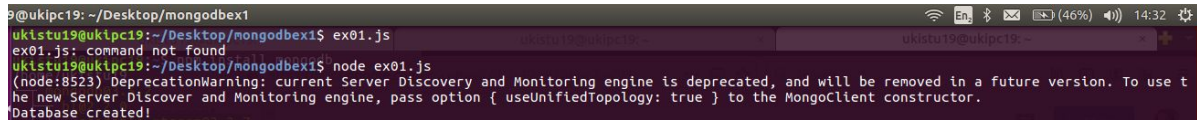


1) Create a Database called music.

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



2) Create a collection called songdetails.

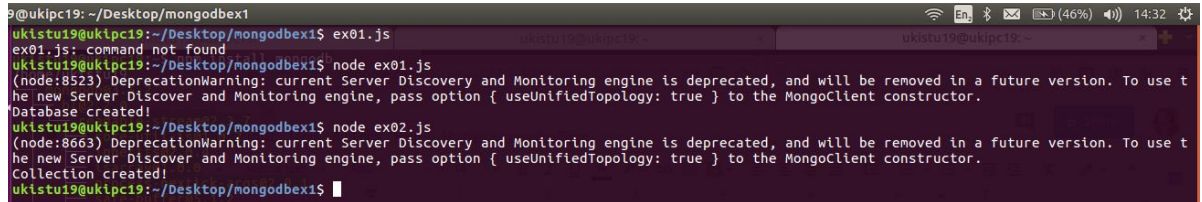
```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/music";
```

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



```
Project
└─ mongodbex1
   ├── ex01.js
   └── ex02.js

ex01.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   console.log("Database created!");
7   db.close();
8 });
9
```



```
ukistui9@ukipc19: ~/Desktop/mongodbex1
ukistui9@ukipc19:~/Desktop/mongodbex1$ ex01.js
ex01.js: command not found
ukistui9@ukipc19:~/Desktop/mongodbex1$ node ex01.js
(node:8523) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Database created!
ukistui9@ukipc19:~/Desktop/mongodbex1$ node ex02.js
(node:8663) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Collection created!
ukistui9@ukipc19:~/Desktop/mongodbex1$
```

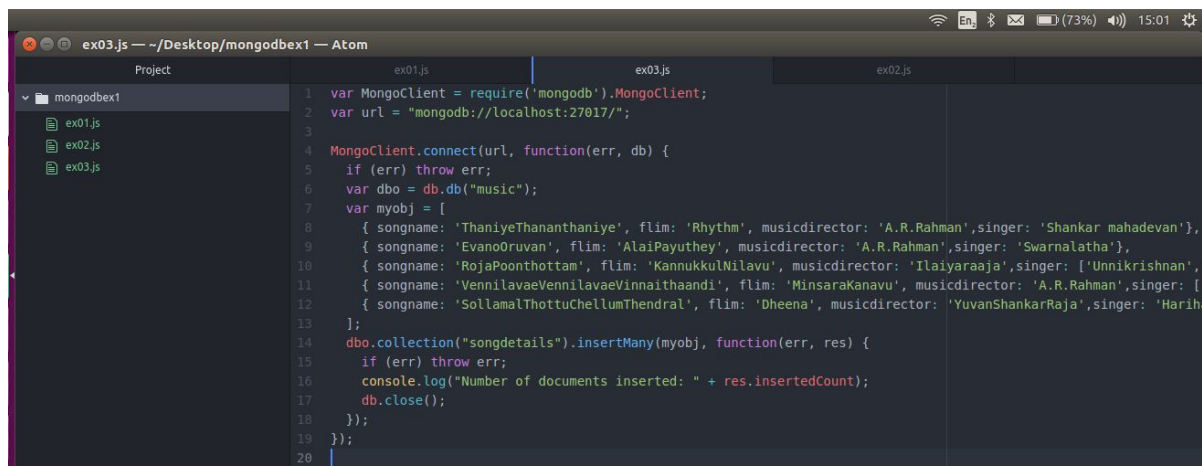


```
node 11.15.0
> show collections
> use music
switched to db music
> show collections
songdetails
>
```

3) Create the above 5 song documents.

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

MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("music");
  var myobj = [
    { songname: 'ThaniyeThananthaniye', flim: 'Rhythm', musicdirector:
'A.R.Rahman',singer: 'Shankar mahadevan'},
    { songname: 'EvanoOruvan', flim: 'AlaiPayuthey', musicdirector:
'A.R.Rahman',singer: 'Swarnalatha'},
    { songname: 'RojaPoonthottam', flim: 'KannukkulNilavu', musicdirector:
'Ilaiyaraaja',singer: ['Unnikrishnan','AnuradhaSriram']},
    { songname: 'VennilavaeVennilavaeVinnaithaandi', flim: 'MinsaraKanavu',
musicdirector: 'A.R.Rahman',singer: ['Hariharan','SadhanaSargam']},
    { songname: 'SollamalThottuChellumThendral', flim: 'Dheena', musicdirector:
'YuvanShankarRaja',singer: 'Hariharan'}
  ];
  dbo.collection("songdetails").insertMany(myobj, function(err, res) {
    if (err) throw err;
    console.log("Number of documents inserted: " + res.insertedCount);
    db.close();
  });
});
```



```

19@ukipc19: ~/Desktop/mongodbex1
ukistui9@ukipc19:~/Desktop/mongodbex1$ ex01.js
ex01.js: command not found
ukistui9@ukipc19:~/Desktop/mongodbex1$ node ex01.js
(node:8523) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Database created!
ukistui9@ukipc19:~/Desktop/mongodbex1$ node ex02.js
(node:8663) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Collection created!
ukistui9@ukipc19:~/Desktop/mongodbex1$ node ex03.js
(node:9693) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Number of documents inserted: 5
ukistui9@ukipc19:~/Desktop/mongodbex1$

```

```

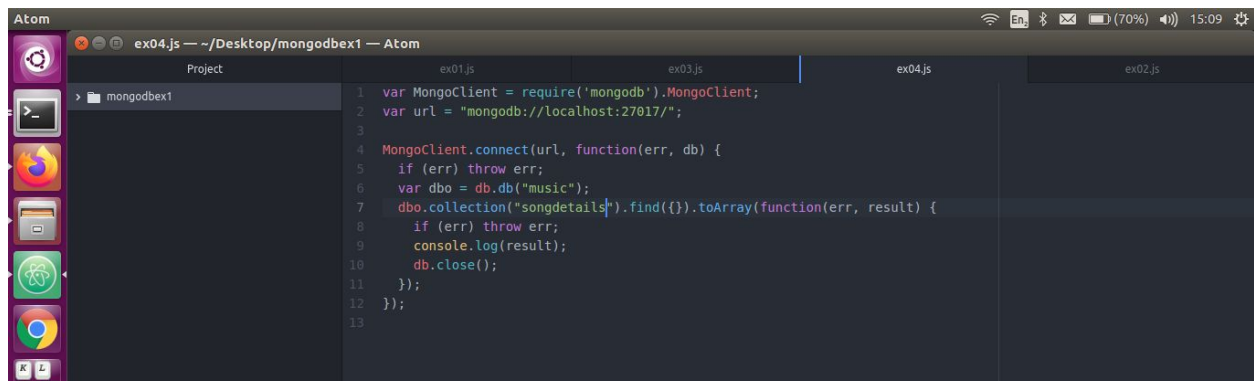
ukistui9@ukipc19: ~
> db.songdetails.find().pretty()
{
  "_id" : ObjectId("5e31507c2f646d25ddcc6ba4"),
  "songname" : "ThaniyeThananthaniye",
  "flim" : "Rhythm",
  "musicdirector" : "A.R.Rahman",
  "singer" : "Shankar Mahadevan"
}
ukistui9@ukipc19: ~
(node:9693) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Number of documents inserted: 5
ukistui9@ukipc19: ~
{
  "_id" : ObjectId("5e31507c2f646d25ddcc6ba5"),
  "songname" : "EvanoOruvan",
  "flim" : "AlaiPayuthey",
  "musicdirector" : "A.R.Rahman",
  "singer" : "Swarnalatha"
}
{
  "_id" : ObjectId("5e31507c2f646d25ddcc6ba6"),
  "songname" : "RajaPoonthottam",
  "flim" : "KannukkulNilavu",
  "musicdirector" : "Ilaiyaraaja",
  "singer" : [
    "Unnikrishnan",
    "AnuradhaSriram"
  ]
}
{
  "_id" : ObjectId("5e31507c2f646d25ddcc6ba7"),
  "songname" : "VennilavaeVennilavaeVinnaithaandi",
  "flim" : "MinsaraKanavu",
  "musicdirector" : "A.R.Rahman",
  "singer" : [
    "Hartharan",
    "SadhanaSargam"
  ]
}
{
  "_id" : ObjectId("5e31507c2f646d25ddcc6ba8"),
  "songname" : "SollamalThottuChellumThendral",
  "flim" : "Dheena",
  "musicdirector" : "YuvanShankarRaja",
  "singer" : "Hartharan"
}

```

4) List all documents created.

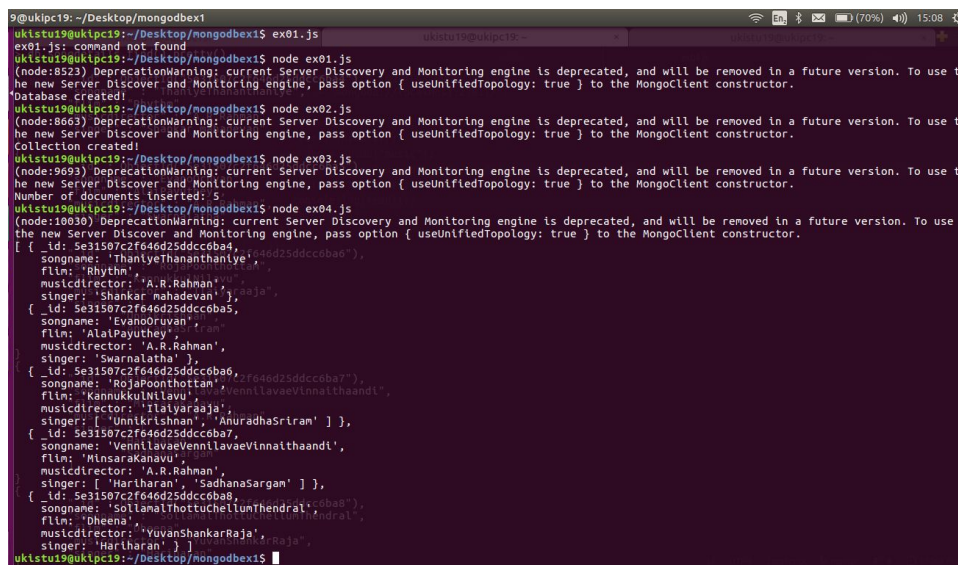
```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";
```

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



The screenshot shows the Atom code editor with a project named 'mongodbex1'. The file 'ex04.js' is open and contains the following code:

```
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
```



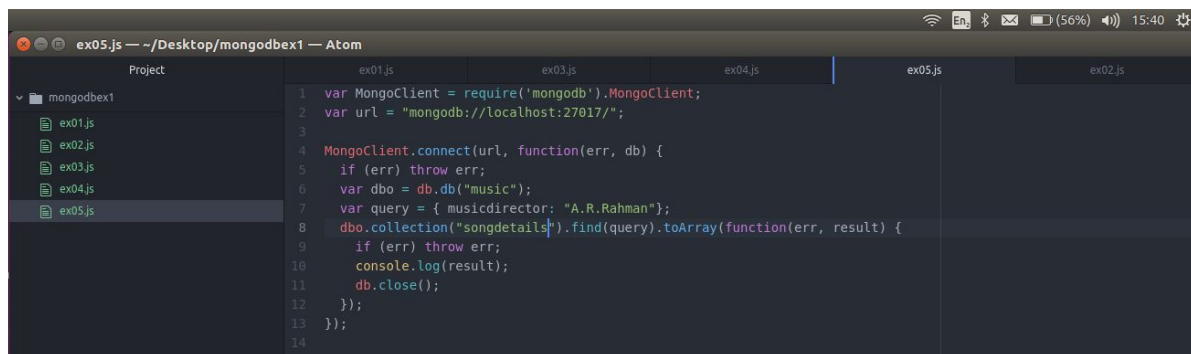
The screenshot shows a terminal window with the following output:

```
9@ukip19: ~/Desktop/mongodbex1
uk1stui9@ukip19:~/Desktop/mongodbex1$ ex01.js
ex01.js: command not found
uk1stui9@ukip19:~/Desktop/mongodbex1$ node ex01.js
(node:8523) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Database created!
uk1stui9@ukip19:~/Desktop/mongodbex1$ node ex02.js
(node:8663) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Collection created!
uk1stui9@ukip19:~/Desktop/mongodbex1$ node ex03.js
(node:9093) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
Number of documents inserted: 5
uk1stui9@ukip19:~/Desktop/mongodbex1$ node ex04.js
(node:10030) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use t
he new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { _id: '5e31507c2f646d25ddcc0ba4',
  songname: 'ThaniyeThananthanaye',
  fltn: 'Rhythn',
  muscldirector: 'A.R.Rahman',
  singer: 'Shankar mahadevan' },
  { _id: '5e31507c2f646d25ddcc0ba5',
  songname: 'EvanoOruvan',
  fltn: 'AlalPayuthey',
  muscldirector: 'A.R.Rahman',
  singer: 'Swarnalatha' },
  { _id: '5e31507c2f646d25ddcc0ba6',
  songname: 'RajaPoonthottan',
  fltn: 'Kannukkulnilavu',
  muscldirector: 'Ilaiyaraaja',
  singer: [ 'Unnikrishnan', 'AnuradhaSriran' ] },
  { _id: '5e31507c2f646d25ddcc0ba7',
  songname: 'VennilavaeVennilavaeInnaithaandi',
  fltn: 'Minsarakaveu',
  muscldirector: 'A.R.Rahman',
  singer: [ 'Hariharan', 'Sadhanasargam' ] },
  { _id: '5e31507c2f646d25ddcc0ba8',
  songname: 'SollanallhottuchellunThendral',
  fltn: 'Pheena',
  muscldirector: 'YuvanShankarRaja',
  singer: 'Hariharan' } ]
uk1stui9@ukip19:~/Desktop/mongodbex1$
```

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

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

```
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("music");
  var query = { musicdirector: "A.R.Rahman"};
  dbo.collection("songdetails").find(query).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```

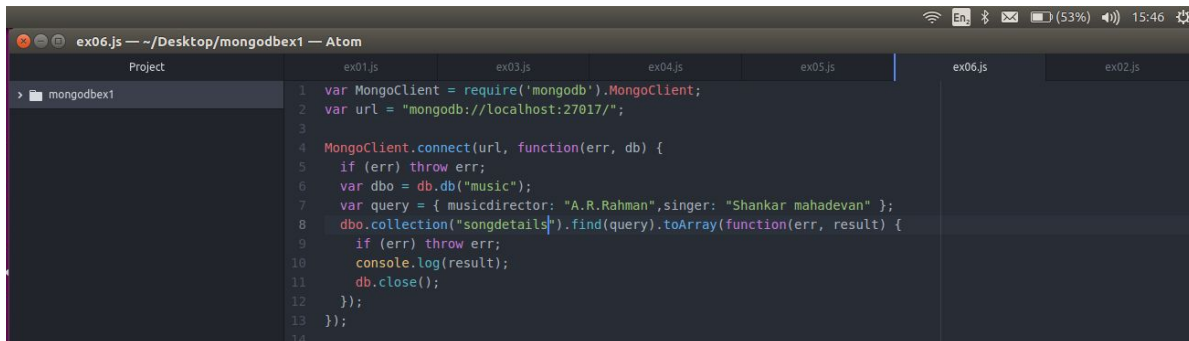


```
ukistui9@ukipci19:~/Desktop/mongodbex1$ node ex05.js
(node:10771) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use
the new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { _id: 5e31507c2f646d25ddcc6ba4,
  Songname: 'ThanIyeThananthanIye',
  flim: 'Rhythn',
  musicdirector: 'A.R.Rahman',
  singer: 'Shankar mahadevan' },
  { _id: 5e31507c2f646d25ddcc6ba5,
  Songname: 'EvanOoruvan',
  flim: 'AlaIPayuthey',
  musicdirector: 'A.R.Rahman',
  singer: 'Swarnalatha' },
  { _id: 5e31507c2f646d25ddcc6ba7,
  Songname: 'VennilavaeVennilavaeVinnaithaandi',
  flim: 'MinsaraKanavu',
  musicdirector: 'A.R.Rahman',
  singer: [ 'Hartharan', 'SadhanaSargam' ] } ]
ukistui9@ukipci19:~/Desktop/mongodbex1$
```


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

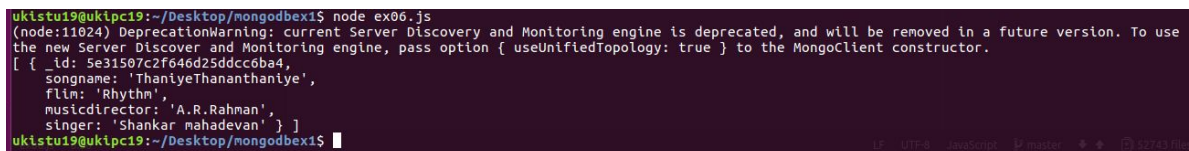
```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";
```

```
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("music");
  var query = { musicdirector: "A.R.Rahman", singer: "Shankar mahadevan" };
  dbo.collection("songdetails").find(query).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```



The screenshot shows the Atom code editor with a project named 'mongodbex1'. The file 'ex06.js' is open and contains the following code:

```
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", singer: "Shankar mahadevan" };
8   dbo.collection("songdetails").find(query).toArray(function(err, result) {
9     if (err) throw err;
10    console.log(result);
11    db.close();
12  });
13 });
```



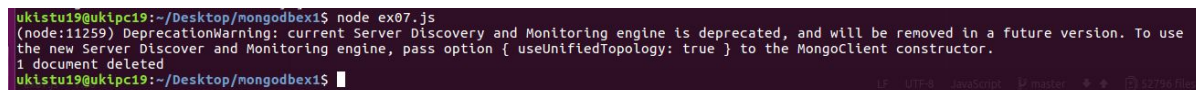
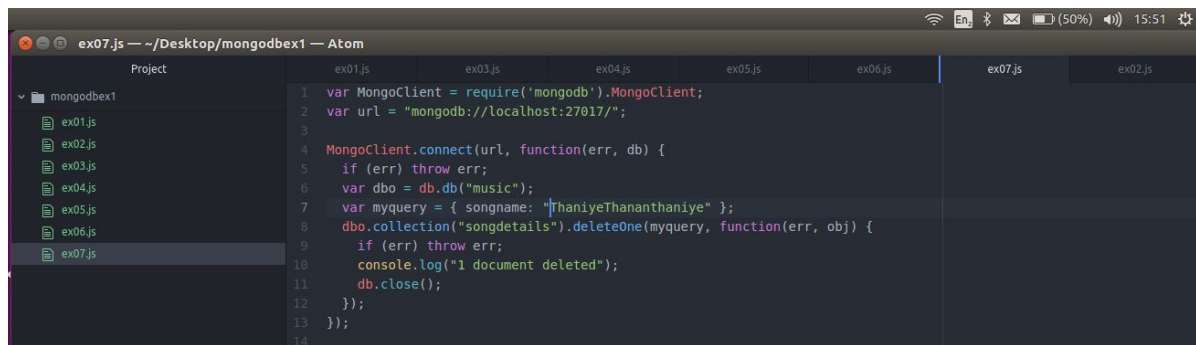
The screenshot shows a terminal window with the following output:

```
uklstu19@ukltpc19:~/Desktop/mongodbex1$ node ex06.js
(node:11024) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use
the new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { _id: 5e31507c2f646d25ddcc6ba4,
  songname: 'ThanayeThananthaniye',
  film: 'Rhythm',
  musicdirector: 'A.R. Rahman',
  singer: 'Shankar mahadevan' } ]
uklstu19@ukltpc19:~/Desktop/mongodbex1$
```

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

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

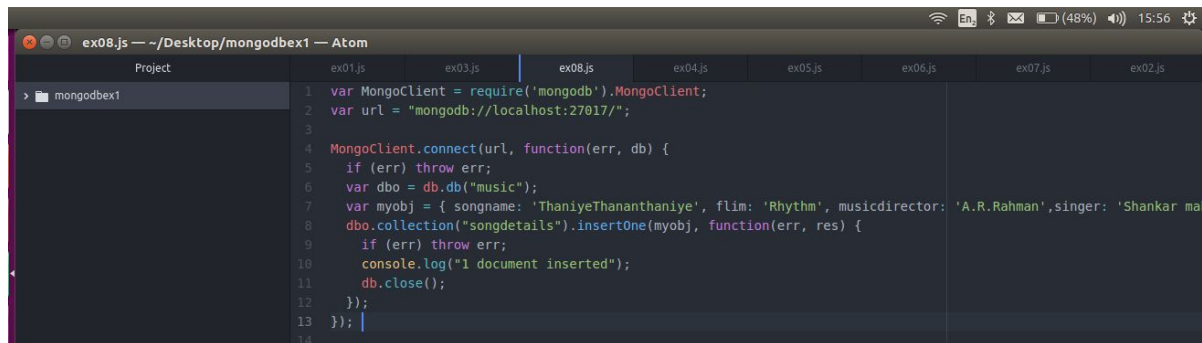
```
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("music");
  var myquery = { songname: "ThaniyeThananthaniye" };
  dbo.collection("songdetails").deleteOne(myquery, function(err, obj) {
    if (err) throw err;
    console.log("1 document deleted");
    db.close();
  });
});
```



8) Add new song which is your favourite.

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

```
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("music");
  var myobj = { songname: 'ThaniyeThananthaniye', flim: 'Rhythm', musicdirector:
'A.R.Rahman', singer: 'Shankar mahadevan' };
  dbo.collection("songdetails").insertOne(myobj, function(err, res) {
    if (err) throw err;
    console.log("1 document inserted");
    db.close();
  });
});
```

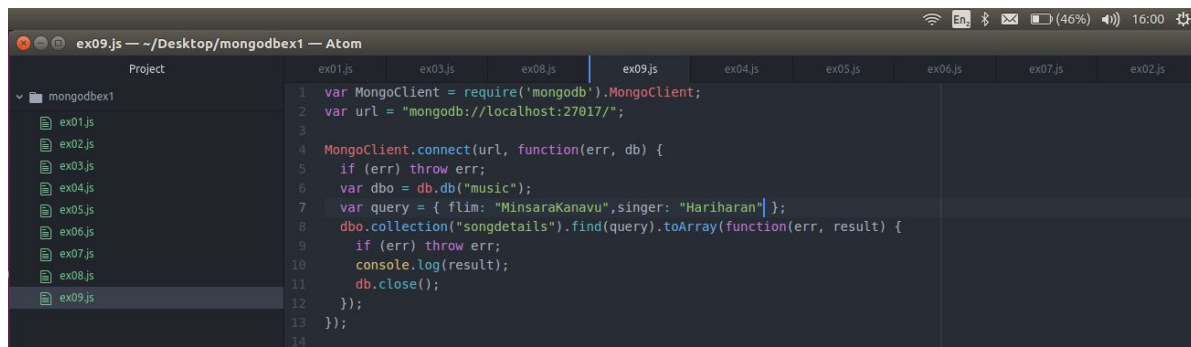
A screenshot of the Atom code editor. The top bar shows the file name 'ex08.js' and the path '~/Desktop/mongodbex1'. The editor has several tabs open, with 'ex08.js' selected. The code in the editor matches the code block above. The left sidebar shows a file explorer with a folder named 'mongodbex1'. The status bar at the bottom right shows system icons and the time '15:56'.

```
ukistui9@ukipc19:~/Desktop/mongodbex1$ node ex08.js
(node:11449) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use
the new Server Discover and Monitoring engine, pass option [ useUnifiedTopology: true ] to the MongoClient constructor.
1 document inserted
ukistui9@ukipc19:~/Desktop/mongodbex1$
```

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

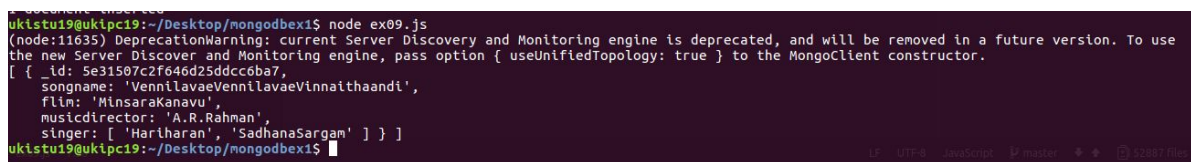
```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";
```

```
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("music");
  var query = { flim: "MinsaraKanavu", singer: "Hariharan" };
  dbo.collection("songdetails").find(query).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```



The screenshot shows the Atom code editor with a project named 'mongodbex1'. The file 'ex09.js' is open and contains the following code:

```
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 = { flim: "MinsaraKanavu", singer: "Hariharan" };
8   dbo.collection("songdetails").find(query).toArray(function(err, result) {
9     if (err) throw err;
10    console.log(result);
11    db.close();
12  });
13 });
14
```



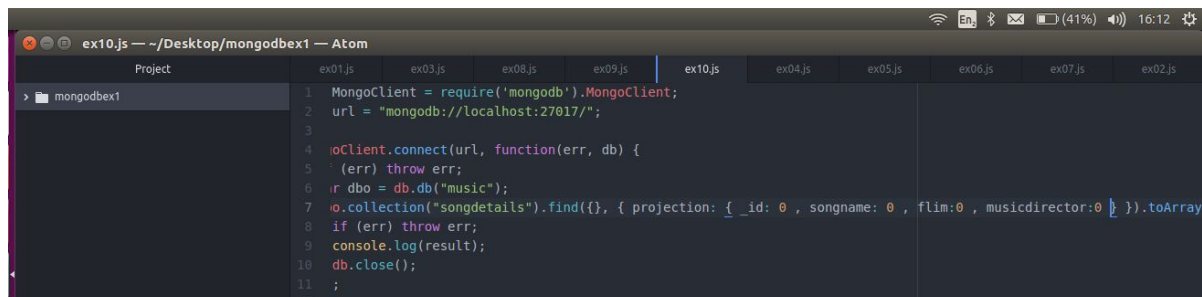
The screenshot shows a terminal window with the following output:

```
ukistui9@ukipc19:~/Desktop/mongodbex1$ node ex09.js
(node:11635) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use
the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { _id: '5e31507c2f646d25ddcc6ba7',
  songname: 'VennilavaeVennilavaeVinnatthaandi',
  flim: 'MinsaraKanavu',
  musicdirector: 'A.R.Rahman',
  singer: [ 'Hariharan', 'SadhanaSargam' ] } ]
ukistui9@ukipc19:~/Desktop/mongodbex1$
```

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

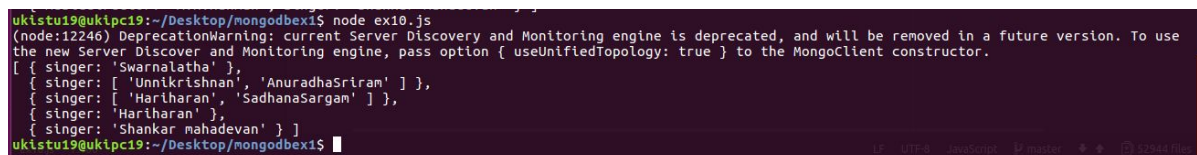
```
var MongoClient = require('mongodb').MongoClient;
var url = "mongodb://localhost:27017/";
```

```
MongoClient.connect(url, function(err, db) {
  if (err) throw err;
  var dbo = db.db("music");
  dbo.collection("songdetails").find({}, { projection: { _id: 0 , songname: 0 , flim:0 ,
musicdirector:0 } }).toArray(function(err, result) {
    if (err) throw err;
    console.log(result);
    db.close();
  });
});
```



The screenshot shows the Atom code editor with a project named 'mongodbex1'. The code in 'ex10.js' is as follows:

```
1 MongoClient = require('mongodb').MongoClient;
2 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({}, { projection: { _id: 0 , songname: 0 , flim:0 , musicdirector:0 } }).toArray
8   if (err) throw err;
9   console.log(result);
10  db.close();
11  ;
```



The terminal output shows the command 'node ex10.js' being executed. A deprecation warning is displayed, followed by the JSON array of song details:

```
ukistu19@uklpc19:~/Desktop/mongodbex1$ node ex10.js
(node:12246) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use
the new Server Discover and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { singer: 'Swarnalatha' },
  { singer: [ 'Unnikrishnan', 'AnuradhaSriram' ] },
  { singer: [ 'Hartharan', 'SadhanaSargam' ] },
  { singer: 'Hartharan' },
  { singer: 'Shankar mahadevan' } ]
ukistu19@uklpc19:~/Desktop/mongodbex1$
```