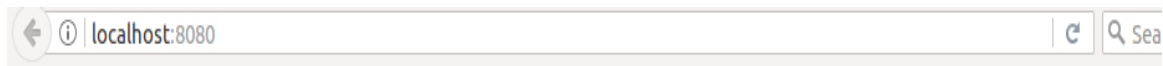


# Node.js Exercise 1

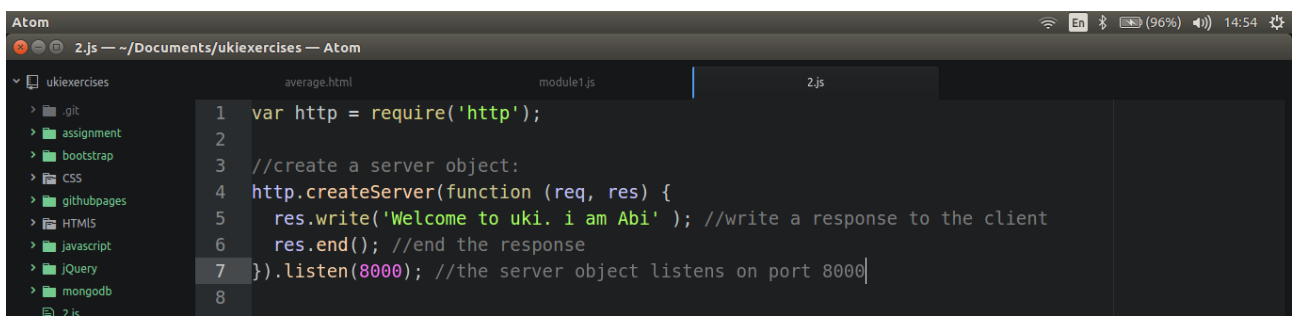
**1. Create a custom module which returns the sum and average of any two numbers passed into it. Require the module and run the server by passing 123 and 321 so that the server prints out the sum and average**

```
exports.avg = function (n1,n2) {  
  return ((n1+n2)/2);  
};
```



The average is currently: 276

**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)**



```
ukistu07@ukipc07:~/Documents/ukiexercises$ node 2.js
```

localhost:8000

Welcome to uki. i am Abi

localhost:8050



## Unable to connect

Firefox can't establish a connection to the server at localhost:8050.

- The site could be temporarily unavailable or too busy. Try again in a few moments.
- If you are unable to load any pages, check your computer's network connection.

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

#### 3.1 Write a paragraph about Uki into that file

```
ukistu07@ukipc07:~/Documents/ukiexercises$ node ukinode.txt
Saved!
ukistu07@ukipc07:~/Documents/ukiexercises$
```

#### 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('ukinode.txt', function(err, data) {
    res.writeHead(200, {'Content-Type': 'text/html'});
    res.write(data);
    res.end();
  });
}).listen(8080);
```

```
ukistu07@ukipc07:~/Documents/ukisexercises$ node read3.js
```

localhost:8080

uki is situated in jaffna

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

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

fs.appendFile('ukinode.txt', 'uki has 15 students & two teachers', function (err) {
  if (err) throw err;
  console.log('Saved!');
});
```

```
ukistu07@ukipc07:~/Documents/ukisexercises$ node append.js
Saved!
ukistu07@ukipc07:~/Documents/ukisexercises$
```

### 3.4 Rename the file as ukinodejsexercise1.txt

```
ukistu07@ukipc07:~/Documents/uklexercises$ node append.js
Saved!
ukistu07@ukipc07:~/Documents/uklexercises$
```

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

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

## 3.5 Delete the file you created

```
ukistu07@ukipc07:~/Documents/uklexercises$ node append.js
Saved!
ukistu07@ukipc07:~/Documents/uklexercises$
```

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

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

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); |
```

```
ukistu07@ukipc07:~/Documents$ node url.js
```



**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("Uki is the best place to learn programming!"));
  res.end();
}).listen(8080);
```

```
ukistu07@ukipc07:~/Documents/ukiexercises$ npm install upper-case
/home/ukistu07/Documents/ukiexercises
└─ upper-case@1.1.3

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu07/Documents/ukiexercises/package.json'
npm WARN ukiexercises No description
npm WARN ukiexercises No repository field.
npm WARN ukiexercises No README data
npm WARN ukiexercises No license field.
ukistu07@ukipc07:~/Documents/ukiexercises$ node uper.js
```

localhost:8080 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.**

```
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');
```

```
ukistu07@ukipc07:~/Documents/ukiexercises$ node event.js
I bark when I see strangers!
ukistu07@ukipc07:~/Documents/ukiexercises$
```

**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.**

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

http.createServer(function (req, res) {
  res.writeHead(200, {'Content-Type': 'text/html'});
  res.write('<form action="fileupload" method="post" enctype="m
  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.**



```

var nodemailer = require('nodemailer');

var transporter = nodemailer.createTransport({
  service: 'gmail',
  auth: {
    user: 'abiabiramy93@gmail.com',
    pass: '2520241'
  }
});

var mailOptions = {
  from: 'abiabiramy93@gmail.com',
  to: 'info@uki.life.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);
  }
});

```

```

ukistu07@ukipc07:~/Documents/ukisexercises$ npm install nodemailer
/home/ukistu07/Documents/ukisexercises
└─ nodemailer@4.0.1

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu07/Documents/ukisexercises/package.json'
npm WARN ukisexercises No description
npm WARN ukisexercises No repository field.
npm WARN ukisexercises No README data
npm WARN ukisexercises No license field.
ukistu07@ukipc07:~/Documents/ukisexercises$ node mail.js
{ Error: Invalid login: 534-5.7.14 <https://accounts.google.com/signin/continue?sarp=1&sc=1&pl=AKgnsbv3
534-5.7.14 KvRGAW-7o3bs5TIVEsa9WHHiofMVk08RCXj8S7Yj8GhUfzKvUeWzrGY-kVhd8G82MYZLh
534-5.7.14 Vbeybu5KJJK_zin0LRjuFnK97YP9FR-tSp0JgAesDG3seAvfZnkxndLwLb9RvYUUpHC9LI
534-5.7.14 tOFLjqMjsxyXDaAmSif6c5CmerdNZDFoTdghixIwTZZ1--Ue_SSGaehSxhWmfQaoitCDFn
534-5.7.14 hEWMSB2m7lh0EezgdgTly_GTjRGbk> Please log in via your web browser and
534-5.7.14 then try again.
534-5.7.14 Learn more at
534 5.7.14 https://support.google.com/mail/answer/78754 q135sn36002719pgg.41 - gsmt
at SMTPConnection._formatError (/home/ukistu07/Documents/ukisexercises/node_modules/nodemailer/lib/smtp-connection/index.js:557:19)
at SMTPConnection._actionAUTHComplete (/home/ukistu07/Documents/ukisexercises/node_modules/nodemailer/lib/smtp-connection/index.js:1253:34)
at SMTPConnection._responseActions.push.str (/home/ukistu07/Documents/ukisexercises/node_modules/nodemailer/lib/smtp-connection/index.js:340:26)
at SMTPConnection._processResponse (/home/ukistu07/Documents/ukisexercises/node_modules/nodemailer/lib/smtp-connection/index.js:706:20)
at SMTPConnection._onData (/home/ukistu07/Documents/ukisexercises/node_modules/nodemailer/lib/smtp-connection/index.js:509:14)
at TLSSocket._socket.on.chunk (/home/ukistu07/Documents/ukisexercises/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: 'AUTH',
response: '534-5.7.14 <https://accounts.google.com/signin/continue?sarp=1&sc=1&pl=AKgnsbv3\n534-5.7.14 KvRGAW-7o3bs5TIVEsa9WHHiofMVk08RCXj8S7Yj8Gh
UfzKvUeWzrGY-kVhd8G82MYZLh\n534-5.7.14 Vbeybu5KJJK_zin0LRjuFnK97YP9FR-tSp0JgAesDG3seAvfZnkxndLwLb9RvYUUpHC9LI\n534-5.7.14 tOFLjqMjsxyXDaAmSif6c5Cmerd
NZDFoTdghixIwTZZ1--Ue_SSGaehSxhWmfQaoitCDFn\n534-5.7.14 hEWMSB2m7lh0EezgdgTly_GTjRGbk> Please log in via your web browser and\n534-5.7.14 then try aga
in.\n534-5.7.14 Learn more at\n534 5.7.14 https://support.google.com/mail/answer/78754 q135sn36002719pgg.41 - gsmt',
responseCode: 534,
command: 'AUTH PLAIN' }
ukistu07@ukipc07:~/Documents/ukisexercises$

```