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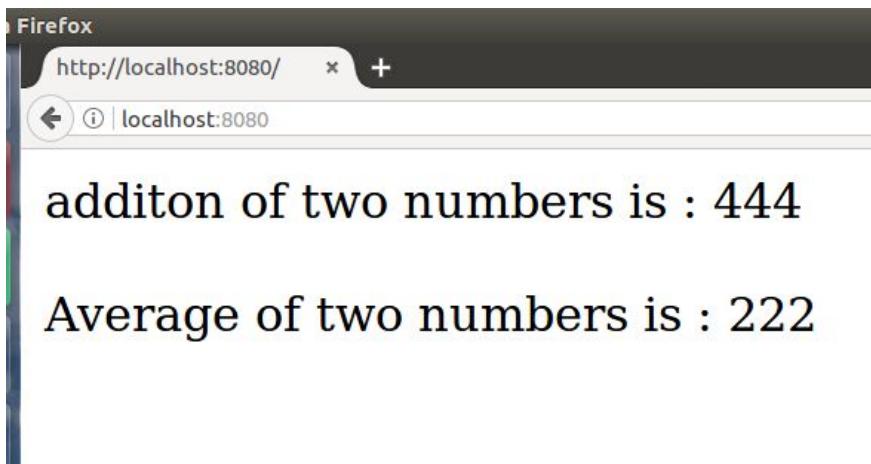
1.Create a custom module which returns the sum and average of any two numbers passed into it. Require the module and run the server by passing 123 and 321 so that the server prints out the sum and average

```
1   var http = require('http');
2   var dt = require('./myfunction');
3
4   http.createServer(function (req, res) {
5       res.writeHead(200, {'Content-Type': 'text/html'});
6       res.write("additon of two numbers is : " + dt.add(123,321) + "<br> " + " <br>"
7       + "Average  of two numbers is : " + dt.average(123,321));
8
9       res.end();
10  }).listen(8080);
11
```

```
1   exports.add = function (a,b) {
2        return a + b ;
3   };
4   exports.average = function (a,b) {
5        return (a + b) / 2 ;
6   };
7
```

Firefox

http://localhost:8080/   ×   +

← ⓘ localhost:8080

additon of two numbers is : 444

Average of two numbers is : 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)

```
1   var http = require('http');
2
3   http.createServer(function (req, res) {
4       res.writeHead(200, {'Content-Type': 'text/html'});
5       res.end('Welcome to Uki, I am Geetha');
6   }).listen(8000);
7   |
```

⬅ ⓘ localhost:8000

Welcome to Uki, I am Geetha

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

    3.1 Write a paragraph about Uki into that file

```
1   var fs = require('fs');
2
3   fs.appendFile('Ukinode.txt', 'Uki is a coding School.', function (err) {
4     if (err) throw err;
5     console.log('Saved!');
6   });
7
```

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

```
Welcome...  ex-q-3.2.js    ex-q-8.js    ex-q-3.1.js    ex-q-3.5.js    head.html    tail.html    open.js    main3.js    apend.js    update.js
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  |
```

← ⓘ localhost:8080

Uki is a coding School.

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

```
1   var fs = require('fs');
2
3   fs.appendFile('Ukinode.txt', ' This is a full scolarship based course', function (err) {
4     if (err) throw err;
5     console.log('Updated!');
6   });
7
```

← ⓘ localhost:8080

Uki is a coding School. This is a full scolarship based course

3.4 Rename the file as ukinodejsexercise1.txt

```
1   var fs = require('fs');
2
3   fs.rename('Ukinode.txt', 'Ukinodejsexercise1.txt', function (err) {
4     if (err) throw err;
5     console.log('File Renamed!');
6   });
7
```

3.5 Delete the file you created

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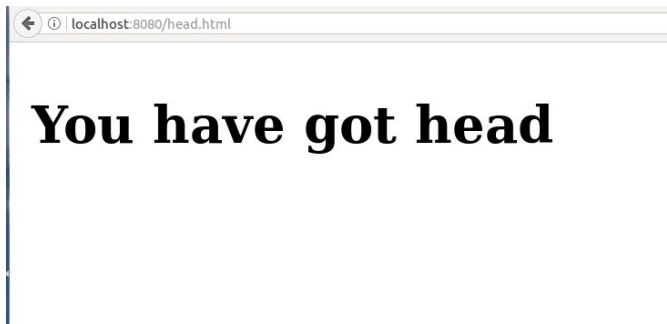
If you have followed the correct steps you should see two different results when opening these two addresses:

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);
```

`localhost:8080/head.html`

You have got head

`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.

```
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
```
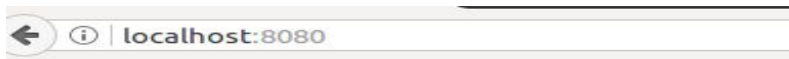
localhost:8080/tail.html   300% C Q Search

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.

```
1  var events = require('events');
2  var eventEmitter = new events.EventEmitter();
3
4  //Create an event handler:
5  var myEventHandler = function () {
6      console.log('I bark when I see strangers !');
7  }
8
9  //Assign the eventhandler to an event:
10 eventEmitter.on('bark', myEventHandler);
11
12 //Fire the 'scream' event:
13 eventEmitter.emit('bark');
14
```

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.

```
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/ukipc09/Documents/' + 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
```

localhost:8080

Browse...   sign-up.html
Submit Query

localhost:8080/fileupload

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.

```
1   var nodemailer = require('nodemailer');
2
3   var transporter = nodemailer.createTransport({
4     service: 'gmail',
5     auth: {
6       user: 'rajasekarangeetha14@gmail.com',
7       pass: 'rajarani'
8     }
9   });
10  var mailOptions = {
11    from: 'rajadekarangeetha14@gmail.com',
12    to: 'info@uki.life',
13    subject: 'Testing my nodemailer module',
14    text: 'This is easy!'
15  };
16
17  transporter.sendMail(mailOptions, function(error, info){
18    if (error) {
19      console.log(error);
20    } else {
21      console.log('Email sent: ' + info.response);
22    }
23  });
24
```

-Geetha-