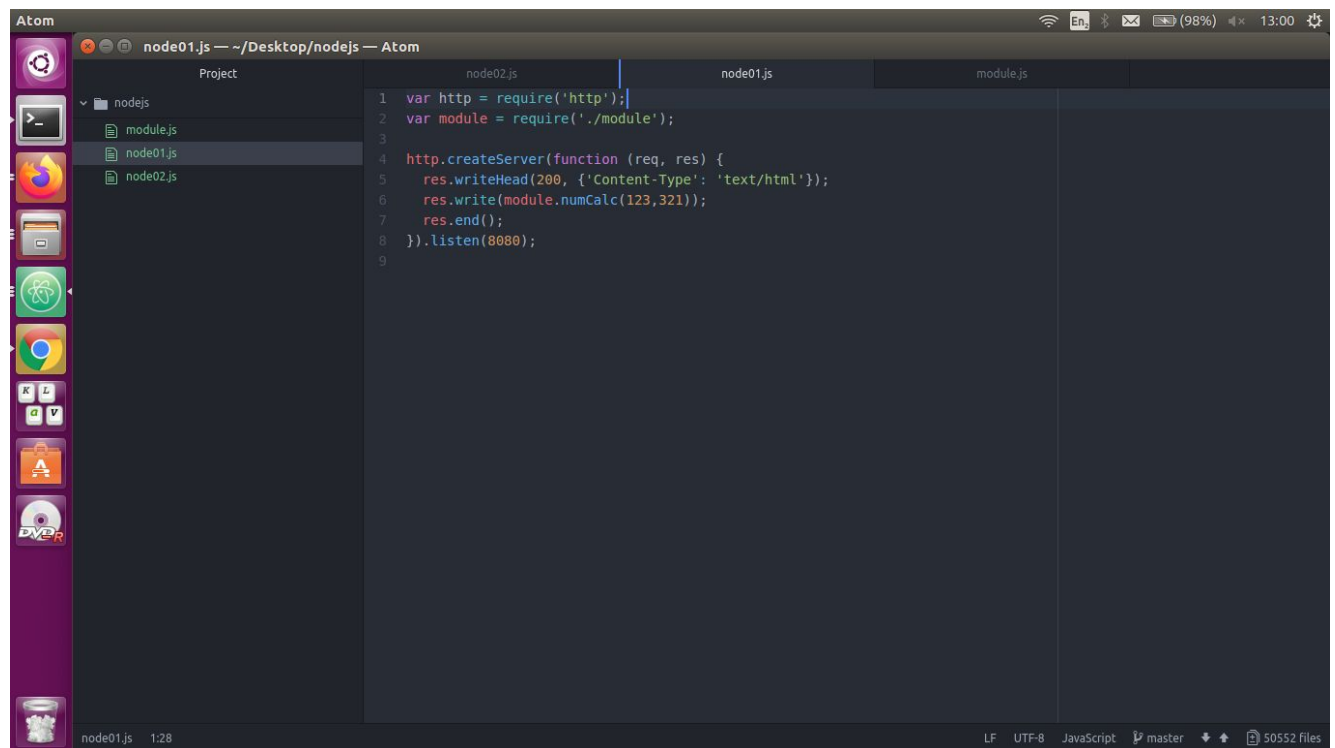


01. Create a custom module which returns the sum and average of any two numbers passed into it. Require the module and run the server by passing 123 and 321 so that the server prints out the sum and average.

```
var http = require('http');  
var module = require('./module');
```

```
http.createServer(function (req, res) {  
  res.writeHead(200, {'Content-Type': 'text/html'});  
  res.write(module.numCalc(123,321));  
  res.end();  
}).listen(8080)
```



;

Atom

module.js — ~/Desktop/nodejs — Atom

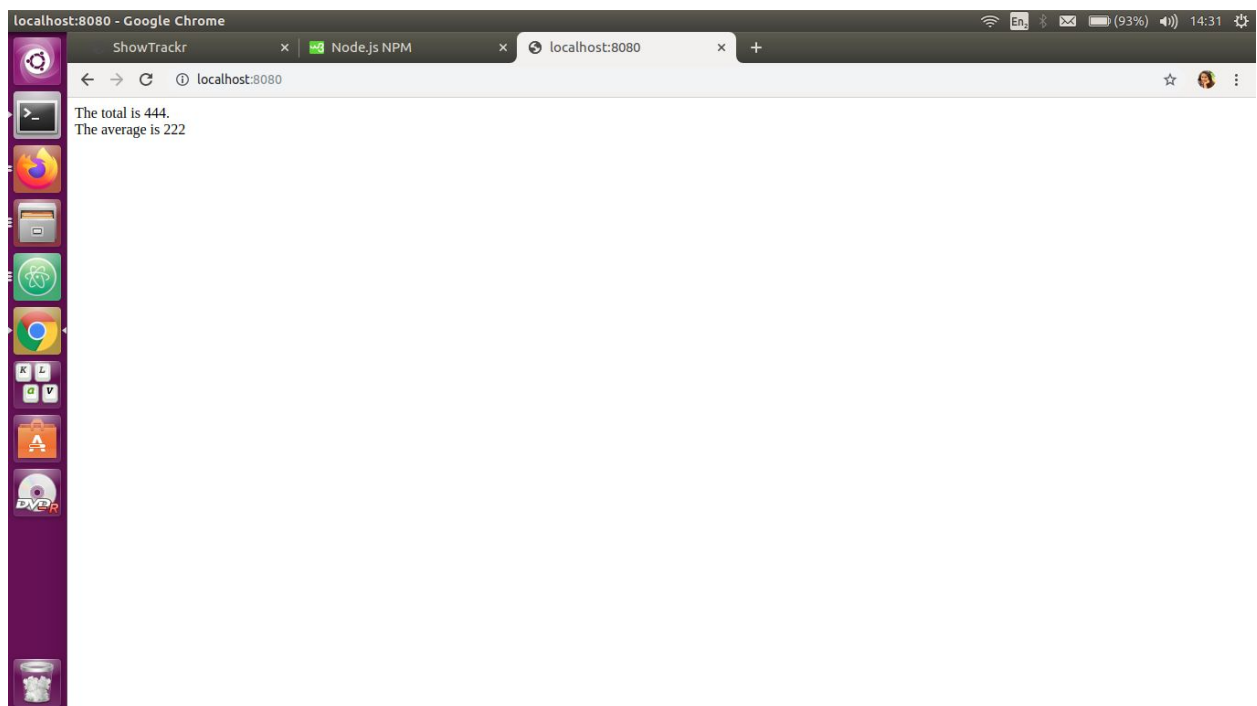
Project

- nodejs
 - module.js
 - node01.js
 - node02.js

```
1 exports.numCalc=function(a,b){
2   var sum=a+b;
3   var avr=sum/2;
4   return "The total is "+sum+. <br>The average is "+avr;
5 }
6
```

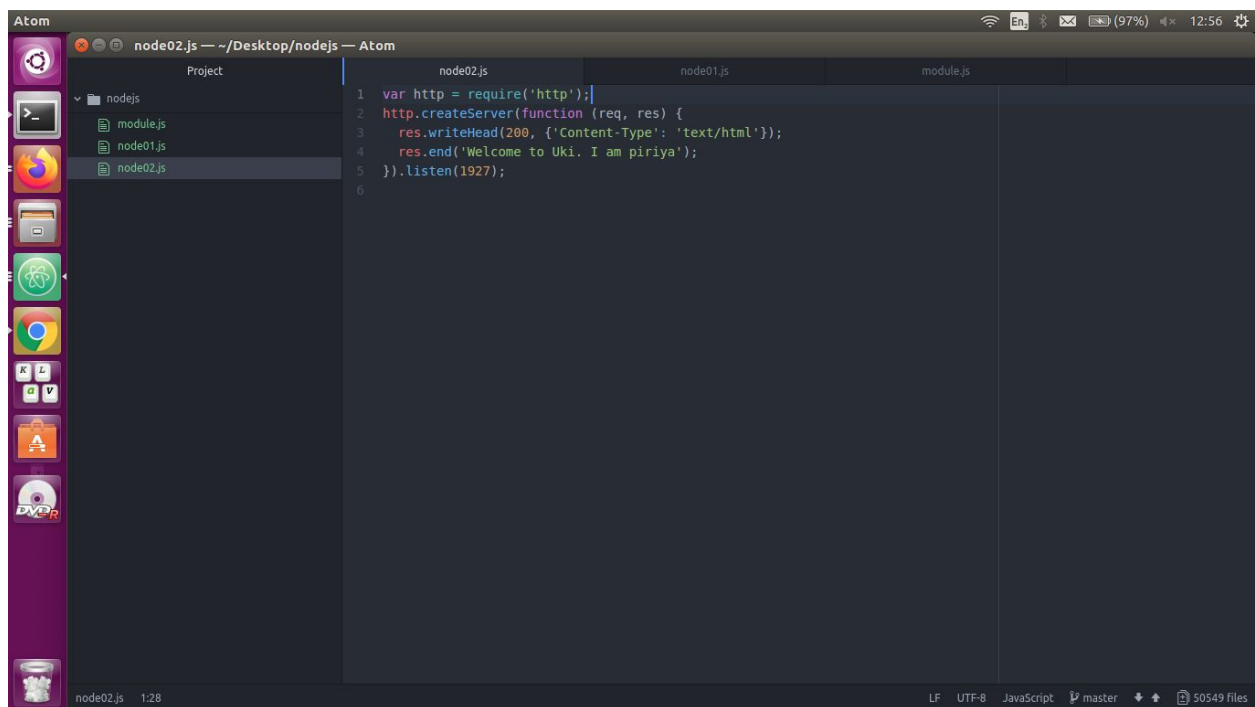
module.js 4:52

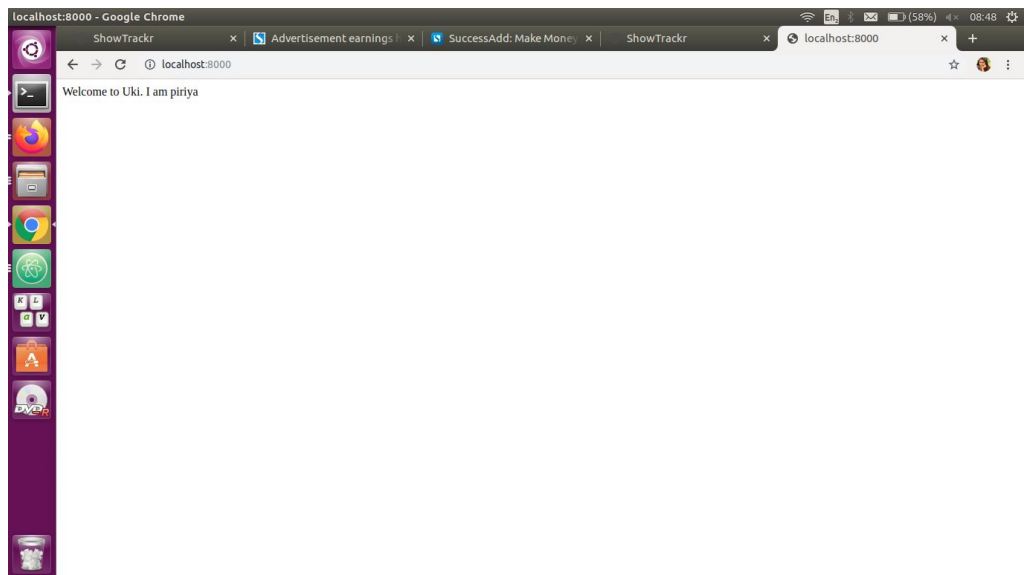
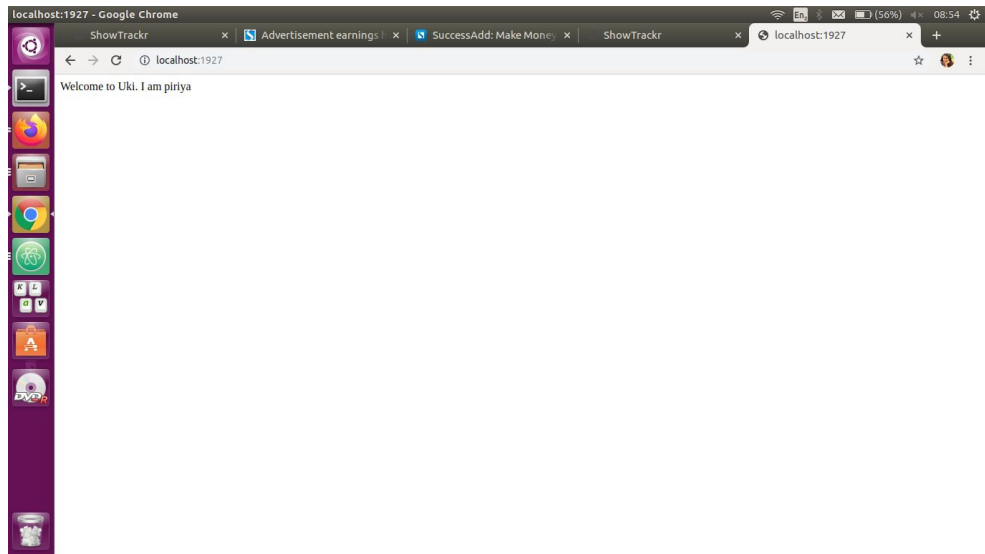
LF UTF-8 JavaScript master 50554 files



02. 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)

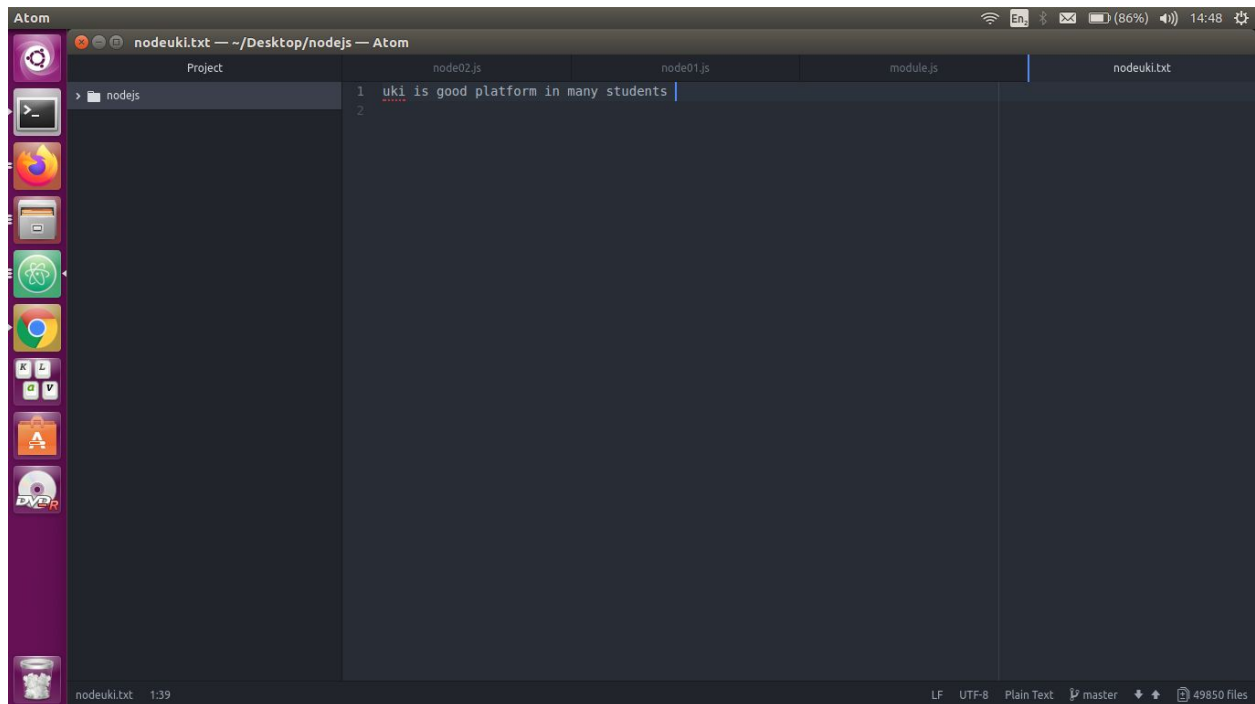
```
var http = require('http');  
http.createServer(function (req, res) {  
  res.writeHead(200, {'Content-Type': 'text/html'});  
  res.end('Welcome to Uki. I am piriya');  
}).listen(8000);
```





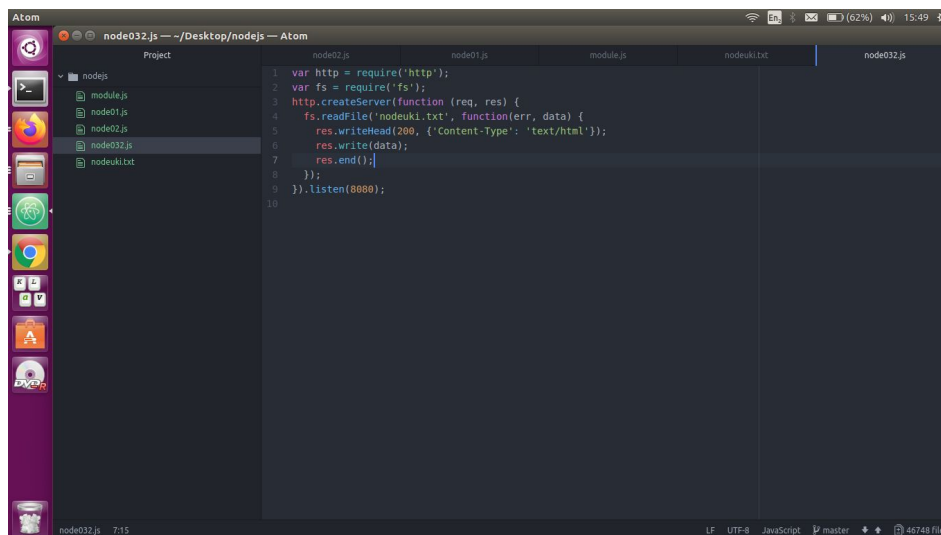
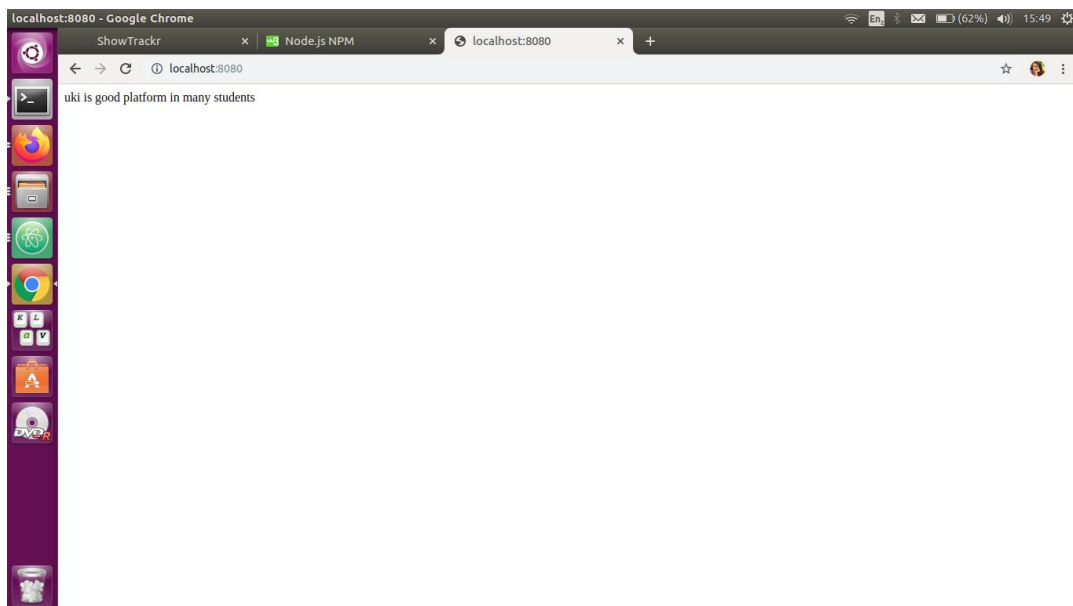
03.Using the file system module create a new file called ukinode.txt

3.1 Write a paragraph about Uki into that file



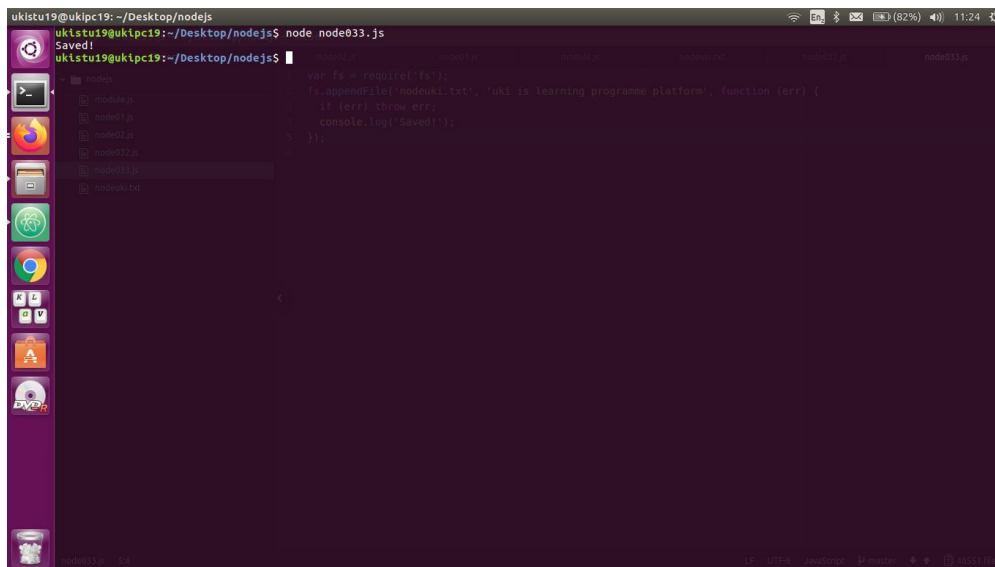
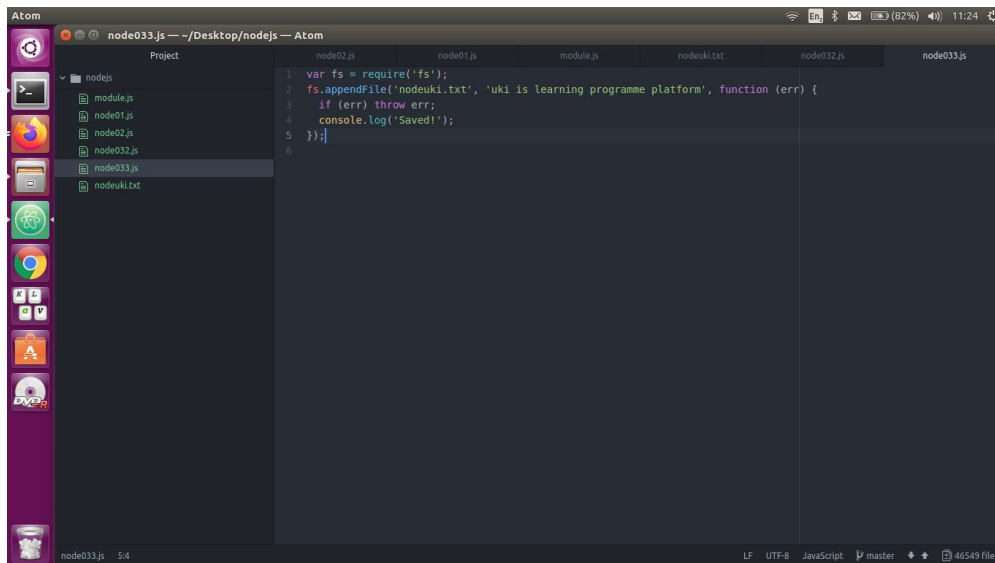
3.2 Serve that file to the client (Read File) over your server

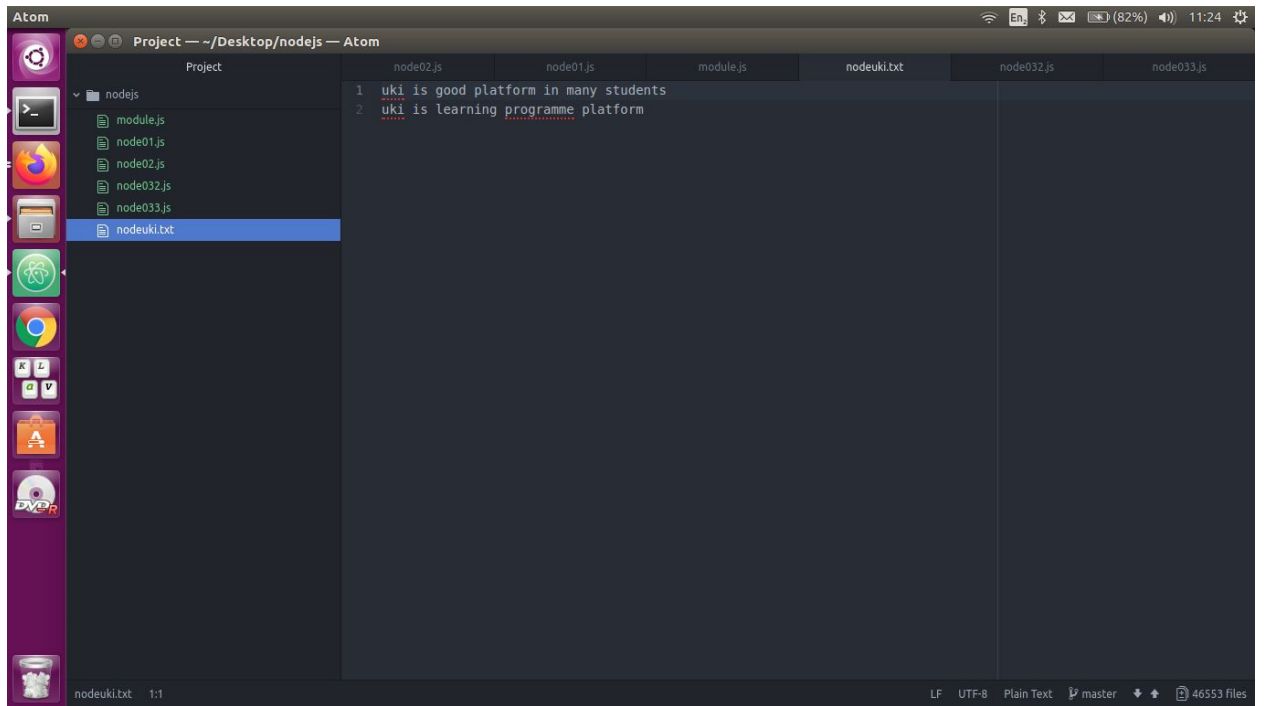
```
var http = require('http');
var fs = require('fs');
http.createServer(function (req, res) {
  fs.readFile('nodeuki.txt', function(err, data) {
    res.writeHead(200, {'Content-Type': 'text/html'});
    res.write(data);
    res.end();
  });
}).listen(8080);
```



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

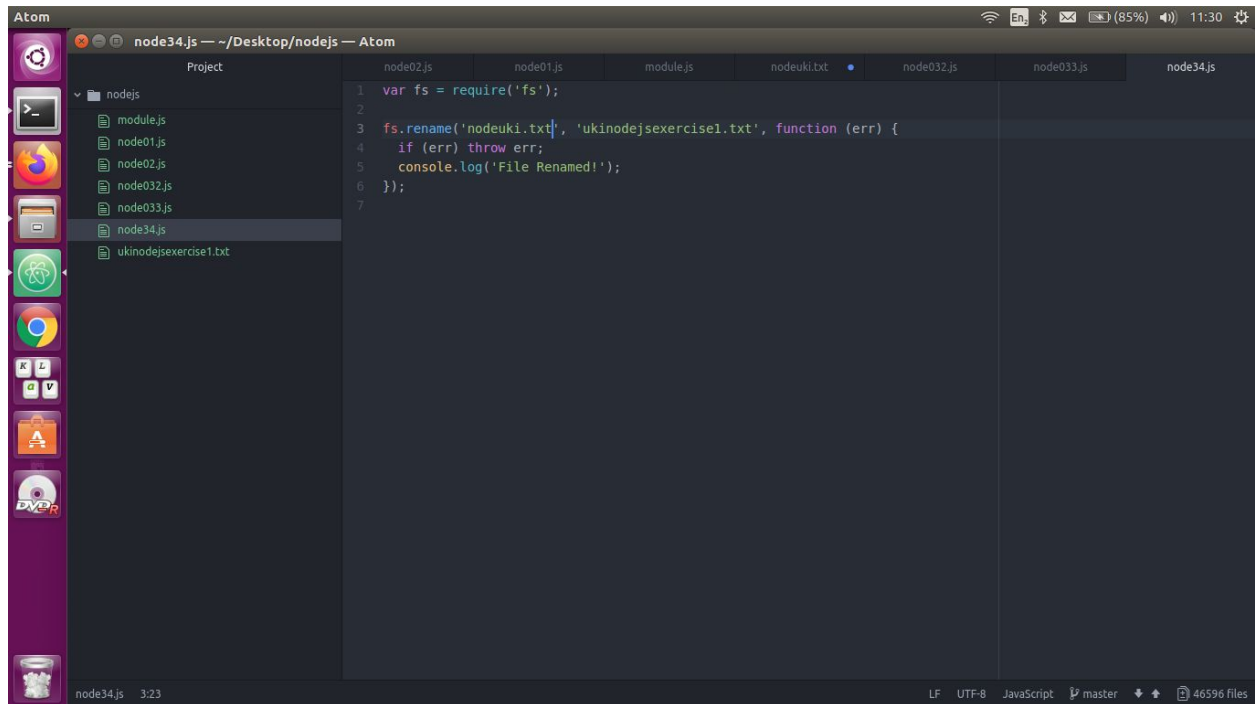
```
var fs = require('fs');  
fs.appendFile('nodeuki.txt', 'uki is learning programme platform', function (err) {  
  if (err) throw err;  
  console.log('Saved!');  
});
```



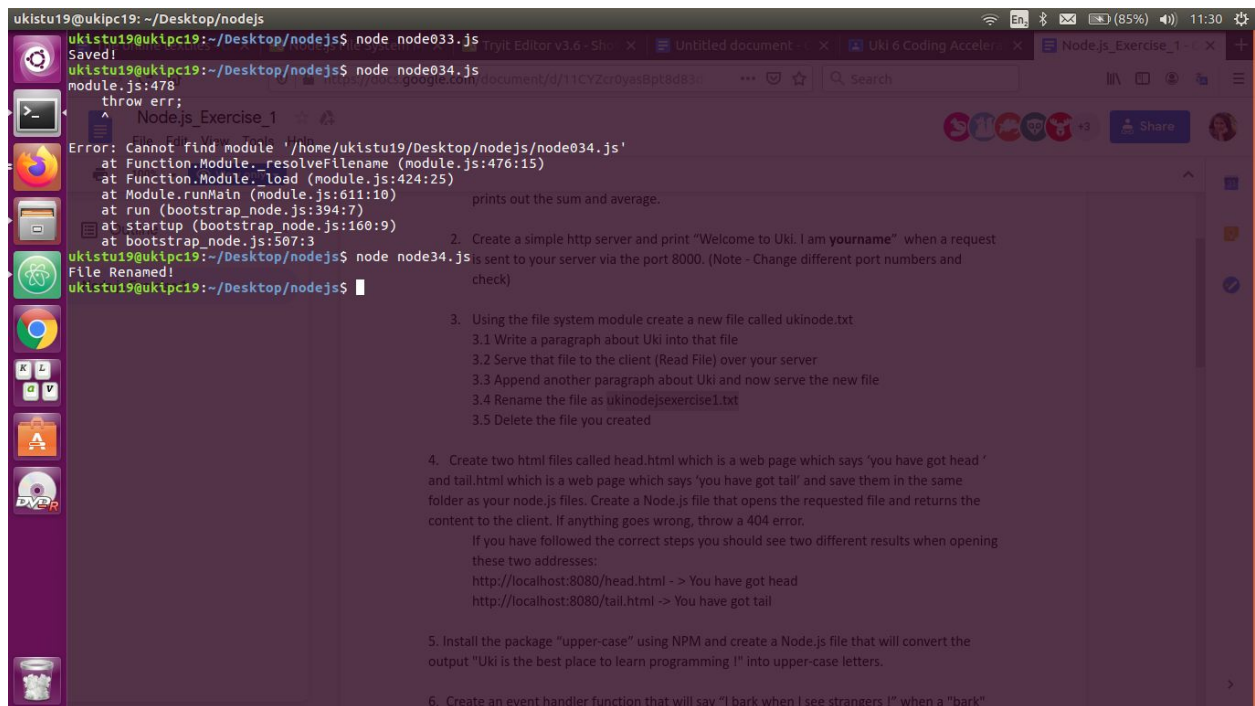


3.4 Rename the file as ukinodejsexercise1.txt

```
var fs = require('fs');
fs.rename('nodeuki.txt', 'ukinodejsexercise1.txt', function (err) {
  if (err) throw err;
  console.log('File Renamed!');
});
```

```
1 var fs = require('fs');
2
3 fs.rename('nodeuki.txt', 'ukinodejsexercise1.txt', function (err) {
4   if (err) throw err;
5   console.log('File Renamed!');
6 });
7
```



```
ukistu19@uklpc19: ~/Desktop/nodejs
ukistu19@uklpc19:~/Desktop/nodejs$ node node033.js
Saved!
ukistu19@uklpc19:~/Desktop/nodejs$ node node034.js
module.js:478
    throw err;
    ^
Error: Cannot find module '/home/ukistu19/Desktop/nodejs/node034.js'
    at Function.Module._resolveFilename (module.js:476:15)
    at Function.Module._load (module.js:424:25)
    at Module.runMain (module.js:611:10)
    at run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
    at bootstrap_node.js:507:3
ukistu19@uklpc19:~/Desktop/nodejs$ node node34.js
File Renamed!
ukistu19@uklpc19:~/Desktop/nodejs$
```

Node.js Exercise 1

- prints out the sum and average.
- 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)
- Using the file system module create a new file called ukinode.txt
 - Write a paragraph about Uki into that file
 - Serve that file to the client (Read File) over your server
 - Append another paragraph about Uki and now serve the new file
 - Rename the file as ukinodejsexercise1.txt
 - Delete the file you created
- 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:

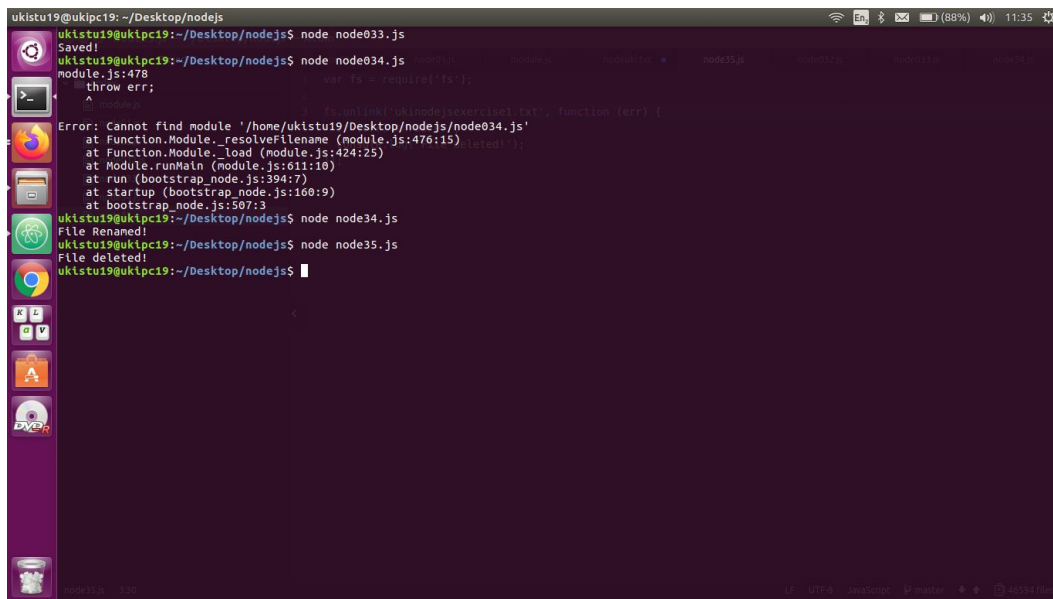
http://localhost:8080/head.html -> You have got head

http://localhost:8080/tail.html -> You have got tail
- 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.
- Create an event handler function that will say "I bark when I see strangers!" when a "bark"

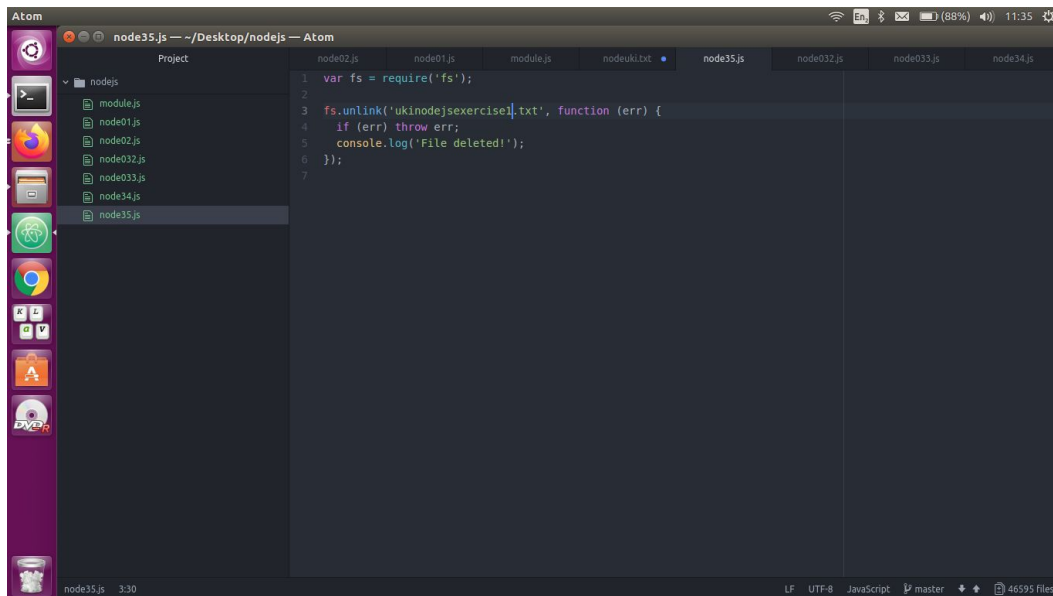
3.5 Delete the file you created

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

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

A terminal window showing the execution of Node.js scripts. It starts with 'ukistui9@ukipc19: ~/Desktop/nodejs' and shows the command 'node node033.js' being run, which saves a file. Then 'node node034.js' is run, which throws an error: 'Error: Cannot find module "/home/ukistui9/Desktop/nodejs/node034.js"'. Finally, 'node node34.js' is run, which renames the file, and 'node node35.js' is run, which successfully deletes the file, outputting 'File deleted!'.

```
ukistui9@ukipc19: ~/Desktop/nodejs  
ukistui9@ukipc19:~/Desktop/nodejs$ node node033.js  
Saved!  
ukistui9@ukipc19:~/Desktop/nodejs$ node node034.js  
module.js:478  
    throw err;  
    ^  
Error: Cannot find module '/home/ukistui9/Desktop/nodejs/node034.js'  
    at Function.Module._resolveFilename (module.js:476:15)  
    at Function.Module._load (module.js:424:25)  
    at Module.runMain (module.js:611:10)  
    at run (bootstrap_node.js:394:7)  
    at startup (bootstrap_node.js:160:9)  
    at bootstrap_node.js:587:3  
ukistui9@ukipc19:~/Desktop/nodejs$ node node34.js  
File Renamed!  
ukistui9@ukipc19:~/Desktop/nodejs$ node node35.js  
File deleted!  
ukistui9@ukipc19:~/Desktop/nodejs$
```

The Atom text editor showing the code for node35.js. The file explorer on the left shows a project named 'nodejs' with files node01.js through node35.js. The editor window shows the code for node35.js, which uses fs.unlink to delete 'ukinodejsexercise1.txt' and logs 'File deleted!'.

```
Atom  
node35.js — ~/Desktop/nodejs — Atom  
Project  
nodejs  
  node01.js  
  node02.js  
  node032.js  
  node033.js  
  node034.js  
  node35.js  
node35.js  
1  var fs = require('fs');  
2  
3  fs.unlink('ukinodejsexercise1.txt', function (err) {  
4    if (err) throw err;  
5    console.log('File deleted!');  
6  });  
7
```

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.

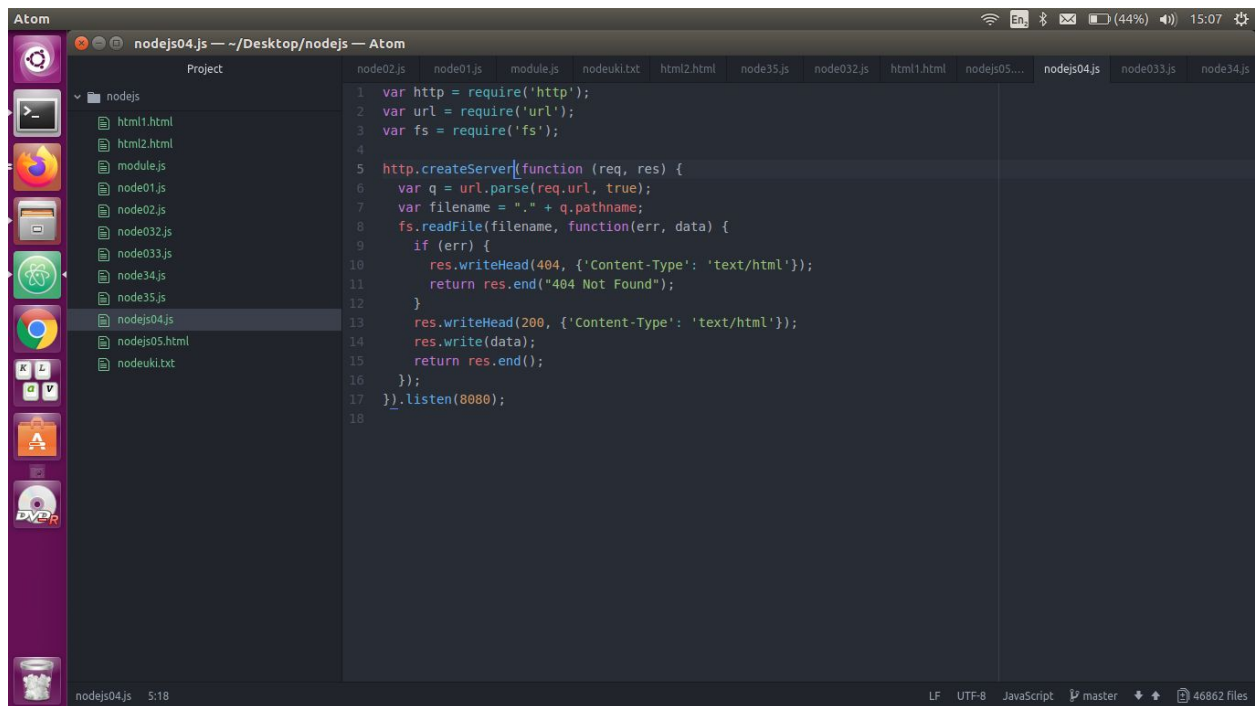
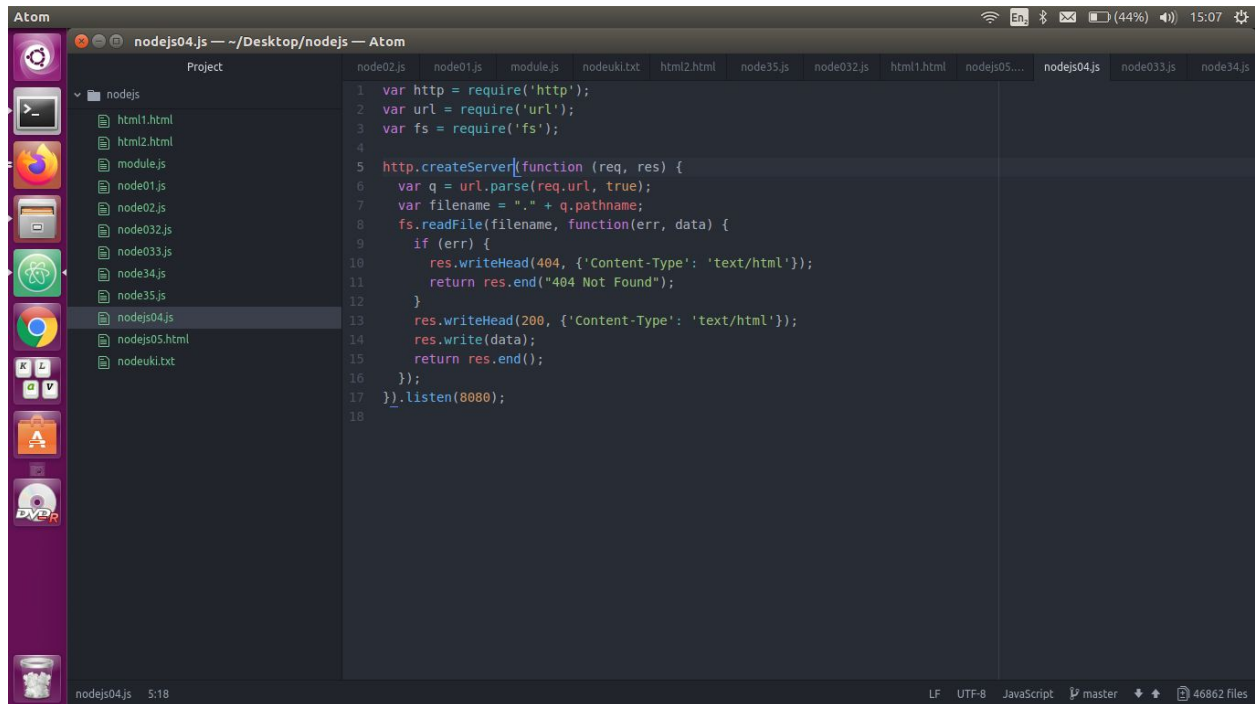
If you have followed the correct steps you should see two different results when opening these two addresses:

`http://localhost:8080/head.html` - > You have got head

`http://localhost:8080/tail.html` -> You have got tail

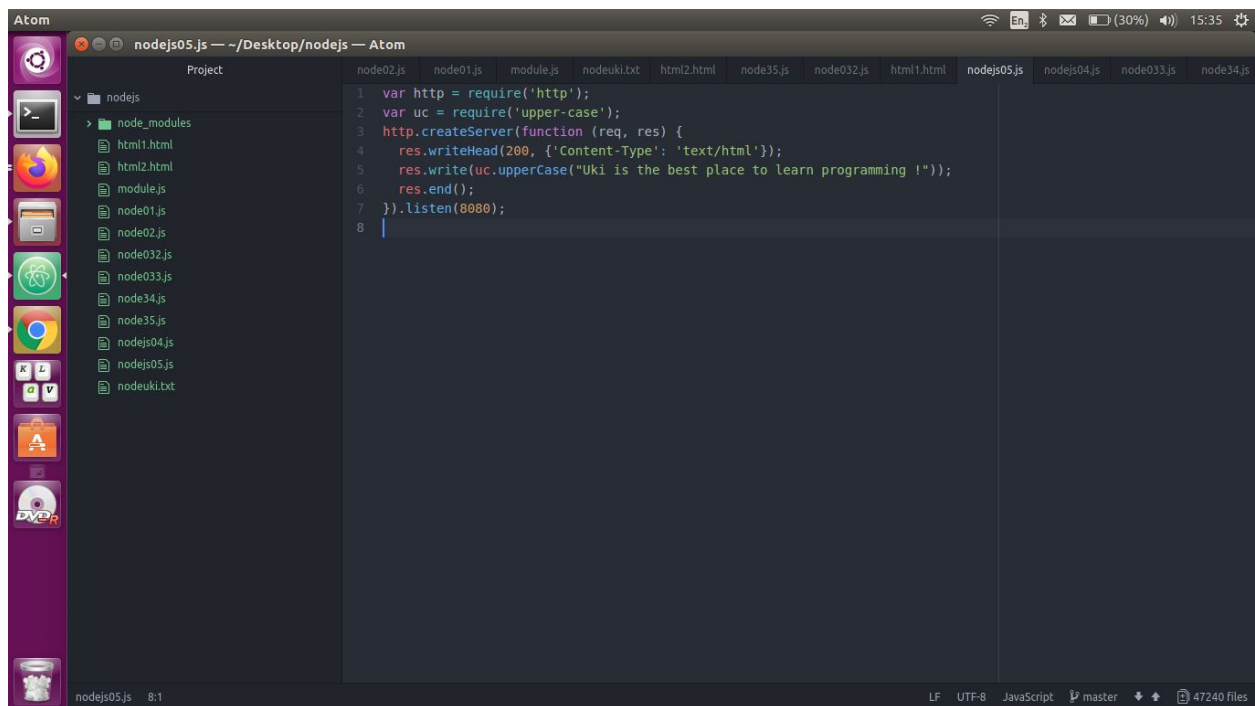
```
var http = require('http');
var url = require('url');
var fs = require('fs');

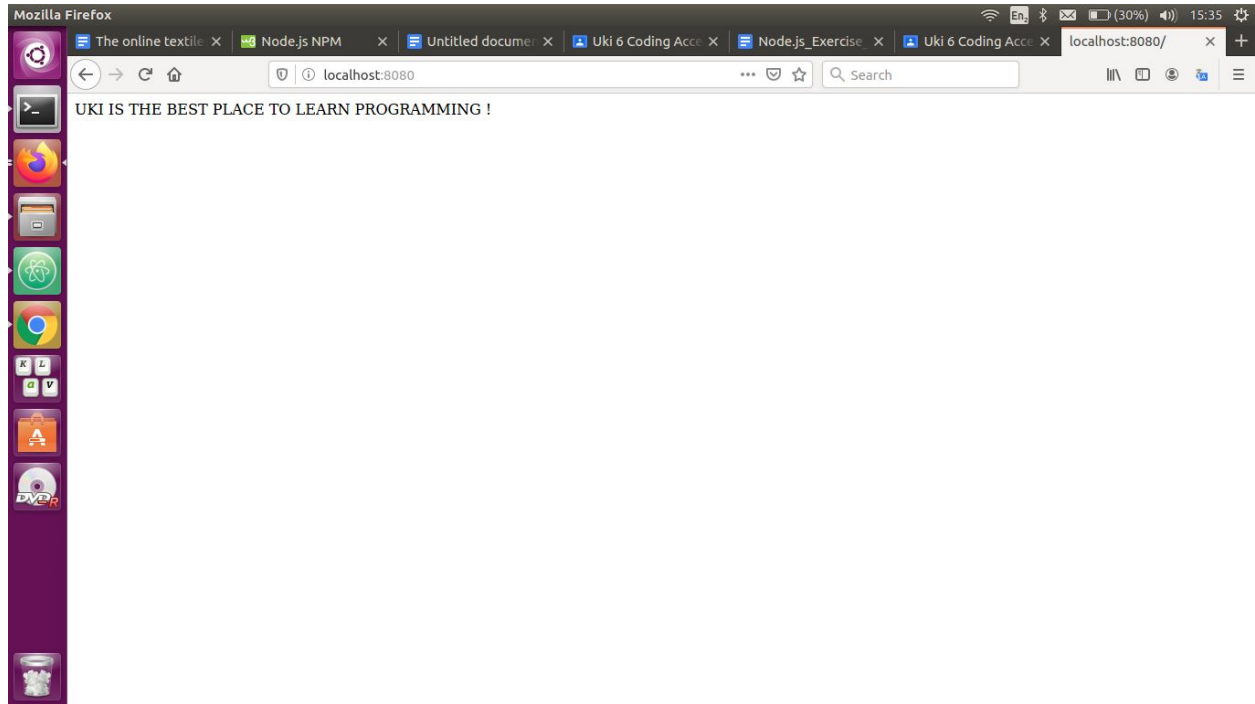
http.createServer(function (req, res) {
  var q = url.parse(req.url, true);
  var filename = "." + q.pathname;
  fs.readFile(filename, function(err, data) {
    if (err) {
      res.writeHead(404, {'Content-Type': 'text/html'});
      return res.end("404 Not Found");
    }
    res.writeHead(200, {'Content-Type': '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.toUpperCase("Uki is the best place to learn programming !"));
  res.end();
}).listen(8080);
```





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();
```

```
var myEventHandler = function () {  
  console.log('I bark when I see strangers !');  
}
```

```
eventEmitter.on('scream', myEventHandler);
```

```
eventEmitter.emit('scream');
```

Atom

nodejs06.js — ~/Desktop/nodejs — Atom

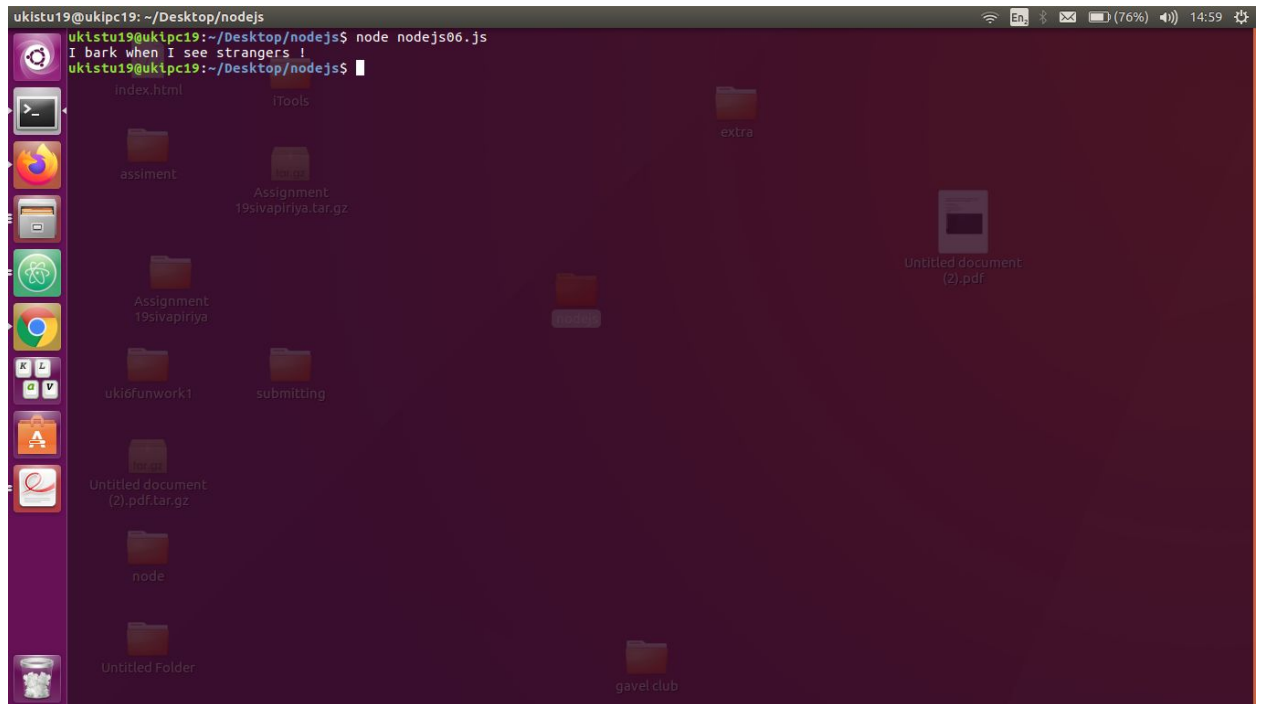
Project

- nodejs
 - node_modules
 - html1.html
 - html2.html
 - module.js
 - node01.js
 - node02.js
 - node031.js
 - node032.js
 - node033.js
 - node034.js
 - node035.js
 - nodejs04.js
 - nodejs05.js
 - nodejs06.js
 - nodeuki.txt

```
1 var events = require('events');
2 var EventEmitter = new events.EventEmitter();
3
4 var myEventHandler = function () {
5   console.log('I bark when I see strangers !');
6 }
7
8 EventEmitter.on('scream', myEventHandler);
9
10 EventEmitter.emit('scream');
11
```

nodejs06.js 5:45

LF UTF-8 JavaScript master 51253 files



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

```
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.fileupload.path;
      var newpath = '/home/ukistu19/Documents' + files.fileupload.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="fileupload"><br>');
    res.write('<input type="submit">');
    res.write('</form>');
    return res.end();
  }
}).listen(8080);
```

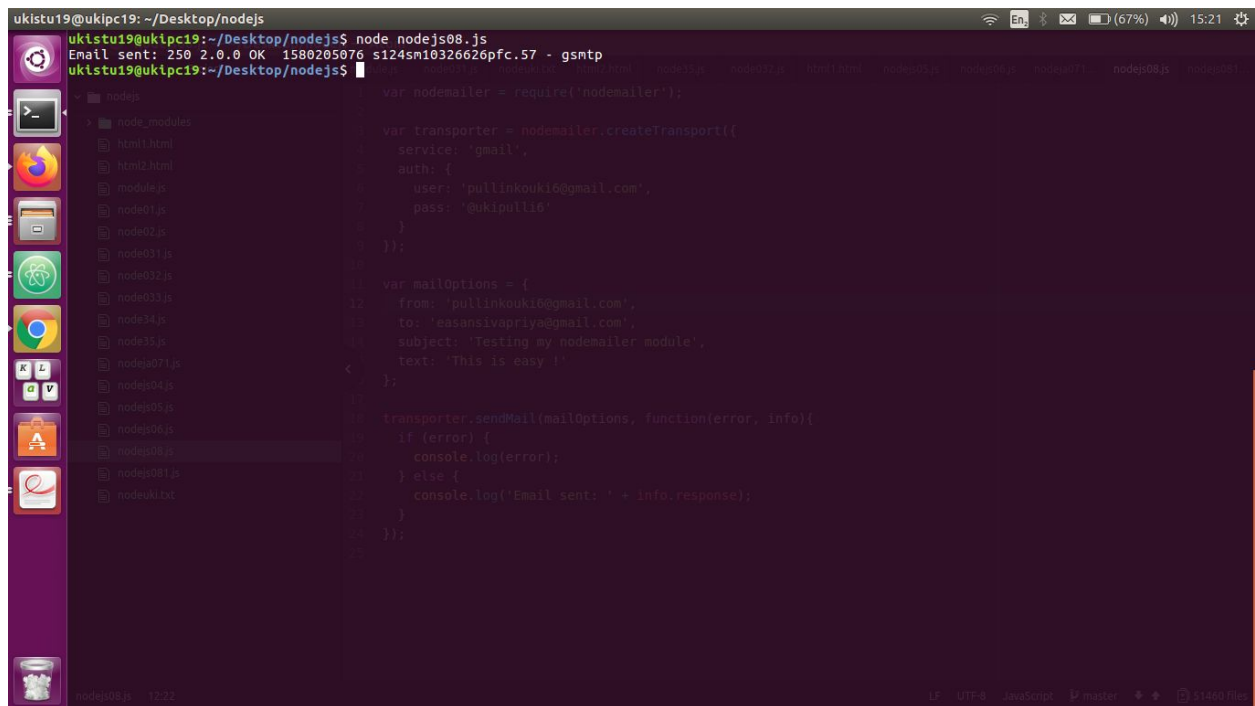
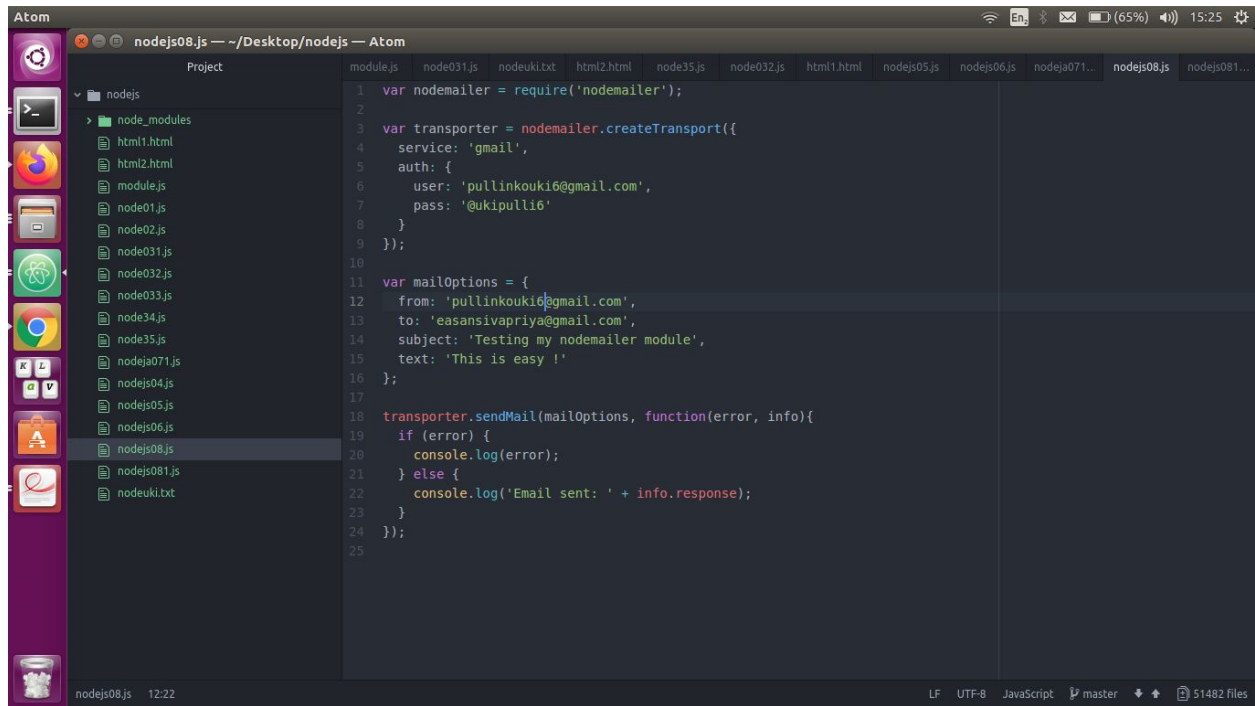

8. Using the Nodemailer module create a server and send a mail to info@uki.life with the subject : “Testing my nodemailer module” , text: “This is easy !”

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

var transporter = nodemailer.createTransport({
  service: 'gmail',
  auth: {
    user: 'pullingouki@gmail.com',
    pass: '@ukipulli6'
  }
});

var mailOptions = {
  from: 'pullingouki@gmail.com',
  to: 'easansivapriya@gmail.com',
  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);
  }
});
```



8.1 Now instead of text send a basic html formatted mail.

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

var transporter = nodemailer.createTransport({
  service: 'gmail',
  auth: {
    user: 'pullingouki@gmail.com',
    pass: '@ukipulli6'
  }
});

var mailOptions = {
  from: 'pullingouki@gmail.com',
  to: 'easansivapriya@gmail.com',
  subject: 'Testing my nodemailer module',
  text: 'This is easy !'
  html: '<h1>Welcome</h1><p>That was easy!</p>'
};

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

Atom

nodejs081.js — ~/Desktop/nodejs — Atom

Project

- nodejs
 - node_modules
 - html1.html
 - html2.html
 - module.js
 - node01.js
 - node02.js
 - node031.js
 - node032.js
 - node033.js
 - node034.js
 - node035.js
 - nodejs071.js
 - nodejs04.js
 - nodejs05.js
 - nodejs06.js
 - nodejs08.js
 - nodejs081.js
 - nodeuki.txt

```
1 var nodemailer = require('nodemailer');
2
3 var transporter = nodemailer.createTransport({
4   service: 'gmail',
5   auth: {
6     user: 'pullinkouki6@gmail.com',
7     pass: '@ukipulli6'
8   }
9 });
10
11 var mailOptions = {
12   from: 'pullinkouki6@gmail.com',
13   to: 'easansivapriya@gmail.com',
14   subject: 'Testing my nodemailer module',
15   html: '<h1>Welcome</h1>'
16 };
17
18 transporter.sendMail(mailOptions, function(error, info){
19   if (error) {
20     console.log(error);
21   } else {
22     console.log('Email sent: ' + info.response);
23   }
24 });
25
```

nodejs081.js 14:43

LF UTF-8 JavaScript master 51480 files

ukistu19@uklpc19: ~/Desktop/nodejs

```
ukistu19@uklpc19:~/Desktop/nodejs$ node nodejs081.js
Email sent: 250 2.0.0 OK 1580205296 z14sm18692665pgj.43 - gsmt
ukistu19@uklpc19:~/Desktop/nodejs$
```

Project

- nodejs
 - node_modules
 - html1.html
 - html2.html
 - module.js
 - node01.js
 - node02.js
 - node031.js
 - node032.js
 - node033.js
 - node034.js
 - node035.js
 - nodejs071.js
 - nodejs04.js
 - nodejs05.js
 - nodejs06.js
 - nodejs08.js
 - nodejs081.js
 - nodeuki.txt

```
1 var nodemailer = require('nodemailer');
2
3 var transporter = nodemailer.createTransport({
4   service: 'gmail',
5   auth: {
6     user: 'pullinkouki6@gmail.com',
7     pass: '@ukipulli6'
8   }
9 });
10
11 var mailOptions = {
12   from: 'pullinkouki6@gmail.com',
13   to: 'easansivapriya@gmail.com',
14   subject: 'Testing my nodemailer module',
15   html: '<h1>Welcome</h1>'
16 };
17
18 transporter.sendMail(mailOptions, function(error, info){
19   if (error) {
20     console.log(error);
21   } else {
22     console.log('Email sent: ' + info.response);
23   }
24 });
25
```

nodejs081.js 14:43

LF UTF-8 JavaScript master 51478 files

