 'kannukkul nilavu', musicdirector: 'ilayaraaja', singer: 'unnikrishnan, anuradha sriam' },
- { songname: 'vennilave vennilave', flim: 'minsara kanavu', musicdirector: 'a.r.rahman', singer: 'hariharan, sadhana sargam' },
- { songname: 'sollamal thottu chellum', flim: 'dheena', musicdirector: 'yuvan shankar raja', singer: 'hariharan' },

The terminal output shows the following commands and results:

```
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 1.js
Database created!
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 2.js
Collection created!
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 3.js
module.js:328
    throw err;
    ^

Error: Cannot find module '/home/uki/Documents/Coding/nodenmongo/music db/3.js'
    at Function.Module._resolveFilename (module.js:326:15)
    at Function.Module._load (module.js:277:25)
    at Function.Module.runMain (module.js:442:10)
    at startup (node.js:136:18)
    at node.js:966:3
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 3.js
Number of documents inserted: 5
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$
```

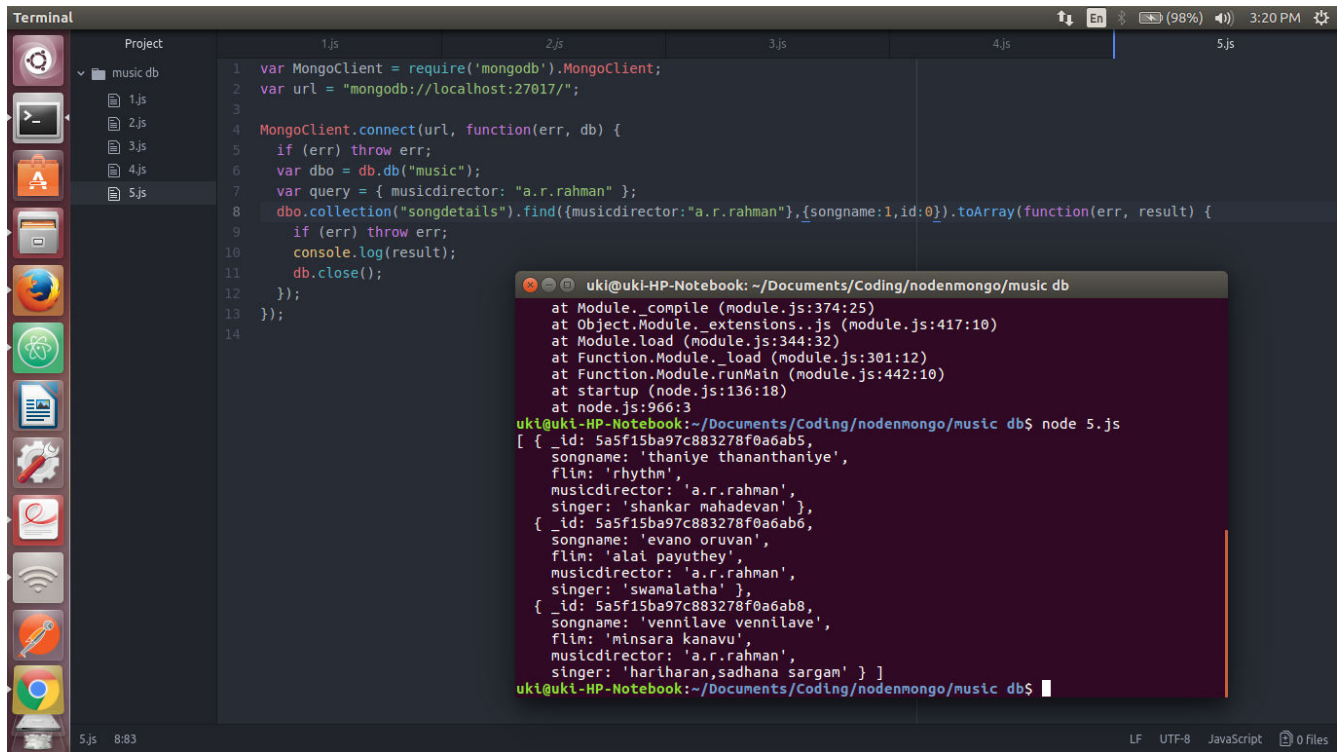
4) List all documents created.



The screenshot shows the Atom editor interface. The top bar indicates the user is 'uki' on a machine named 'uki-HP-Notebook' at 2:56 PM with 89% battery. The editor is open to a file named '4.js' in the project 'music db'. The code in '4.js' is as follows:

```
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 });
```

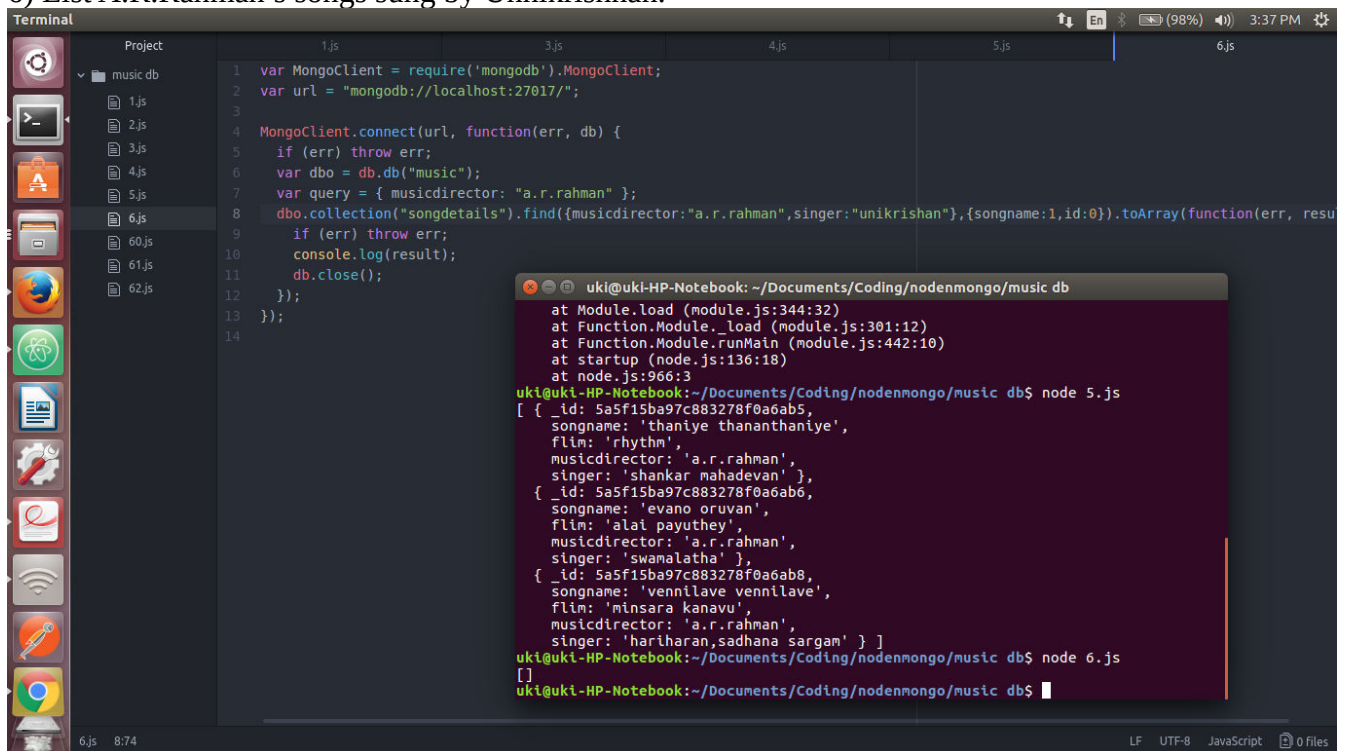
5) List A.R.Rahman's songs.



```
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
```

```
uki@uki-HP-Notebook: ~/Documents/Coding/nodenmongo/music db
at Module._compile (module.js:374:25)
at Object.Module._extensions..js (module.js:417:10)
at Module.load (module.js:344:32)
at Function.Module._load (module.js:301:12)
at Function.Module.runMain (module.js:442:10)
at startup (node.js:136:18)
at node.js:966:3
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 5.js
[ { _id: 5a5f15ba97c883278f0a6ab5,
  songname: 'thaniye thananthaniye',
  flm: 'rhythm',
  musicdirector: 'a.r.rahman',
  singer: 'shankar mahadevan' },
  { _id: 5a5f15ba97c883278f0a6ab6,
  songname: 'evano oruvan',
  flm: 'alai payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
  { _id: 5a5f15ba97c883278f0a6ab8,
  songname: 'vennilave vennilave',
  flm: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'hariharan,sadhana sargam' } ]
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$
```

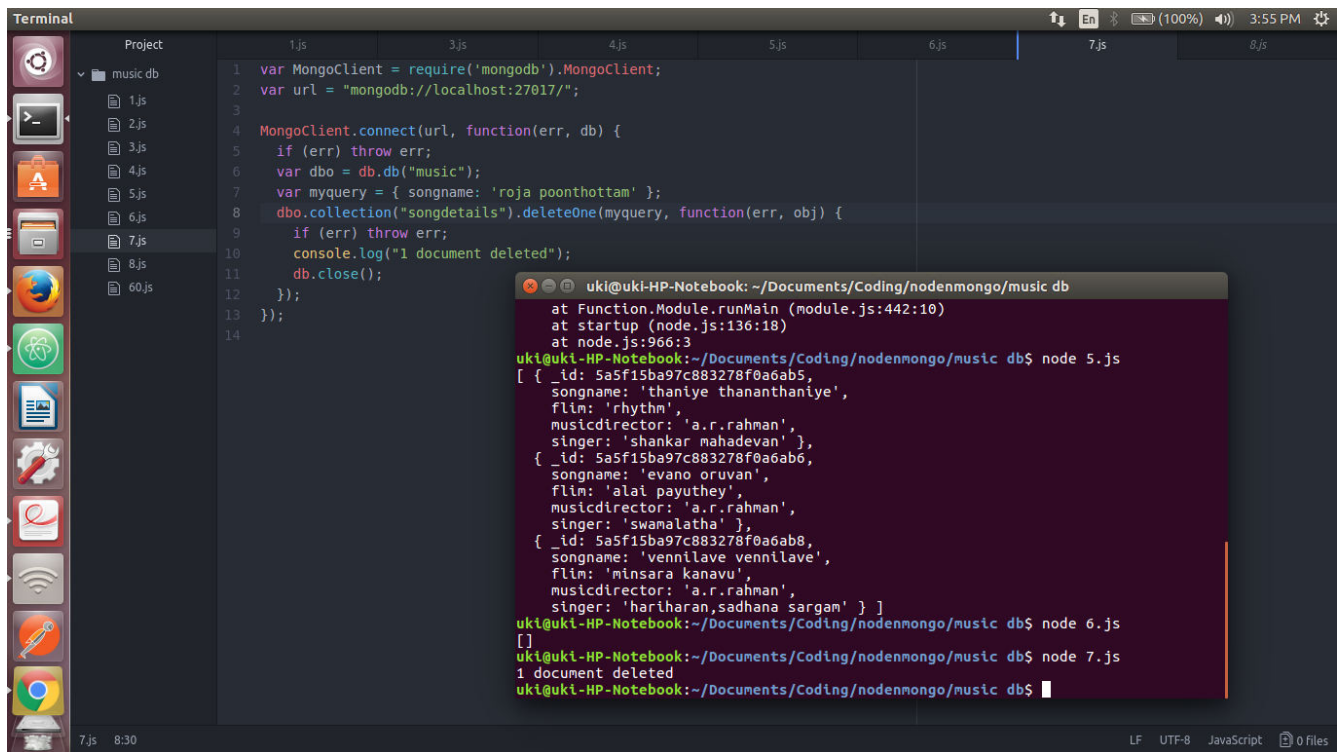
6) List A.R.Rahman's songs sung by Unnikrishnan.



```
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, resu
9     if (err) throw err;
10    console.log(result);
11    db.close();
12  });
13 });
14
```

```
uki@uki-HP-Notebook: ~/Documents/Coding/nodenmongo/music db
at Module.load (module.js:344:32)
at Function.Module._load (module.js:301:12)
at Function.Module.runMain (module.js:442:10)
at startup (node.js:136:18)
at node.js:966:3
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 6.js
[ { _id: 5a5f15ba97c883278f0a6ab5,
  songname: 'thaniye thananthaniye',
  flm: 'rhythm',
  musicdirector: 'a.r.rahman',
  singer: 'shankar mahadevan' },
  { _id: 5a5f15ba97c883278f0a6ab6,
  songname: 'evano oruvan',
  flm: 'alai payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
  { _id: 5a5f15ba97c883278f0a6ab8,
  songname: 'vennilave vennilave',
  flm: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'hariharan,sadhana sargam' } ]
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 6.js
[]
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$
```

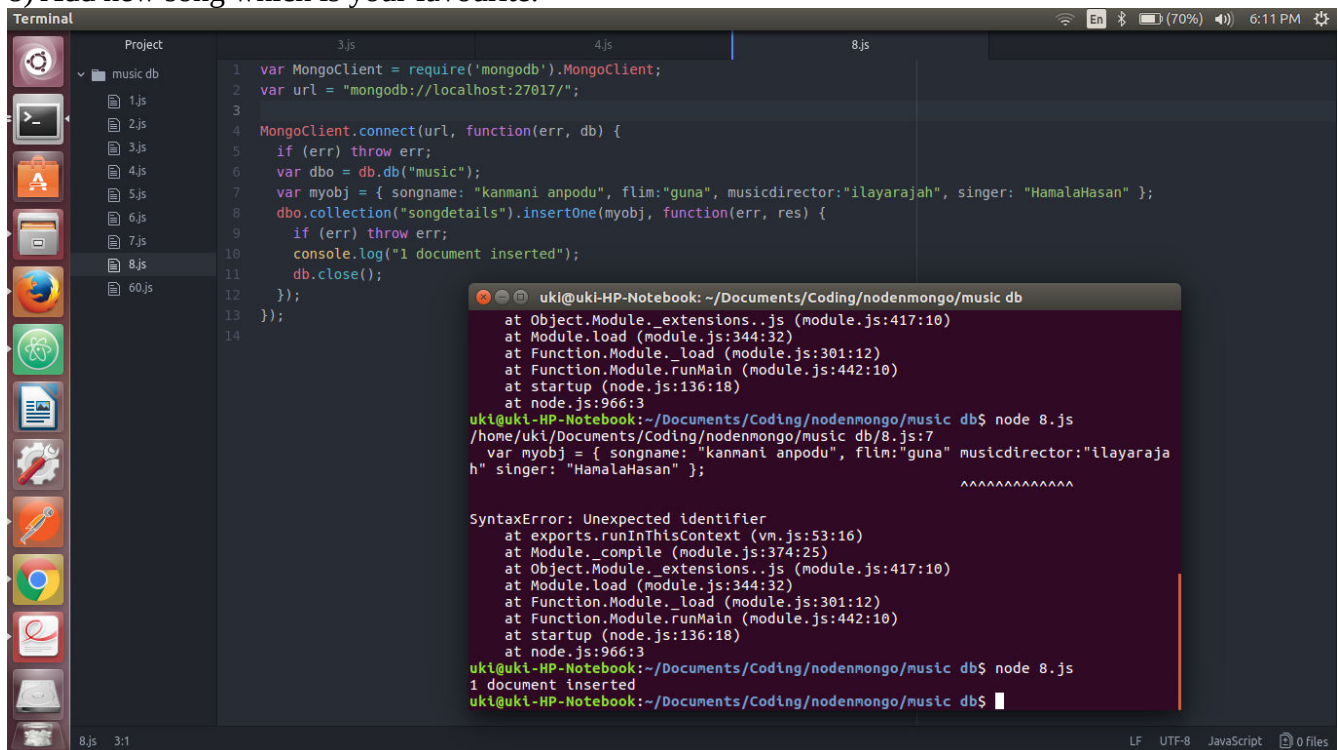

7) Delete the song which you don't like.



```
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
```

```
uki@uki-HP-Notebook: ~/Documents/Coding/nodenmongo/music db
at Function.Module.runMain (module.js:442:10)
at startup (node.js:136:18)
at node.js:966:3
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 5.js
[ { _id: 5a5f15ba97c883278f0a6ab5,
  songname: 'thanlye thananthaniye',
  flim: 'rhythm',
  musicdirector: 'a.r.rahman',
  singer: 'shankar mahadevan' },
  { _id: 5a5f15ba97c883278f0a6ab6,
  songname: 'evano oruvan',
  flim: 'alai payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
  { _id: 5a5f15ba97c883278f0a6ab8,
  songname: 'vennilave vennilave',
  flim: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'hariharan,sadhana sargam' } ]
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 6.js
[]
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 7.js
1 document deleted
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$
```

8) Add new song which is your favourite.



```
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", musicdirector:"ilayarajah", singer: "HamalaHasan" };
8   dbo.collection("songdetails").insertOne(myobj, function(err, res) {
9     if (err) throw err;
10    console.log("1 document inserted");
11    db.close();
12  });
13 });
14
```

```
uki@uki-HP-Notebook: ~/Documents/Coding/nodenmongo/music db
at Object.Module._extensions..js (module.js:417:10)
at Module.load (module.js:344:32)
at Function.Module._load (module.js:301:12)
at Function.Module.runMain (module.js:442:10)
at startup (node.js:136:18)
at node.js:966:3
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 8.js
/home/uki/Documents/Coding/nodenmongo/music db/8.js:7
var myobj = { songname: "kanmani anpodu", flim:"guna" musicdirector:"ilayaraja
h" singer: "HamalaHasan" };
               ^^^^^^^^^^^^^^^^^
SyntaxError: Unexpected identifier
    at exports.runInThisContext (vm.js:53:16)
    at Module._compile (module.js:374:25)
    at Object.Module._extensions..js (module.js:417:10)
    at Module.load (module.js:344:32)
    at Function.Module._load (module.js:301:12)
    at Function.Module.runMain (module.js:442:10)
    at startup (node.js:136:18)
    at node.js:966:3
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$ node 8.js
1 document inserted
uki@uki-HP-Notebook:~/Documents/Coding/nodenmongo/music db$
```

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

The screenshot shows a VS Code editor with a project named 'music db' containing files 1.js through 9.js. The code in 8.js and 9.js is as follows:

```
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(err, result) {
8     if (err) throw err;
9     console.log(result);
10    db.close();
11  });
12 });
13
```

The terminal output shows the command `node 8.js` resulting in '1 document inserted' and `node 9.js` displaying the following JSON array:

```
[ { _id: 5a5f15ba97c883278f0a6ab9,
  songname: 'sollamal thottu chellun',
  flim: 'dheena',
  musicdirector: 'yuvan shankar raja',
  singer: 'hariharan' } ]
```

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

The screenshot shows a VS Code editor with a project named 'music db' containing files 1.js through 10.js. The code in 10.js is as follows:

```
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
```

The terminal output shows the command `node 10.js` displaying the following JSON array of singers:

```
[ { _id: 5a5f15ba97c883278f0a6ab5,
  songname: 'thaniye thananthaniye',
  flim: 'rhythm',
  musicdirector: 'a.r.rahman',
  singer: 'shankar mahadevan' },
  { _id: 5a5f15ba97c883278f0a6ab6,
  songname: 'evano oruvan',
  flim: 'alai payuthey',
  musicdirector: 'a.r.rahman',
  singer: 'swamalatha' },
  { _id: 5a5f15ba97c883278f0a6ab8,
  songname: 'vennilave vennilave',
  flim: 'minsara kanavu',
  musicdirector: 'a.r.rahman',
  singer: 'hariharan,sadhana sargam' },
  { _id: 5a5f15ba97c883278f0a6ab9,
  songname: 'sollamal thottu chellum',
  flim: 'dheena',
  musicdirector: 'yuvan shankar raja',
  singer: 'hariharan' },
  { _id: 5a5f43f9428d4a129e65d94d,
  songname: 'kanmani anpodu',
  flim: 'guna',
  musicdirector: 'ilayarajah',
  singer: 'HamalaHasan' } ]
```