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.

```
1    exports.sum = function (x,y) {
2        return((x+y)/2);
3    };
4
```

```
1    var http = require('http');
2    var dt = require('./myfirstmodule');
3
4    http.createServer(function (req, res) {
5        res.writeHead(200, {'Content-Type': 'text/html'});
6        res.write("Average is: " + dt.sum(123,321));
7        res.end();
8    }).listen(8080);
9    |
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
```

← ⓘ | localhost:8080

Average 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  http.createServer(function (req, res) {
3      res.writeHead(200, {'Content-Type': 'text/html'});
4      res.write("Welcome to Uki. I am Shahama");
5      res.end();
6  }).listen(8000);
7
```
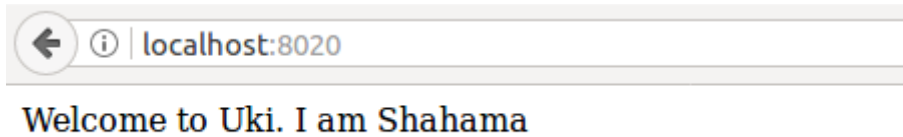
```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
```

Welcome to Uki. I am Shahama

```
1  var http = require('http');
2  http.createServer(function (req, res) {
3      res.writeHead(200, {'Content-Type': 'text/html'});
4      res.write("Welcome to Uki. I am Shahama");
5      res.end();
6  }).listen(8020);
7
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
```

localhost:8020

Welcome to Uki. I am Shahama

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.writeFile('ukinode.txt', 'Uki is a coding programe', function (err) {
4     if (err) throw err;
5     console.log('Saved!');
6   });
7
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
Saved!
```

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

```
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
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
```

← ⓘ localhost:8080

Uki is a coding programe

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

```
1   var fs = require('fs');
2
3   fs.appendFile('ukinode.txt', 'Uki have 15 b developers', function (err) {
4     if (err) throw err;
5     console.log('Updated!');
6   });
7
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
Updated!
```

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   |
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
File Renamed!
```

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   |
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
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

```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(data);
15        return res.end();
16      });
17   }).listen(8080);
18
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
```

```
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(data);
15       return res.end();
16     });
17   }).listen(8080);
18
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
```

① | localhost:8080/head.html

you have got head

① | localhost:8080/tail.html
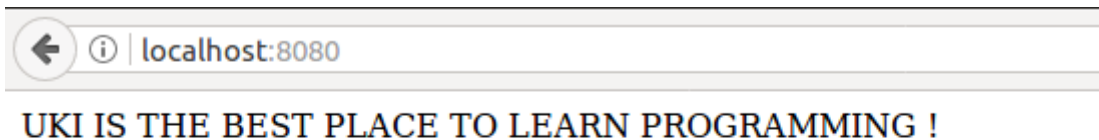
you have got tail

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.

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ npm install upper-case
/home/ukistu08/Documents/Uki-exercise/node.js
└── upper-case@1.1.3

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu08/Documents/Uki-exercise/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.
```

```
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   |
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
```

localhost:8080

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.

```javascript
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/Uki-exercise/node.js$ node inclass.js
I bark when I see strangers !
```

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

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ npm install formidable
/home/ukistu08/Documents/Uki-exercise/node.js
└── formidable@1.1.1

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu08/Documents/Uki-exercise/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.
```

```javascript
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  |
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.js
```

localhost:8080

Browse...   No file selected.
Submit Query

7.1 Save that uploaded file into your Documents directory.

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 !"

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ npm install nodemailer
/home/ukistu08/Documents/Uki-exercise/node.js
└── nodemailer@4.0.1

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu08/Documents/Uki-exercise/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/Uki-exercise/node.js$ node inclass.js
{ Error: connect ENETUNREACH 2404:6800:4003:c02::6c:465
    at Object.exports._errnoException (util.js:1018:11)
    at exports._exceptionWithHostPort (util.js:1041:20)
    at TCPConnectWrap.afterConnect [as oncomplete] (net.js:1086:14)
  code: 'ECONNECTION',
  errno: 'ENETUNREACH',
  syscall: 'connect',
  address: '2404:6800:4003:c02::6c',
  port: 465,
  command: 'CONN' }
```

```
ukistu08@ukipc08:~/Documents/Uki-exercise/node.js$ node inclass.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 f72sm31087691pfe.62 - gsmtp
    at SMTPConnection._formatError (/home/ukistu08/Documents/Uki-exercise/node.js/node_modules/nodemailer/lib/smtp-connection/index.js:557:19)
    at SMTPConnection._actionAUTHComplete (/home/ukistu08/Documents/Uki-exercise/node.js/node_modules/nodemailer/lib/smtp-connection/index.js:1253:34)
    at SMTPConnection._responseActions.push.str (/home/ukistu08/Documents/Uki-exercise/node.js/node_modules/nodemailer/lib/smtp-connection/index.js:34
0:26)
    at SMTPConnection._processResponse (/home/ukistu08/Documents/Uki-exercise/node.js/node_modules/nodemailer/lib/smtp-connection/index.js:706:20)
    at SMTPConnection._onData (/home/ukistu08/Documents/Uki-exercise/node.js/node_modules/nodemailer/lib/smtp-connection/index.js:509:14)
    at TLSSocket._socket.on.chunk (/home/ukistu08/Documents/Uki-exercise/node.js/node_modules/nodemailer/lib/smtp-connection/index.js:461:47)
    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 f72sm31087691pf
e.62 - gsmtp',
  responseCode: 535,
  command: 'AUTH PLAIN' }
```

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

var transporter = nodemailer.createTransport({
  service: 'gmail',
  auth: {
    user: 'SHAHAMA SHAJEETH',
    pass: '123'
  }
});

var mailOptions = {
  from: 'sfshahama145@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);
  }
});
```

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

```javascript
1   var nodemailer = require('nodemailer');
2
3   var transporter = nodemailer.createTransport({
4     service: 'gmail',
5     auth: {
6       user: 'SHAHAMA SHAJEETH',
7       pass: '123'
8     }
9   });
10
11  var mailOptions = {
12    from: 'sfshahama145@gmail.com',
13    to: 'info@uki.life',
14    subject: 'Testing my nodemailer module',
15    html: '<h1>This is easy!</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
```