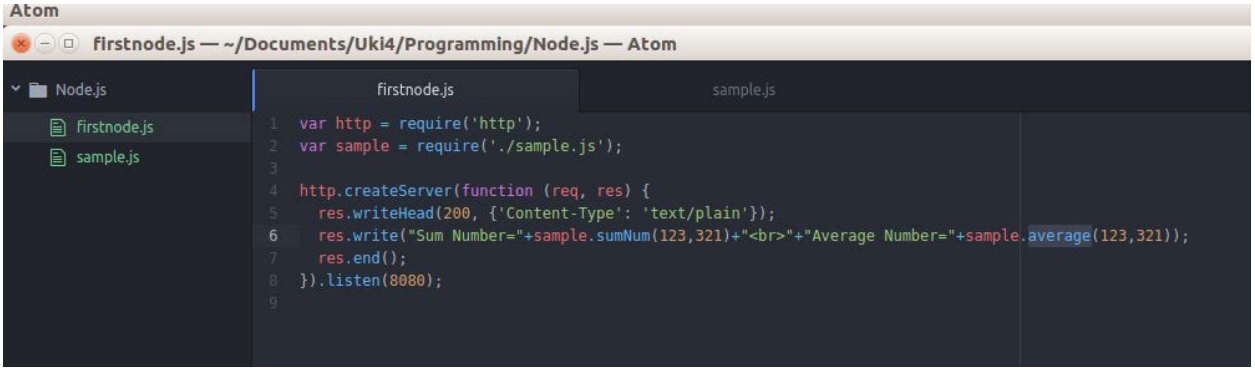
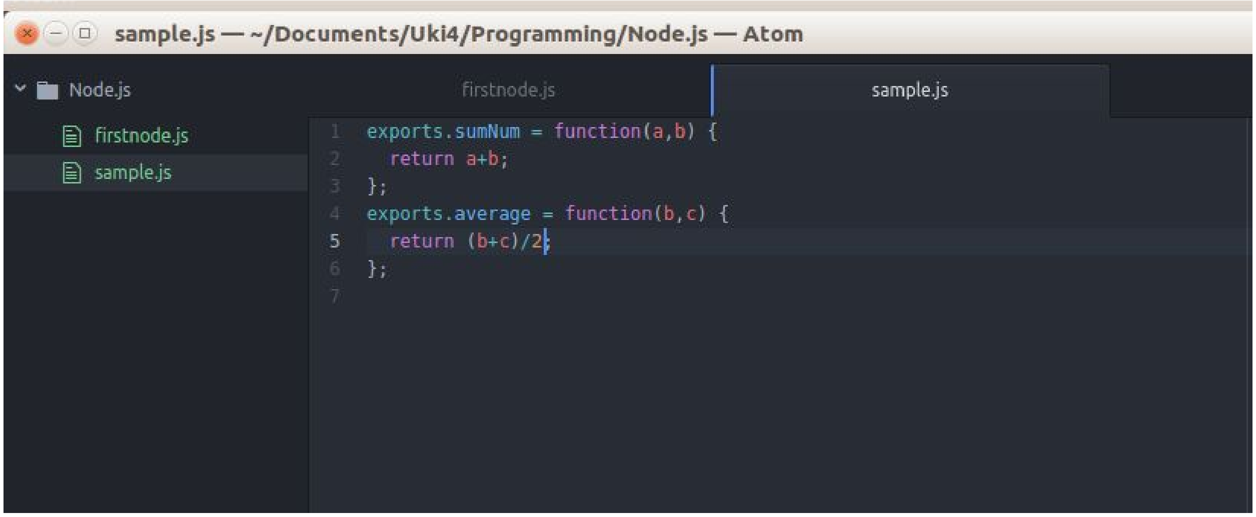
Node.js Exercise 1

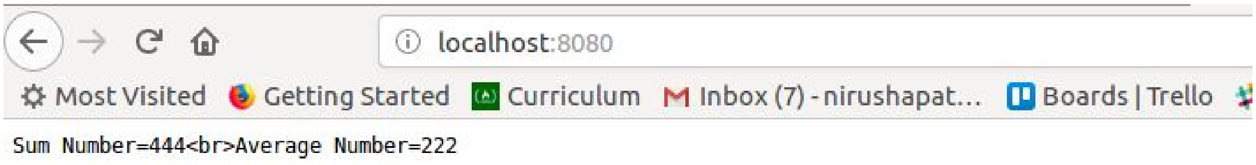
1. Create a custom module which returns the sum and average of any two numbers passed into it. Require the module and run the server by passing 123 and 321 so that the server prints out the sum and average.



```
var http = require('http');
var sample = require('./sample.js');

http.createServer(function (req, res) {
  res.writeHead(200, {'Content-Type': 'text/plain'});
  res.write("Sum Number="+sample.sumNum(123,321)+"<br>"+"Average Number="+sample.average(123,321));
  res.end();
}).listen(8080);
```

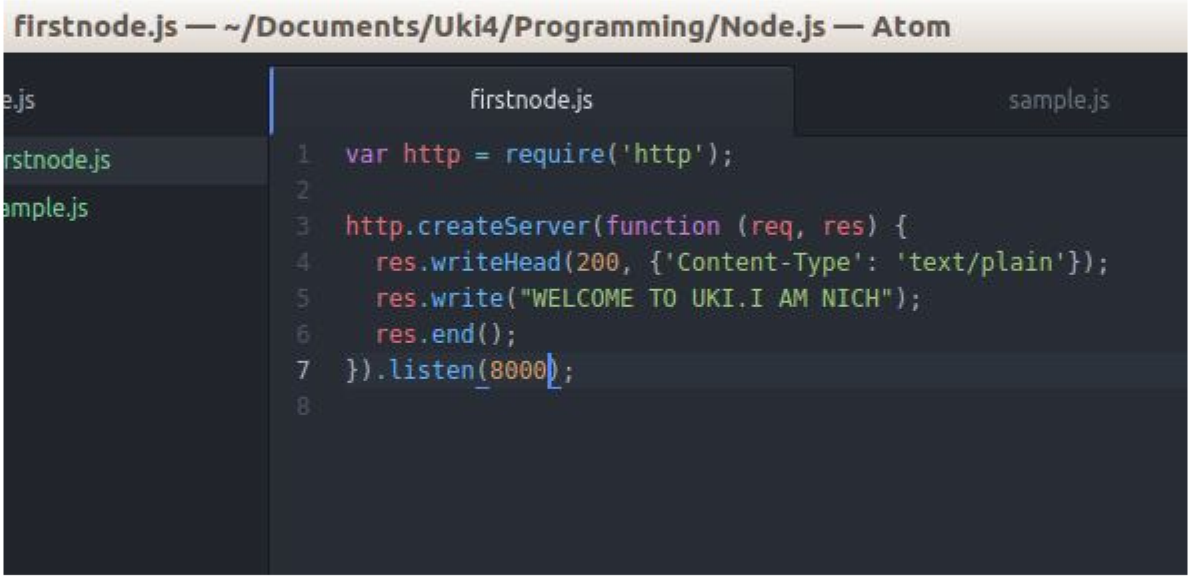


```
exports.sumNum = function(a,b) {
  return a+b;
};
exports.average = function(b,c) {
  return (b+c)/2;
};
```

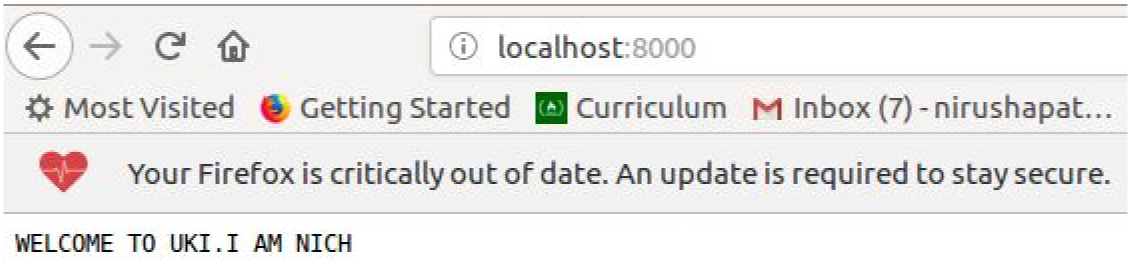


```
Sum Number=444<br>Average Number=222
```

2. Create a simple http server and print “Welcome to Uki. I am **yourname**” when a request is sent to your server via the port 8000. (Note - Change different port numbers and check)



```
var http = require('http');

http.createServer(function (req, res) {
  res.writeHead(200, {'Content-Type': 'text/plain'});
  res.write("WELCOME TO UKI.I AM NICH");
  res.end();
}).listen(8000);
```

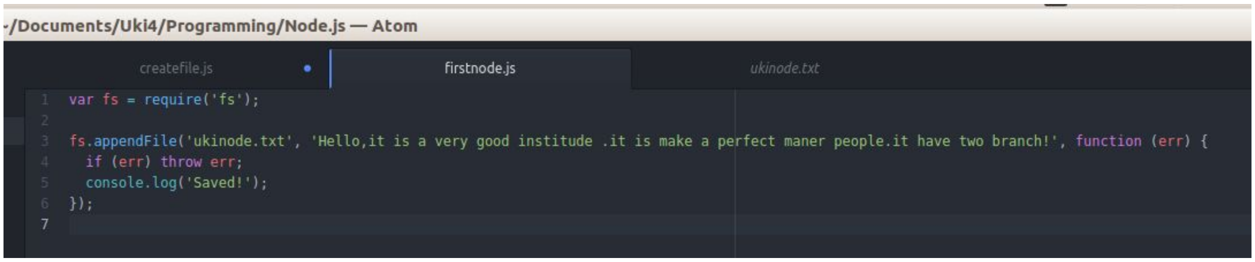


Your Firefox is critically out of date. An update is required to stay secure.

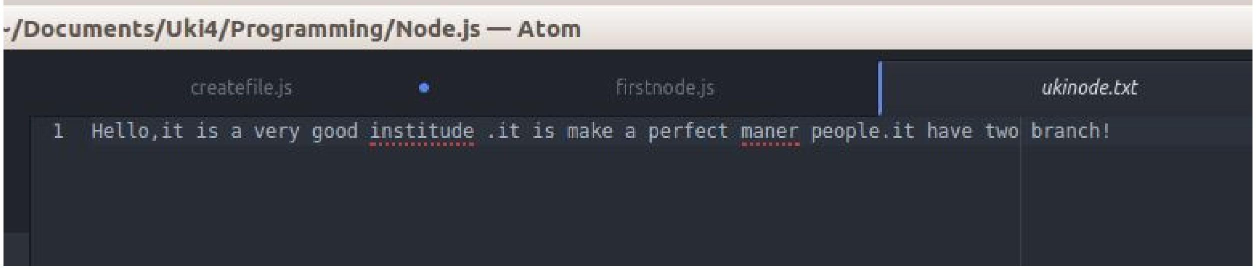
```
WELCOME TO UKI.I AM NICH
```

3. Using the file system module create a new file called ukinode.txt

   3.1 Write a paragraph about Uki into that file

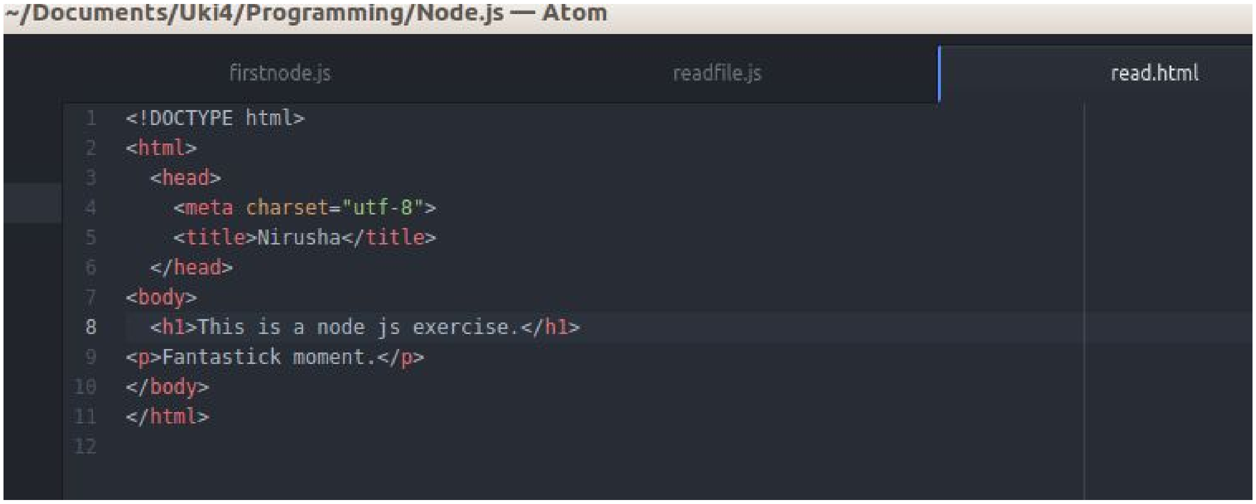


```
var fs = require('fs');

fs.appendFile('ukinode.txt', 'Hello,it is a very good institude .it is make a perfect maner people.it have two branch!', function (err) {
  if (err) throw err;
  console.log('Saved!');
});
```

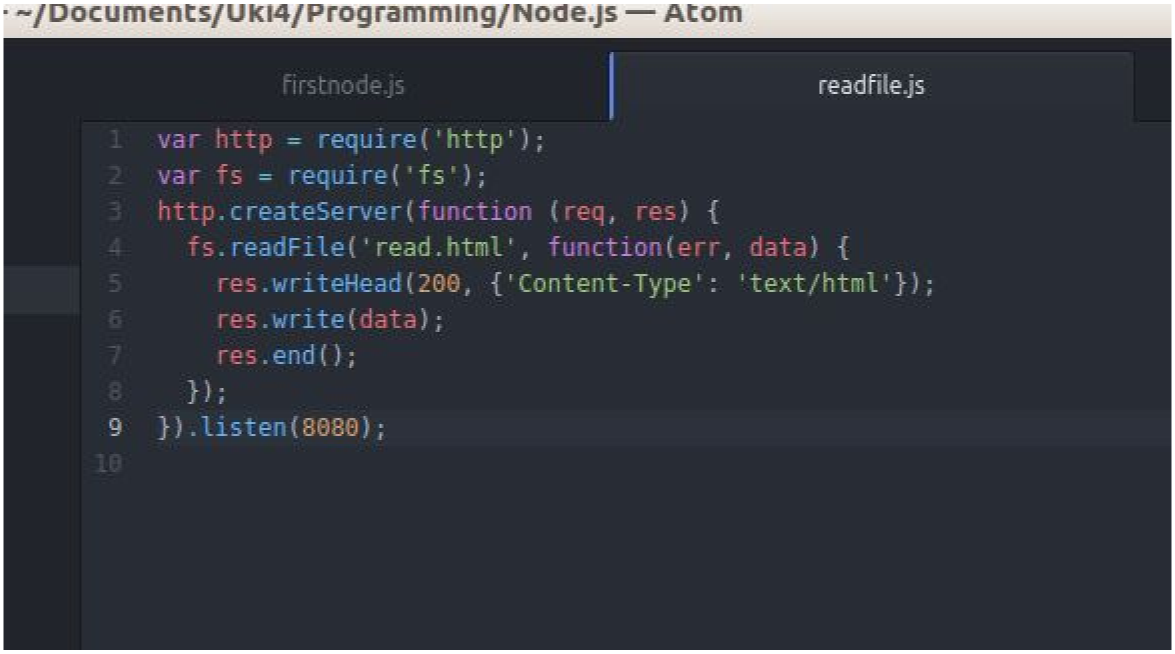


```
Hello,it is a very good institude .it is make a perfect maner people.it have two branch!
```

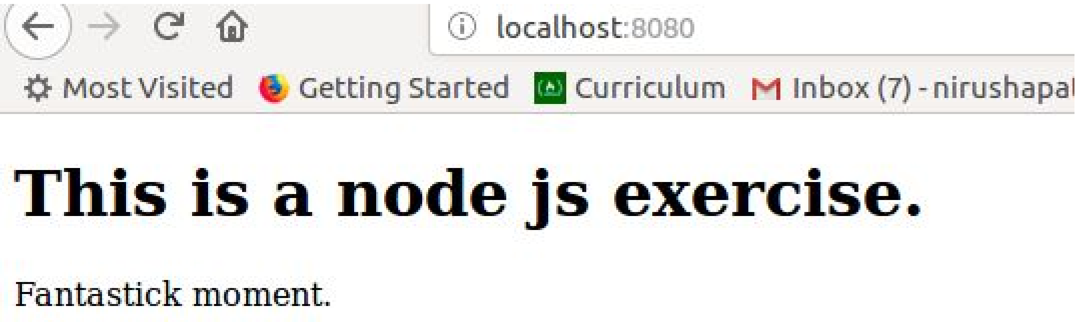
   3.2 Serve that file to the client (Read File) over your server



```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title>Nirusha</title>
  </head>
<body>
  <h1>This is a node js exercise.</h1>
<p>Fantastick moment.</p>
</body>
</html>
```



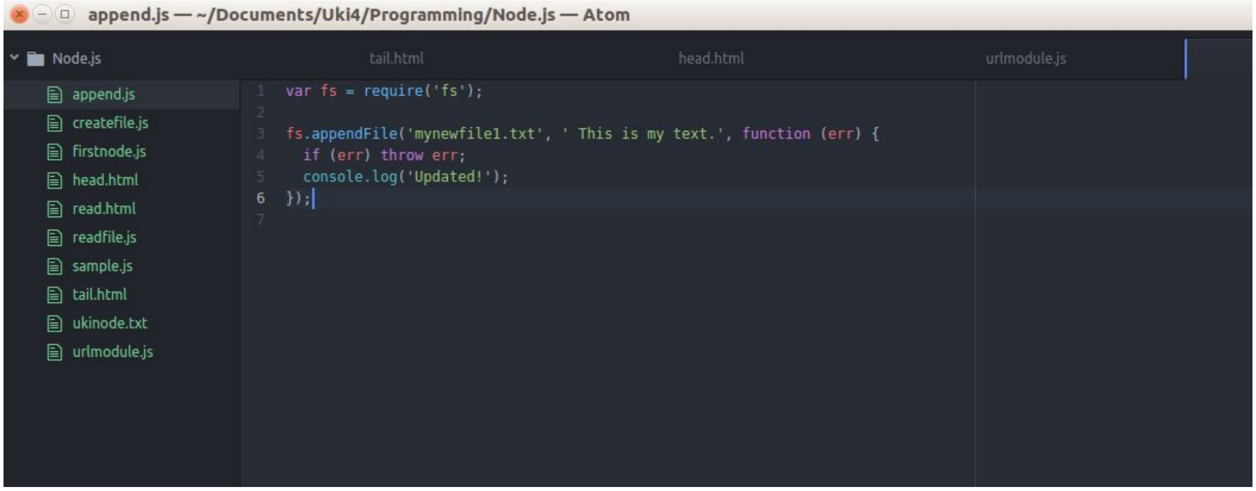
```
var http = require('http');
var fs = require('fs');
http.createServer(function (req, res) {
  fs.readFile('read.html', function(err, data) {
    res.writeHead(200, {'Content-Type': 'text/html'});
    res.write(data);
    res.end();
  });
}).listen(8080);
```



This is a node js exercise.

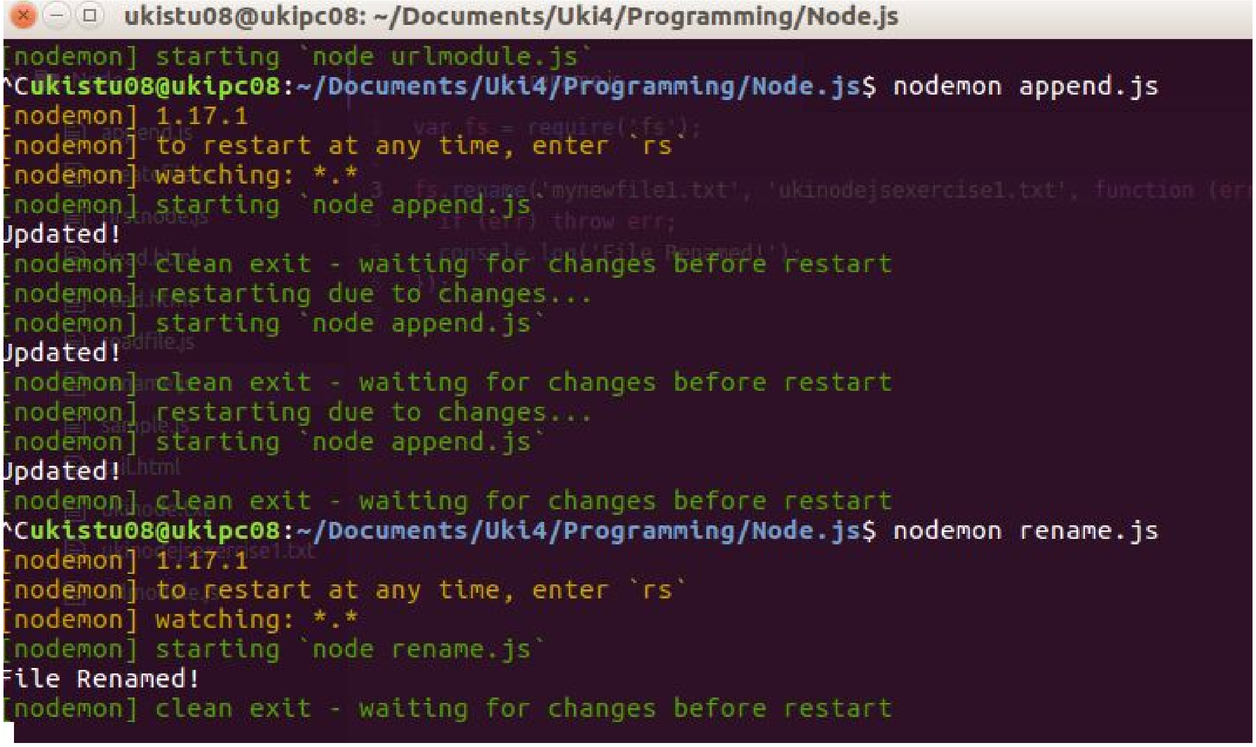
Fantastick moment.

3.3 Append another paragraph about Uki and now serve the new file:

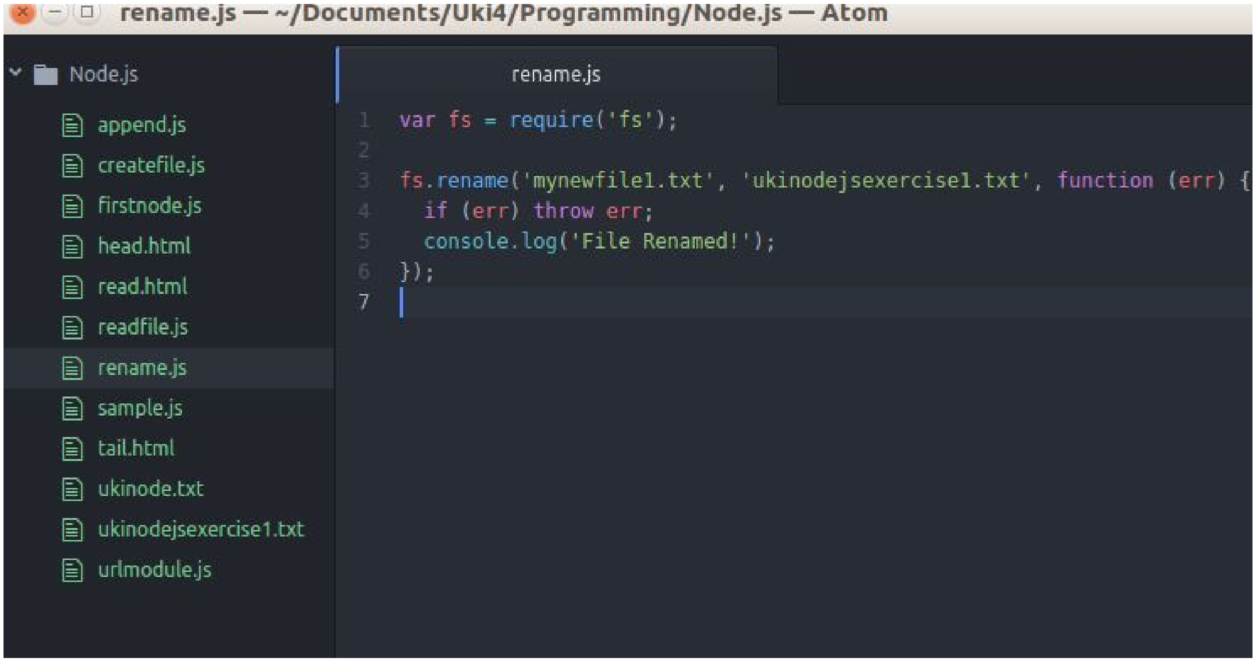


```
var fs = require('fs');

fs.appendFile('mynewfile1.txt', ' This is my text.', function (err) {
  if (err) throw err;
  console.log('Updated!');
});
```

3.4 Rename the file as ukinodejsexercise1.txt:

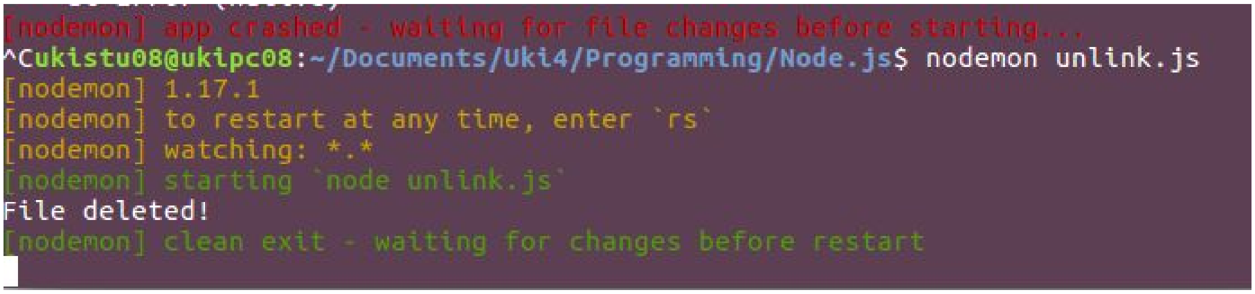


```
[nodemon] starting `node urlmodule.js`
^Cukistu08@ukipc08:~/Documents/Uki4/Programming/Node.js$ nodemon append.js
[nodemon] 1.17.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node append.js`
Updated!
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting `node append.js`
Updated!
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting `node append.js`
Updated!
[nodemon] clean exit - waiting for changes before restart
^Cukistu08@ukipc08:~/Documents/Uki4/Programming/Node.js$ nodemon rename.js
[nodemon] 1.17.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node rename.js`
File Renamed!
[nodemon] clean exit - waiting for changes before restart
```

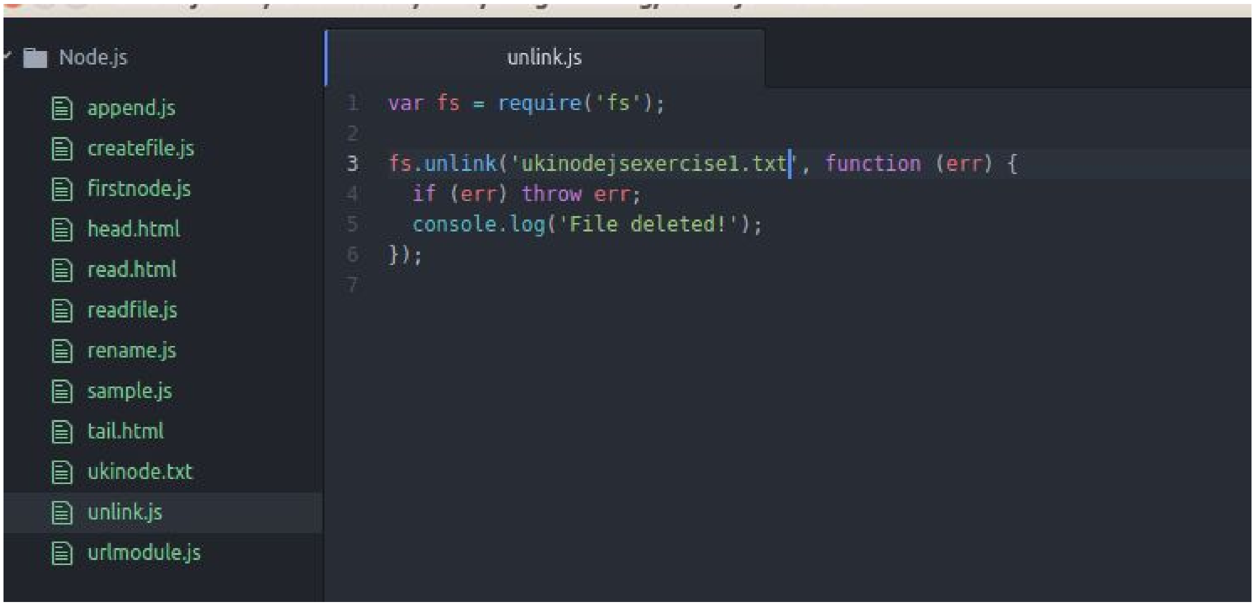


```
var fs = require('fs');

fs.rename('mynewfile1.txt', 'ukinodejsexercise1.txt', function (err) {
  if (err) throw err;
  console.log('File Renamed!');
});

```

3.5 Delete the file you created:



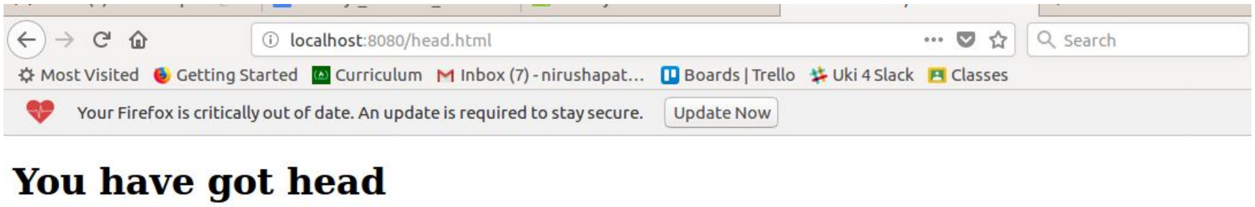
```
[nodemon] app crashed - waiting for file changes before starting...
^Cukistu08@ukipc08:~/Documents/Uki4/Programming/Node.js$ nodemon unlink.js
[nodemon] 1.17.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node unlink.js`
File deleted!
[nodemon] clean exit - waiting for changes before restart
```



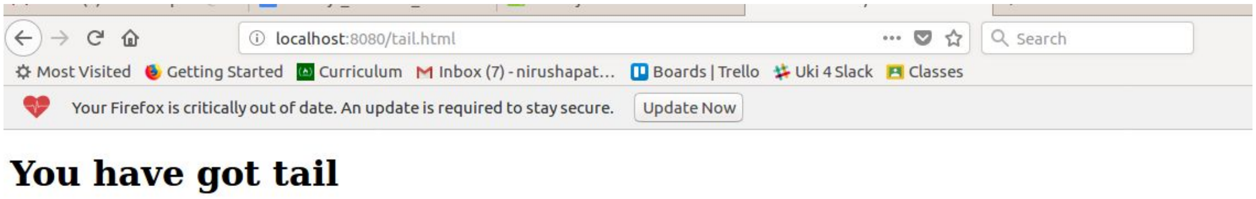
```
var fs = require('fs');

fs.unlink('ukinodejsexercise1.txt', function (err) {
  if (err) throw err;
  console.log('File deleted!');
});
```

4. Create two html files called head.html which is a web page which says 'you have got head ' and tail.html which is a web page which says 'you have got tail' and save them in the same folder as your node.js files. Create a Node.js file that opens the requested file and returns the content to the client. If anything goes wrong, throw a 404 error.

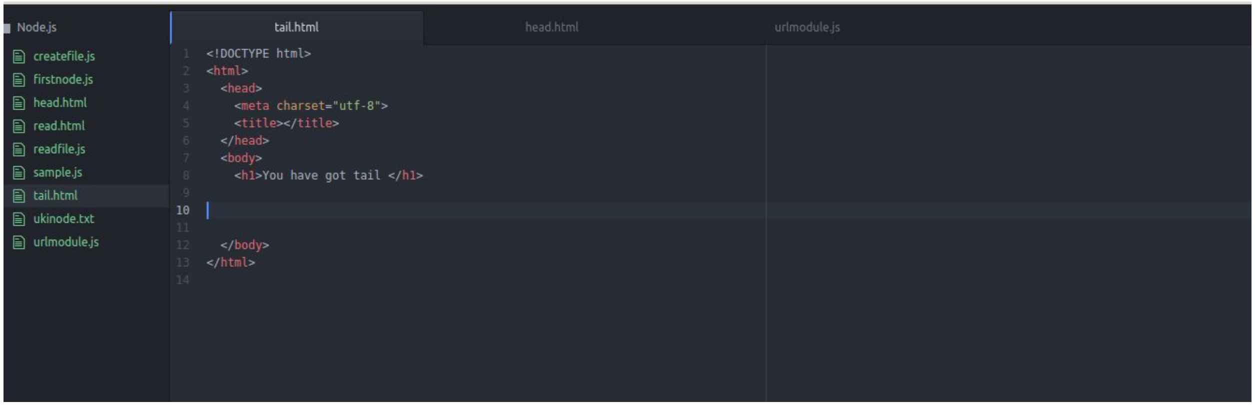
If you have followed the correct steps you should see two different results when opening these two addresses:
http://localhost:8080/head.html - > You have got head
http://localhost:8080/tail.html -> You have got tail



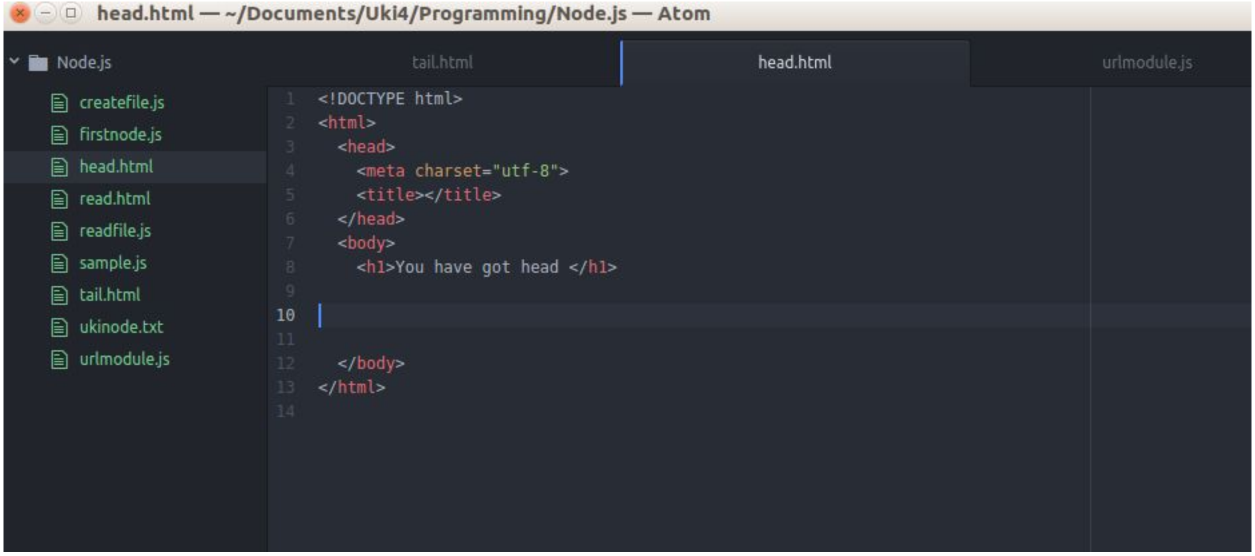
You have got head



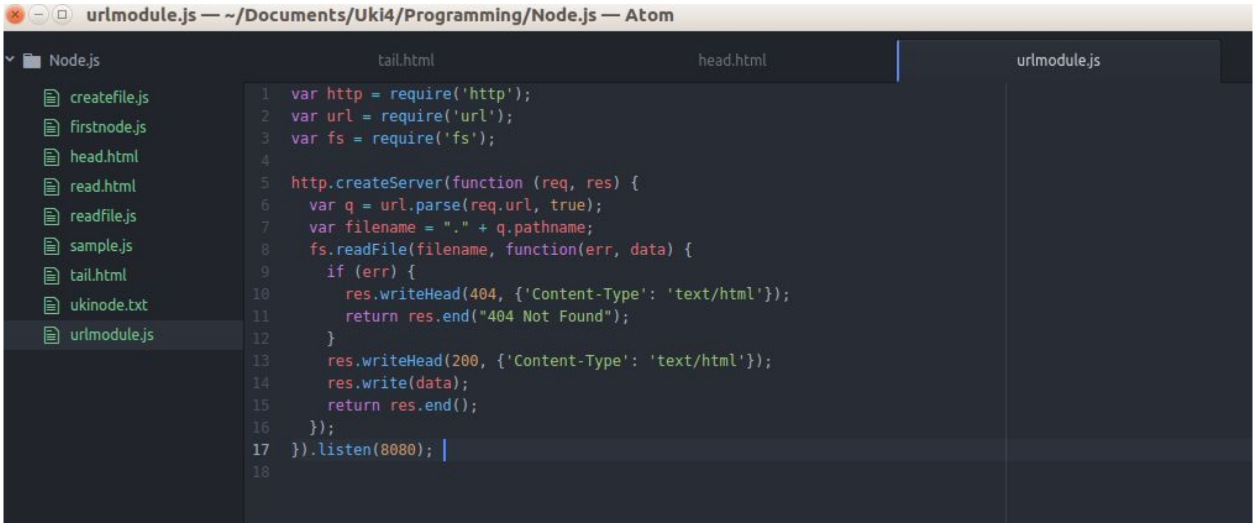
You have got tail



```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title></title>
  </head>
  <body>
    <h1>You have got tail </h1>



  </body>
</html>

```

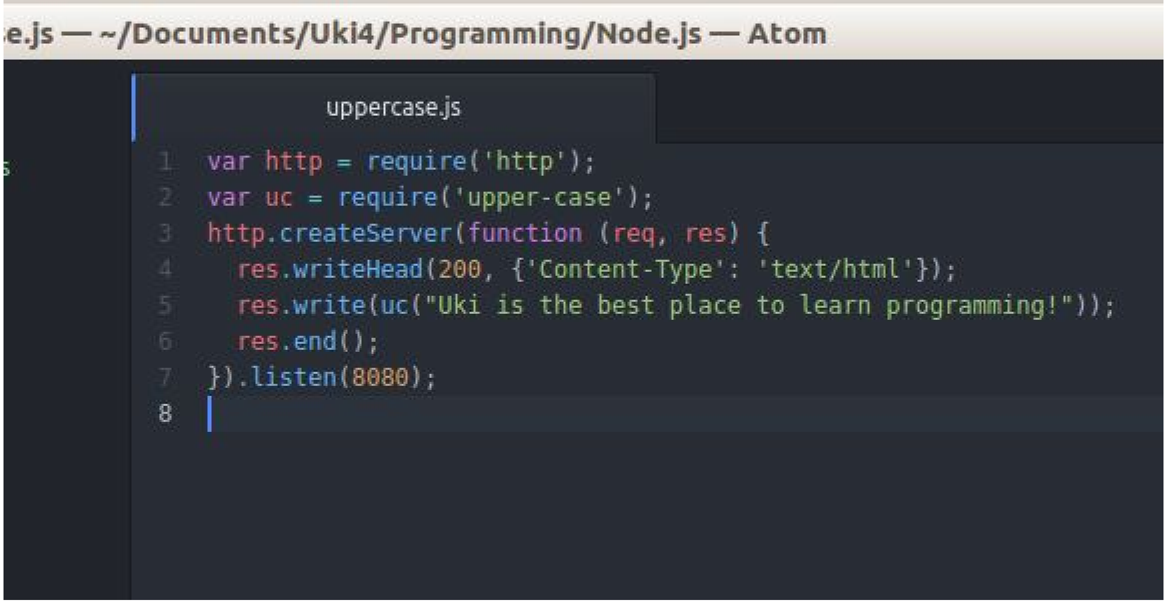


```html
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <title></title>
  </head>
  <body>
    <h1>You have got head </h1>



  </body>
</html>

```

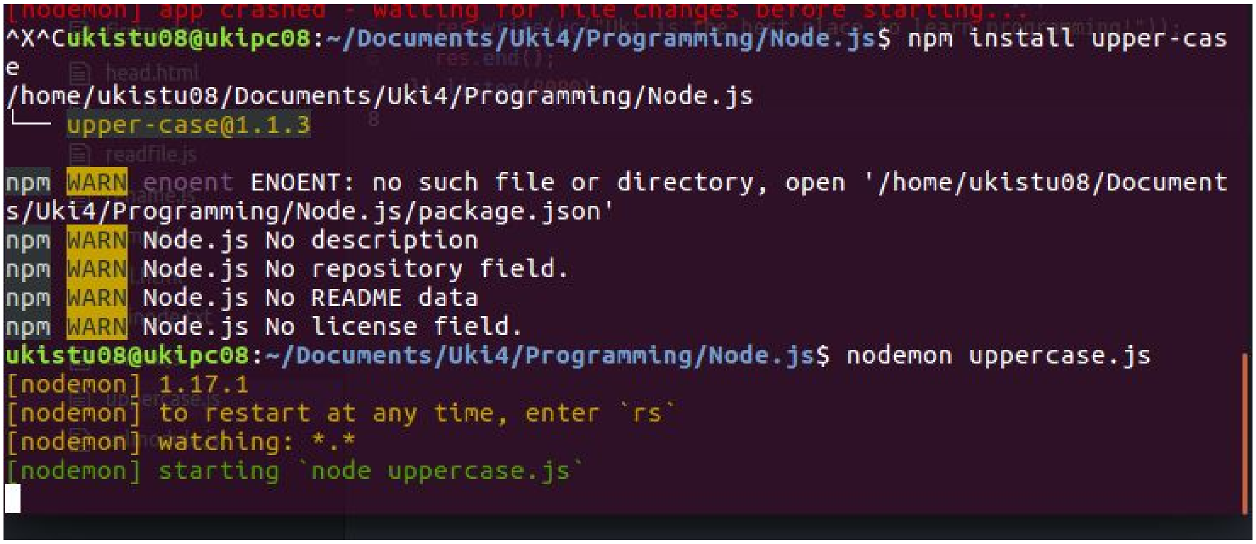


```javascript
var http = require('http');
var url = require('url');
var fs = require('fs');

http.createServer(function (req, res) {
  var q = url.parse(req.url, true);
  var filename = "." + q.pathname;
  fs.readFile(filename, function(err, data) {
    if (err) {
      res.writeHead(404, {'Content-Type': 'text/html'});
      return res.end("404 Not Found");
    }
    res.writeHead(200, {'Content-Type': 'text/html'});
    res.write(data);
    return res.end();
  });
}).listen(8080);

```

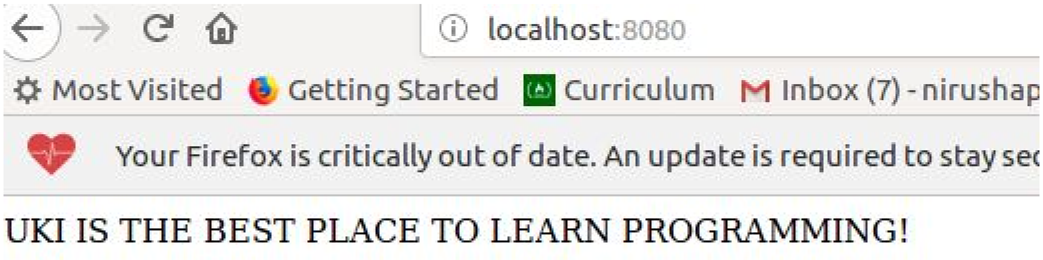
5. Install the package “upper-case” using NPM and create a Node.js file that will convert the output "Uki is the best place to learn programming !" into upper-case letters.



```
var http = require('http');
var uc = require('upper-case');
http.createServer(function (req, res) {
  res.writeHead(200, {'Content-Type': 'text/html'});
  res.write(uc("Uki is the best place to learn programming!"));
  res.end();
}).listen(8080);
```

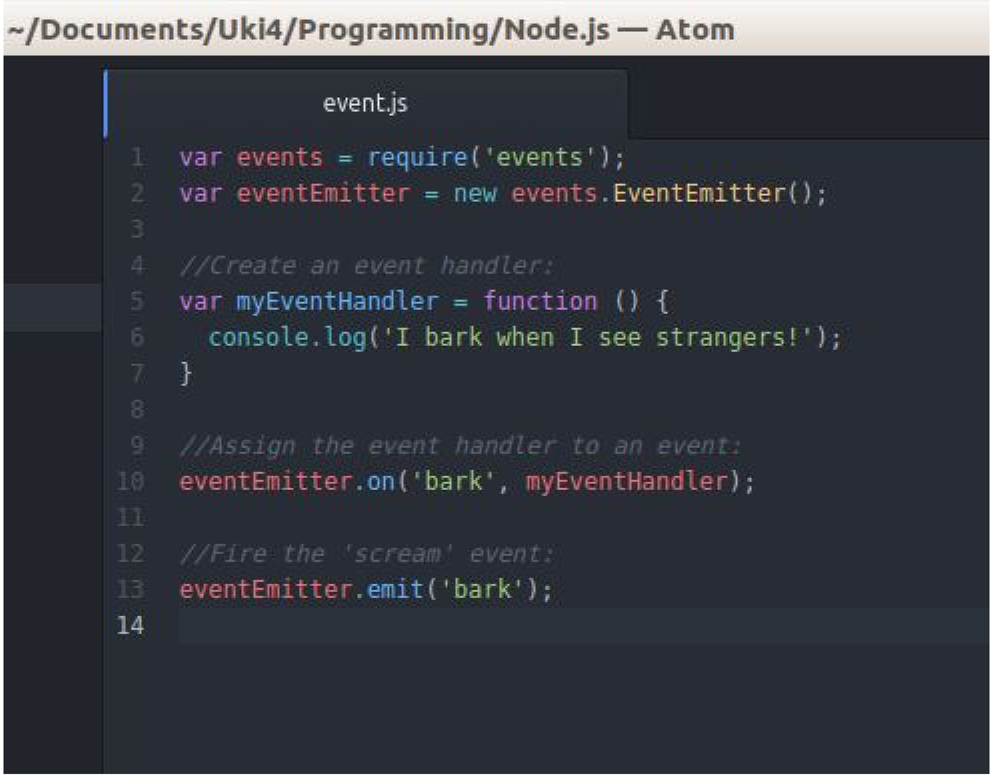


```
[nodemon] app crashed - waiting for file changes before starting...
^X^Cukistu08@ukipc08:~/Documents/Uki4/Programming/Node.js$ npm install upper-cas
e
/home/ukistu08/Documents/Uki4/Programming/Node.js
└── upper-case@1.1.3

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu08/Document
s/Uki4/Programming/Node.js/package.json'
npm WARN Node.js No description
npm WARN Node.js No repository field.
npm WARN Node.js No README data
npm WARN Node.js No license field.
ukistu08@ukipc08:~/Documents/Uki4/Programming/Node.js$ nodemon uppercase.js
[nodemon] 1.17.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node uppercase.js`
```

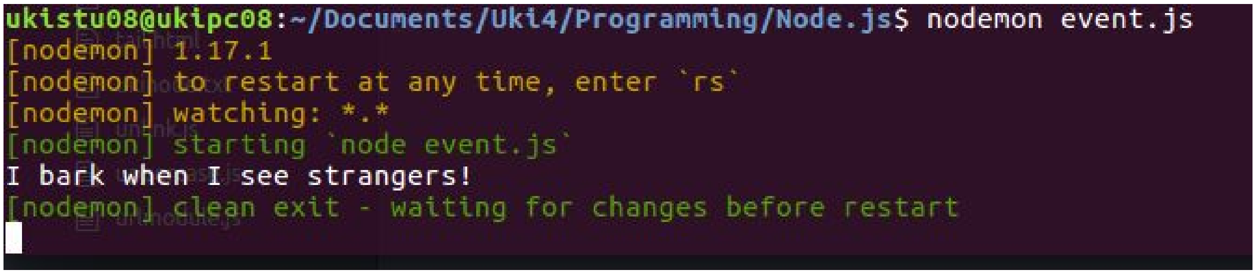

localhost:8080
Most Visited
Getting Started
Curriculum
Inbox (7) - nirushap
Your Firefox is critically out of date. An update is required to stay sec

UKI IS THE BEST PLACE TO LEARN PROGRAMMING!

6. Create an event handler function that will say “I bark when I see strangers !” when a "bark" event is fired.



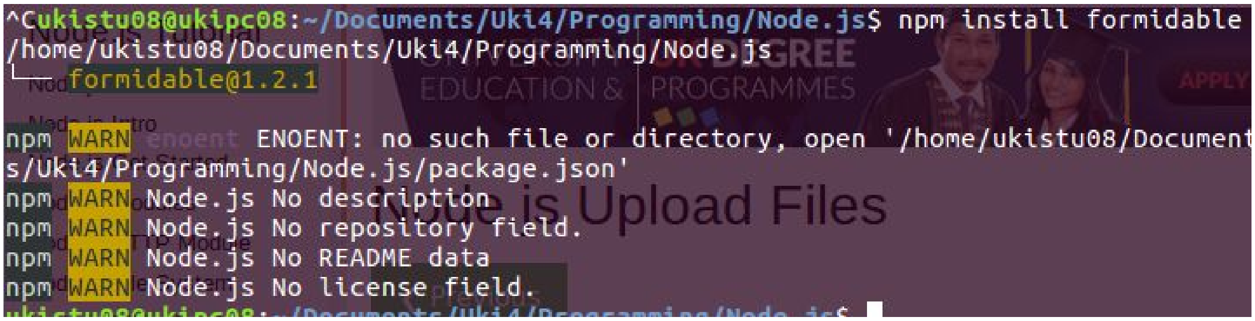
```
var events = require('events');
var eventEmitter = new events.EventEmitter();

//Create an event handler:
var myEventHandler = function () {
  console.log('I bark when I see strangers!');
}

//Assign the event handler to an event:
eventEmitter.on('bark', myEventHandler);

//Fire the 'scream' event:
eventEmitter.emit('bark');

```



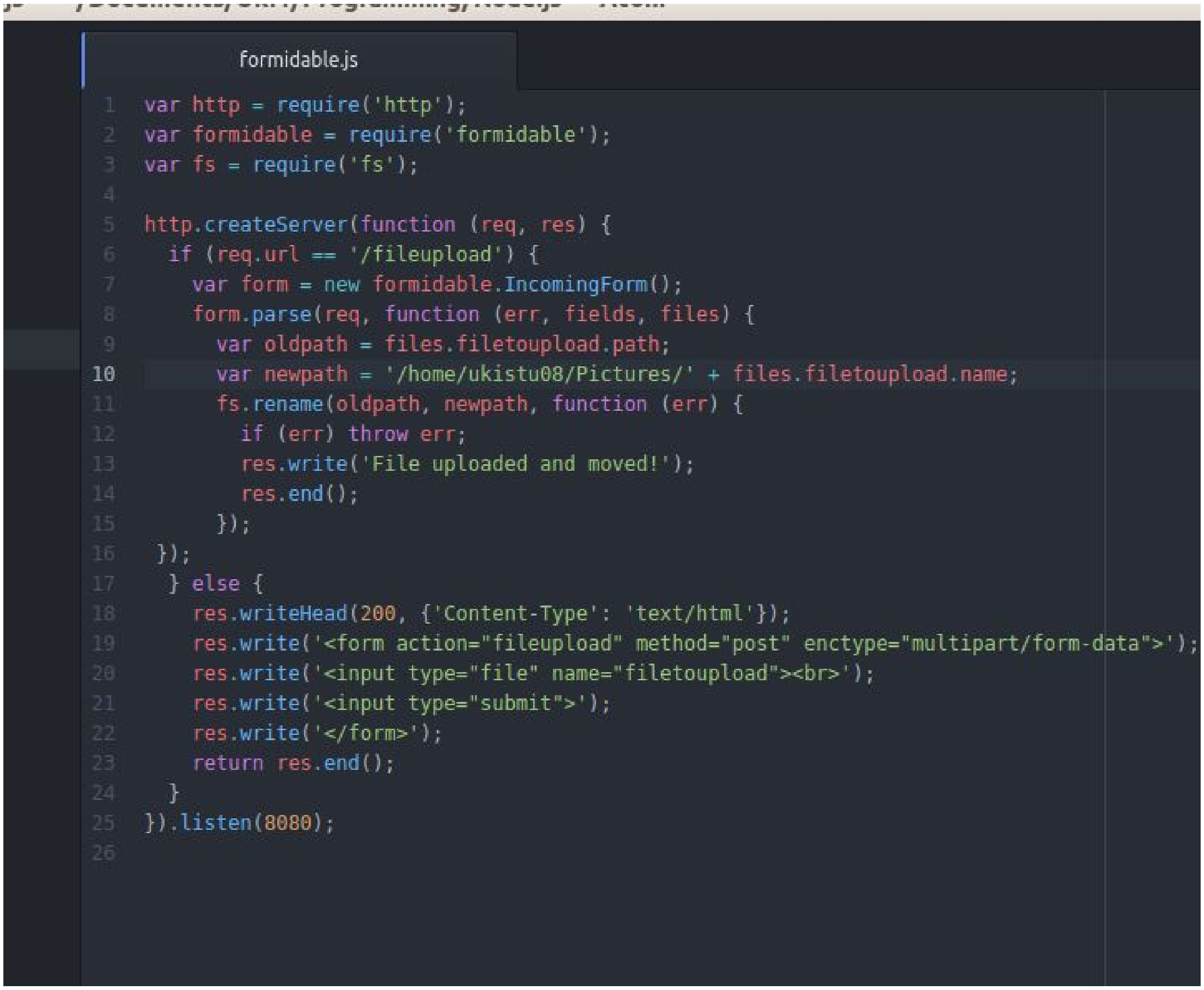
```
ukistu08@ukipc08:~/Documents/Uki4/Programming/Node.js$ nodemon event.js
[nodemon] 1.17.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node event.js`
I bark when I see strangers!
[nodemon] clean exit - waiting for changes before restart
```

7. Install “formidable” module using npm and make a web page in Node.js that lets the user upload files to your computer.

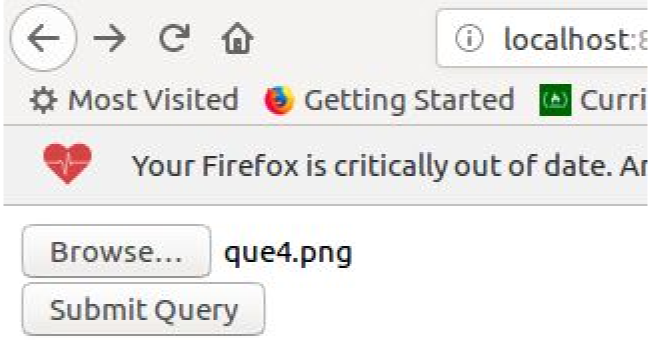
7.1 Save that uploaded file into your Documents directory.



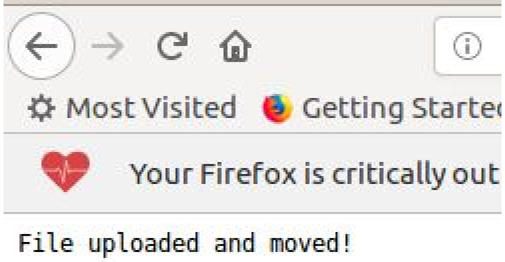
```
^Cukistu08@ukipc08:~/Documents/Uki4/Programming/Node.js$ npm install formidable
/home/ukistu08/Documents/Uki4/Programming/Node.js
└── formidable@1.2.1

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu08/Document
s/Uki4/Programming/Node.js/package.json'
npm WARN Node.js No description
npm WARN Node.js No repository field.
npm WARN Node.js No README data
npm WARN Node.js No license field.
ukistu08@ukipc08:~/Documents/Uki4/Programming/Node.js$
```



```javascript
var http = require('http');
var formidable = require('formidable');
var fs = require('fs');

http.createServer(function (req, res) {
  if (req.url == '/fileupload') {
    var form = new formidable.IncomingForm();
    form.parse(req, function (err, fields, files) {
      var oldpath = files.filetoupload.path;
      var newpath = '/home/ukistu08/Pictures/' + files.filetoupload.name;
      fs.rename(oldpath, newpath, function (err) {
        if (err) throw err;
        res.write('File uploaded and moved!');
        res.end();
      });
 });
  } else {
    res.writeHead(200, {'Content-Type': 'text/html'});
    res.write('<form action="fileupload" method="post" enctype="multipart/form-data">');
    res.write('<input type="file" name="filetoupload"><br>');
    res.write('<input type="submit">');
    res.write('</form>');
    return res.end();
  }
}).listen(8080);
```

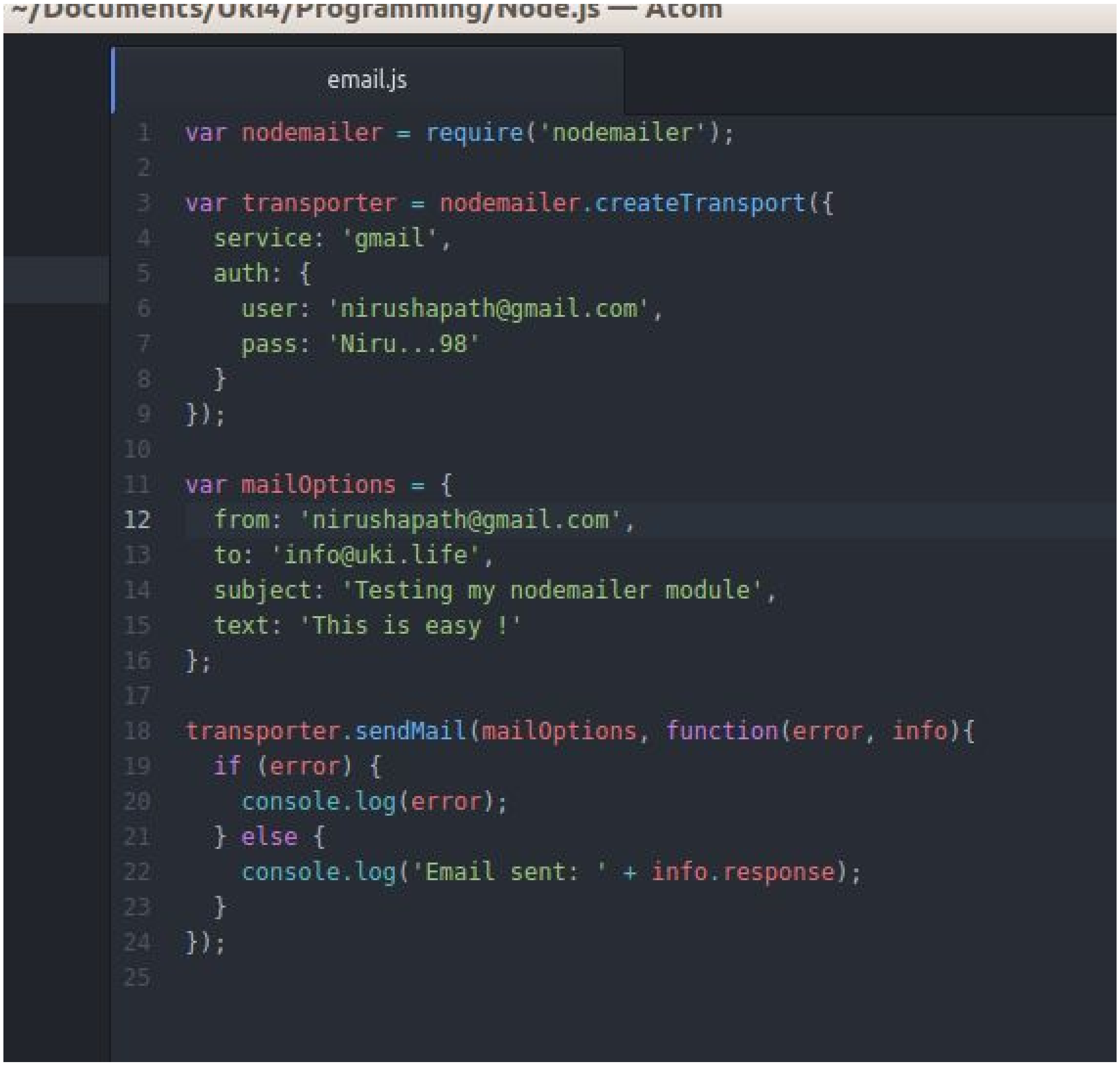


que4.png



```
File uploaded and moved!
```

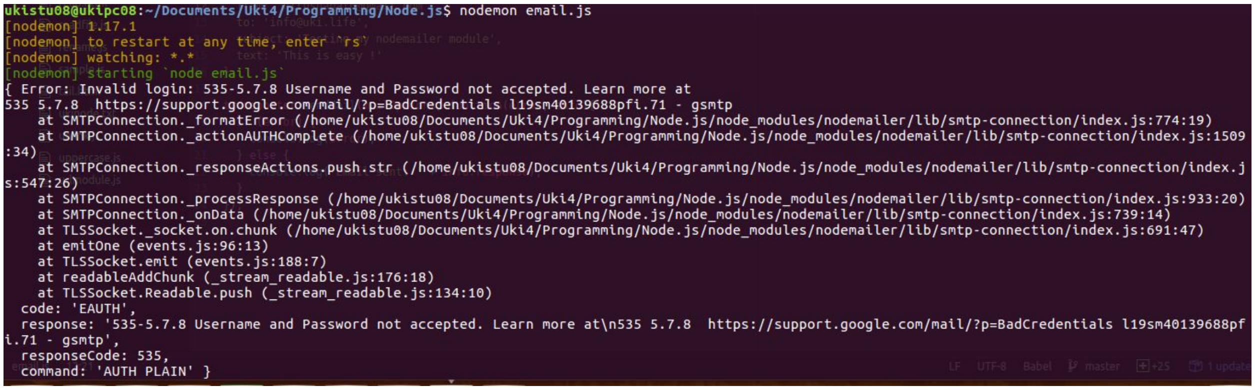
8. Using the Nodemailer module create a server and send a mail to info@uki.life with the subject : “Testing my nodemailer module” , text: “This is easy !”
8.1 Now instead of text send a basic html formatted mail.



~/Documents/Uki4/Programming/Node.js — Atom

email.js

```
var nodemailer = require('nodemailer');

var transporter = nodemailer.createTransport({
  service: 'gmail',
  auth: {
    user: 'nirushapath@gmail.com',
    pass: 'Niru...98'
  }
});

var mailOptions = {
  from: 'nirushapath@gmail.com',
  to: 'info@uki.life',
  subject: 'Testing my nodemailer module',
  text: 'This is easy !'
};

transporter.sendMail(mailOptions, function(error, info){
  if (error) {
    console.log(error);
  } else {
    console.log('Email sent: ' + info.response);
  }
});
```



```
ukistu08@ukipc08:~/Documents/Uki4/Programming/Node.js$ nodemon email.js
[nodemon] 1.17.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node email.js`
{ Error: Invalid login: 535-5.7.8 Username and Password not accepted. Learn more at
535 5.7.8  https://support.google.com/mail/?p=BadCredentials l19sm40139688pfi.71 - gsmtp
    at SMTPConnection._formatError (/home/ukistu08/Documents/Uki4/Programming/Node.js/node_modules/nodemailer/lib/smtp-connection/index.js:774:19)
    at SMTPConnection._actionAUTHComplete (/home/ukistu08/Documents/Uki4/Programming/Node.js/node_modules/nodemailer/lib/smtp-connection/index.js:1509
:34)
    at SMTPConnection._responseActions.push.str (/home/ukistu08/Documents/Uki4/Programming/Node.js/node_modules/nodemailer/lib/smtp-connection/index.j
s:547:26)
    at SMTPConnection._processResponse (/home/ukistu08/Documents/Uki4/Programming/Node.js/node_modules/nodemailer/lib/smtp-connection/index.js:933:20)
    at SMTPConnection._onData (/home/ukistu08/Documents/Uki4/Programming/Node.js/node_modules/nodemailer/lib/smtp-connection/index.js:739:14)
    at TLSSocket._socket.on.chunk (/home/ukistu08/Documents/Uki4/Programming/Node.js/node_modules/nodemailer/lib/smtp-connection/index.js:691:47)
    at emitOne (events.js:96:13)
    at TLSSocket.emit (events.js:188:7)
    at readableAddChunk (_stream_readable.js:176:18)
    at TLSSocket.Readable.push (_stream_readable.js:134:10)
  code: 'EAUTH',
  response: '535-5.7.8 Username and Password not accepted. Learn more at\n535 5.7.8  https://support.google.com/mail/?p=BadCredentials l19sm40139688pf
i.71 - gsmtp',
  responseCode: 535,
  command: 'AUTH PLAIN' }
```