

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.

```
79
80 var http = require('http');
81 var sums = require('./mymodule');
82
83 http.createServer(function (req, res){
84   res.writeHead(200, {'Content-Type': 'text/html'})
85   res.write("Sum of two numbers is : " + sums.sumAndAverage(123, 321));
86   res.end();
87 }).listen(8080);
88
```

```
dejs/lecture — Atom
Exer1.js      mymodule.js
1  exports.sumAndAverage = function(a, b){
2    var sum = a + b;
3    var avg = a + b/2;
4    return "The Sum is: " + sum + " & Average is: " + avg;
5  }
6
7
```

Sum of two numbers is : The Sum is: 444 & Average is: 283.5

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)

```
s/lecture — Atom
Exer1.js
1  var http = require('http');
2
3  http.createServer(function (req, res) {
4    res.writeHead(200, {'Content-Type': 'text/html'});
5    res.write("Welcome to Uki. I am Varun");
6    res.end();
7  }).listen(8080);
8
```

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

- 3.1 Write a paragraph about Uki into that file

```
8  var http = require('http');
9  var fs = require("fs");
10 http.createServer(function(req,res))
11 fs.appendFile('ukinode.txt','Hey Uki!',
12 function(err){if(err)throw err;
13 console.log('Saved!');
14 });
15
```

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

```
7 // Listen(8080);
8 var http = require('http');
9 var fs = require('fs')
10 http.createServer(function(req, res){
11   fs.readFile('ukinode.txt',function(err,data){
12     res.writeHead(200, {'Content-Type': 'text/html'});
13     res.write("Welcome to Uki. I am Varun");
14     res.write(data);
15     res.end();
16   });
17 });
18 }).listen(8080);
19
```

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

```
19 var fs = require('fs');
20 fs.appendFile('ukinode.txt',' Iam an Ukian!', function(err){
21   if(err)throw err;
22   console.log('Saved!');
23 });
24
```

3.4 Rename the file as ukinodejsexercise1.txt

```
25 var fs = require('fs');
26 fs.rename('ukinode.txt','ukinodejsexercise1.txt', function(err){
27   if(err)throw err;
28   console.log('File Renamed!');
29 });
30
```

3.5 Delete the file you created

```
31 var fs = require('fs');
32 fs.unlink('ukinodejsexercise1.txt', function(err){
33   if(err)throw err;
34   console.log('File Renamed!');
35 });
```

```
[nodemon] clean exit - waiting for changes before restart
[nodemon] restarting due to changes...
[nodemon] starting 'node Exer1.js'
File Renamed!
[nodemon] clean exit - waiting for changes before restart
```

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.

```
36
37 var http = require('http');
38 var caps = require('upper-case');
39 http.createServer(function (req, res) {
40   res.writeHead(200, {'Content-Type': 'text/html'});
41   res.write(caps("Uki is the best place to learn programming !"));
42   res.end();
43 }).listen(8080);
```

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

```
45 var action = require('events');
46 var emitter = new action.EventEmitter();
47 var dogSound = function(){
48     console.log("I bark when i see strangers !");
49 }
50 emitter.on('bark', dogSound);
51 emitter.emit('bark');
52
```

```
[node] restarting due to changes...
[node] starting 'node Exer1.js'
I bark when i see strangers !
[node] clean exit - waiting for changes before restart
[node] restarting due to changes...
[node] starting 'node Exer1.js'
[node] clean exit - waiting for changes before restart
[node] restarting due to changes...
[node] starting 'node Exer1.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.

```
53 var http = require('http');
54 var formidable = require('formidable');
55 var fs = require('fs');
56
57 http.createServer(function (req, res) {
58     if (req.url == '/fileupload') {
59         var form = new formidable.IncomingForm();
60         form.parse(req, function (err, fields, files) {
61             var oldpath = files.fileupload.path;
62             var newpath = '/home/ukistu04/Documents/uk13/Backend/nodejs/lecture/lib/' + files.fileupload.name;
63             fs.rename(oldpath, newpath, function (err) {
64                 if (err) throw err;
65                 res.write('File uploaded and moved!');
66                 res.end();
67             });
68         });
69     } else {
70         res.writeHead(200, {'Content-Type': 'text/html'});
71         res.write('<form action="/fileupload" method="post" enctype="multipart/form-data">');
72         res.write('<input type="file" name="fileupload" ><br>');
73         res.write('<input type="submit">');
74         res.write('</form>');
75         return res.end();
76     }
77 }).listen(8080);
78
```



