Department of Computer Science and Engineering

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UCS1611 - Internet Programming Lab

Ex 08: Programs using Node.js

Console non-blocking I/O

Objective:

Write a Node.js program that reads all the greetings from the file greetings.txt, asks the user "What is your name?", then prints a random greeting followed by the given name. Make sure to check for the case where the file doesn't exist! For example, if the greeting is"Hey", then the program will print "Hey, Joe"to the console, then pick some other greeting and do the same until finished. Use Non-blocking I/O.

Code:

greetings.txt:

```
1 Hi
2 Hey
3 Hello
4 Vanakkam
5 Hola
6 Yo
7 What's up
8 Welcome
```

JavaScript:

```javascript
1 var fs = require("fs");
2
3 var greetings = []
4
5 fs.readFile("greetings.txt", function(err, info){
6     if(err){
7         console.log("ERROR:File not found!");
8         return 1;
9     }
10    greetings = info.toString().split("\n");
11 });
12 console.log("Completed reading file.");
13
14 const read = require('readline').createInterface({
15     input: process.stdin,
16     output: process.stdout
17 })
18
19 read.question("What is your name?\n", (name) => {
20     console.log(`\n${greetings[Math.floor(Math.random() *
    greetings.length)]} ${name}`);
21     read.close();
22 })
```

Output:

```
→ node greetprog.js
Completed reading file.
What is your name?
shiva

Hola shiva
```

```
→ node greetprog.js
Completed reading file.
What is your name?
shiva

Welcome shiva
```

```
→ node greetprog.js
Completed reading file.
What is your name?
shiva

Yo shiva
```

Server greeting

Objective:

Write a Node.js program that reads all the greetings as before. When all the greetings are loaded, it creates a server listening on port number 8080. On request, it checks for whether there is a name value in the query string. If there isn't, the value of query.name will be undefined.

Code:

greetings.txt:

```
1 Hi
2 Hey
3 Hello
4 Vanakkam
5 Hola
6 Yo
7 What's up
8 Welcome
```

JavaScript:

```
1 var fs = require("fs");
2 var http = require("http");
3 var url = require("url");
4
5 var greetings = []
6
7 fs.readFile("greetings.txt", function(err, info){
8     if(err){
9         console.log("ERROR:File not found!");
10         return 1;
11     }
12     greetings = info.toString().split("\n");
```

```
13  });
14  console.log("Completed reading file.");
15
16  http.createServer(function (req, res) {
17
18      var query = url.parse(req.url, true).query;
19      if(query.name){
20          var greet = greetings[Math.floor(Math.random() *
      greetings.length)];
21          res.write('\n${greet} ${query.name}');
22      }
23      else{
24          res.write('Hello World!');
25      }
26      res.end();
27  }).listen(8080);
```

Output:

localhost:8080/?name=shiva

Yo shiva

localhost:8080/?name=shiva

Hola shiva

localhost:8080/?name=shiva

Hi shiva