UCS1611---Internet Programming Lab

Exercise 8: Programs using Node JS

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LEARNING OBJECTIVES:

To write a Node.js program that reads all the greetings from the file greetings.txt, asks the user "What is your name?", then print a random greeting followed by the given name.

To 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.

Create a web server using node.js which listens for clients request. Once the client request the server, the server returns a web page which contains a list of books and its details in table format.

GREET-P1.JS:

```
var fs = require("fs");
var readline = require("readline");

var rl = readline.createInterface({
  input: process.stdin,
  output: process.stdout,
});

if (!fs.existsSync("greetings.txt")) {
  console.log("File not found");
  rl.close();
} else {
  var greetingsFile = fs.readFileSync("greetings.txt");
  var greetings_string = greetingsFile.toString();
  var greetings = greetings_string.split("\n");

  rl.question("What is your name? ", function (name) {
    for (var i = 0; i < 1; i++) {
```

```
      var n = Math.floor(Math.random() * greetings.length)
;
      console.log(name + "," + greetings[n]);
    }
    rl.close();
  });
}
```

GREET-P2.JS:

```
var http = require("http");
var fs = require("fs");
var url = require("url");

var greetings;
fs.readFile("greetings.txt", function(err, body) {
  if (err === null) {
    greetings = body.toString().split("\n");
    // Remove last element if it's an empty string.
    if (greetings.slice(-1) == "") {
       greetings.pop();
    }

    var server = http.createServer(function(req, res) {
      res.writeHead(200);
      var query = url.parse(req.url, true).query;
      var name = query.name;
      var greeting = greetings[Math.floor(Math.random() *
greetings.length)];
      if (name) {
        res.end(greeting + ", " + name);
      } else {
        res.end(greeting);
      }
    });
    server.listen(8080);
  } else {
    console.log(err);
```

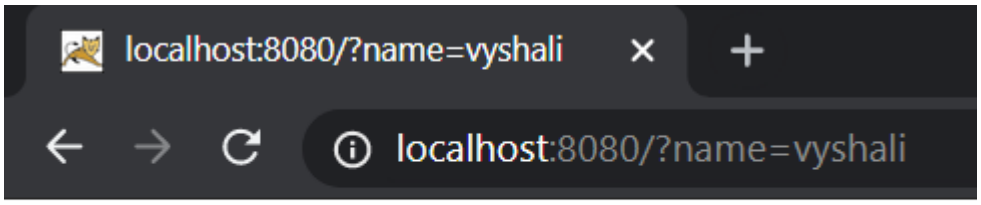
```
  }
});
```

GREETINGS.TXT:

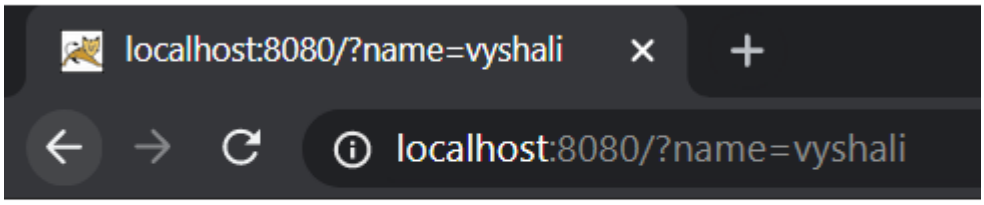
```
Hello

Hey

Hi

What's up

Welcome
```

OUTPUT SCREENSHOTS:

```
F:\lab\IP\Node\EX8>node greet.js
What is your name? vysh
vysh,Hey

F:\lab\IP\Node\EX8>node greet.js
What is your name? vyshu
vyshu,Hi
```




```
Welcome, vyshali
```




```
What's up
, vyshali
```

SERVER.js:

```
var http = require("http");
var url = require("url");
var fs = require("fs");

http
  .createServer(function (request, response) {
    //parse the request which contains file name
    var pathname = url.parse(request.url).pathname;

    //print the name of file
    console.log("request for" + pathname);

    //read requested file from client
    fs.readFile(pathname.substr(1), function (err, data) {
      if (err) {
        console.error(err);
        //what response to give to client if error
        response.writeHead(404, { "Content-
type": "text/html" });
      } else {
        response.writeHead(200, { "Content-
type": "text/html" });
        response.write(data.toString());
      }
      response.end();
    });
  })
  .listen(8000);
```

```
console.log("Server running at http://localhost:8000/");
```

CLIENT.js:

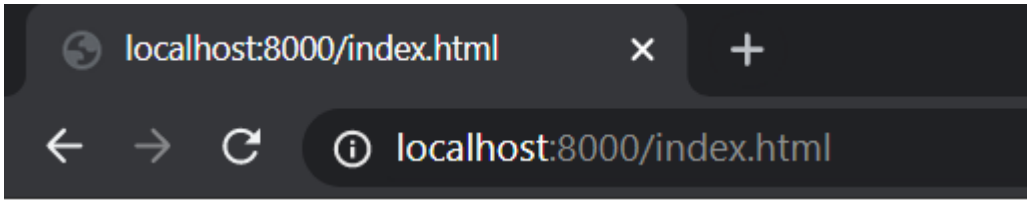
```
var http = require('http');

//options to be used in request
var options = {host: 'localhost', port: '8080', path:'inde
x.html'};

//callback function used to deal with response
var callback = function(response) {
    var text = '';

    //till there is line in input.html
    response.on('data', function(data) {
        text += data;
    });

    //if ended index.html
    response.on('end', function() {
        console.log(text);
    });

}
var req = http.request(options, callback);
req.end();
```

INDEX.HTML:

```
<html>
<body>
hello world!
</body>
</html>
```

OUTPUT SCREENSHOTS:

```
F:\lab\IP\Node\Prac>node prac5server.js
Server running at http://localhost:8000/
```



hello world!