

CREATION OF NODEJS SERVER WITH STATIC HTML AND CSS FILES WITHOUT USING EXPRESS

AIM: -

To create NodeJS server that servers static HTML and CSS files to the user without using express.

ALGORITHM: -

1. Create a project folder, e.g., static-server.
2. Inside the project folder, create a public/ folder.
3. Place your index.html and styles.css files inside the public/ folder.
4. In your server.js file, import the following core Node.js modules, http – to create the server. fs – to read file contents. path – to build file paths.
5. Use http.createServer() to create a basic server. Inside the call back function, get the requested URL from the req.url.
6. If req.url is /, serve index.html by default. For any other URL (like /styles.css), map it to the public/ folder, Use path.join() to construct the full file path.
7. Use path.extname() to get the file extension.
8. Based on the extension, set the correct MIME type in the response header. For example:
 1. .html → text/html
 2. .css → text/css
9. Use fs.readFile() to read the file from disk. If the file exists: Respond with 200 OK and the file content.
10. If the file doesn't exist or an error occurs: Respond with a 404 Not Found or 500 Internal Server Error.
11. Call server.listen(port, host) to start the server on a specific port (e.g., 3000).
12. Log a message to confirm the server is running.

CODE: -

Server.js

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

const fs = require('fs');

const path = require('path');

const host = '127.0.0.1';

const port = 3000;

const server = http.createServer((req, res) => {

  let filePath = req.url === '/' ? 'index.html' : req.url;

  let fullPath = path.join(__dirname, 'public', filePath);

  let ext = path.extname(fullPath);

  const mimeTypes = {

    '.html': 'text/html',

    '.css': 'text/css'

  };

  const contentType = mimeTypes[ext] || 'text/plain';

  fs.readFile(fullPath, (err, content) => {

    if (err) {

      res.writeHead(err.code === 'ENOENT' ? 404 : 500, { 'Content-Type': 'text/plain' });

      res.end(err.code === 'ENOENT' ? '404 Not Found' : 'Server Error');
```

```
    } else {

        res.writeHead(200, { 'Content-Type': contentType });

        res.end(content);

    } });});

server.listen(port, host, () => {

    console.log(`Server running at http://${host}:${port}`);

});
```

HTML Code: -

```
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8" />

    <meta name="viewport" content="width=device-width, initial-scale=1.0" />

    <title>My Static Page</title>

    <link rel="stylesheet" href="styles.css" />

</head>

<body>

    <div class="container">

        <h1>Welcome to My Node.js Server</h1>

        <p>This is a static HTML page served without Express.</p>
```

```
</div></body></html>
```

CSS Code: -

```
body {  
  
    font-family: Arial, sans-serif;  
  
    background-color: #f0f0f0;  
  
    margin: 0;  
  
    padding: 0;  
  
}  
  
.container {  
  
    max-width: 600px;  
  
    margin: 100px auto;  
  
    padding: 20px;  
  
    background: white;  
  
    box-shadow: 0 4px 8px rgba(0,0,0,0.1);  
  
    border-radius: 10px;  
  
    text-align: center;  
  
}  
  
h1 { color: #333;  
  
}  
  
p { color: #666;}
```

RESULT: -

Thus the creation of NodeJS server that servers static HTML and CSS files to the user without using express successfully completed.