

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.

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node ans1.js
```

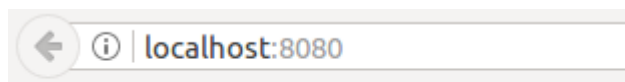


The screenshot shows a code editor with two files open. The left file, `sum.js`, contains the following code:

```
1 exports.sum_average = function (num1,num2) {  
2   return (num1+num2/2);  
3 };  
4
```

The right file, `ans1.js`, contains the following code:

```
1  
2 var http = require('http');  
3 var dt = require('./sum.js');  
4  
5 http.createServer(function (req, res) {  
6   res.writeHead(200, {'Content-Type': 'text/html'});  
7   res.write("average of the two numbers: " + dt.sum_average(123,321));  
8   res.end();  
9 }).listen(8080);  
10
```



average of the two numbers: 283.5

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node ans1.js
```

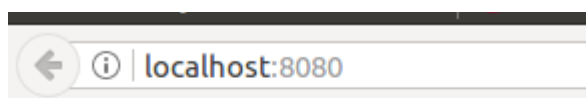


The screenshot shows a code editor with two files open. The left file, `sum.js`, contains the following code:

```
1 exports.sum_average = function (num1,num2) {  
2   return (num1+num2);  
3 };  
4
```

The right file, `ans1.js`, contains the following code:

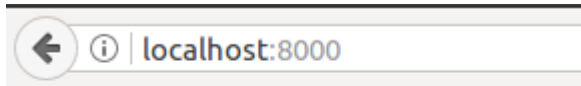
```
1  
2 var http = require('http');  
3 var dt = require('./sum.js');  
4  
5 http.createServer(function (req, res) {  
6   res.writeHead(200, {'Content-Type': 'text/html'});  
7   res.write("average of the two numbers: " + dt.sum_average(123,321));  
8   res.end();  
9 }).listen(8080);  
10
```



average of the two numbers: 444

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)

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node node.js
```



Well come to Uki i am thaneesan

node.js

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

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

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node ans3.js
Saved!
```

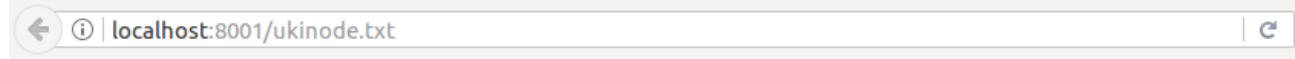
```
1 var fs = require('fs');
2
3 fs.writeFile('ukinode.txt', function (err) {
4   if (err) throw err;
5   console.log('Saved!');
6 });
7
```

3.1 Write a paragraph about Uki into that file

```
1 var fs = require('fs');
2
3 fs.appendFile('ukinode.txt', 'this is very impotent calss for uki i am uki student.', function (err) {
4   if (err) throw err;
5   console.log('Updated!');
6 });
```

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node ans3.1.js
Updated!
```

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



this is very impotent calss for uki i am uki student.this is very impotent calss for uki i am uki student.

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node ans3.2.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(8001);
```

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

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node ans3.3.js
Updated!
```

```
1 var fs = require('fs');
2
3 fs.appendFile('ukinode.txt', ' This is my uki .', function (err) {
4   if (err) throw err;
5   console.log('Updated!');
6 });
```

3.4 Rename the file as ukinodejsexercise1.txt

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node ans3.4.js
File Renamed!
```

```

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

```

3.5 Delete the file you created

```

ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node ans3.5.js
File deleted!

```

```

1  var fs = require('fs');
2
3  fs.unlink('ukinodejsexercisel.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

```

ukistu11@ukipc11:~/Documents/uki_exercises/node.js$ node demo_fileserver.js

```

← ⓘ | file:///home/ukistu11/Documents/uki_exercises/node.js/head.html

you have got head

| | | | |
|---|---|--|--------------------|
| head.html | demo_fileserver.js | tail.html | demo_fileserver.js |
| 1 <!DOCTYPE html> 2 <html> 3 <body> 4 5 <p>you have got head 6 </p> 7 </body> 8 </html> 9 | 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(8008); 18 | 1 <!DOCTYPE html> 2 <html> 3 <body> 4 <p>you have got tail</p> 5 </body> 6 </html> 7 | |

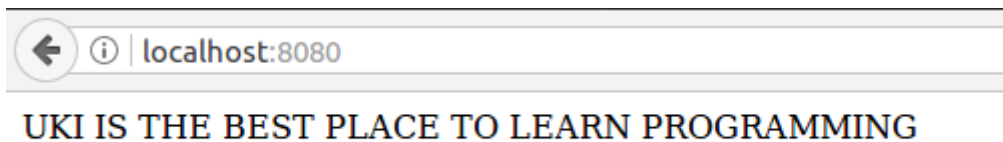
5. Install the package “upper-case” using NPM and create a Node.js file that will convert the output "Uki is the best place to learn programming !" into upper-case letters.

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ npm install upper-case
/home/ukistu11/Documents/uki_exercises/node2.js
└─ upper-case@1.1.3

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu11/Documents/uki_exercises/node2.js/package.json'
npm WARN node2.js No description
npm WARN node2.js No repository field.
npm WARN node2.js No README data
npm WARN node2.js No license field.
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$
```

```
ans5.js
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
```

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js/node_modules/upper-case$ node ans5.js
```



6. Create an event handler function that will say “I bark when I see strangers !” when a "bark" event is fired.

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ node ans6.js
I bark when I see strangers!
```

```
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 event handler to an event:
10 emitter.on('bark', myEventHandler);
11
12 //Fire the 'scream' event:
13 emitter.emit('bark');
```

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

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ npm install formidable
/home/ukistu11/Documents/uki_exercises/node2.js
└─ formidable@1.1.1

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu11/Documents/uki_exercises/node2.js/package.json'
npm WARN node2.js No description
npm WARN node2.js No repository field.
npm WARN node2.js No README data
npm WARN node2.js No license field.
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$
```

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 !”

```
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$ npm install formidable
/home/ukistu11/Documents/uki_exercises/node2.js
└─ formidable@1.1.1

npm WARN enoent ENOENT: no such file or directory, open '/home/ukistu11/Document
s/uki_exercises/node2.js/package.json'
npm WARN node2.js No description
npm WARN node2.js No repository field.
npm WARN node2.js No README data
npm WARN node2.js No license field.
ukistu11@ukipc11:~/Documents/uki_exercises/node2.js$
```

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