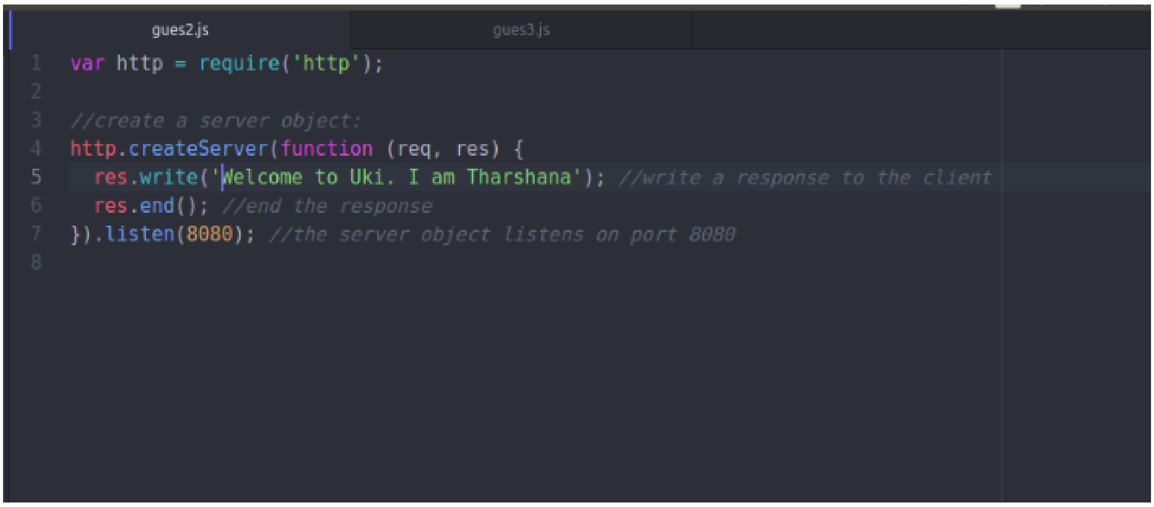
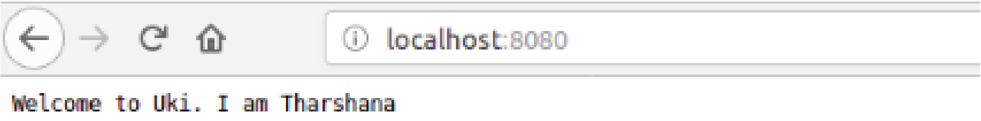
Node.js Exercise 1

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.

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)



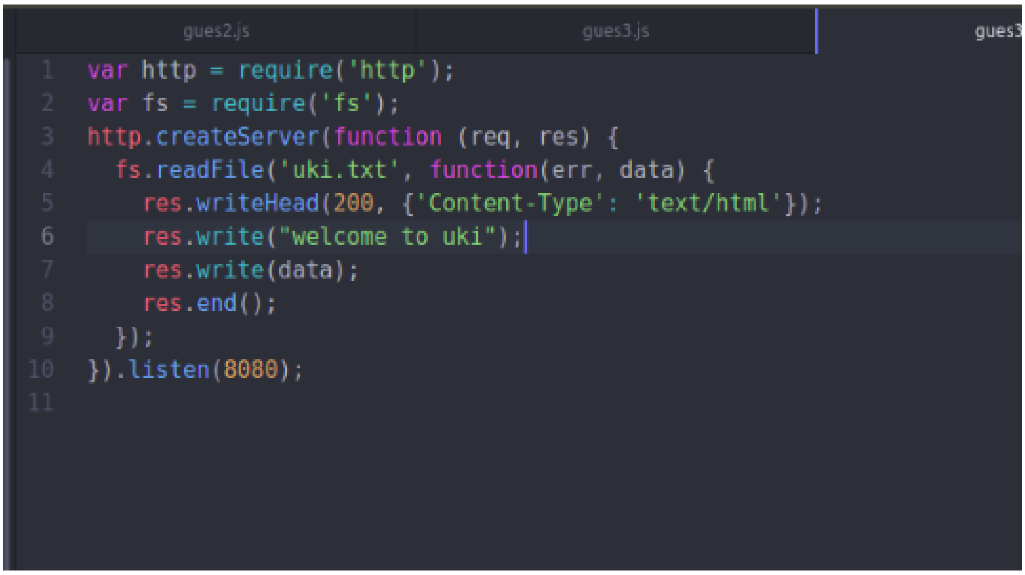
```
var http = require('http');

//create a server object:
http.createServer(function (req, res) {
  res.write('Welcome to Uki. I am Tharshana'); //write a response to the client
  res.end(); //end the response
}).listen(8080); //the server object listens on port 8080
```



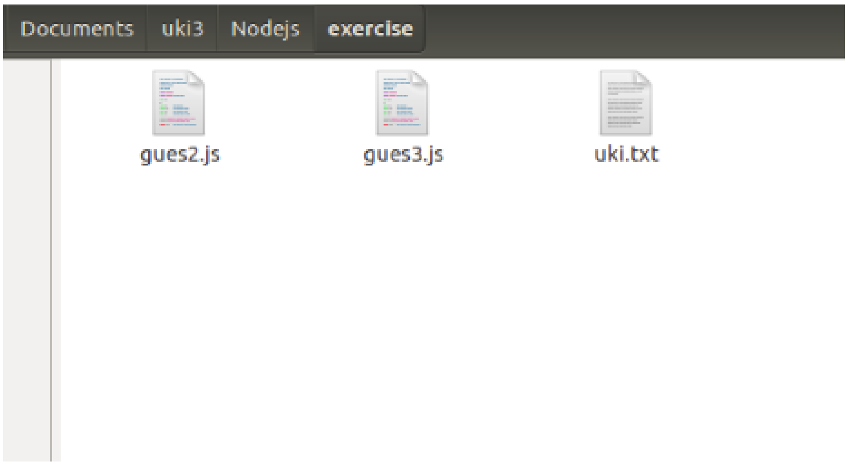
```
Welcome to Uki. I am Tharshana
```

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

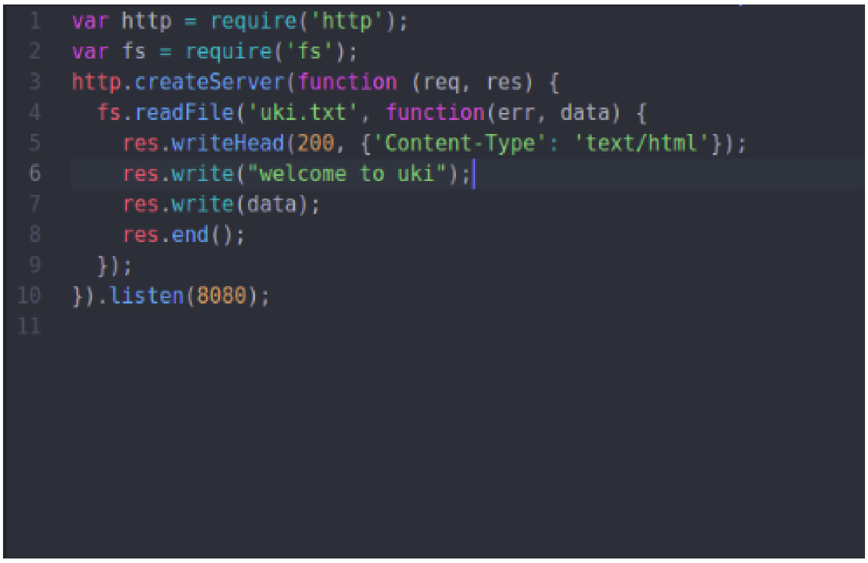
3.1 Write a paragraph about Uki into that file



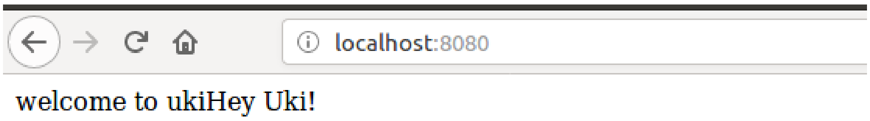
```
var http = require('http');
var fs = require('fs');
http.createServer(function (req, res) {
  fs.readFile('uki.txt', function(err, data) {
    res.writeHead(200, {'Content-Type': 'text/html'});
    res.write("welcome to uki");
    res.write(data);
    res.end();
  });
}).listen(8080);
```



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



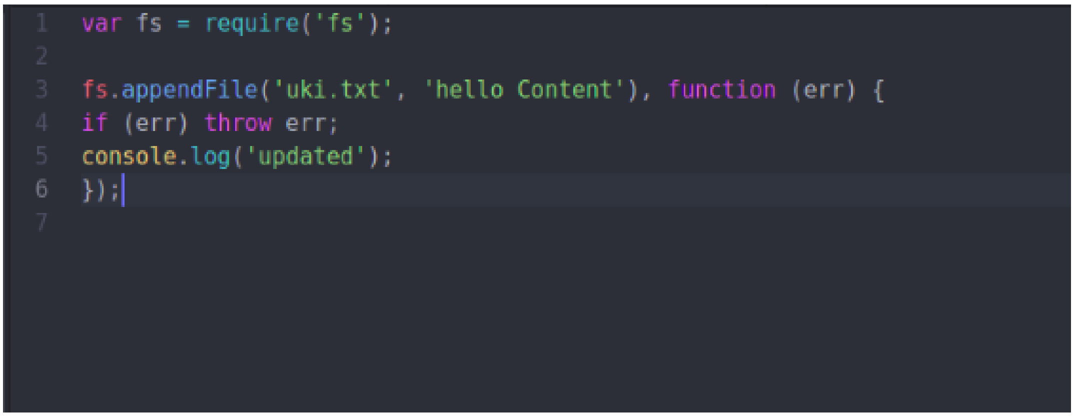
```
var http = require('http');
var fs = require('fs');
http.createServer(function (req, res) {
  fs.readFile('uki.txt', function(err, data) {
    res.writeHead(200, {'Content-Type': 'text/html'});
    res.write("welcome to uki");
    res.write(data);
    res.end();
  });
}).listen(8080);
```



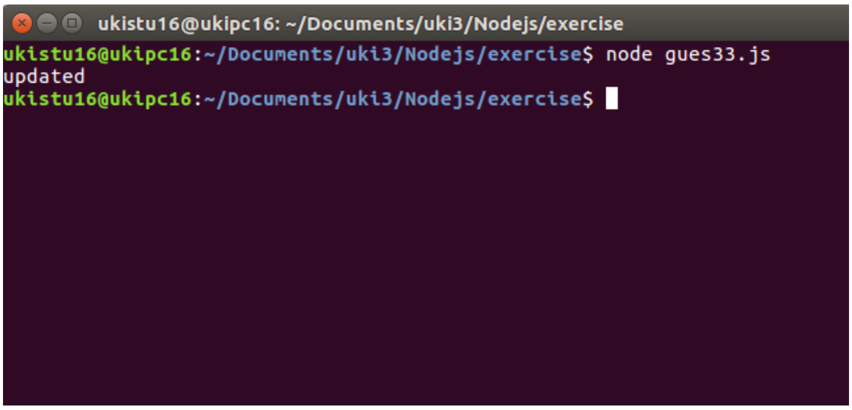
localhost:8080

welcome to ukiHey Uki!

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



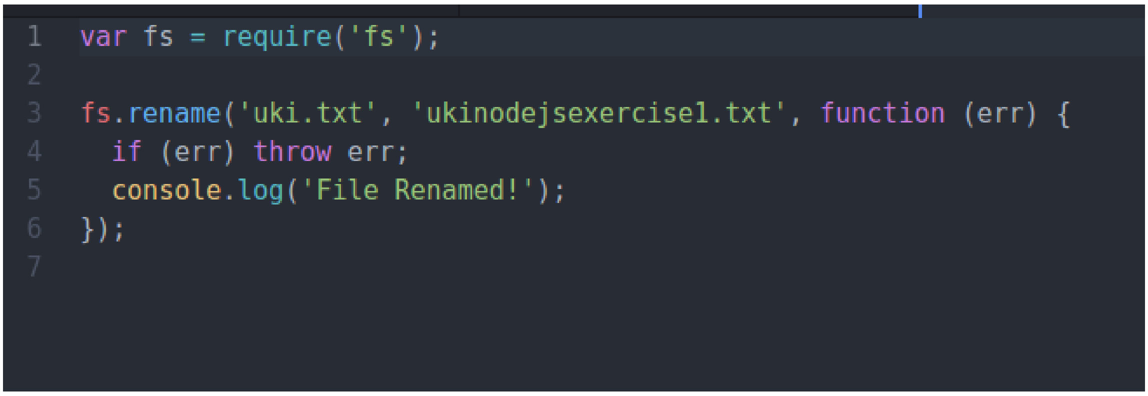
```
var fs = require('fs');

fs.appendFile('uki.txt', 'hello Content'), function (err) {
if (err) throw err;
console.log('updated');
});
```



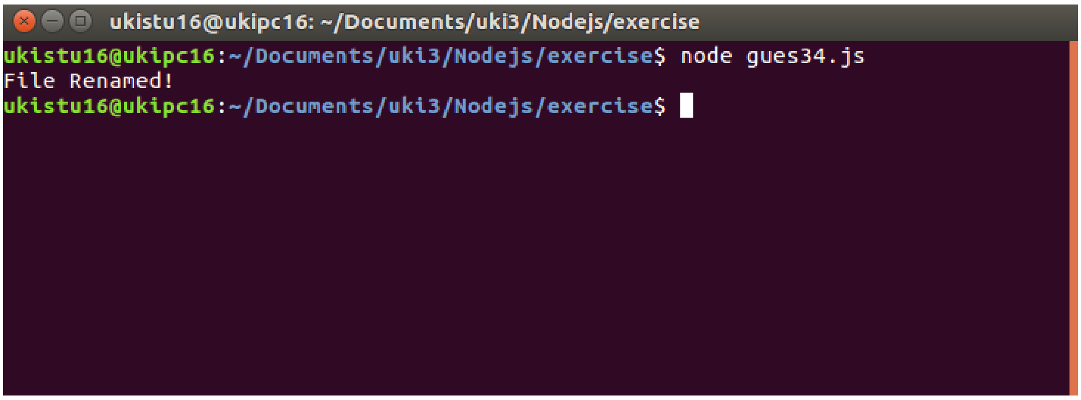
ukistu16@ukipc16: ~/Documents/uki3/Nodejs/exercise

```
ukistu16@ukipc16:~/Documents/uki3/Nodejs/exercise$ node gues33.js
updated
ukistu16@ukipc16:~/Documents/uki3/Nodejs/exercise$ 
```

3.4 Rename the file as ukinodejsexercise1.txt

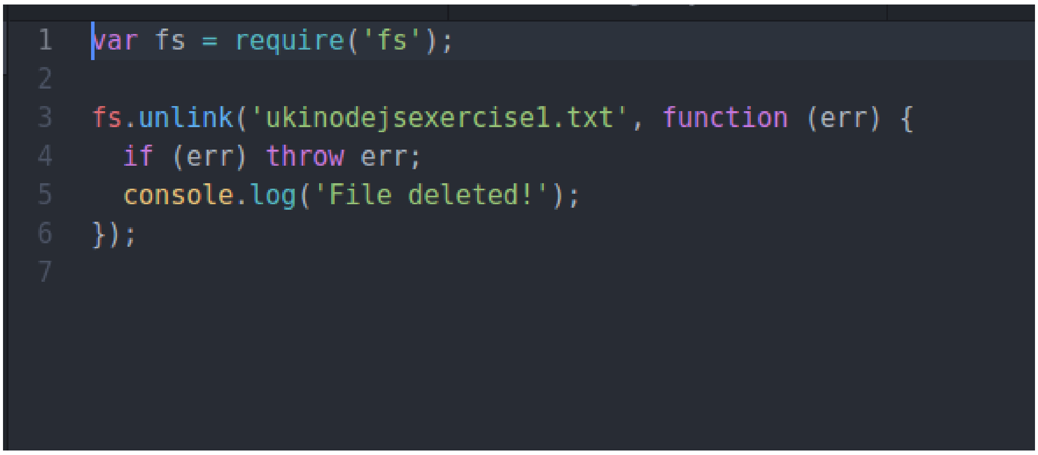


```
var fs = require('fs');

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

```

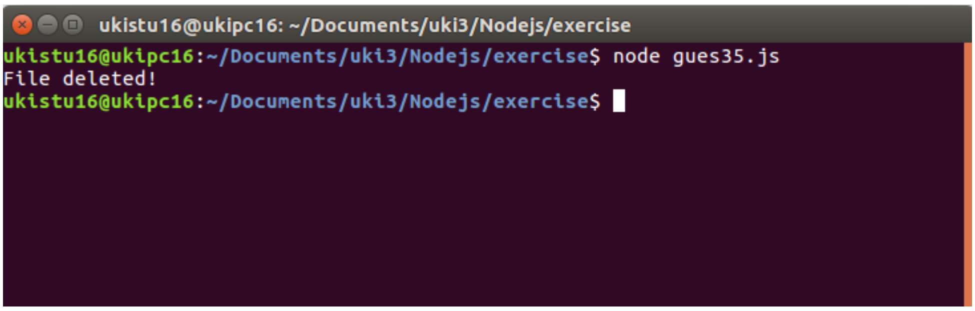


```
ukistu16@ukipc16:~/Documents/uki3/Nodejs/exercise$ node gues34.js
File Renamed!
ukistu16@ukipc16:~/Documents/uki3/Nodejs/exercise$ 
```

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!');
});

```

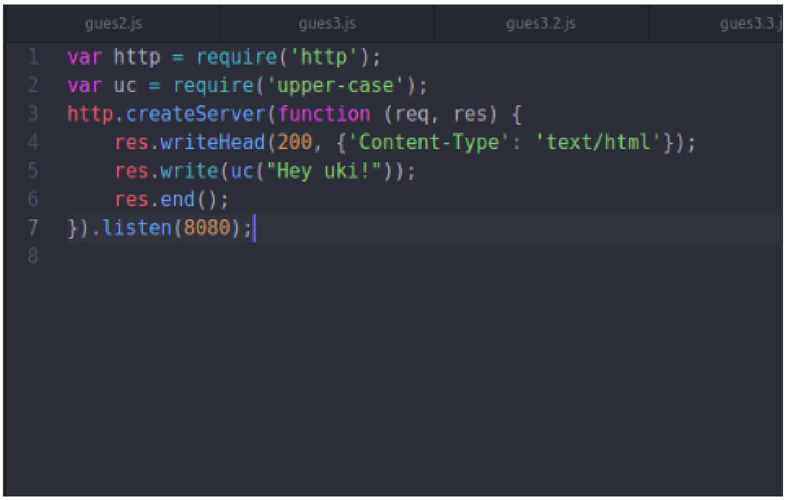


```
ukistu16@ukipc16:~/Documents/uki3/Nodejs/exercise$ node gues35.js
File deleted!
ukistu16@ukipc16:~/Documents/uki3/Nodejs/exercise$ 
```

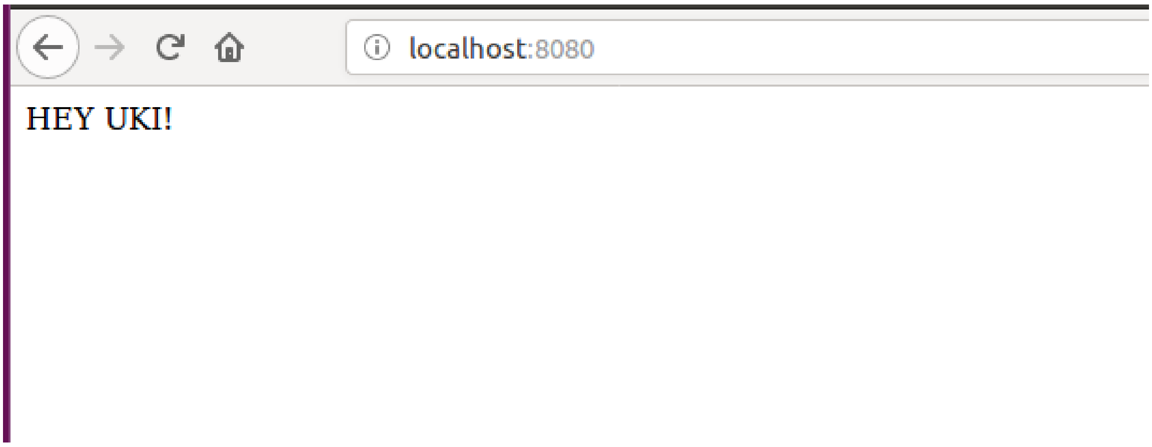
4. Create two html files called head.html which is a web page which says ‘you have got head ‘ and tail.html which is a web page which says ‘you have got tail’ and save them in the same folder as your node.js files. Create a Node.js file that opens the requested file and returns the content to the client. 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

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.

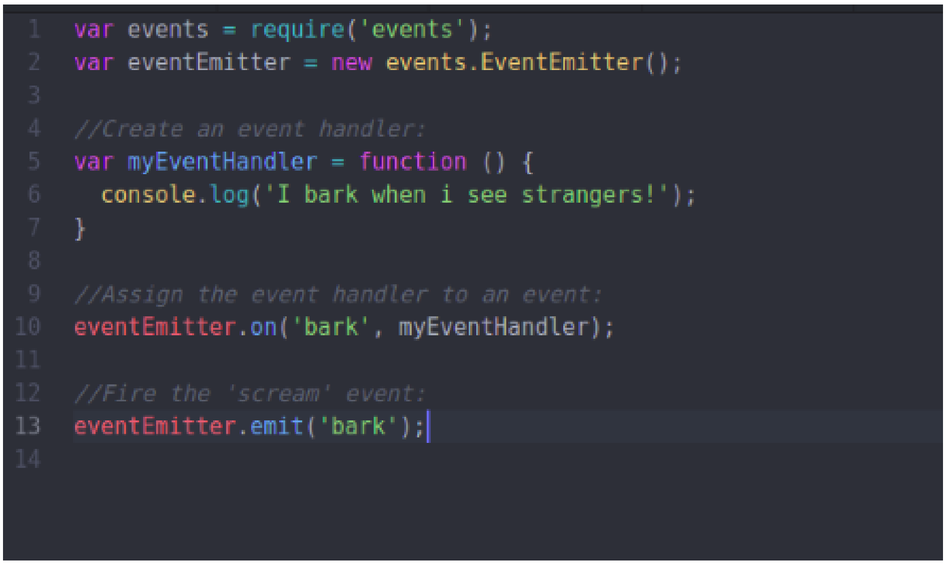


```
var http = require('http');
var uc = require('upper-case');
http.createServer(function (req, res) {
    res.writeHead(200, {'Content-Type': 'text/html'});
    res.write(uc("Hey uki!"));
    res.end();
}).listen(8080);
```

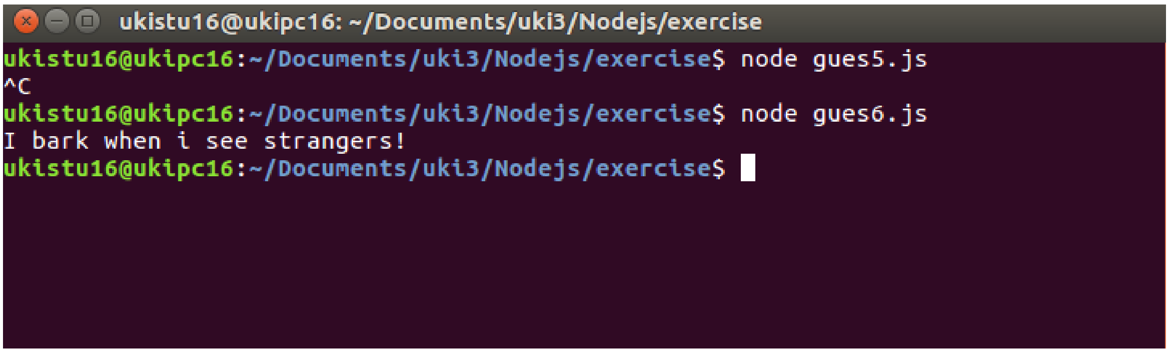


HEY UKI!

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');

```

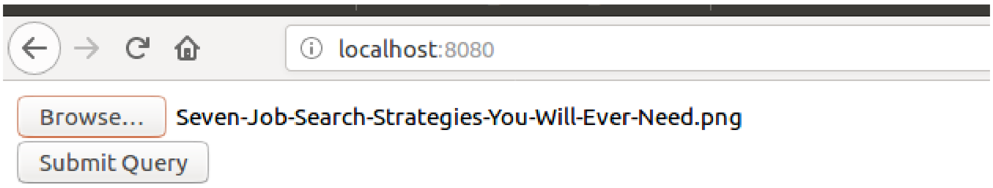


ukistu16@ukipc16: ~/Documents/uki3/Nodejs/exercise

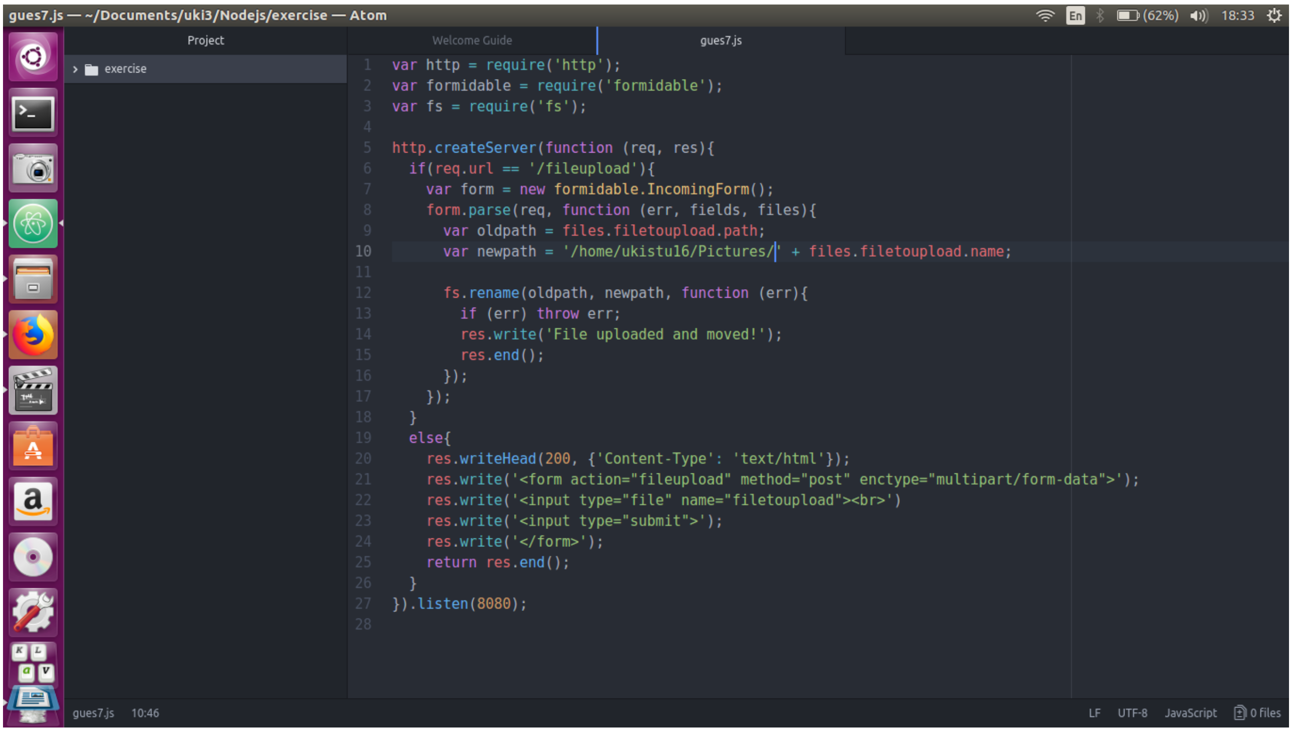
```
ukistu16@ukipc16:~/Documents/uki3/Nodejs/exercise$ node gues5.js
^C
ukistu16@ukipc16:~/Documents/uki3/Nodejs/exercise$ node gues6.js
I bark when i see strangers!
ukistu16@ukipc16:~/Documents/uki3/Nodejs/exercise$ 
```

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.



Seven-Job-Search-Strategies-You-Will-Ever-Need.png



```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/ukistu16/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);

```

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.