

Name :- Vavadiya Dhruvi Mahesbhai

Roll No :- ICT3 -65

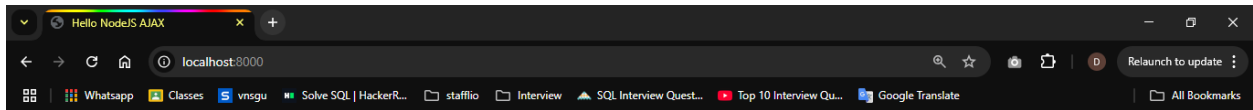
Subject :- Open source web development

Github Link :- https://github.com/Dhruvi-Vavadiya/65_Dhruvi_2025_ICT3

Published Package Link :- https://www.npmjs.com/package/registration_validation

Develop nodejs application with following requirements:

1. 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.)



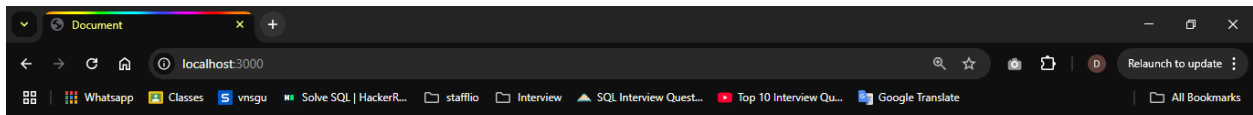
through AJAX call the gethello method

Click

Hello NodeJS!!



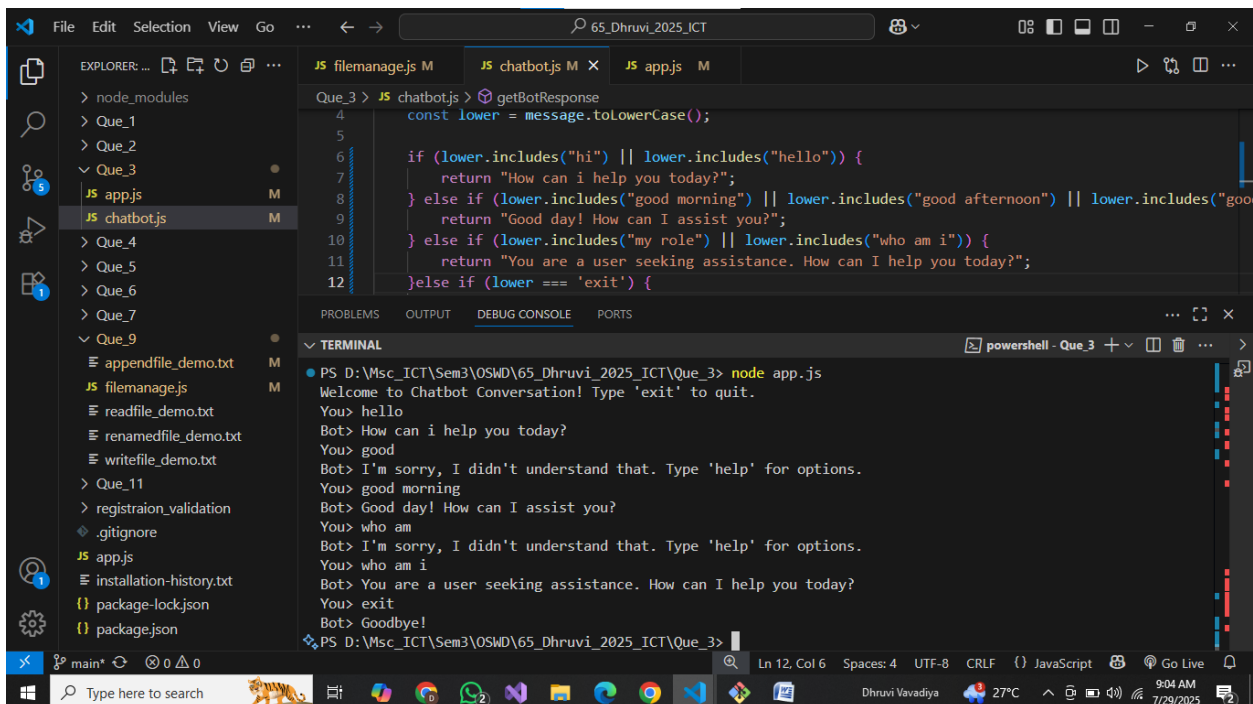
2. Develop a web server which serves static resources.



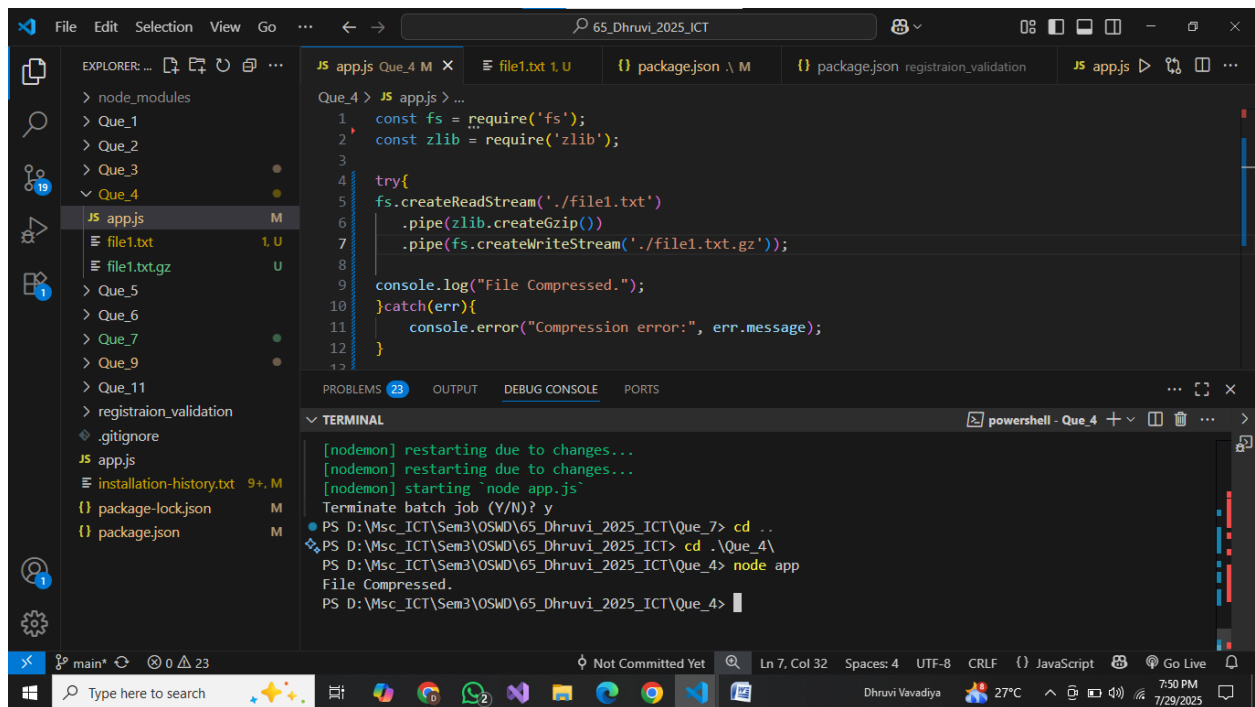
Welcome to Static Node.js Server



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



4. Write a program to create a compressed zip file for a folder.



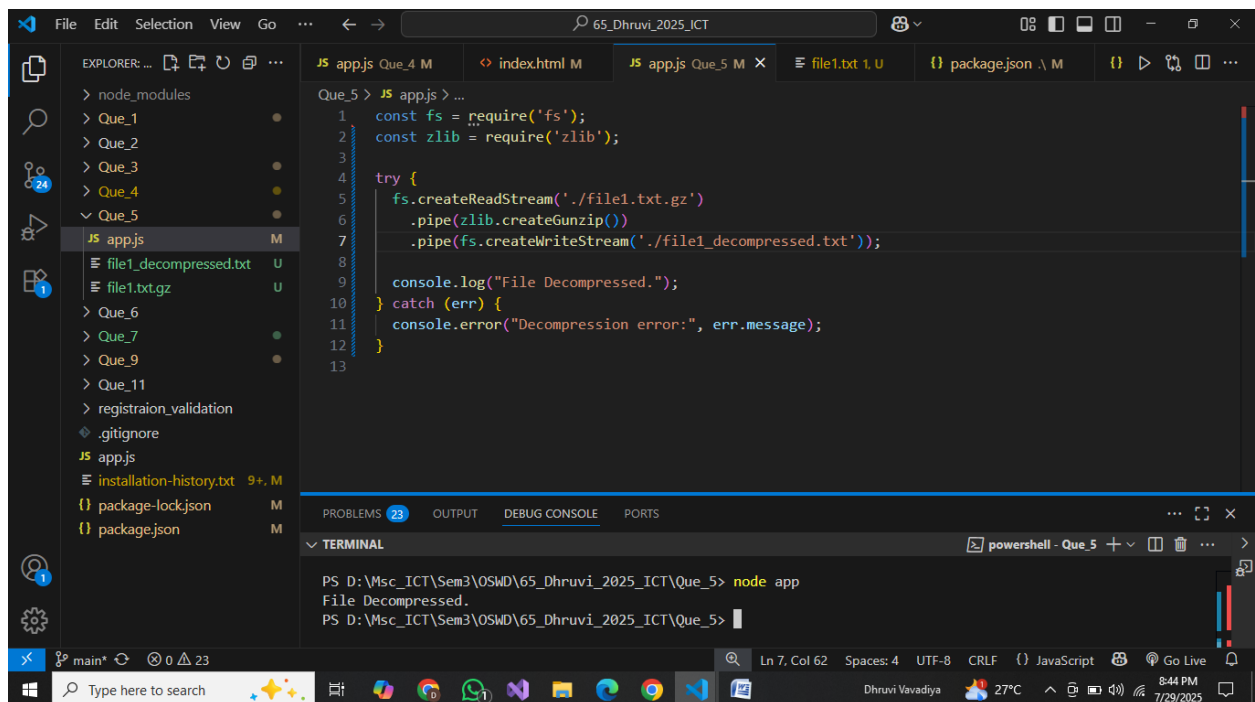
The screenshot shows a Visual Studio Code editor with a file explorer on the left, a code editor in the center, and a terminal at the bottom. The file explorer shows a project structure with folders 'node_modules', 'Que_1', 'Que_2', 'Que_3', 'Que_4', 'Que_5', 'Que_6', 'Que_7', 'Que_9', 'Que_11', and 'registraion_validation'. The 'Que_4' folder is selected, showing files 'app.js', 'file1.txt', 'file1.txt.gz', 'Que_5', 'Que_6', 'Que_7', 'Que_9', and 'Que_11'. The code editor shows a JavaScript file named 'app.js' with the following code:

```
1 const fs = require('fs');
2 const zlib = require('zlib');
3
4 try{
5   fs.createReadStream('./file1.txt')
6     .pipe(zlib.createGzip())
7     .pipe(fs.createWriteStream('./file1.txt.gz'));
8
9   console.log("File Compressed.");
10 } catch(err){
11   console.error("Compression error:", err.message);
12 }
13
```

The terminal shows the output of the script:

```
[nodeemon] restarting due to changes...
[nodeemon] restarting due to changes...
[nodeemon] starting `node app.js`
Terminate batch job (Y/N)? y
PS D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_7> cd ..
PS D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT> cd .\Que_4\
PS D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_4> node app
File Compressed.
PS D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_4>
```

5. Write a program to extract a zip file.



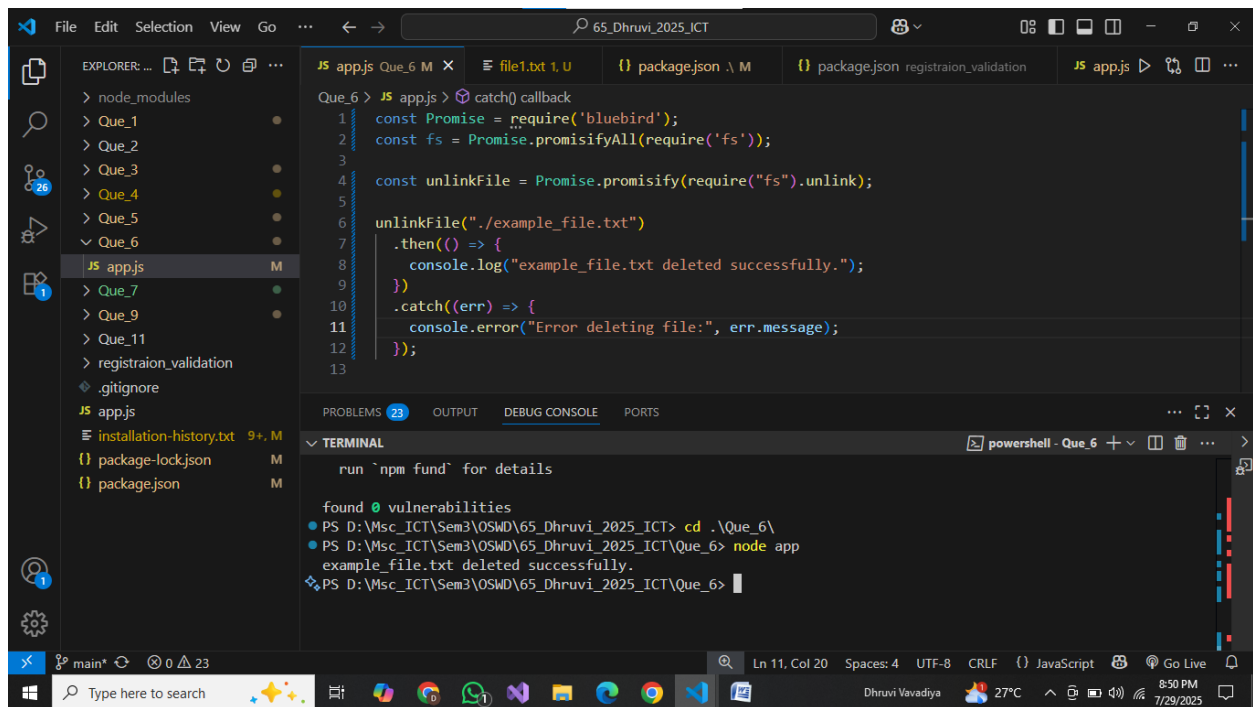
The screenshot shows a Visual Studio Code editor with a file explorer on the left, a code editor in the center, and a terminal at the bottom. The file explorer shows a project structure with folders 'node_modules', 'Que_1', 'Que_2', 'Que_3', 'Que_4', 'Que_5', 'Que_6', 'Que_7', 'Que_9', 'Que_11', and 'registraion_validation'. The 'Que_5' folder is selected, showing files 'app.js', 'file1_decompressed.txt', 'file1.txt.gz', 'Que_6', 'Que_7', 'Que_9', and 'Que_11'. The code editor shows a JavaScript file named 'app.js' with the following code:

```
1 const fs = require('fs');
2 const zlib = require('zlib');
3
4 try {
5   fs.createReadStream('./file1.txt.gz')
6     .pipe(zlib.createGunzip())
7     .pipe(fs.createWriteStream('./file1_decompressed.txt'));
8
9   console.log("File Decompressed.");
10 } catch (err) {
11   console.error("Decompression error:", err.message);
12 }
13
```

The terminal shows the output of the script:

```
PS D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_5> node app
File Decompressed.
PS D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_5>
```

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



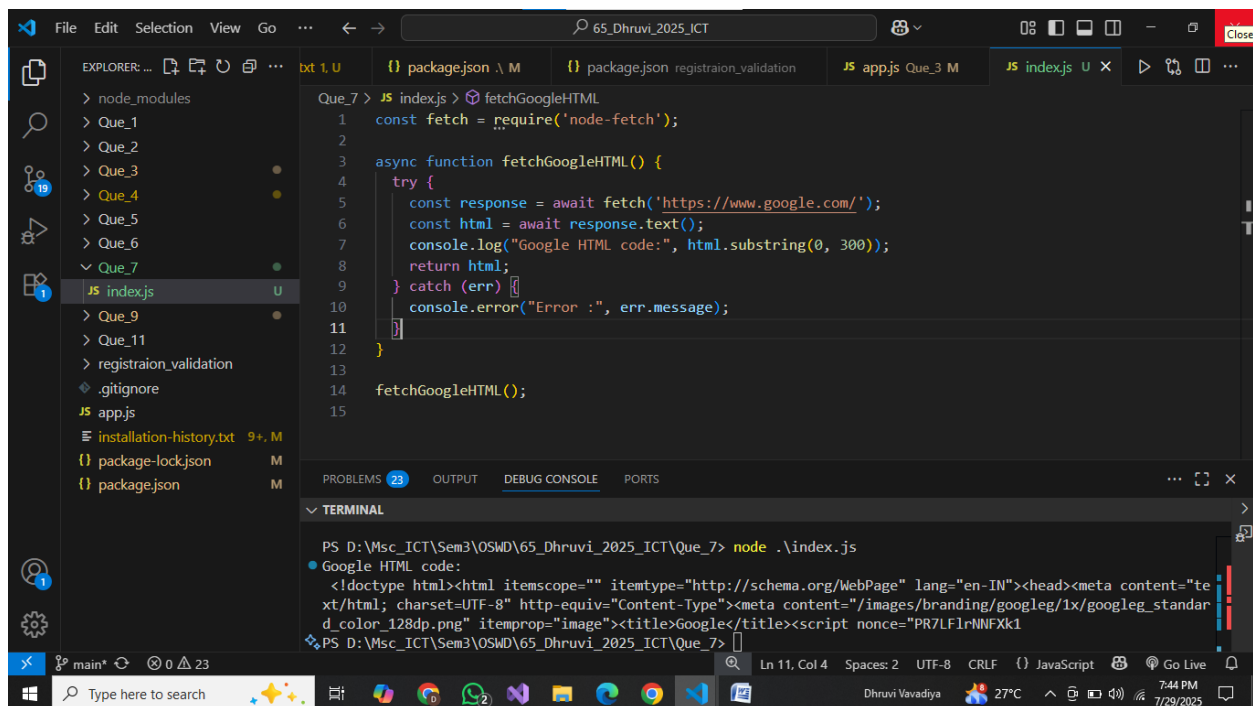
The screenshot shows a VS Code editor with a file explorer on the left containing a project with files like `node_modules`, `Que_1` through `Que_11`, `registraion_validation`, `.gitignore`, `JS app.js`, `installation-history.txt`, `package-lock.json`, and `package.json`. The main editor displays a JavaScript file named `app.js` with the following code:

```
1 const Promise = require('bluebird');
2 const fs = Promise.promisifyAll(require('fs'));
3
4 const unlinkFile = Promise.promisify(require('fs').unlink);
5
6 unlinkFile("./example_file.txt")
7   .then(() => {
8     console.log("example_file.txt deleted successfully.");
9   })
10  .catch((err) => {
11    console.error("Error deleting file:", err.message);
12  });
13
```

Below the editor, the **TERMINAL** panel shows the command `run 'npm fund' for details` and the output:

```
found 0 vulnerabilities
PS D:\Msc ICT\Sem3\OSWD\65_Dhruvi_2025 ICT> cd .\Que_6\
PS D:\Msc ICT\Sem3\OSWD\65_Dhruvi_2025 ICT\Que_6> node app
example_file.txt deleted successfully.
PS D:\Msc ICT\Sem3\OSWD\65_Dhruvi_2025 ICT\Que_6>
```

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



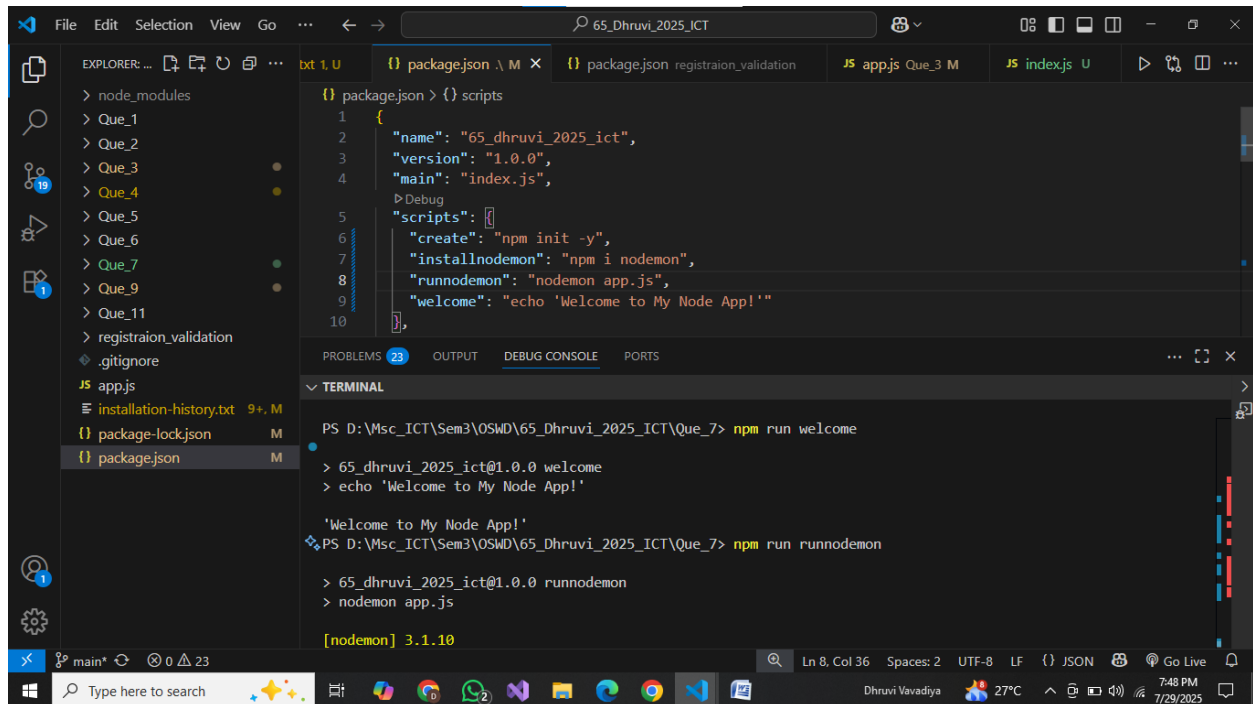
The screenshot shows a VS Code editor with a file explorer on the left containing a project with files like `node_modules`, `Que_1` through `Que_11`, `registraion_validation`, `.gitignore`, `JS app.js`, `installation-history.txt`, `package-lock.json`, and `package.json`. The main editor displays a JavaScript file named `index.js` with the following code:

```
1 const fetch = require('node-fetch');
2
3 async function fetchGoogleHTML() {
4   try {
5     const response = await fetch('https://www.google.com/');
6     const html = await response.text();
7     console.log("Google HTML code:", html.substring(0, 300));
8     return html;
9   } catch (err) {
10    console.error("Error :", err.message);
11  }
12 }
13
14 fetchGoogleHTML();
15
```

Below the editor, the **TERMINAL** panel shows the command `PS D:\Msc ICT\Sem3\OSWD\65_Dhruvi_2025 ICT\Que_7> node .\index.js` and the output:

```
Google HTML code:
<!doctype html><html itemscope="" itemtype="http://schema.org/WebPage" lang="en-IN"><head><meta content="te
xt/html; charset=UTF-8" http-equiv="Content-Type"><meta content="/images/branding/google/1x/googleleg_standar
d_color_128dp.png" itemprop="image"><title>Google</title><script nonce="PR7LF1rNNFXk1
```

8. Set a server script, a test script and 3 user defined scripts in package.json file in your node.js application.



The screenshot shows the VS Code interface with the Explorer view on the left displaying a project structure with folders 'node_modules', 'Que_1' through 'Que_11', and files like 'registraion_validation', '.gitignore', 'app.js', 'installation-history.txt', 'package-lock.json', and 'package.json'. The package.json file is open in the editor, showing the following configuration:

```
{
  "name": "65_dhruvi_2025_ict",
  "version": "1.0.0",
  "main": "index.js",
  "scripts": {
    "create": "npm init -y",
    "installnodemon": "npm i nodemon",
    "runnodemon": "nodemon app.js",
    "welcome": "echo 'Welcome to My Node App!'"
  }
}
```

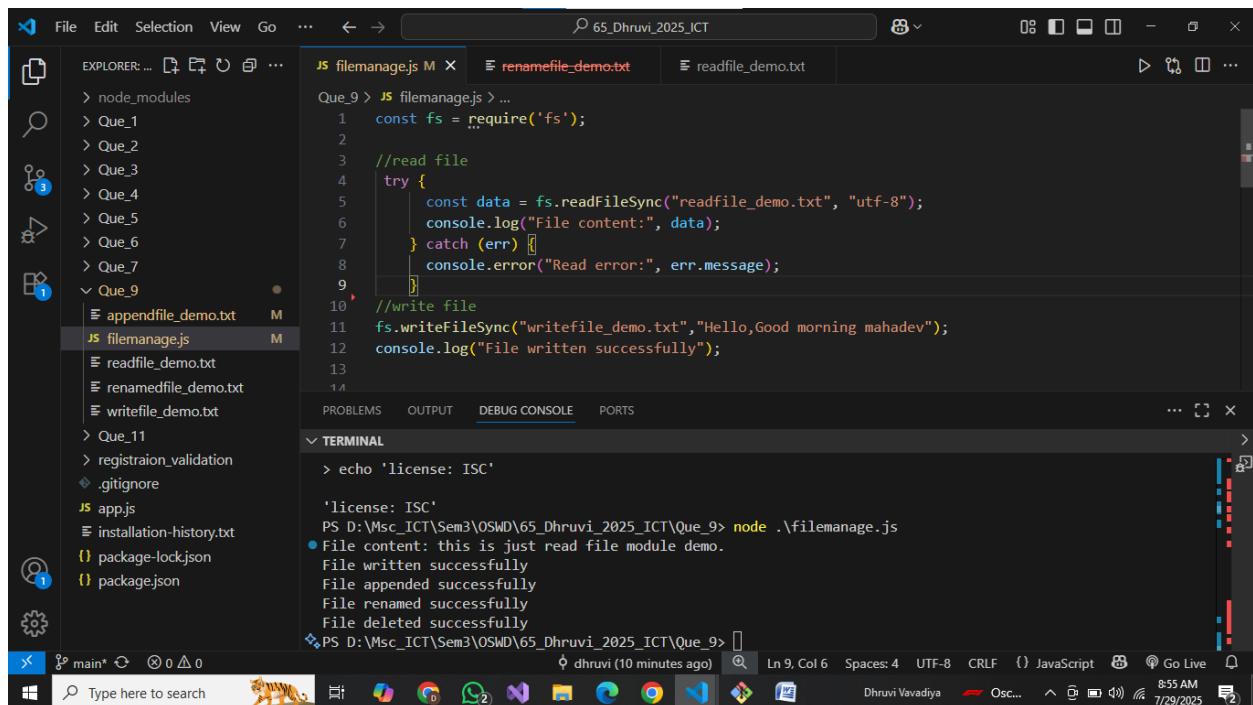
The TERMINAL view at the bottom shows the following commands and output:

```
PS D:\Msc ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_7> npm run welcome
> 65_dhruvi_2025_ict@1.0.0 welcome
> echo 'Welcome to My Node App!'

'Welcome to My Node App!'
PS D:\Msc ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_7> npm run runnodemon
> 65_dhruvi_2025_ict@1.0.0 runnodemon
> nodemon app.js

[nodemon] 3.1.10
```

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



The screenshot shows the VS Code interface with the Explorer view on the left displaying a project structure with folders 'node_modules', 'Que_1' through 'Que_11', and files like 'registraion_validation', '.gitignore', 'app.js', 'installation-history.txt', 'package-lock.json', and 'package.json'. The filemanager.js file is open in the editor, showing the following code:

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

//read file
try {
  const data = fs.readFileSync("readfile_demo.txt", "utf-8");
  console.log("File content:", data);
} catch (err) {
  console.error("Read error:", err.message);
}

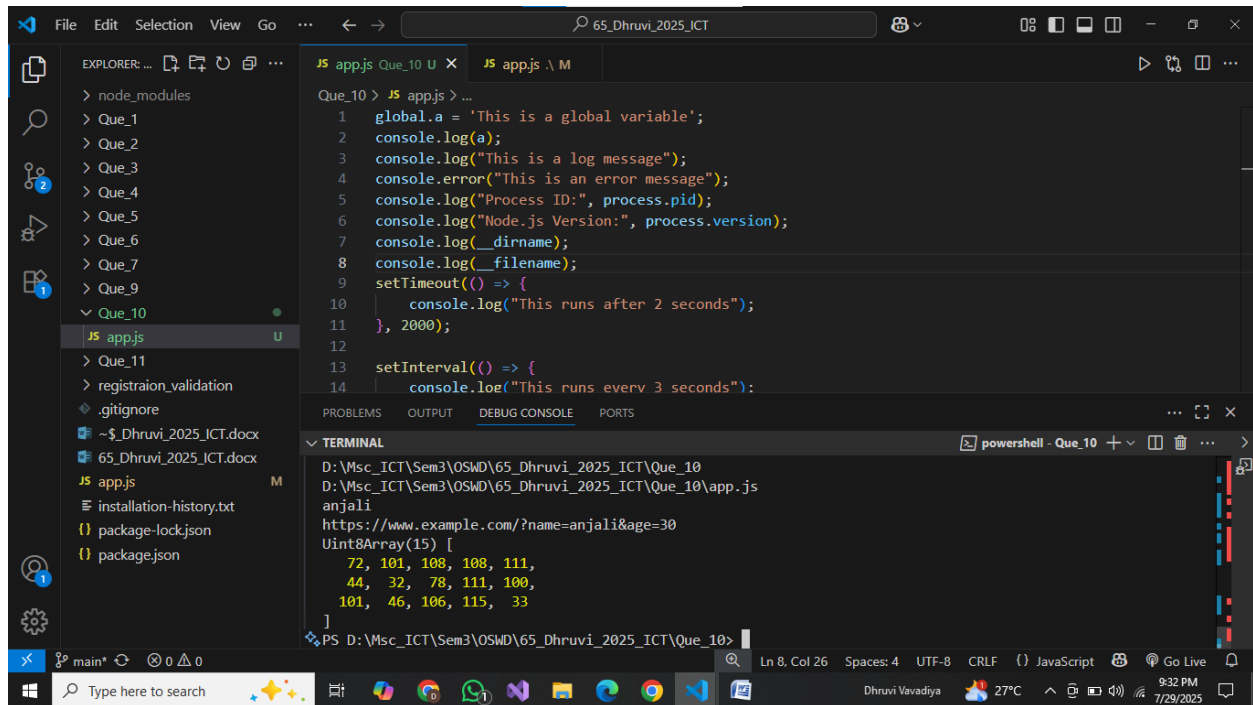
//write file
fs.writeFileSync("writefile_demo.txt", "Hello,Good morning mahadev");
console.log("File written successfully");
```

The TERMINAL view at the bottom shows the following commands and output:

```
> echo 'license: ISC'

'license: ISC'
PS D:\Msc ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_9> node .\filemanager.js
File content: this is just read file module demo.
File written successfully
File appended successfully
File renamed successfully
File deleted successfully
PS D:\Msc ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_9>
```

10. A program which uses global objects in nodejs.



The screenshot shows a Visual Studio Code editor with a file explorer on the left, a code editor in the center, and a terminal at the bottom. The file explorer shows a project structure with files like `node_modules`, `Que_1` through `Que_11`, `registraton_validation`, `.gitignore`, `~$Dhruvi_2025_ICT.docx`, `65_Dhruvi_2025_ICT.docx`, `JS app.js`, `installation-history.txt`, `package-lock.json`, and `package.json`. The code editor shows the content of `JS app.js` for `Que_10`. The terminal shows the output of running the program.

```
1 global.a = 'This is a global variable';
2 console.log(a);
3 console.log("This is a log message");
4 console.error("This is an error message");
5 console.log("Process ID:", process.pid);
6 console.log("Node.js Version:", process.version);
7 console.log(__dirname);
8 console.log(__filename);
9 setTimeout(() => {
10   console.log("This runs after 2 seconds");
11 }, 2000);
12
13 setInterval(() => {
14   console.log("This runs every 3 seconds");
15 }, 3000);
```

Terminal Output:

```
D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_10
D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Que_10> node app.js
anjali
https://www.example.com/?name=anjali&age=30
Uint8Array(15) [
  72, 101, 108, 108, 111,
  44, 32, 78, 111, 100,
  101, 46, 106, 115, 33
]
```

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

➔ This is [@dhruvivavadiya/registration_validation@1.0.0](#) package are unpublished from my pic and create [registration_validation@1.0.0](#) this package also created by me but forget to tack a screenshot

```
PS D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Registraion_Validation>
```

```
npm publish --access public
```

```
>>
```

```
npm notice
```

```
npm notice 📦 @dhruvivavadiya/registration_validation@1.0.0
```

```
npm notice Tarball Contents
```

```
npm notice 507B index.js
```

```
npm notice 268B package.json
```

```
npm notice 101B test.js
```

```
npm notice Tarball Details
```

```
npm notice name: @dhruvivavadiya/registration_validation
```

```
npm notice version: 1.0.0
```

```
npm notice filename: dhruvivavadiya-registration_validation-1.0.0.tgz
```

```
npm notice package size: 605 B
```

```
npm notice unpacked size: 876 B
```

```
npm notice shasum: 44f961fe1669bc91e7c30c00bf0b06ea224e678a
```

```
npm notice integrity: sha512-bvXygmOnH7XL0[...]3P815tXAjkLCQ==
```

```
npm notice total files: 3
```

```
npm notice
```

```
npm notice Publishing to https://registry.npmjs.org/ with tag latest and public access
```

```
+ @dhruvivavadiya/registration_validation@1.0.0
```

```
PS D:\Msc_ICT\Sem3\OSWD\65_Dhruvi_2025_ICT\Registraion_Validation> █
```