1)

Terminal
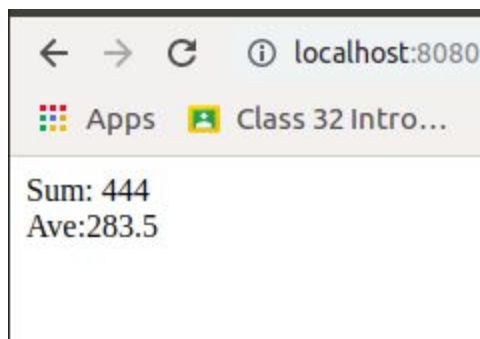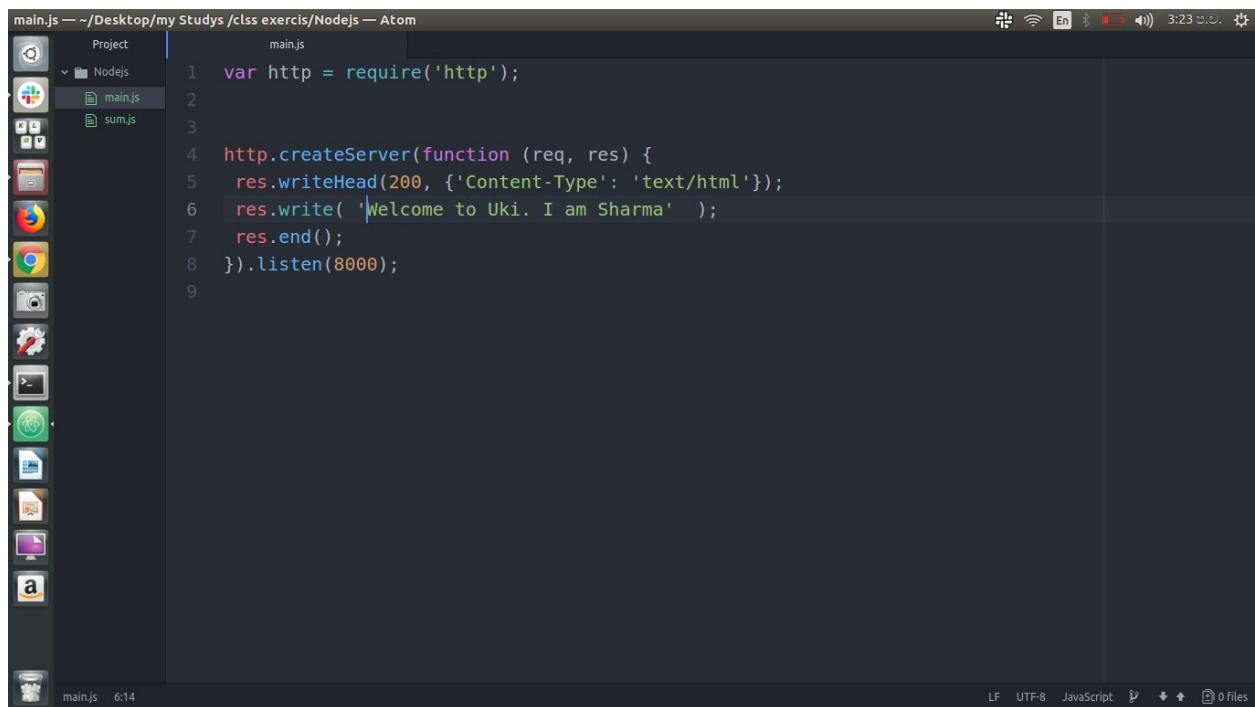
```
main.js
1   var http = require('http');
2   var dt = require('./sum');
3
4   http.createServer(function (req, res) {
5     res.writeHead(200, {'Content-Type': 'text/html'});
6     res.write("Sum: " + dt.sum()+"<br>"+"Ave:" +dt.avg());
7     res.end();
8   }).listen(8080);
9
```

```
sum.js
1   exports.avg= function (x,y) {
2     var x=123;
3     var y=321;
4     return x+y/2;
5   };
6
7   exports.sum= function (x,y) {
8     var x=123;
9     var y=321;
10    return x+y;
11  };
12
```

ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs
```
    at Function.Module.runMain (module.js:442:10)
    at startup (node.js:136:18)
    at node.js:966:3
[nodemon] app crashed - waiting for file changes before starting...
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
```
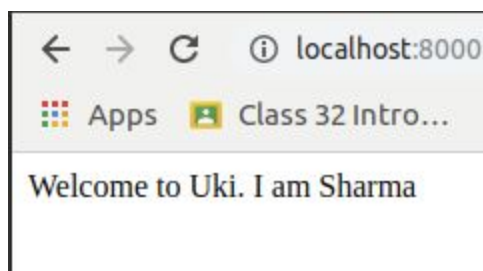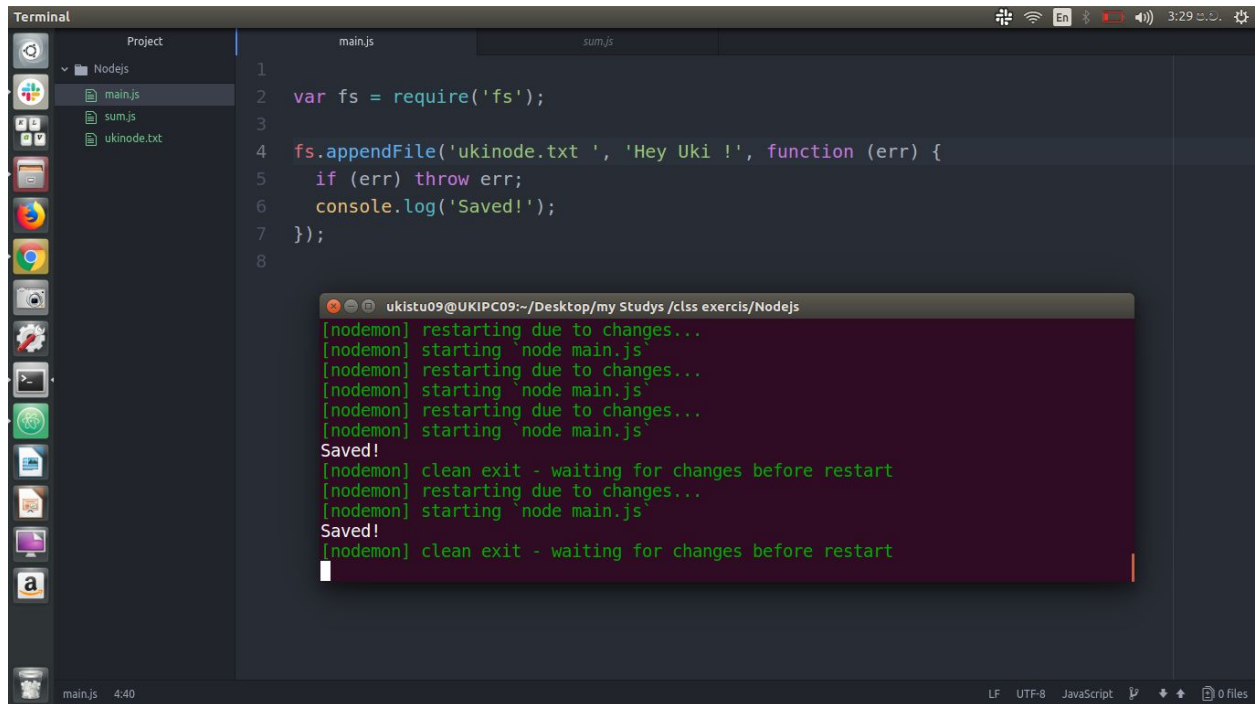
localhost:8080

Apps   Class 32 Intro...

Sum: 444
Ave:283.5

2)

```
Project                    main.js
v  Nodejs              1  var http = require('http');
   main.js             2
   sum.js              3
                       4  http.createServer(function (req, res) {
                       5   res.writeHead(200, {'Content-Type': 'text/html'});
                       6   res.write( 'Welcome to Uki. I am Sharma'  );
                       7   res.end();
                       8  }).listen(8000);
                       9
```

main.js   6:14   LF   UTF-8   JavaScript   0 files

← → C ⓘ localhost:8000

⠿ Apps ▣ Class 32 Intro...

Welcome to Uki. I am Sharma

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

fs.appendFile('ukinode.txt ', 'Hey Uki !', function (err) {
  if (err) throw err;
  console.log('Saved!');
});
```
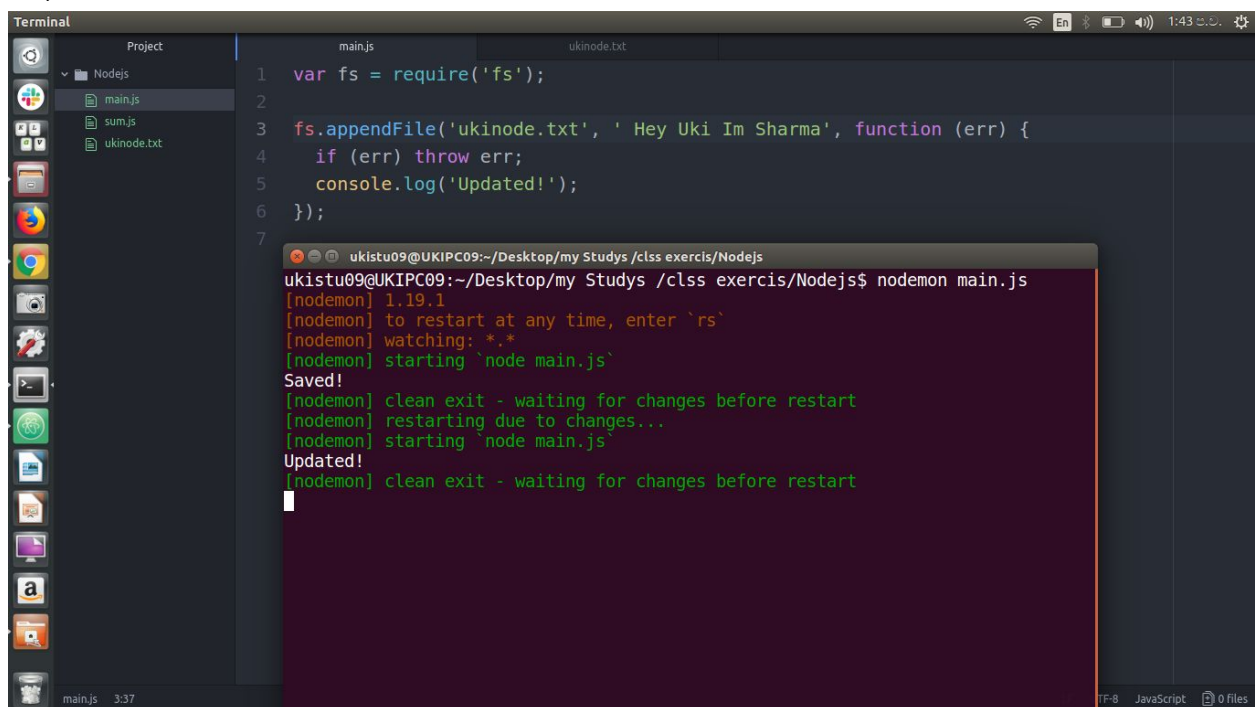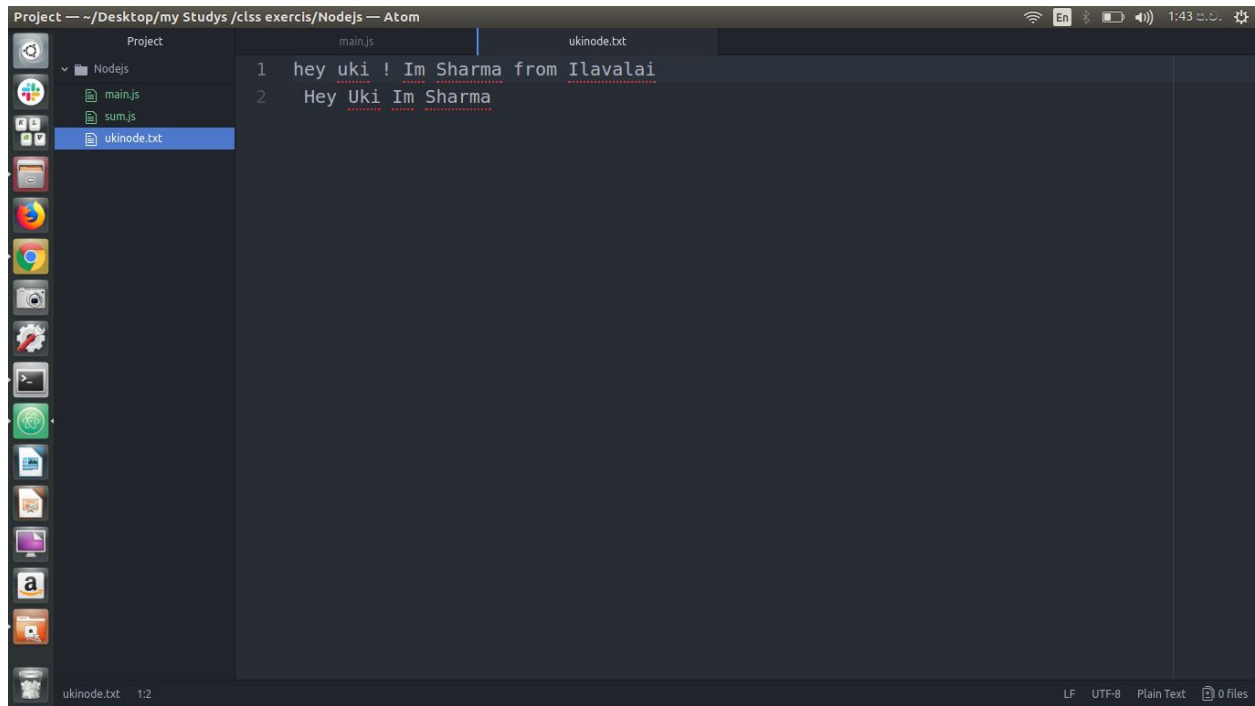
```
ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
Saved!
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
Saved!
[nodemon] clean exit - waiting for changes before restart
```

3.1)


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

fs.appendFile('ukinode.txt', ' Hey Uki Im Sharma', function (err) {
  if (err) throw err;
  console.log('Updated!');
});
```

```
ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs
ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs$ nodemon main.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node main.js`
Saved!
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
Updated!
[nodemon] clean exit - waiting for changes before restart
```
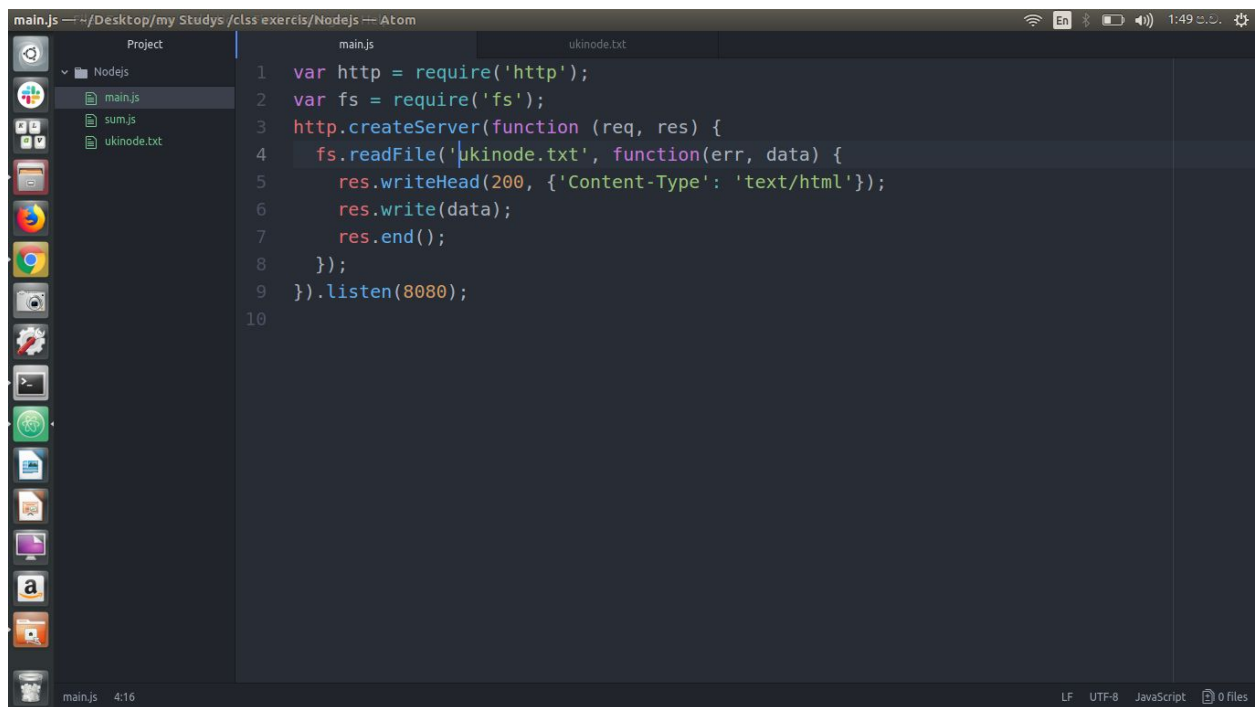
Project | main.js | ukinode.txt

Nodejs
- main.js
- sum.js
- ukinode.txt

```
1  hey uki ! Im Sharma from Ilavalai
2   Hey Uki Im Sharma
```

ukinode.txt   1:2   LF   UTF-8   Plain Text   0 files

3.2)

Project | main.js | ukinode.txt

Nodejs
- main.js
- sum.js
- ukinode.txt

```javascript
1  var http = require('http');
2  var fs = require('fs');
3  http.createServer(function (req, res) {
4    fs.readFile('ukinode.txt', function(err, data) {
5      res.writeHead(200, {'Content-Type': 'text/html'});
6      res.write(data);
7      res.end();
8    });
9  }).listen(8080);
10
```

main.js   4:16   LF   UTF-8   JavaScript   0 files

hey uki ! Im Sharma from Ilavalai Hey Uki Im Sharma

3.3)


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

fs.appendFile('uki1.txt', 'hello im sharma ', function (err) {
  if (err) throw err;
  console.log('Saved!');
});
```

3.4)
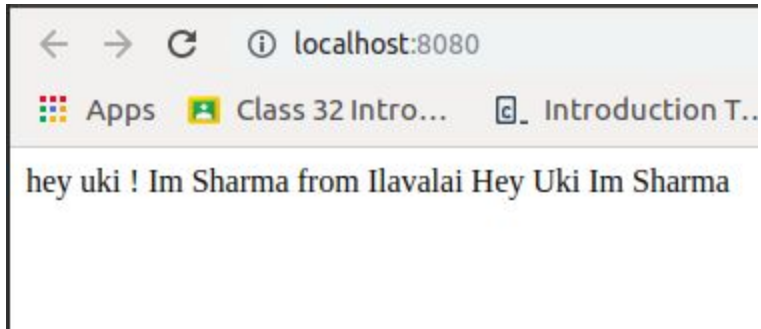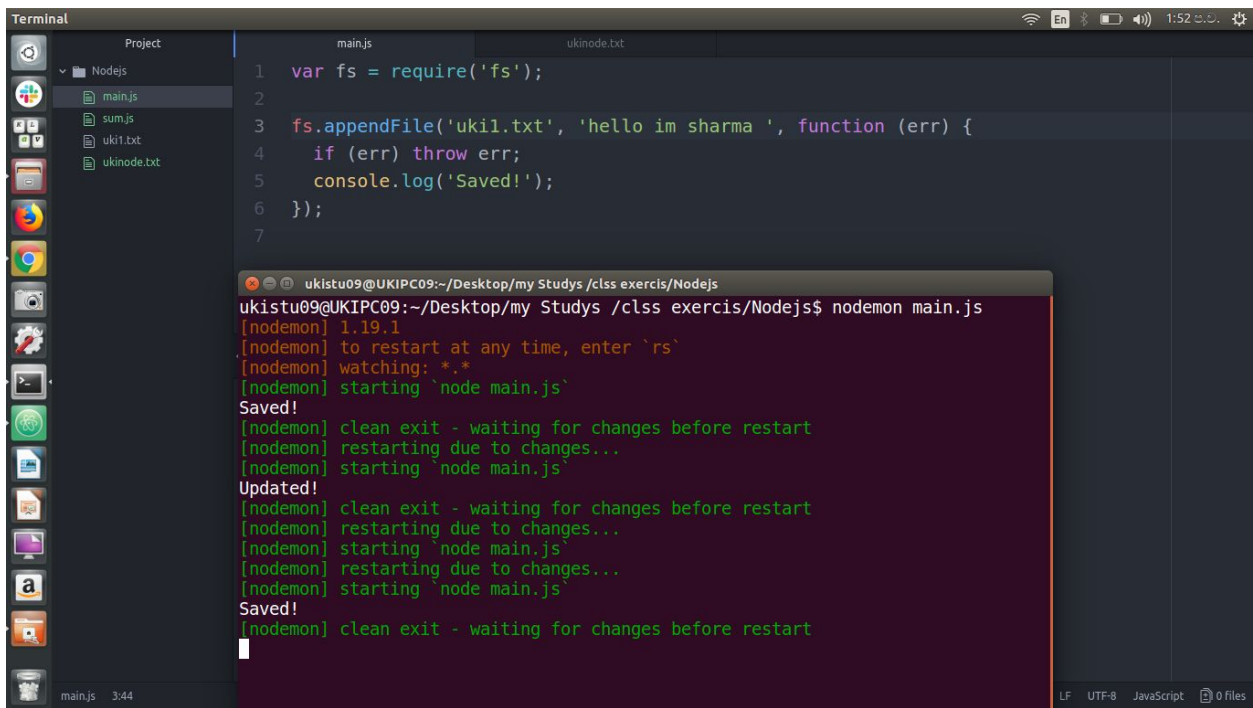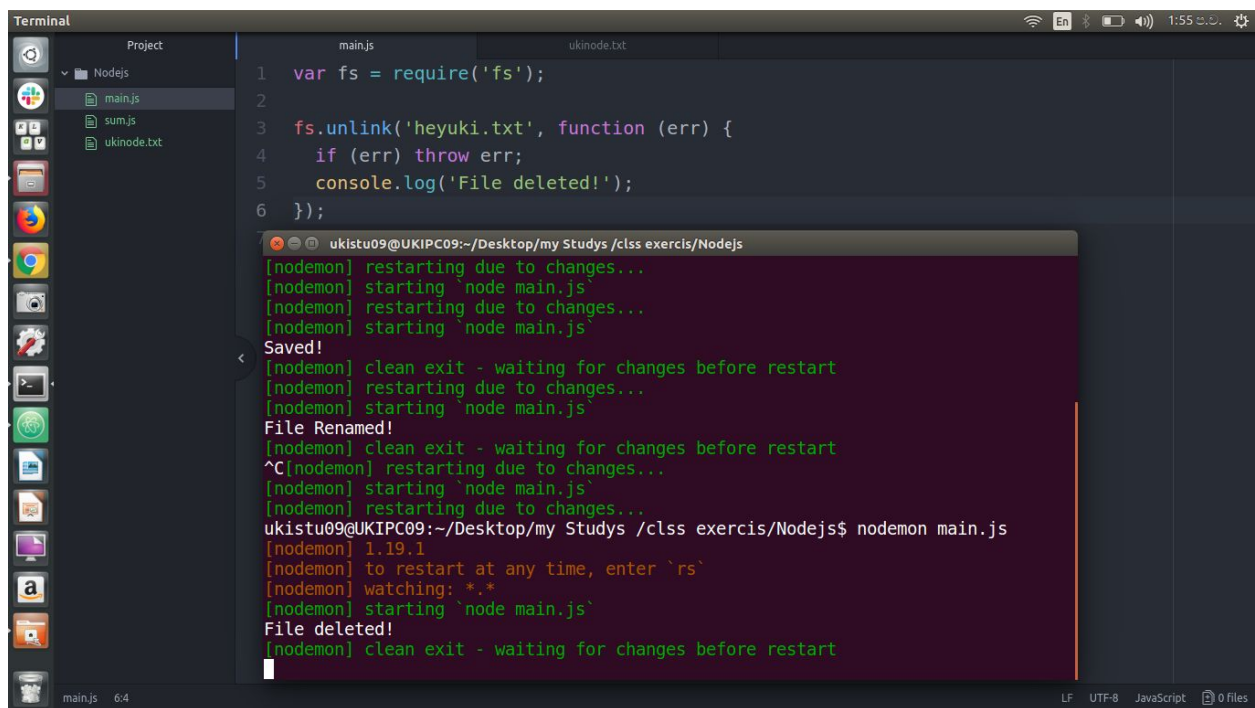

```
Terminal                                              En  🔋 ◀))  1:53

Project        main.js           ukinode.txt
 Nodejs
   heyuki.txt    1   var fs = require('fs');
   main.js       2
   sum.js        3   fs.rename('uki1.txt', 'heyuki.txt', function (err) {
   ukinode.txt   4     if (err) throw err;
                 5     console.log('File Renamed!');
                 6   });
```
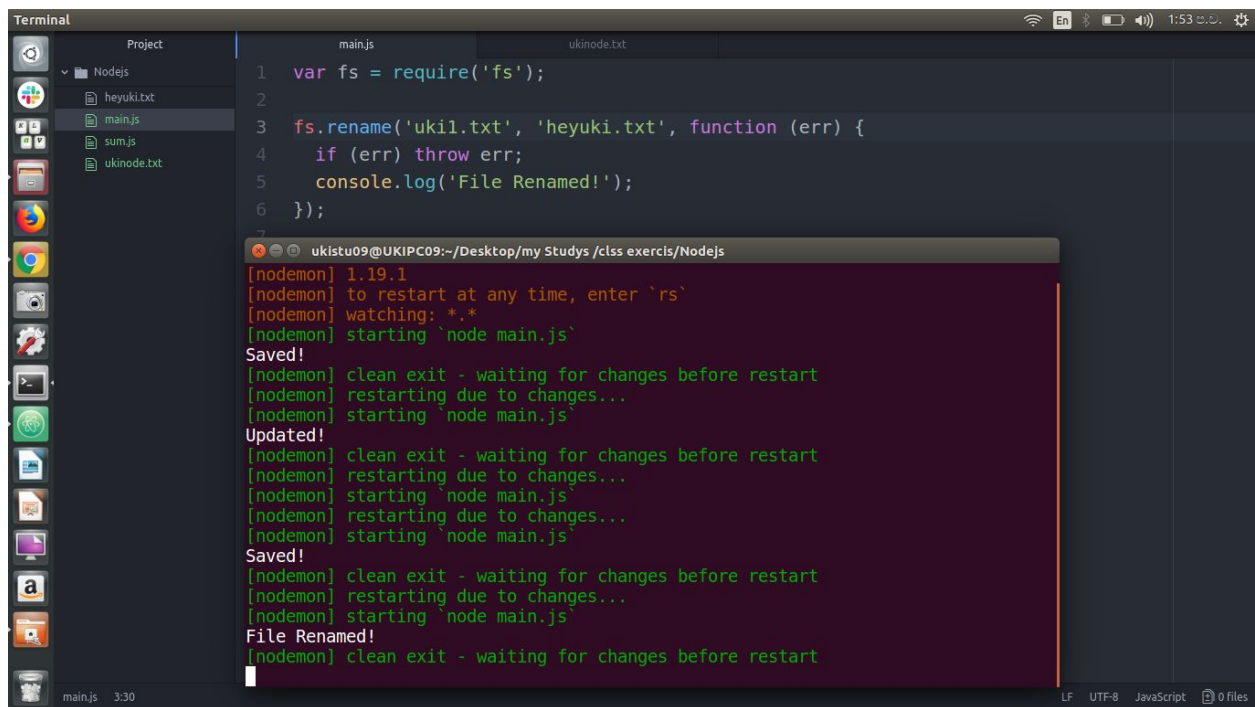
```
ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node main.js`
Saved!
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
Updated!
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
Saved!
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
File Renamed!
[nodemon] clean exit - waiting for changes before restart
```

3.5)


```
Terminal                                              En  🔋 ◀))  1:55

Project        main.js           ukinode.txt
 Nodejs
   main.js       1   var fs = require('fs');
   sum.js        2
   ukinode.txt   3   fs.unlink('heyuki.txt', function (err) {
                 4     if (err) throw err;
                 5     console.log('File deleted!');
                 6   });
```
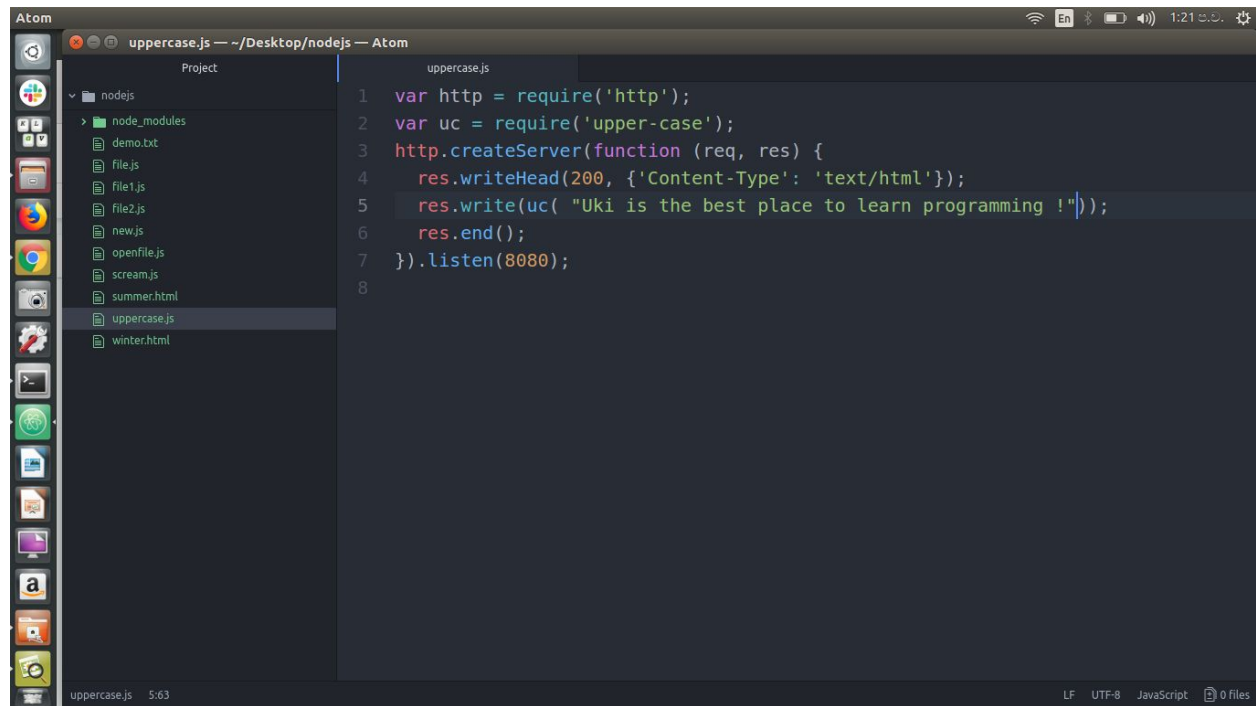
```
ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
Saved!
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
File Renamed!
[nodemon] clean exit - waiting for changes before restart
^C[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
[nodemon] restarting due to changes...
ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs$ nodemon main.js
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node main.js`
File deleted!
[nodemon] clean exit - waiting for changes before restart
```
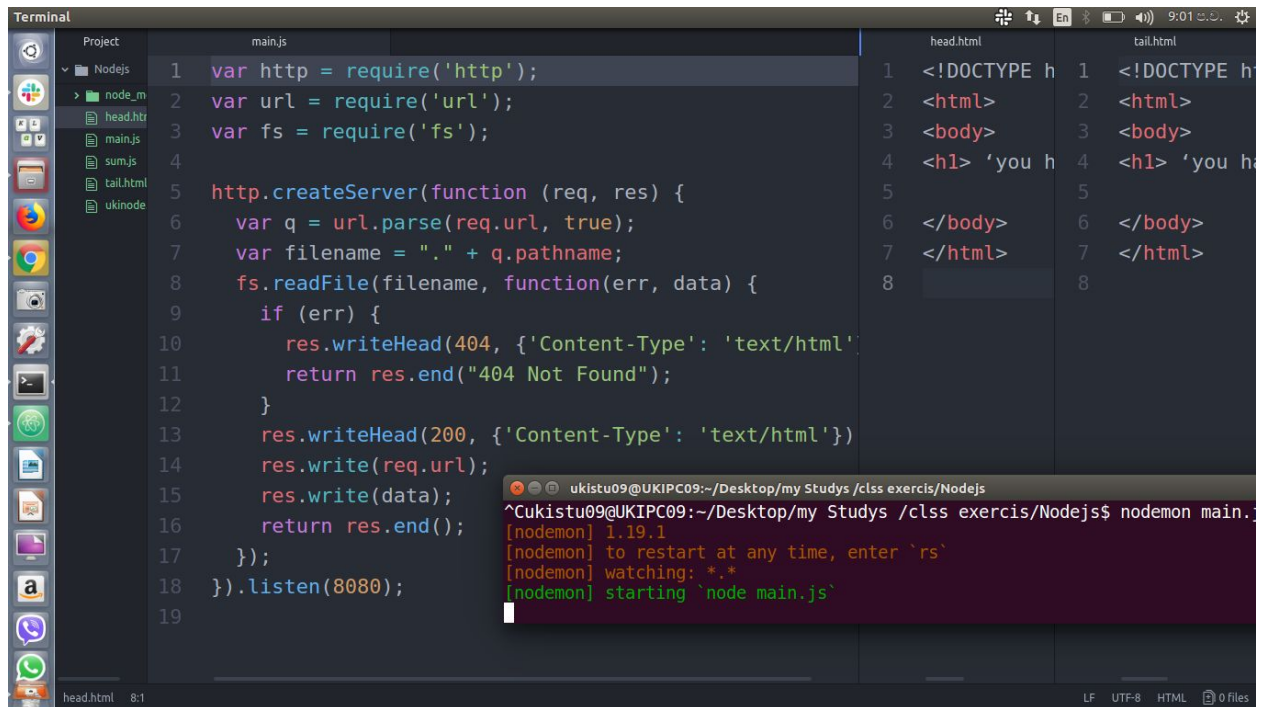
4)

Project — main.js

Nodejs
- node_m
- head.ht
- main.js
- sum.js
- tail.html
- ukinode

head.html

tail.html

```javascript
1  var http = require('http');
2  var url = require('url');
3  var fs = require('fs');
4
5  http.createServer(function (req, res) {
6    var q = url.parse(req.url, true);
7    var filename = "." + q.pathname;
8    fs.readFile(filename, function(err, data) {
9      if (err) {
10       res.writeHead(404, {'Content-Type': 'text/html'
11       return res.end("404 Not Found");
12     }
13     res.writeHead(200, {'Content-Type': 'text/html'})
14     res.write(req.url);
15     res.write(data);
16     return res.end();
17   });
18 }).listen(8080);
19
```

head.html

```html
1  <!DOCTYPE h
2  <html>
3  <body>
4  <h1> 'you h
5
6  </body>
7  </html>
8
```

tail.html

```html
1  <!DOCTYPE h
2  <html>
3  <body>
4  <h1> 'you ha
5
6  </body>
7  </html>
8
```

ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs

```
^Cukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs$ nodemon main.j
[nodemon] 1.19.1
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node main.js`
```

head.html   8:1

LF   UTF-8   HTML   0 files

← → C ① localhost:8080/tail.html

/tail.html

You have got tail

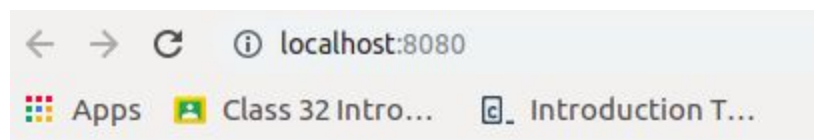← → C ① localhost:8080/head.html
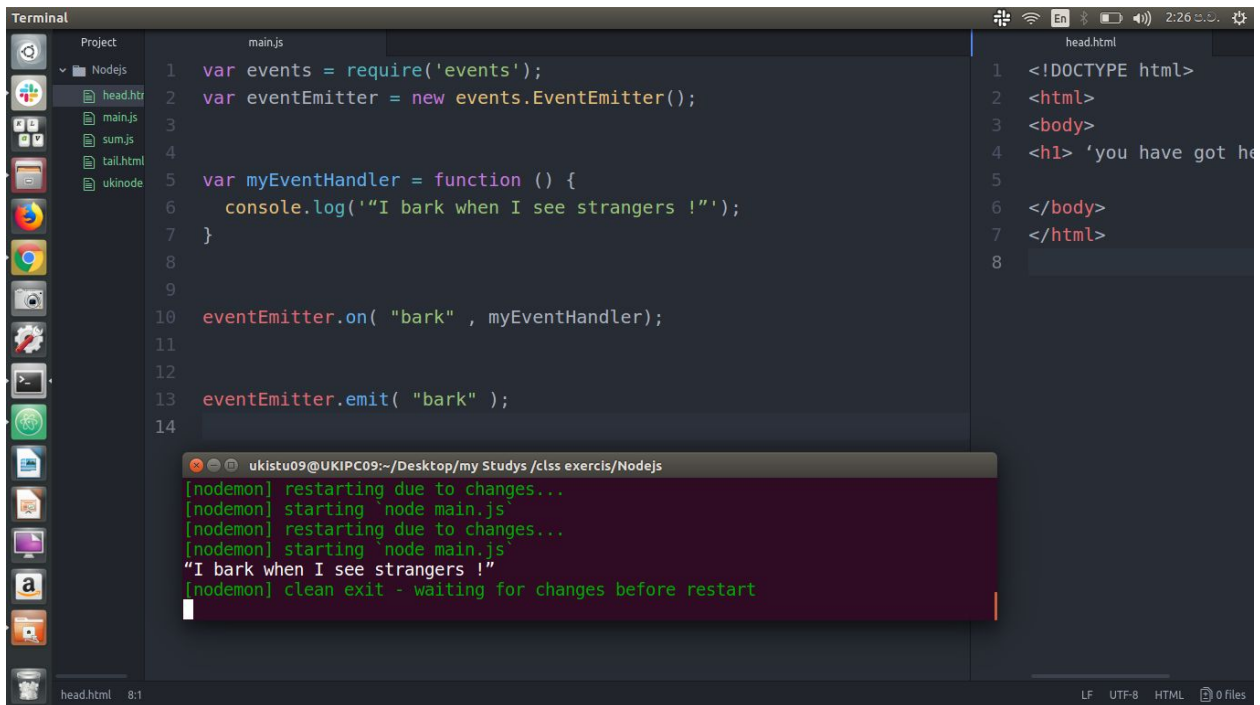
/head.html

You have got head

5)


```
1  var http = require('http');
2  var uc = require('upper-case');
3  http.createServer(function (req, res) {
4    res.writeHead(200, {'Content-Type': 'text/html'});
5    res.write(uc( "Uki is the best place to learn programming !"));
6    res.end();
7  }).listen(8080);
8
```


localhost:8080

Apps   Class 32 Intro...   Introduction T...

UKI IS THE BEST PLACE TO LEARN PROGRAMMING !

6)

```
main.js                                          head.html
1   var events = require('events');              1   <!DOCTYPE html>
2   var eventEmitter = new events.EventEmitter();2   <html>
3                                                 3   <body>
4                                                 4   <h1> 'you have got he
5   var myEventHandler = function () {            5
6       console.log('"I bark when I see strangers !"');6   </body>
7   }                                             7   </html>
8                                                 8
9
10  eventEmitter.on( "bark" , myEventHandler);
11
12
13  eventEmitter.emit( "bark" );
14
```
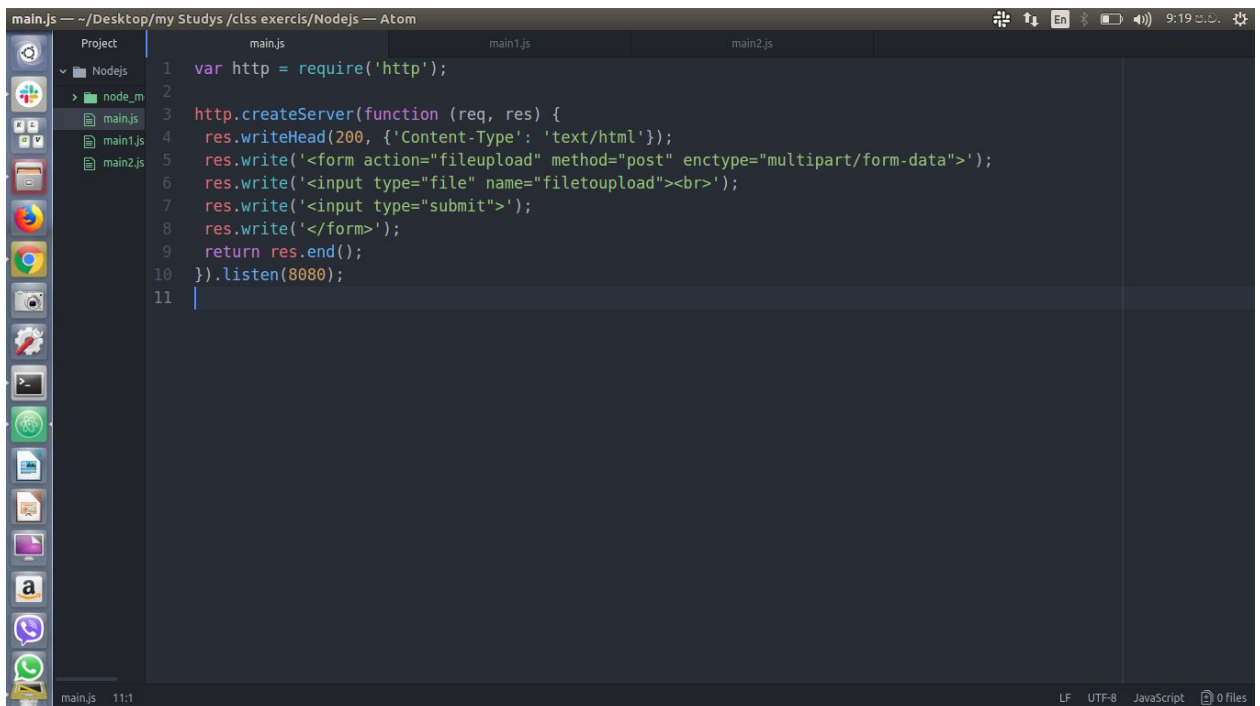
```
ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
[nodemon] restarting due to changes...
[nodemon] starting `node main.js`
"I bark when I see strangers !"
[nodemon] clean exit - waiting for changes before restart
```

head.html   8:1   LF   UTF-8   HTML   0 files

7)

```
1   var http = require('http');
2
3   http.createServer(function (req, res) {
4    res.writeHead(200, {'Content-Type': 'text/html'});
5    res.write('<form action="fileupload" method="post" enctype="multipart/form-data">');
6    res.write('<input type="file" name="filetoupload"><br>');
7    res.write('<input type="submit">');
8    res.write('</form>');
9    return res.end();
10  }).listen(8080);
11
```

main.js   11:1   LF   UTF-8   JavaScript   0 files

Project | main.js | main1.js | main2.js

```javascript
1  var http = require('http');
2  var formidable = require('formidable');
3
4  http.createServer(function (req, res) {
5    if (req.url == '/fileupload') {
6      var form = new formidable.IncomingForm();
7      form.parse(req, function (err, fields, files) {
8        res.write('File uploaded and moved!');
9        res.end();
10     });
11   } else {
12     res.writeHead(200, {'Content-Type': 'text/html'});
13     res.write('<form action="fileupload" method="post" enctype="multipart/form-data">');
14     res.write('<input type="file" name="filetoupload"><br>');
15     res.write('<input type="submit">');
16     res.write('</form>');
17     return res.end();
18   }
19 }).listen(8080);
20
```

main1.js   19:17   LF   UTF-8   JavaScript   0 files

Project | main.js | main1.js | main2.js

```javascript
1  var http = require('http');
2  var formidable = require('formidable');
3  var fs = require('fs');
4
5  http.createServer(function (req, res) {
6    if (req.url == '/fileupload') {
7      var form = new formidable.IncomingForm();
8      form.parse(req, function (err, fields, files) {
9        var oldpath = files.filetoupload.path;
10       var newpath = '/home/logu/Desktop/' + files.filetoupload.name;
11       fs.rename(oldpath, newpath, function (err) {
12         if (err) throw err;
13         res.write('File uploaded and moved!');
14         res.end();
15       });
16 });
17   } else {
18     res.writeHead(200, {'Content-Type': 'text/html'});
19     res.write('<form action="fileupload" method="post" enctype="multipart/form-data">');
20     res.write('<input type="file" name="filetoupload"><br>');
21     res.write('<input type="submit">');
22     res.write('</form>');
23     return res.end();
24   }
25 }).listen(8080);
26
```

main2.js   26:1   LF   UTF-8   JavaScript   0 files

8)


```
1   var nodemailer = require('nodemailer');
2
3   var transporter = nodemailer.createTransport({
4     service: 'gmail',
5     auth: {
6       user: 'vidhdhiyatharans@gmail.com'
7       pass: '**********************'
8     }
9   });
10
11  var mailOptions = {
12    from: ' vidhdhiyatharans@gmail.com',
13    to: 'info@uki.life',
14    subject: 'Testing my nodemailer modu'
15    text: 'This is  easy!'
16  };
17
18  transporter.sendMail(mailOptions, func
19    if (error) {
20      console.log(error);
21    } else {
22      console.log('Email sent: ' + info.
23    }
24  });
25
```

Terminal output:

```
ukistu09@UKIPC09:~/Desktop/my Studys /clss exercis/Nodejs
[nodemon] starting `node main.js`
/home/ukistu09/Desktop/my Studys /clss exercis/Nodejs/node_modules/no
b/mailer/index.js:31
        compile: [(...args) => this._convertDataImages(...args)],
                  ^^^

SyntaxError: Unexpected token ...
    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 Module.require (module.js:354:17)
    at require (internal/module.js:12:17)
    at Object.<anonymous> (/home/ukistu09/Desktop/my Studys /clss exe
/node_modules/nodemailer/lib/nodemailer.js:3:16)
    at Module._compile (module.js:410:26)
    at Object.Module._extensions..js (module.js:417:10)
[nodemon] app crashed - waiting for file changes before starting...
```