

## NodeMongodb Exercise 01

### 1) Create a Database called music.

The screenshot shows a VS Code editor with a file named `create.js` containing the following code:

```
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/music1";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   console.log("Database created!");
7   db.close();
8 });
```

Below the editor, a terminal window shows the MongoDB shell output:

```
ukistu02@ukipc02: ~/Desktop/uki/NodeMongodb/nodemongodbi$ node create.js
[sudo] password for ukistu02:
MongoDB shell version: 2.6.10
connecting to: test
> show dbs
admin (empty)
local 0.078GB
music 0.078GB
music1 0.078GB
mydb 0.078GB
student 0.078GB
uki5 0.078GB
>
```

The terminal also shows the output of the `node create.js` command, which successfully creates the database and logs "Database created!".

### 2) Create a collection called song details.

The screenshot shows a VS Code editor with a file named `collection.js` containing 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("music1");
7   dbo.createCollection("songdetails", function(err, res) {
8     if (err) throw err;
9     console.log("Collection created!");
10    db.close();
11  });
12 });
```

Below the editor, a terminal window shows the MongoDB shell output:

```
ukistu02@ukipc02: ~/Desktop/uki/NodeMongodb/nodemongodbi$ node collection.js
[sudo] password for ukistu02:
MongoDB shell version: 2.6.10
connecting to: test
> show dbs
admin (empty)
local 0.078GB
music 0.078GB
music1 0.078GB
mydb 0.078GB
student 0.078GB
uki5 0.078GB
> use music1
switched to db music1
> show collections
songdetails
system.indexes
>
```

The terminal also shows the output of the `node collection.js` command, which successfully creates the collection and logs "Collection created!".

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

```

[nodemon] clean exit - waiting for changes before restart
Cukistu02@ukipc02:~/Desktop/uki/Nodemongodb/nodemongodb1$ nodemon insertsong.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter 'rs'
[nodemon] watching: *.*
[nodemon] starting 'node insertsong.js'
(node:6795) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass o
tion { useNewUrlParser: true } to MongoClient.connect.
Number of documents inserted: 5
[nodemon] clean exit - waiting for changes before restart

```

```

// create.js
1 r MongoClient = require('mongodb').MongoClient;
2 r url = "mongodb://localhost:27017/";
3
4 mongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("music1");
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: 'Swarnalatha'},
10    { SongName: 'Roja Poonthottam', Flim: 'Kannukkul Nilavu', MusicDirector: 'Ilaiyaraaja', Singer: 'Unnikrishnan,AnuradhaSriram'},
11    { SongName: 'Vennilavae Vennilavae Vinnaithaandi', Flim: 'Minsara Kanavu', MusicDirector: 'A.R.Rahman', Singer: 'Hariharan,SadhanaSargam'},
12    { SongName: 'Sollamal Thottu Chellum Thendral', Flim: 'Dheena', MusicDirector: 'Yuvan Shankar Raja', Singer: 'Hariharan'}
13  ];
14
15  dbo.collection("songdetails").insertMany(myobj, function(err, res) {
16    if (err) throw err;
17    console.log("Number of documents inserted: " + res.insertedCount);
18    db.close();
19  });
20
21
22

```

```

ukistu02@ukipc02: ~/Desktop/uki/Nodemongodb/nodemongodb1
Type "it" for more
> db.songdetails.remove({})
WriteResult({ "nRemoved" : 25 })
> db.songdetails.find().pretty()
> db.songdetails.find().pretty()
{
  "_id" : ObjectId("5d24353f02f8a71a8becadb6"),
  "SongName" : "Thaniye Thananthaniye",
  "Flim" : "Rhythm",
  "MusicDirector" : "A.R.Rahman",
  "Singer" : "Shankar Mahadevan"
}
{
  "_id" : ObjectId("5d24353f02f8a71a8becadb7"),
  "SongName" : "Evano Oruvan",
  "Flim" : "Alai Payuthey",
  "MusicDirector" : "A.R.Rahman",
  "Singer" : "Swarnalatha"
}
{
  "_id" : ObjectId("5d24353f02f8a71a8becadb8"),
  "SongName" : "Roja Poonthottam",
  "Flim" : "Kannukkul Nilavu",
  "MusicDirector" : "Ilaiyaraaja",
  "Singer" : "Unnikrishnan,AnuradhaSriram"
}
{
  "_id" : ObjectId("5d24353f02f8a71a8becadb9"),
  "SongName" : "Vennilavae Vennilavae Vinnaithaandi",
  "Flim" : "Minsara Kanavu",
  "MusicDirector" : "A.R.Rahman",
  "Singer" : "Hariharan,SadhanaSargam"
}
{
  "_id" : ObjectId("5d24353f02f8a71a8becadba"),
  "SongName" : "Sollamal Thottu Chellum Thendral",
  "Flim" : "Dheena",
  "MusicDirector" : "Yuvan Shankar Raja",
  "Singer" : "Hariharan"
}
>

```

4) List all documents created.

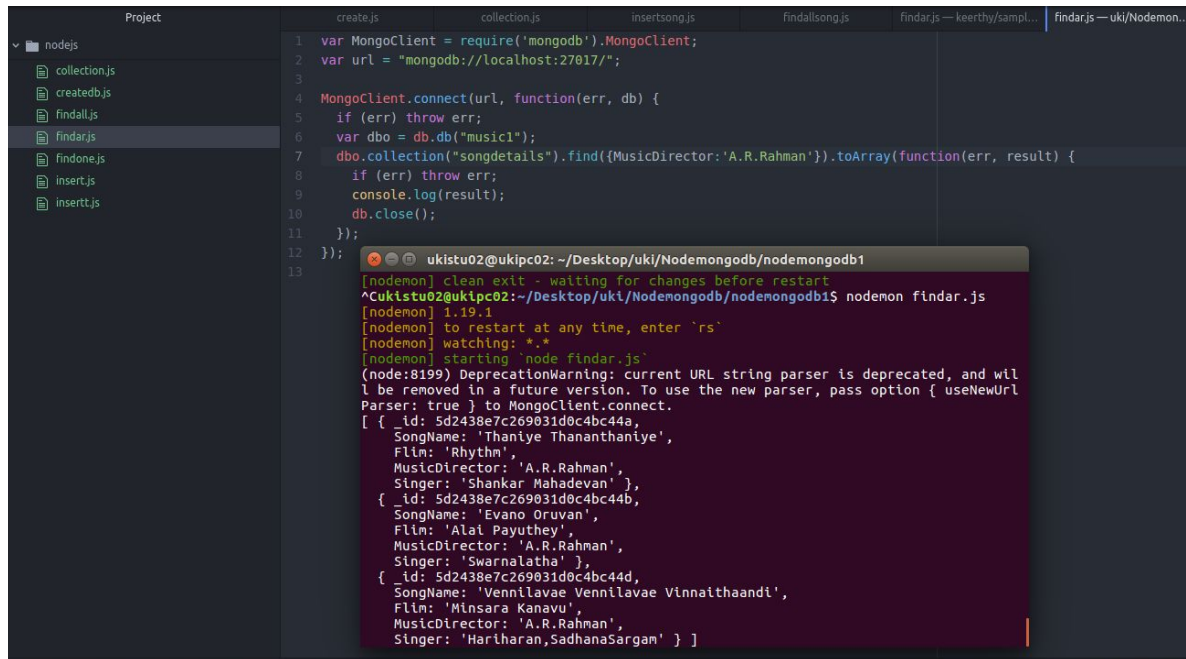
```

^Cuklstu02@uklpc02:~/Desktop/ukl/Nodemongodb/nodemongodb1$ nodemon insertsong.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting 'node insertsong.js'
(node:7436) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
Number of documents inserted: 5
[nodemon] clean exit - waiting for changes before restart
^Cuklstu02@uklpc02:~/Desktop/ukl/Nodemongodb/nodemongodb1$ nodemon findallsong.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting 'node findallsong.js'
(node:7464) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[ { _id: 5d2438e7c269031d0c4bc44a,
  SongName: 'Thaniye Thananthaniye',
  Flim: 'Rhythm',
  MusicDirector: 'A.R.Rahman',
  Singer: 'Shankar Mahadevan' },
  { _id: 5d2438e7c269031d0c4bc44b,
  SongName: 'Evano Oruvan',
  Flim: 'Alai Payuthey',
  MusicDirector: 'A.R.Rahman',
  Singer: 'Swarnalatha' },
  { _id: 5d2438e7c269031d0c4bc44c,
  SongName: 'Roja Poonthottam',
  Flim: 'Kannukkul Nilavu',
  MusicDirector: 'Ilaiyaraaja',
  Singer: 'Unnikrishnan,AnuradhaSriram' },
  { _id: 5d2438e7c269031d0c4bc44d,
  SongName: 'Vennilavae Vennilavae Vinnaithaandi',
  Flim: 'Minsara Kanavu',
  MusicDirector: 'A.R.Rahman',
  Singer: 'Hariharan,SadhanaSargam' },
  { _id: 5d2438e7c269031d0c4bc44e,
  SongName: 'Sollamal Thottu Chellum Thendral',
  Flim: 'Dheena',
  MusicDirector: 'Yuvan Shankar Raja',
  Singer: 'Hariharan' } ]
[nodemon] clean exit - waiting for changes before restart

```

Project	create.js	collection.js	insertsong.js	findallsong.js	findone.js
nodejs	<pre> 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("music1"); 7   dbo.collection("songdetails").find({}).toArray(function(err, result) { 8     if (err) throw err; 9     console.log(result); 10    db.close(); 11  }); 12 }); 13 </pre>				

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



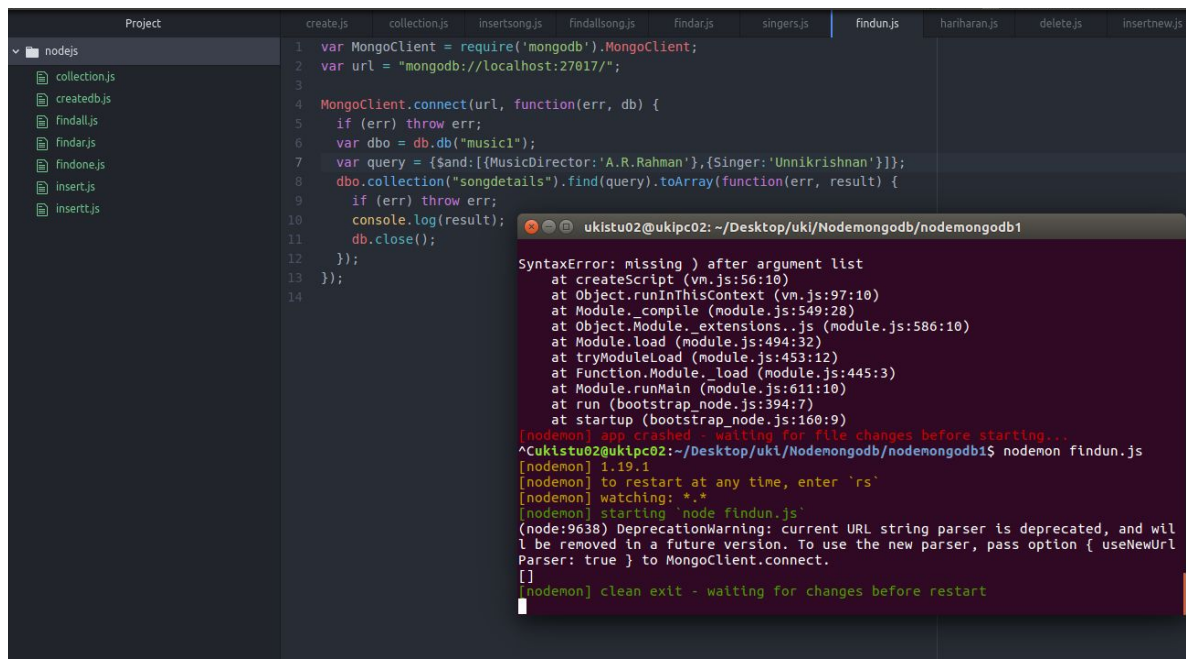
```
Project
  nodes
    collection.js
    createdb.js
    findall.js
    findar.js
    findone.js
    insert.js
    insertt.js

create.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("music1");
7   dbo.collection("songdetails").find({MusicDirector:'A.R.Rahman'}).toArray(function(err, result) {
8     if (err) throw err;
9     console.log(result);
10    db.close();
11  });
12 }};
13

collection.js
insertsong.js
findallsong.js
findar.js — keerthy/sampl...
findar.js — uki/NodeMon...

ukistu02@ukipc02: ~/Desktop/uki/Nodemongodb/nodemongodb1
[nodemon] clean exit - waiting for changes before restart
^Cukistu02@ukipc02:~/Desktop/uki/Nodemongodb/nodemongodb1$ nodemon findar.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting 'node findar.js'
(node:8199) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[ { _id: 5d2438e7c269031d0c4bc44a,
  SongName: 'ThanIye Thananthaniye',
  Flm: 'Rhythm',
  MusicDirector: 'A.R.Rahman',
  Singer: 'Shankar Mahadevan' },
  { _id: 5d2438e7c269031d0c4bc44b,
  SongName: 'Evano Oruvan',
  Flm: 'Alai Payuthey',
  MusicDirector: 'A.R.Rahman',
  Singer: 'Swarnalatha' },
  { _id: 5d2438e7c269031d0c4bc44d,
  SongName: 'Vennilavae Vennilavae Vinnaithaandi',
  Flm: 'Minsara Kanavu',
  MusicDirector: 'A.R.Rahman',
  Singer: 'Hariharan,SadhanaSargam' } ]
```

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



```
Project
  nodes
    collection.js
    createdb.js
    findall.js
    findar.js
    findone.js
    insert.js
    insertt.js

create.js
collection.js
insertsong.js
findallsong.js
findar.js
singers.js
findun.js
hariharan.js
delete.js
insertnew.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("music1");
7   var query = {$and:[{MusicDirector:'A.R.Rahman'},{Singer:'Unnikrishnan'}]};
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

ukistu02@ukipc02: ~/Desktop/uki/Nodemongodb/nodemongodb1
SyntaxError: missing ) after argument list
    at createScript (vm.js:56:10)
    at Object.runInThisContext (vm.js:97:10)
    at Module._compile (module.js:549:28)
    at Object.Module._extensions..js (module.js:586:10)
    at Module.load (module.js:494:32)
    at tryModuleLoad (module.js:453:12)
    at Function.Module._load (module.js:445:3)
    at Module.runMain (module.js:611:10)
    at run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
[nodemon] app crashed - waiting for file changes before starting...
^Cukistu02@ukipc02:~/Desktop/uki/Nodemongodb/nodemongodb1$ nodemon findun.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting 'node findun.js'
(node:9638) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[]
[nodemon] clean exit - waiting for changes before restart
```

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



The screenshot shows a VS Code editor with a project named 'nodesjs'. The file 'delete.js' is open, containing 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("music1");
7   dbo.collection("songdetails").deleteOne({ SongName: 'Evano Oruvan' }, function(err, obj) {
8     if (err) throw err;
9     console.log("1 document deleted");
10    db.close();
11  });
12 });
```

The terminal window shows the execution of the script using nodemon:

```
ukistu02@ukipc02: ~/Desktop/uki/Nodemongodb/nodemongodb1
MusicDirector: 'A.R.Rahman',
Singer: 'Swarnalatha' },
{ _id: 5d2438e7c260931d0c4bc44d,
  SongName: 'Vennilavae Vennilavae Vinnaithaandi',
  Flim: 'Minsara Kanavu',
  MusicDirector: 'A.R.Rahman',
  Singer: 'Hariharan,Sadhanasargam' } ]
[nodemon] clean exit - waiting for changes before restart
^[[A^Cukistu02@ukipc02:~/Desktop/uki/Nodemongodb/nodemongodb1$ nodemon delete.js
Usage: nodemon [nodemon options] [script.js] [args]

See "nodemon --help" for more.

ukistu02@ukipc02:~/Desktop/uki/Nodemongodb/nodemongodb1$ nodemon delete.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting 'node delete.js'
(node:8442) DeprecationWarning: current URL string parser is deprecated, and will
be removed in a future version. To use the new parser, pass option { useNewUrl
Parser: true } to MongoClient.connect.
1 document deleted
[nodemon] clean exit - waiting for changes before restart
```

8) Add new song which is your favourite.

The screenshot shows a VS Code editor with a project named 'nodesjs'. The file 'insertnew.js' is open, containing the following code:

```
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://127.0.0.1:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("music1");
7   dbo.collection("songdetails").updateOne({}, { $set: { SongName: 'Kannana Kannae', Flim: 'Vishvasam', MusicDirector: 'A.R.Rahman', Singer: 'Hariharan,Sadhanasargam' } }, function(err, obj) {
8     if (err) throw err;
9     console.log("1 document updated");
10    db.close();
11  });
12 });
```

The terminal window shows the execution of the script using nodemon:

```
ukistu02@ukipc02: ~/Desktop/uki/Nodemongodb/nodemongodb1
[nodemon] starting 'node delete.js'
(node:8570) DeprecationWarning: current URL string parser is deprecated, and will
be removed in a future version. To use the new parser, pass option { useNewUrl
Parser: true } to MongoClient.connect.
1 document deleted
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting 'node delete.js'
(node:8588) DeprecationWarning: current URL string parser is deprecated, and will
be removed in a future version. To use the new parser, pass option { useNewUrl
Parser: true } to MongoClient.connect.
1 document deleted
[nodemon] clean exit - waiting for changes before restart
^Cukistu02@ukipc02:~/Desktop/uki/Nodemongodb/nodemongodb1$ nodemon insertnew.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting 'node insertnew.js'
(node:8617) DeprecationWarning: current URL string parser is deprecated, and will
be removed in a future version. To use the new parser, pass option { useNewUrl
Parser: true } to MongoClient.connect.
1 document updated
[nodemon] clean exit - waiting for changes before restart
```

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

The screenshot shows a code editor with a project named 'nodejs'. The file 'hariharan.js' is open, containing 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("music1");
7   var query = {$and:[{Singer:'Hariharan'},{Flim:'Minsara Kanavu'}]};
8   dbo.collection("songdetails").find(query).toArray(function(err, result) {
9     if (err) throw err;
10    console.log(result);
11  });
12  db.close();
13 });
14
```

The terminal output shows the execution of the code, displaying the result of the MongoDB query:

```
ukistu02@ukipc02: ~/Desktop/uki/Nodemongodb/nodemongodb1
{ _id: 5d2438e7c269031d0c4bc44e,
  SongName: 'Sollamal Thottu Chellum Thendral',
  Flim: 'Dheena',
  MusicDirector: 'Yuvan Shankar Raja',
  Singer: 'Hariharan' } ]
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting 'node hariharan.js'
(node:9449) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[]
[nodemon] clean exit - waiting for changes before restart
^Cukistu02@ukipc02:~/Desktop/uki/Nodemongodb/nodemongodb1$ nodemon hariharan.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter 'rs'
[nodemon] watching: *.*
[nodemon] starting 'node hariharan.js'
(node:9475) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[]
[nodemon] clean exit - waiting for changes before restart
```

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

The screenshot shows a code editor with a project named 'nodejs'. The file 'singers.js' is open, containing 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("music1");
7   dbo.collection("songdetails").find({}, {projection:{Singer: 1, _id:0}}).toArray(function(err, result) {
8     if (err) throw err;
9     console.log(result);
10  });
11  db.close();
12 });
13
```

The terminal output shows the execution of the code, displaying the result of the MongoDB query:

```
ukistu02@ukipc02: ~/Desktop/uki/Nodemongodb/nodemongodb1
at Object.runInThisContext (vm.js:97:10)
at Module._compile (module.js:549:28)
at Object.Module._extensions..js (module.js:586:10)
at Module.load (module.js:494:32)
at tryModuleLoad (module.js:453:12)
at Function.Module._load (module.js:445:3)
at Module.runMain (module.js:611:10)
at run (bootstrap_node.js:394:7)
at startup (bootstrap_node.js:160:9)
[nodemon] app crashed - waiting for file changes before starting...
^Cukistu02@ukipc02:~/Desktop/uki/Nodemongodb/nodemongodb1$ nodemon singers.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter 'rs'
[nodemon] watching: *.*
[nodemon] starting 'node singers.js'
(node:9050) DeprecationWarning: current URL string parser is deprecated, and will be removed in a future version. To use the new parser, pass option { useNewUrlParser: true } to MongoClient.connect.
[ { Singer: 'Uthiraman' },
  { Singer: 'Unnikrishnan,AnuradhaSriram' },
  { Singer: 'Hariharan,SadhanaSargam' },
  { Singer: 'Hartharan' } ]
[nodemon] clean exit - waiting for changes before restart
```