



SHRI VILEPARLE KELAVANI MANDAL'S
DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING
(Autonomous College Affiliated to the University of Mumbai)
NAAC ACCREDITED with "A" GRADE (CGPA : 3.18)



DEPARTMENT OF INFORMATION TECHNOLOGY

COURSE CODE: DJS22ITL307

DATE: 05/11/2023

COURSE NAME: Web Programming Laboratory

CLASS:SY. BTech

DEPARTMENT OF INFORMATION TECHNOLOGY

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BATCH: 1

EXPERIMENT NO. 9

CO/LO: Develop web applications.

AIM / OBJECTIVE: Program based on inbuilt functions in Node.js.

Task 1: Working with File System

1. Reading a File:

```
2. const fs = require('fs');  
3. fs.readFile('sample.txt', 'utf8', (err, data) => {  
4.     if (err) {  
5.         console.error(err); return;  
6.     } console.log(data);  
7. });
```

```
PS C:\Users\ayush\Desktop\SEM 3\Web Programming\NODEjs> node readFile.js  
"This is sample file"
```

2. Writing to a File:

```
const fs = require('fs'); fs.writeFile('output.txt', 'Hello, Node.js!', (err) => {  
    if (err) {  
        console.error(err);  
        return;  
    } console.log('File written successfully!');  
});
```

```
PS C:\Users\ayush\Desktop\SEM 3\Web Programming\NODEjs> node writeFile.js  
File written successfully!
```



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3. Checking if a File Exists:

```
const fs = require('fs');
fs.access('check.txt', fs.constants.F_OK, (err) => {
  if (err) {
    console.error(err); return;
  } console.log('File exists!');
});
```

```
PS C:\Users\ayush\Desktop\SEM 3\Web Programming\NODEjs> node fileExists.js
File exists!
```

Task2: Handling HTTP Requests

1. Creating a Basic Web Server:

```
const http = require('http');
const server = http.createServer((req, res) => {
  res.writeHead(200, { 'Content-Type': 'text/html' });
  res.end('<h1>Hello, World!</h1>');
});
server.listen(3000, '127.0.0.1', () => {
  console.log('Server is running on http://127.0.0.1:3000/');
});
```

```
PS C:\Users\ayush\Desktop\SEM 3\Web Programming\NODEjs> node basicServer.js
Server is running on http://127.0.0.1:3000/
```

Browser screenshot showing the text: Hello, World!





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2. Sending an HTTP Request:

```
3. const http = require('http');
4.
5. const options = {
6.   hostname: 'api.coindesk.com',
7.   path: '/v1/bpi/currentprice.json',
8.   method: 'GET',
9.   port: 80,
10.};
11.
12.const req = http.request(options, (res) => {
13.   let data = '';
14.   res.on('data', (chunk) => {
15.     data += chunk;
16.   });
17.   res.on('end', () => {
18.     console.log(data);
19.   });
20.});
21.
22.req.on('error', (e) => {
23.   console.error(`Problem with request: ${e.message}`);
24.});
25.
26.req.end();
```

```
PS C:\Users\ayush\Desktop\SEM 3\Web Programming\NODEjs> node httpRequest.js
{"time":{"updated":"Dec 1, 2023 16:57:00 UTC","updatedISO":"2023-12-01T16:57:00+00:00","updateduk":"Dec 1, 2023 at 16:57 GMT"},"disclaimer":"This data was produced from the CoinDesk Bitcoin Price Index (USD). Non-USD currency data converted using hourly conversion rate from openexchangerates.org","chartName":"Bitcoin","bpi":{"USD":{"code":"USD","symbol":"$","rate":"38,346.6735","description":"United States Dollar","rate_float":38346.6735},"GBP":{"code":"GBP","symbol":"£","rate":"32,042.1736","description":"British Pound Sterling","rate_float":32042.1736},"EUR":{"code":"EUR","symbol":"€","rate":"37,355.2586","description":"Euro","rate_float":37355.2586}}}
```

BOOKS AND WEB RESOURCES:

1. Tailwind CSS From Scratch | Learn By Building Projects by Brad Traversy

2. Tailwind CSS: A Modern Way To Build Websites Using CSS

CONCLUSION: I learned about file System module and implemented http requests.