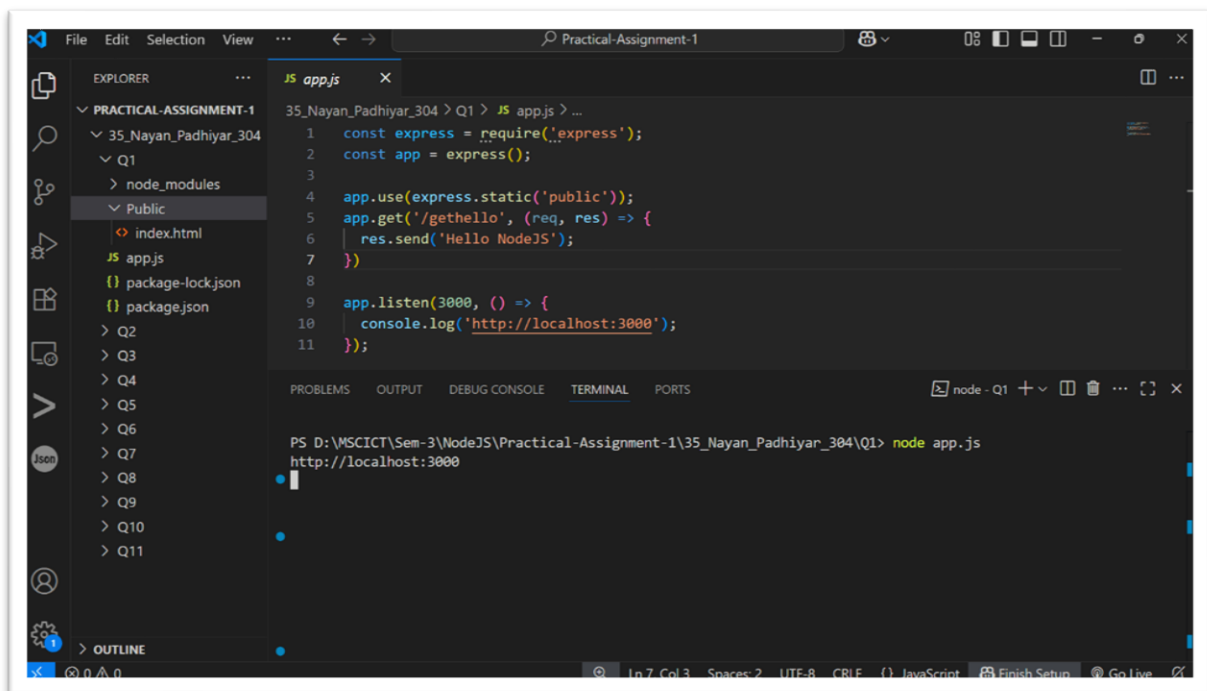


**1. Develop nodejs application with following requirements:**

- Develop a route `"/gethello"` with GET method. It displays `"Hello NodeJS!!"` as response.
- Make an HTML page and display.
- Call `"/gethello"` route from HTML page using AJAX call. (Any frontend AJAX call API can be used.)

**Output :-**



The screenshot shows the VS Code editor with a file explorer on the left showing the project structure. The main editor displays the `app.js` file with the following code:

```
1 const express = require('express');
2 const app = express();
3
4 app.use(express.static('public'));
5 app.get('/gethello', (req, res) => {
6   res.send('Hello NodeJS');
7 })
8
9 app.listen(3000, () => {
10   console.log('http://localhost:3000');
11 });
```

The terminal at the bottom shows the command `node app.js` being executed, resulting in the output `http://localhost:3000`.

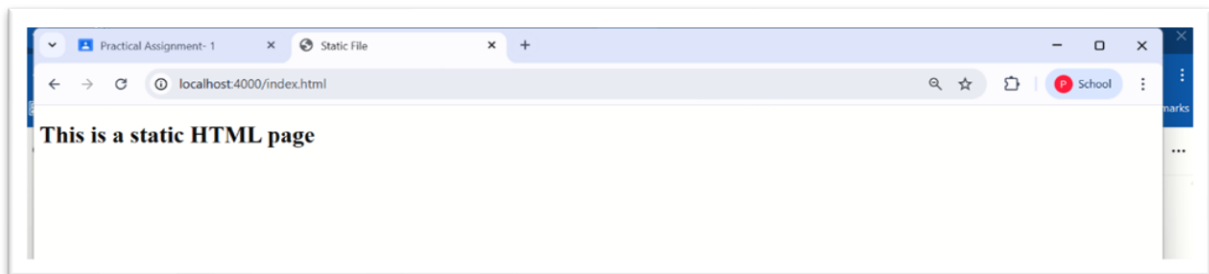
**2. Develop a web server which serves static resources.**

**Output :-**

The screenshot shows a VS Code editor with a project named 'Practical-Assignment-1'. The file explorer on the left shows a directory structure for '35\_Nayan\_Padhiyar\_304' containing subdirectories Q1, Q2, Q3, Q4, and Q5. The 'Q2' directory contains 'node\_modules', 'public', and 'index.html'. The 'app.js' file is selected and open in the editor. The code in 'app.js' is as follows:

```
1 const express = require('express');
2 const app = express();
3 const path = require('path');
4
5 app.use(express.static('public'));
6
7 app.listen(4000, () => {
8   console.log('http://localhost:4000');
9 });
10
```

The terminal at the bottom shows the command 'node app.js' being executed, resulting in the output 'http://localhost:4000'.



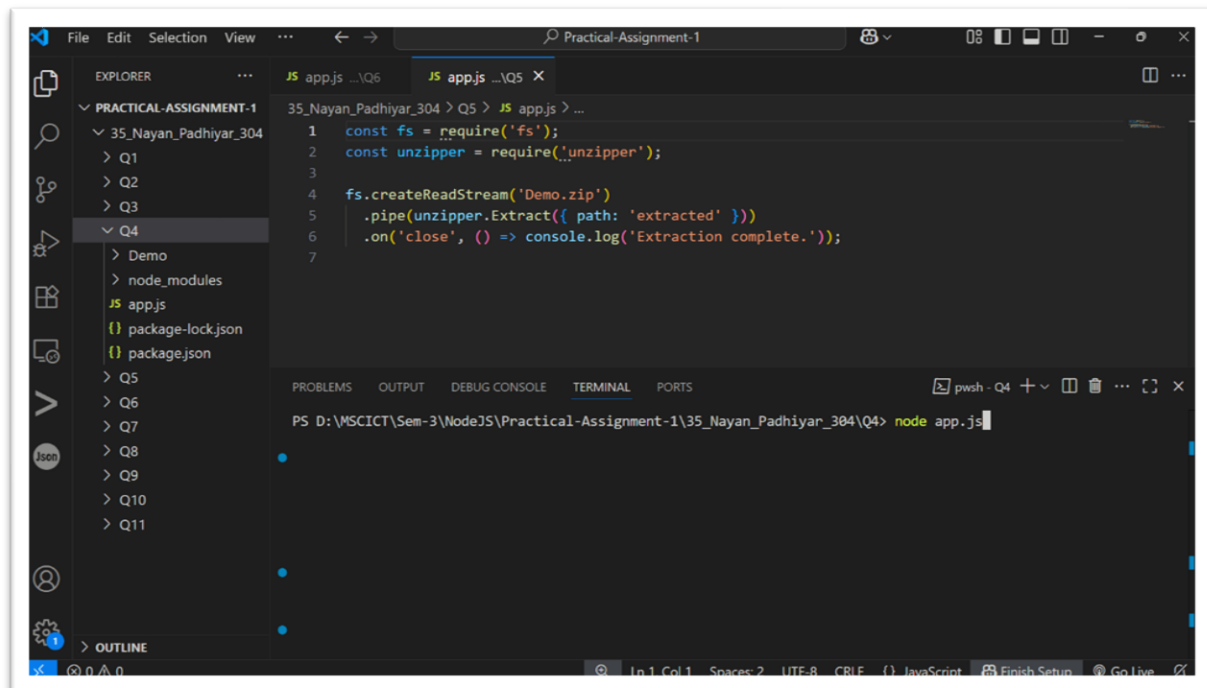
**3. Develop a module for domain specific chatbot and use it in a command line application.**

**Output :-**

The screenshot shows a VS Code editor with a project named 'Practical-Assignment-1'. The file explorer on the left shows a directory structure for '35\_Nayan\_Padhiyar\_304' containing subdirectories Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q8, Q9, Q10, and Q11. The 'Q3' directory contains 'node\_modules' and 'chatbot.js'. The 'app.js' file is selected and open in the editor. The code in 'app.js' is as follows:

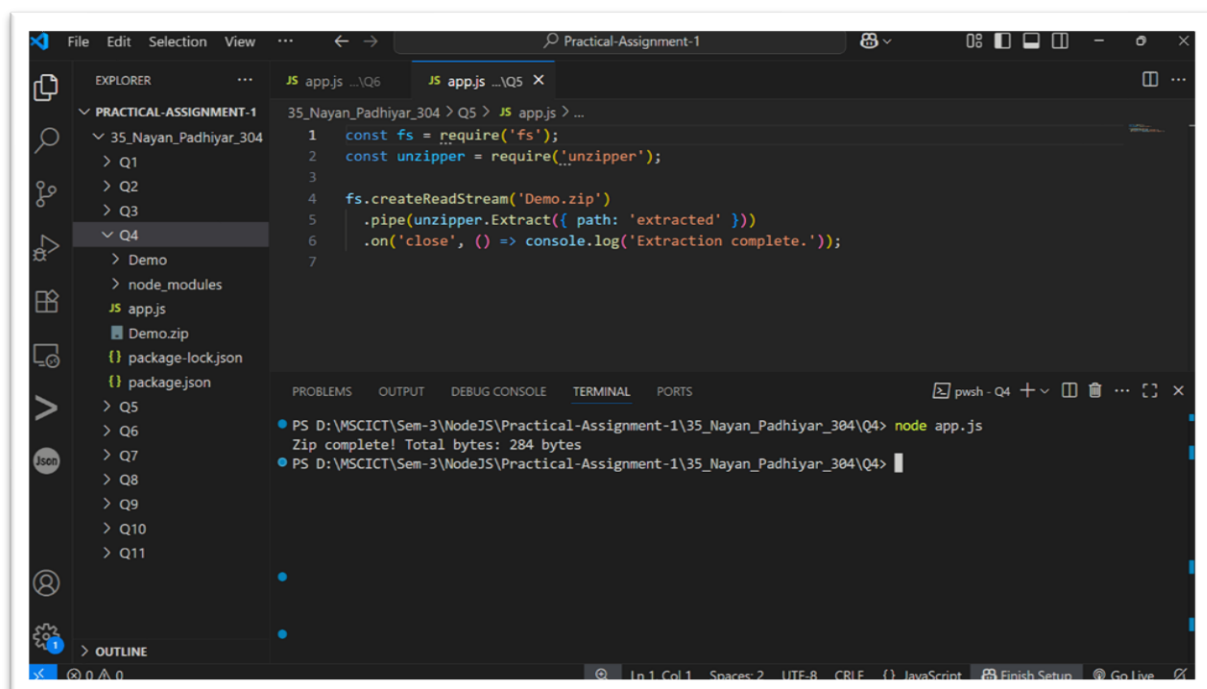
```
9 });
10
11 console.log("Welcome to Node.js Chatbot! Type your question (type 'bye' to exit)");
12 read.prompt();
13
14 read.on('line', (line) => {
15   const input = line.trim();
16   const response = getResponse(input);
17   console.log(`Bot: ${response}`);
18
19   if (input.toLowerCase() === 'bye') {
20     read.close();
21   }
22 });
```

The terminal at the bottom shows the command 'node app.js' being executed, resulting in the output 'Welcome to Node.js Chatbot! Type your question (type 'bye' to exit)'. The user enters 'hi', and the bot responds 'Sorry, I don't understand that.' The user enters 'hello', and the bot responds 'Hi!'. The user enters 'bye', and the chatbot module exits.

**4. Write a program to create a compressed zip file for a folder.****Output :-**

```
1 const fs = require('fs');
2 const unzipper = require('unzipper');
3
4 fs.createReadStream('Demo')
5   .pipe(unzipper.Extract({ path: 'extracted' })))
6   .on('close', () => console.log('Extraction complete.'));
7
```

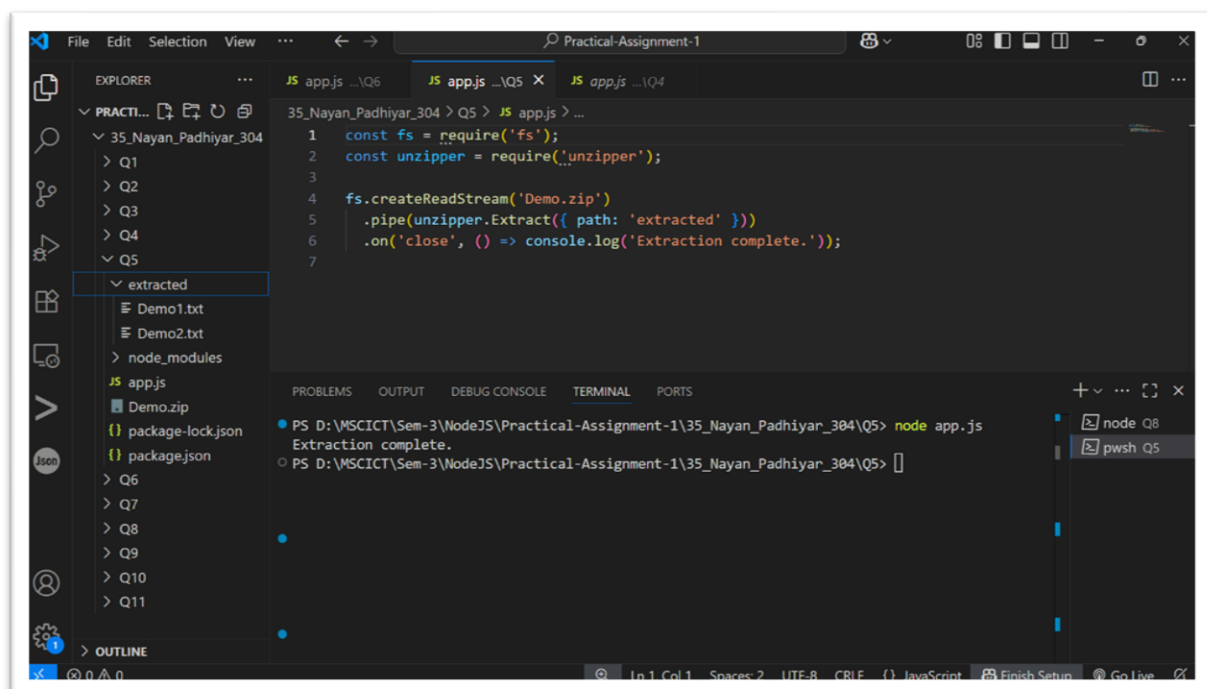
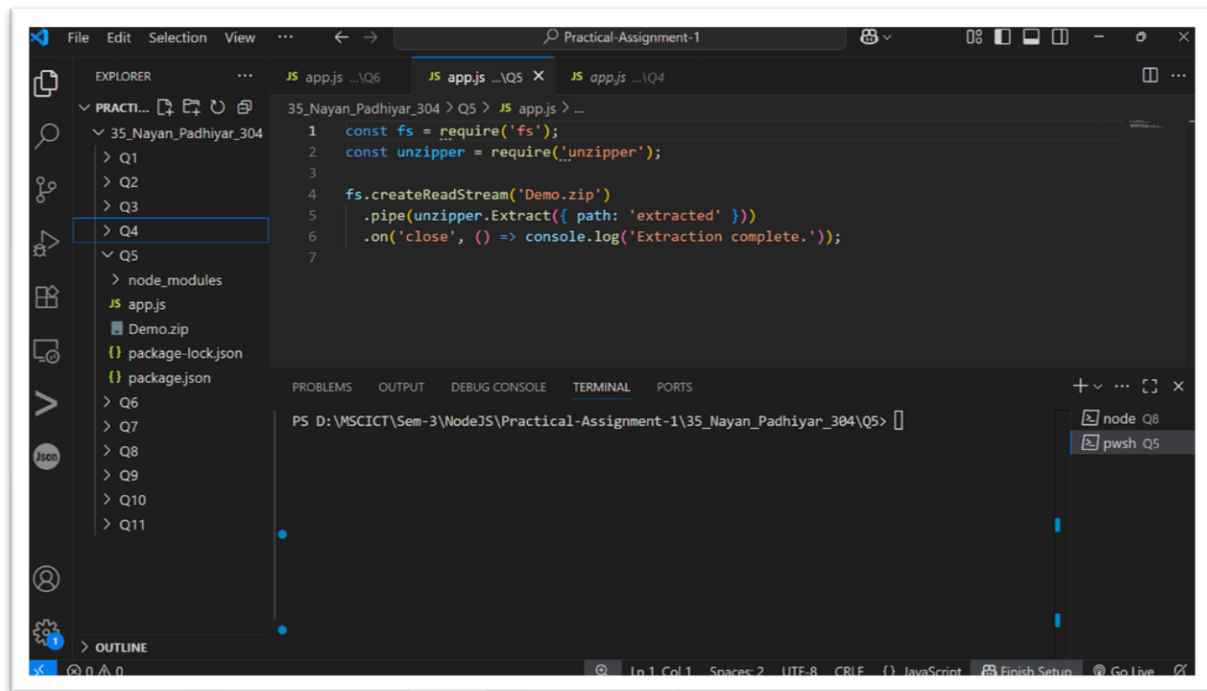
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35\_Nayan\_Padhiyar\_304\Q4> node app.js



```
1 const fs = require('fs');
2 const unzipper = require('unzipper');
3
4 fs.createReadStream('Demo')
5   .pipe(unzipper.Extract({ path: 'extracted' })))
6   .on('close', () => console.log('Extraction complete.'));
7
```

PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35\_Nayan\_Padhiyar\_304\Q4> node app.js  
Zip complete! Total bytes: 284 bytes  
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35\_Nayan\_Padhiyar\_304\Q4>

**5. Write a program to extract a zip file.****Output :-**



6. Write a program to promisify `fs.unlink` function and call it.

Output :-

```

File Edit Selection View ... Practical-Assignment-1
EXPLORER
  PRACTICAL-ASSIGNMENT-1
    35_Nayan_Padhiyar_304
      > Q1
      > Q2
      > Q3
      > Q4
      > Q5
      > Q6
      JS app.js
      test1.txt
      > Q7
      > Q8
      > Q9
      > Q10
      > Q11

35_Nayan_Padhiyar_304 > Q6 > JS app.js > ...
1  const fs = require('fs');
2  const { promisify } = require('util');
3
4  const unlinkAsync = promisify(fs.unlink);
5
6  unlinkAsync('test2.txt')
7    .then(() => console.log('File deleted'))
8    .catch(err => console.error(err));
9

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q6> node app.js
File deleted
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q6>

```

## 7. Fetch data of google page using node-fetch using async-await model.

Output :-

```

File Edit Selection View ... Practical-Assignment-1
EXPLORER
  PRACTICAL-ASSIGNMENT-1
    35_Nayan_Padhiyar_304
      > Q1
      > Q2
      > Q3
      > Q4
      > Q5
      > Q6
      > Q7
      node_modules
      JS app.js
      package-lock.json
      package.json
      > Q8
      > Q9
      > Q10
      > Q11

35_Nayan_Padhiyar_304 > Q7 > JS app.js > fetchGoogle
1  import fetch from 'node-fetch';
2
3  async function fetchGoogle() {
4    const res = await fetch('https://www.google.com');
5    const text = await res.text();
6    console.log(text.substring(0, 500)); // Print first 500 chars
7  }
8
9  fetchGoogle();
10

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q8> cd..
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304> cd Q7
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q7> node app.js
<!doctype html><html itemscope="" itemtype="http://schema.org/WebPage" lang="en-IN"><head><met
a content="text/html; charset=UTF-8" http-equiv="Content-Type"><meta content="/images/branding
/google/1x/google_standard_color_128dp.png" itemprop="image"><title>Google</title><script no
nce="ELQ23Dd8Tk1nmKB1Er9Pg">(function){var _g={kEI:'rWMHalbaGtDK1sQpNoaJiQI',kEXPI:'0,18167,
184687,2,3497481,612,435,302126,236535,14112,320077,105525,270476,19568,11106,5230576,36812642
,25340899,5088,20962,14110,456
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q7>

```

## 8. Set a server script, a test script and 3 user defined scripts in package.json file in your nodejs

application.

Output :-

The screenshot shows a VS Code editor with a file explorer on the left containing a folder named '35\_Nayan\_Padhiyar\_304' with files 'app.js', 'package.json', and 'test.js'. The main editor displays the content of 'package.json' with the following JSON structure:

```
{
  "scripts": {
    "start": "node app.js",
    "test": "node test.js",
    "sayhello": "echo Hello from custom script!",
    "currentfile": "node -e \"console.log(process.cwd())\"",
    "userdata": "node -e \"console.log(require('os').userInfo())\""
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}
```

The bottom panel shows the 'TERMINAL' tab with the following commands and output:

```
> q8@1.0.0 userdata
> node -e "console.log(require('os').userInfo())"
{
  uid: -1,
  gid: -1,
  username: 'NSP',
  homedir: 'C:\\Users\\DELL',
  shell: null
}
```

9. A program which calls useful functions in fs module.

Output :-

The screenshot shows a VS Code editor with a file explorer on the left containing a folder named '35\_Nayan\_Padhiyar\_304' with files 'app.js', 'demo.txt', and 'rename.txt'. The main editor displays the content of 'app.js' with the following JavaScript code:

```
fs.writeFileSync('example.txt', 'Hello, this is a test file!');
fs.appendFileSync('example.txt', '\nAppended line. ');
const content = fs.readFileSync('example.txt', 'utf-8');
console.log("File Content:\n", content);
fs.renameSync('example.txt', 'rename.txt');
if (fs.existsSync('rename.txt')) {
  console.log('rename.txt exists!');
}
```

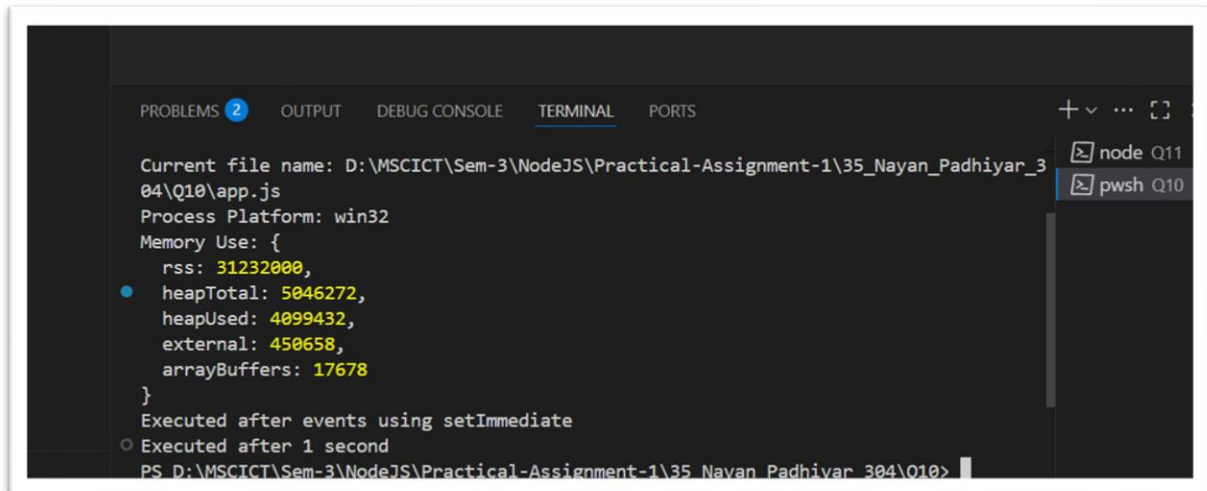
The bottom panel shows the 'TERMINAL' tab with the following commands and output:

```
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q10> cd..
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304> cd Q9
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q9> node app.js
File Content:
Hello, this is a test file!
Appended line.
rename.txt exists!
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q9>
```



10. A program which uses global objects in nodejs.

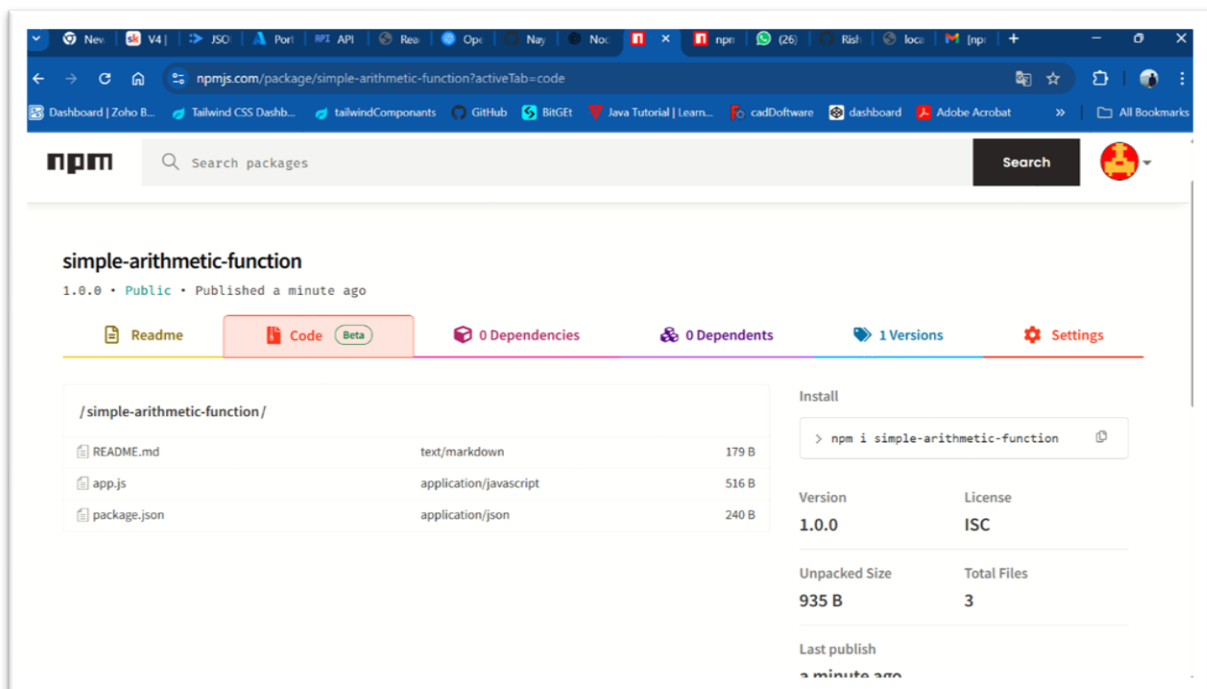
Output :-



```
Current file name: D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q10\app.js
Process Platform: win32
Memory Use: {
  rss: 31232000,
  heapTotal: 5046272,
  heapUsed: 4099432,
  external: 450658,
  arrayBuffers: 17678
}
Executed after events using setImmediate
Executed after 1 second
PS D:\MSCICT\Sem-3\NodeJS\Practical-Assignment-1\35_Nayan_Padhiyar_304\Q10>
```

11. Develop a useful package and publish it on npmjs.com

Output :-



[GitHub Link:

[https://github.com/Nayan8319/OSWD/tree/main/35\\_Nayan\\_Padhiyar](https://github.com/Nayan8319/OSWD/tree/main/35_Nayan_Padhiyar_304_A1)

304 A1 ]