



## Assignment No. 02

### Serving Files with the HTTP Module in Node.js

#### Objective:

In this assignment, you will create a simple **Node.js HTTP server** that **serves static files (HTML, CSS, JavaScript, and images)** using the **HTTP** module.

#### Instructions:

##### Step 1: Setup Your Project

1. Install **Node.js** on your VM or computer from <https://nodejs.org/> (Use LTS version).
2. Create a new folder for your project.
3. Open the project in Visual Studio Code or open using a Terminal if (Linux/macOS).

##### Step 2: Create Your Server Using the HTTP Module

1. Inside the *file-server* folder, create a file *server.js* and add the following code:

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

const server = http.createServer((req, res) => {
  let filePath = req.url === "/" ? "./public/index.html" :
    `./public${req.url}`;
  let extname = path.extname(filePath);
  let contentType = "text/html";

  // Set content type based on file extension
```

```

    switch (extname) {
      case ".css":
        contentType = "text/css";
        break;
      case ".js":
        contentType = "text/javascript";
        break;
      case ".png":
      case ".jpg":
      case ".jpeg":
        contentType = `image/${extname.slice(1)}`;
        break;
    }

    fs.readFile(filePath, (err, data) => {
      if (err) {
        res.writeHead(404, { "Content-Type": "text/html" });
        res.end("<h1>404 Not Found</h1>");
      } else {
        res.writeHead(200, { "Content-Type": contentType });
        res.end(data);
      }
    });
  });
});

```

### Step 3: Create Public Folder and Add Files

Inside file-server, create a new folder called public and add the following files:

1. *HTML* File ([public/index.html](#)) (Add at least one more image and modify index.html to display it.)
2. *CSS* File ([public/style.css](#))
3. *JavaScript* File ([public/script.js](#))

```
console.log("JavaScript file loaded successfully!");
```

4. Sample Image ([public/image.jpg](#))

### Step 4: Run Your Server

Open Terminal or CMD inside the file-server folder.

## Learning Outcomes:

1. Understanding Node.js HTTP module.
2. How to serve static files (HTML, CSS, images, JavaScript).
3. Basics of file system operations in Node.js

## Submission Instructions:

1. Make sure your **file-server** project folder contains:
  - a. server.js
  - b. public/index.html
  - c. public/style.css
  - d. public/script.js (if any)
  - e. public/image.jpg (any sample image)
2. Add at least one more image and modify **index.html** to display it
3. Ensure JavaScript loads correctly (check console logs in the browser).
4. Modify the server to support **other file types** (e.g., MP3, PDF, GIF, SVG, etc.).
5. Take screenshots of your running server and webpage displayed in the browser.
6. Upload Your Project to GitHub (Go to GitHub: <https://github.com/>)
7. **Due Date:** 06 March 2025

**GOOD LUCK, AND HAPPY CODING** 🚀