

## Assignment 3a

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### **index.js**

```
const http = require("http");
const url = require("url");
const fs = require("fs");
const path = require("path");

// Port on which the server will create
const PORT = 1800;

// Maps file extension to MIME types which
// helps the browser to understand what to
// do with the file
const mimeType = {
  ".ico": "image/x-icon",
  ".html": "text/html",
  ".js": "text/javascript",
  ".json": "application/json",
  ".css": "text/css",
  ".png": "image/png",
  ".jpg": "image/jpeg",
  ".wav": "audio/wav",
  ".mp3": "audio/mpeg",
  ".svg": "image/svg+xml",
  ".pdf": "application/pdf",
  ".doc": "application/msword",
  ".eot": "application/vnd.ms-fontobject",
  ".ttf": "application/font-sfnt",
};

// Creating a server and listening the port 5000
http
.createServer((req, res) => {
  // Parsing the requested URL
  const parsedUrl = url.parse(req.url);

  console.log(parsedUrl.pathname);

  // If requested url is "/" like "http://localhost:5000/"
  if (parsedUrl.pathname === "/") {
    var filesLink = "<ul>";
    res.setHeader("Content-type", "text/html");
    var fileList = fs.readdirSync("./");
    fileList.forEach((element) => {
```

```

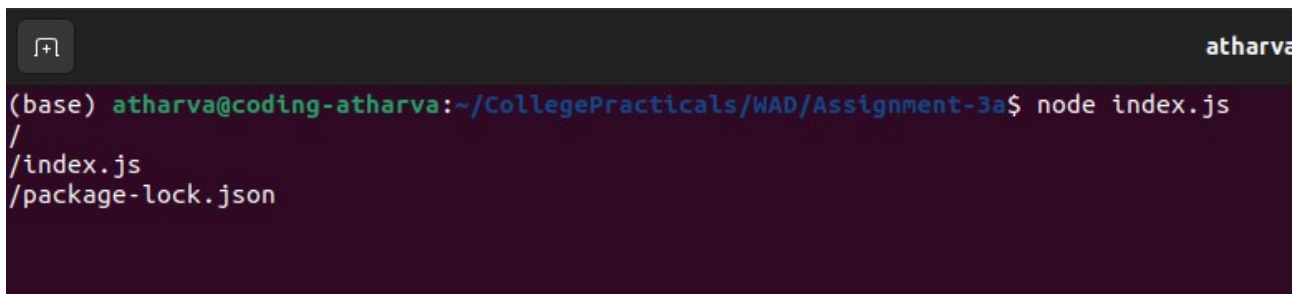
    if (fs.statSync("./" + element).isFile()) {
        filesLink += `<br/><li><a href='./${element}'>
${element}
</a></li>`;
    }
});
filesLink += "</ul>";
res.end("<h1>List of files:</h1> " + filesLink);
} else {
    /* processing the requested file pathname to
    avoid directory traversal like,
    http://localhost:1800/./fileOutOfContext.txt
    by limiting to the current directory only */
    const sanitizePath = path
        .normalize(parsedUrl.pathname)
        .replace(/^(\\.\\.\\.\\)+/, "");
    let pathname = path.join(__dirname, sanitizePath);

    if (!fs.existsSync(pathname)) {
        // If the file is not found, return 404
        res.statusCode = 404;
        res.end(`File ${pathname} not found!`);
    } else {
        // Read file from file system limit to the
        // current directory only.
        fs.readFile(pathname, function (err, data) {
            if (err) {
                res.statusCode = 500;
                res.end(`Error in getting the file.`);
            } else {
                // Based on the URL path, extract the file
                // extension. Ex .js, .doc, ...
                const ext = path.parse(pathname).ext;
                // If the file is found, set Content-type
                // and send data
                res.setHeader("Content-type", mimeType[ext] || "text/plain");
                res.end(data);
            }
        });
    }
}
})
).listen(PORT);

```

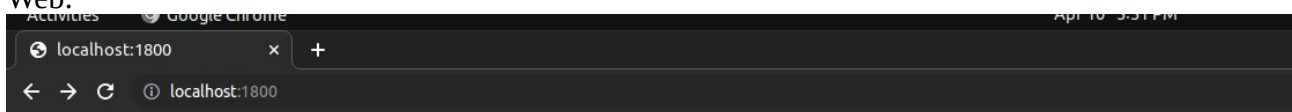
## Output:

Console:

A terminal window with a dark background. The prompt is '(base) atharva@coding-atharva:~/CollegePracticals/WAD/Assignment-3a\$'. The command 'node index.js' has been entered and executed. The output shows the current directory '/' and the files 'index.js' and 'package-lock.json' in the current directory.

```
(base) atharva@coding-atharva:~/CollegePracticals/WAD/Assignment-3a$ node index.js
/
/index.js
/package-lock.json
```

Web:



## List of files:

- [index.js](#)
- [package-lock.json](#)
- [package.json](#)