

## **ASSIGNMENT : 1**

NAME : Nidhi A. Kalmi

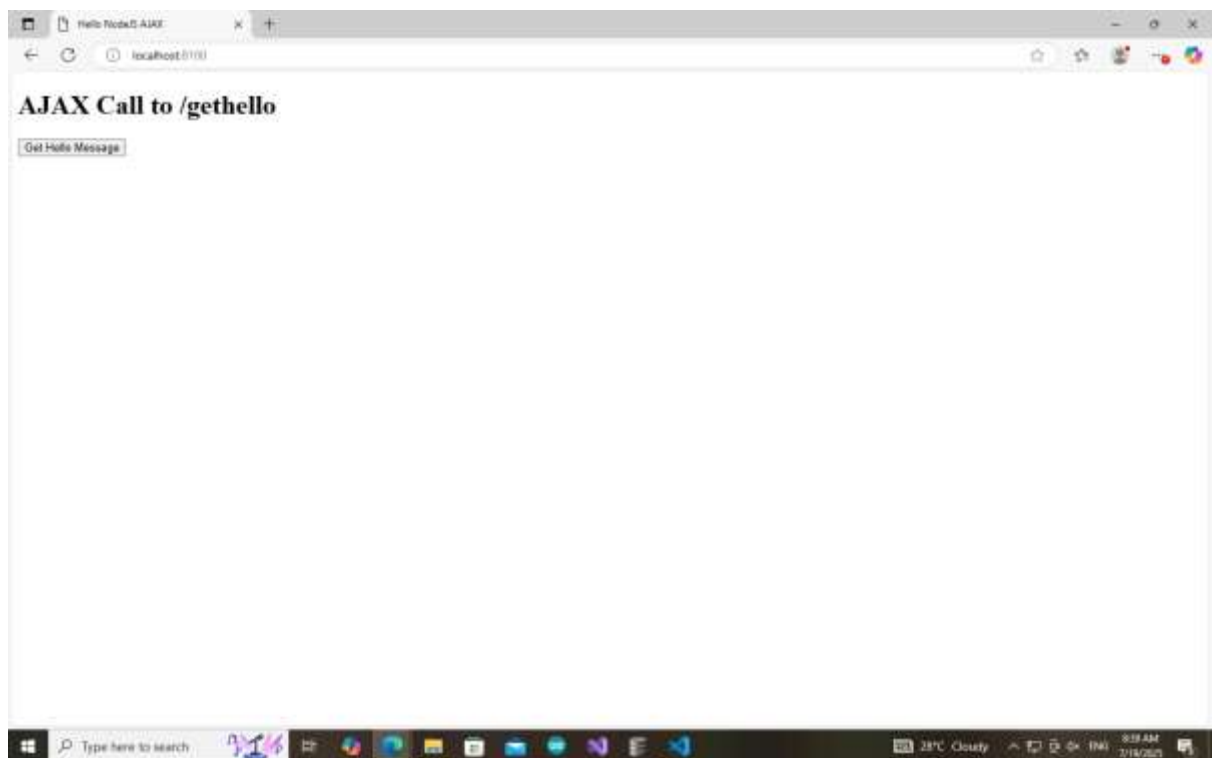
DIV : A

ROLL NO : 42

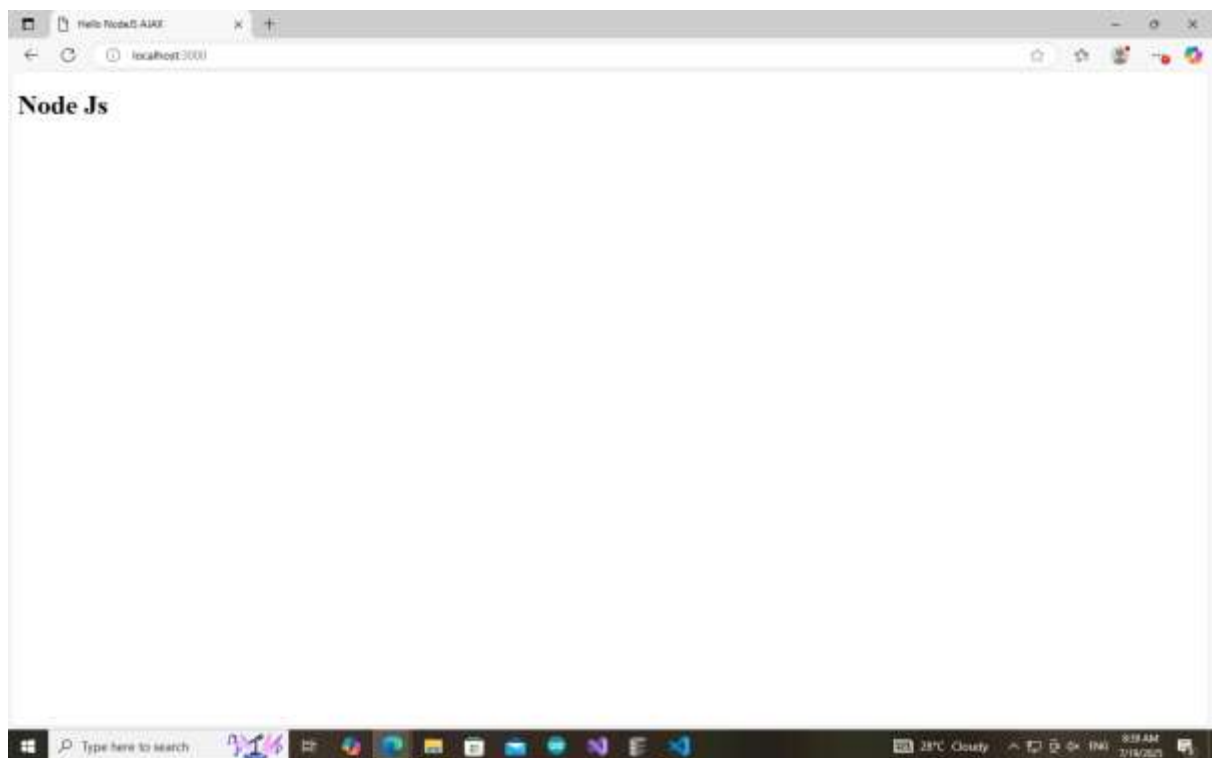
SEM : 7th

SUBJECT : Application Development using Full Stack (701)

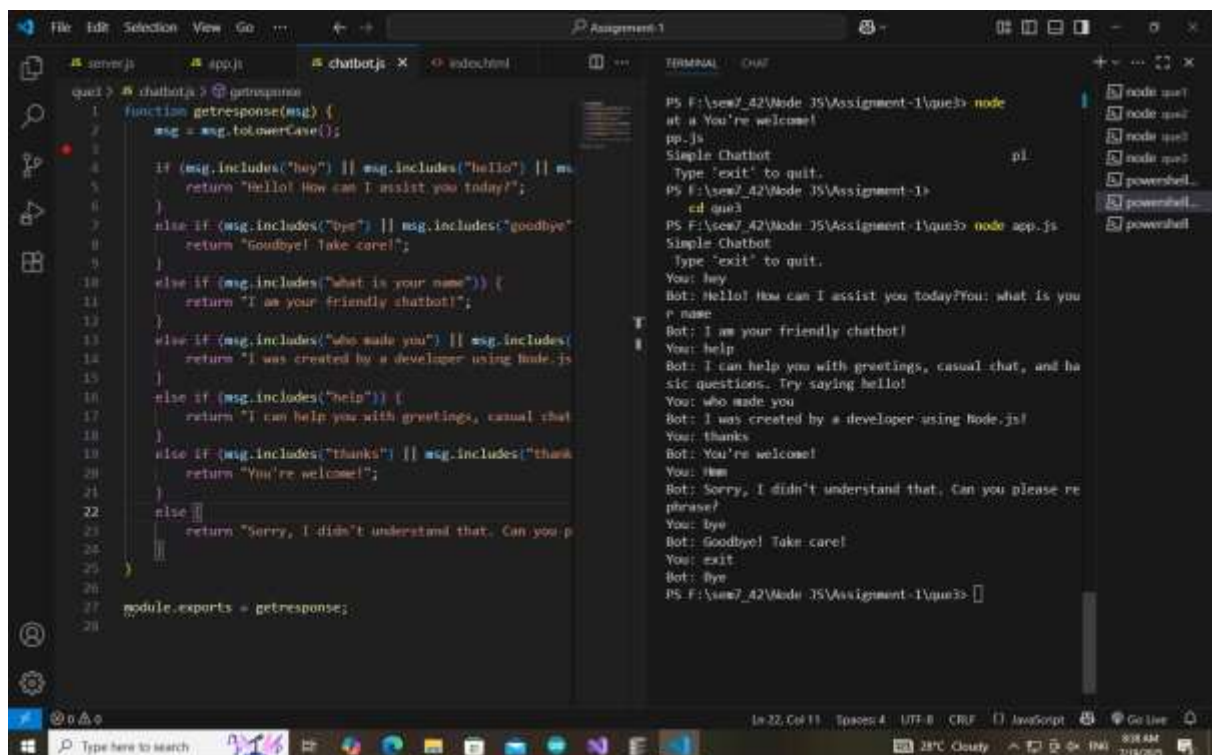
Q:1



Q:2



Q:3



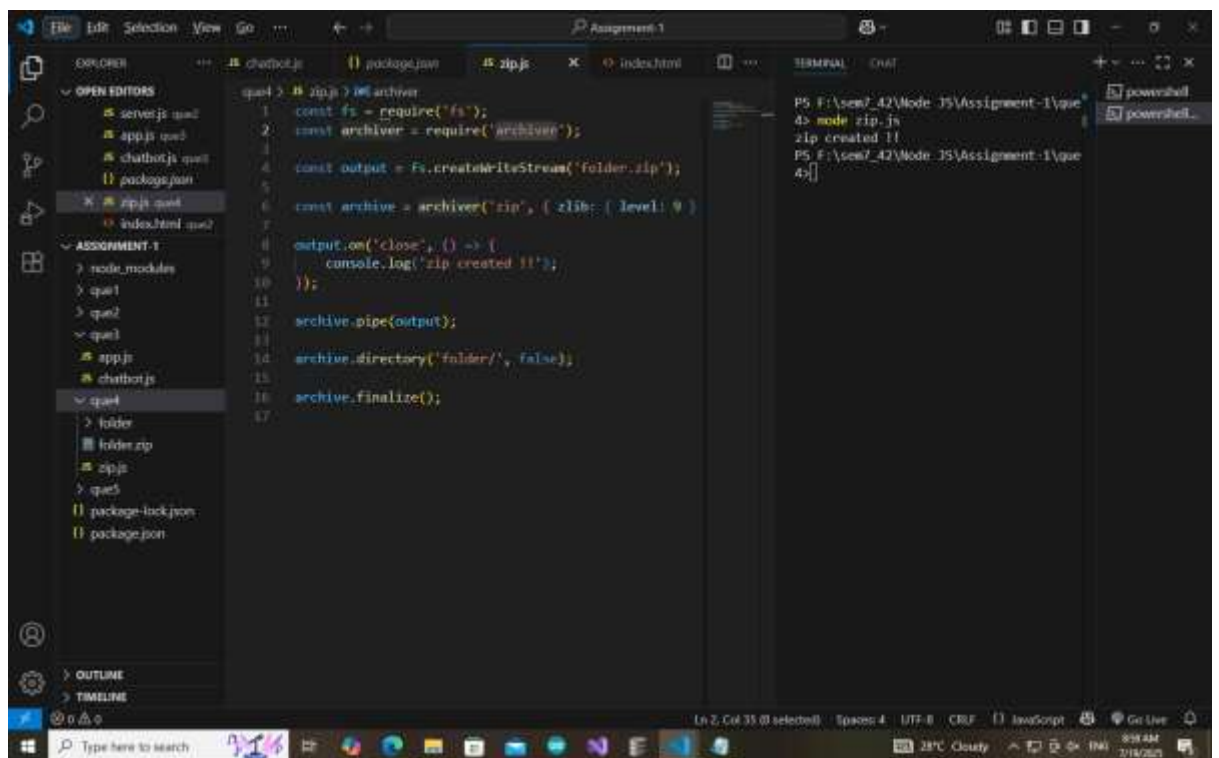
The image shows a Visual Studio Code editor window with a file named 'chatbot.js' open. The code is a JavaScript function 'getresponse(msg)' that handles various user inputs. The terminal on the right shows the execution of the script, displaying a simple chatbot interface where the user can interact with the bot by typing messages like 'hello', 'bye', 'what is your name', etc.

```
1 function getresponse(msg) {
2   msg = msg.toLowerCase();
3
4   if (msg.includes("hey") || msg.includes("hello") || msg.includes("hi")) {
5     return "Hello! How can I assist you today?";
6   }
7   else if (msg.includes("bye") || msg.includes("goodbye") || msg.includes("exit")) {
8     return "Goodbye! Take care!";
9   }
10  else if (msg.includes("what is your name")) {
11    return "I am your friendly chatbot!";
12  }
13  else if (msg.includes("who made you") || msg.includes("who created you")) {
14    return "I was created by a developer using Node.js";
15  }
16  else if (msg.includes("help")) {
17    return "I can help you with greetings, casual chat, and basic questions. Try saying hello!";
18  }
19  else if (msg.includes("thanks") || msg.includes("thank you")) {
20    return "You're welcome!";
21  }
22  else {
23    return "Sorry, I didn't understand that. Can you please rephrase?";
24  }
25 }
26
27 module.exports = getresponse;
```

Terminal Output:

```
PS F:\sem7_42\Node JS\Assignment-1\que3> node chatbot.js
at a You're welcome!
pp.js
Simple Chatbot
Type 'exit' to quit.
PS F:\sem7_42\Node JS\Assignment-1>
ed que3
PS F:\sem7_42\Node JS\Assignment-1\que3> node app.js
Simple Chatbot
Type 'exit' to quit.
You: hey
Bot: Hello! How can I assist you today?
You: what is your name
Bot: I am your friendly chatbot!
You: help
Bot: I can help you with greetings, casual chat, and basic questions. Try saying hello!
You: who made you
Bot: I was created by a developer using Node.js!
You: thanks
Bot: You're welcome!
You: Nam
Bot: Sorry, I didn't understand that. Can you please rephrase?
You: bye
Bot: Goodbye! Take care!
You: exit
Bot: Bye
PS F:\sem7_42\Node JS\Assignment-1\que3>
```

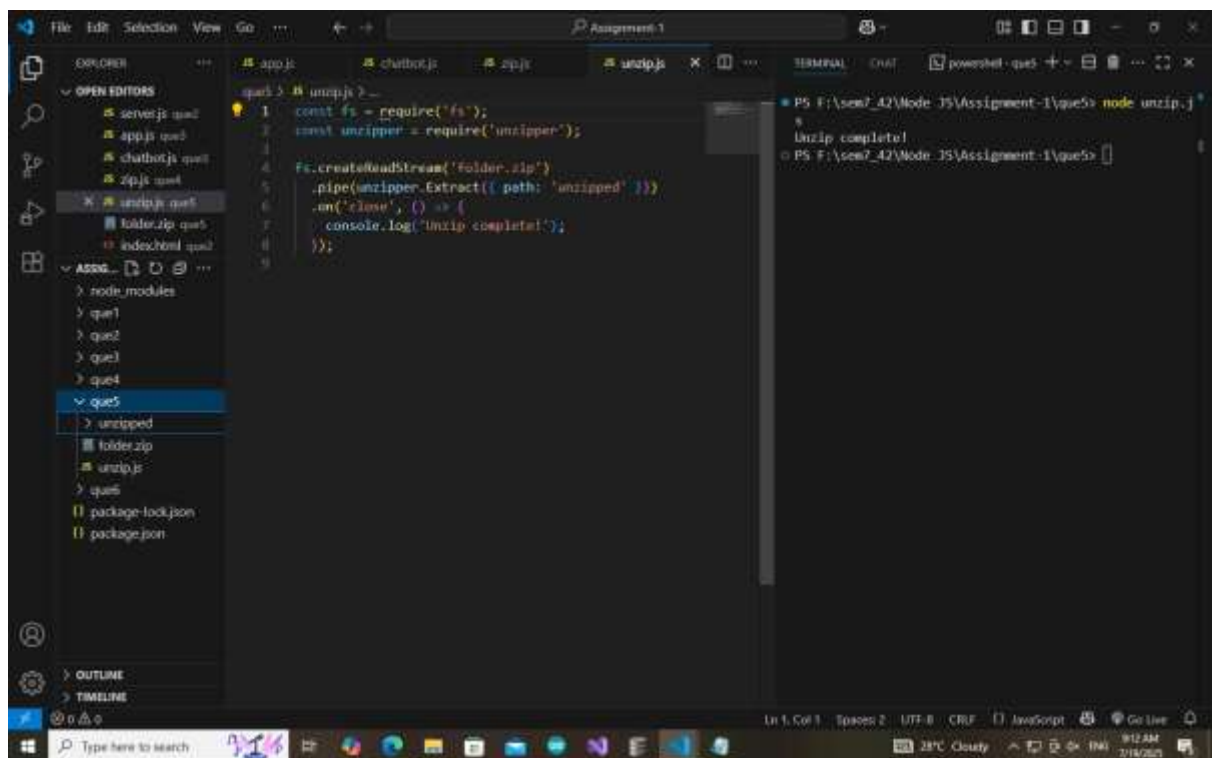
Q:4



```
1 const fs = require('fs');
2 const archiver = require('archiver');
3
4 const output = fs.createWriteStream('folder.zip');
5
6 const archive = archiver('zip', { zlib: { level: 9 } });
7
8 output.on('close', () => {
9   console.log('zip created !!');
10 });
11
12 archive.pipe(output);
13
14 archive.directory('folder/', false);
15
16 archive.finalize();
```

```
P5 F:\sem7_42\Node JS\Assignment-1\que
4> node zip.js
zip created !!
P5 F:\sem7_42\Node JS\Assignment-1\que
4>
```

Q:5



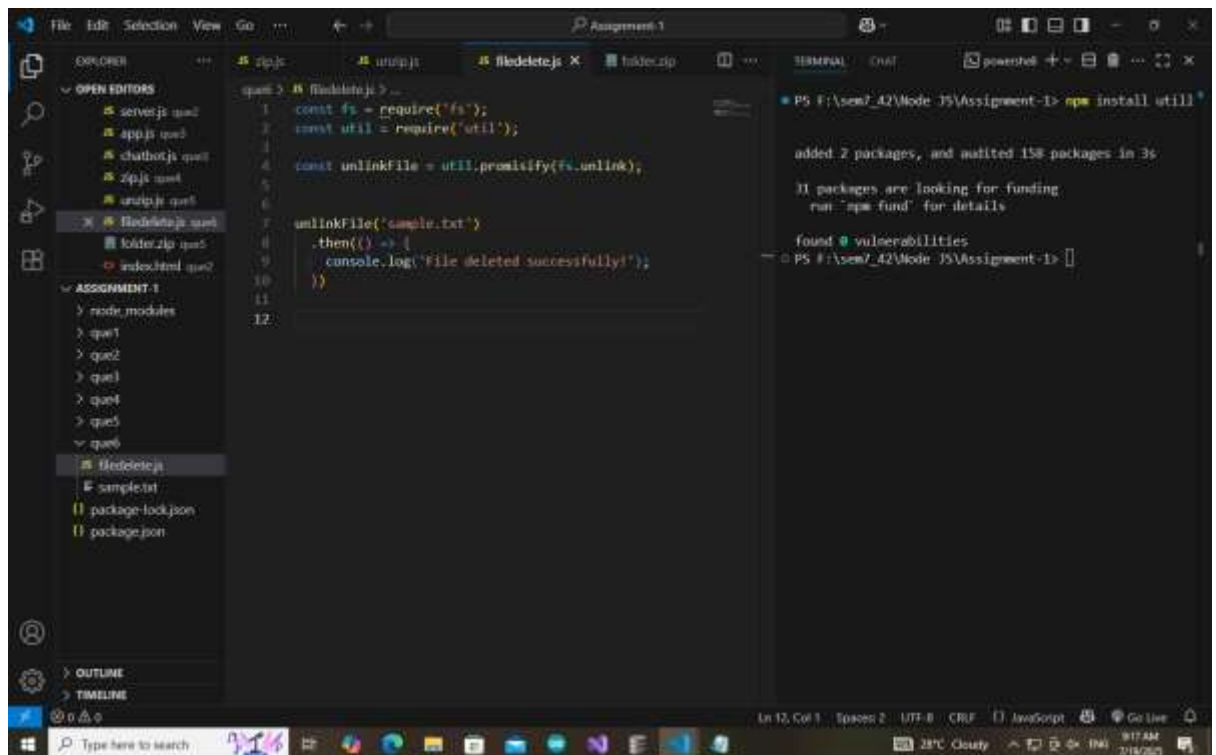
The screenshot shows the Visual Studio Code editor interface. The Explorer sidebar on the left displays a project structure with folders 'node\_modules', 'ques1', 'ques2', 'ques3', 'ques4', and 'ques5'. The 'ques5' folder is expanded, showing files 'unzip.js', 'folder.zip', 'ques6', 'package-lock.json', and 'package.json'. The 'unzip.js' file is selected and its content is visible in the editor. The code in 'unzip.js' uses the 'fs' and 'unzipper' modules to create a read stream from 'folder.zip', pipe it through 'unzipper.Extract' to a directory named 'unzipped', and log 'Unzip complete!' upon completion. The TERMINAL panel on the right shows the command 'node unzip.js' being executed, with the output 'Unzip complete!'.

```
1 const fs = require('fs');
2 const unzipper = require('unzipper');
3
4 fs.createReadStream('folder.zip')
5   .pipe(unzipper.Extract({ path: 'unzipped' }))
6   .on('close', () => {
7     console.log('Unzip complete!');
8   });
```

Terminal output:

```
P5 F:\sem7_42\Node JS\Assignment-1\ques5> node unzip.js
Unzip complete!
P5 F:\sem7_42\Node JS\Assignment-1\ques5>
```

Q:6



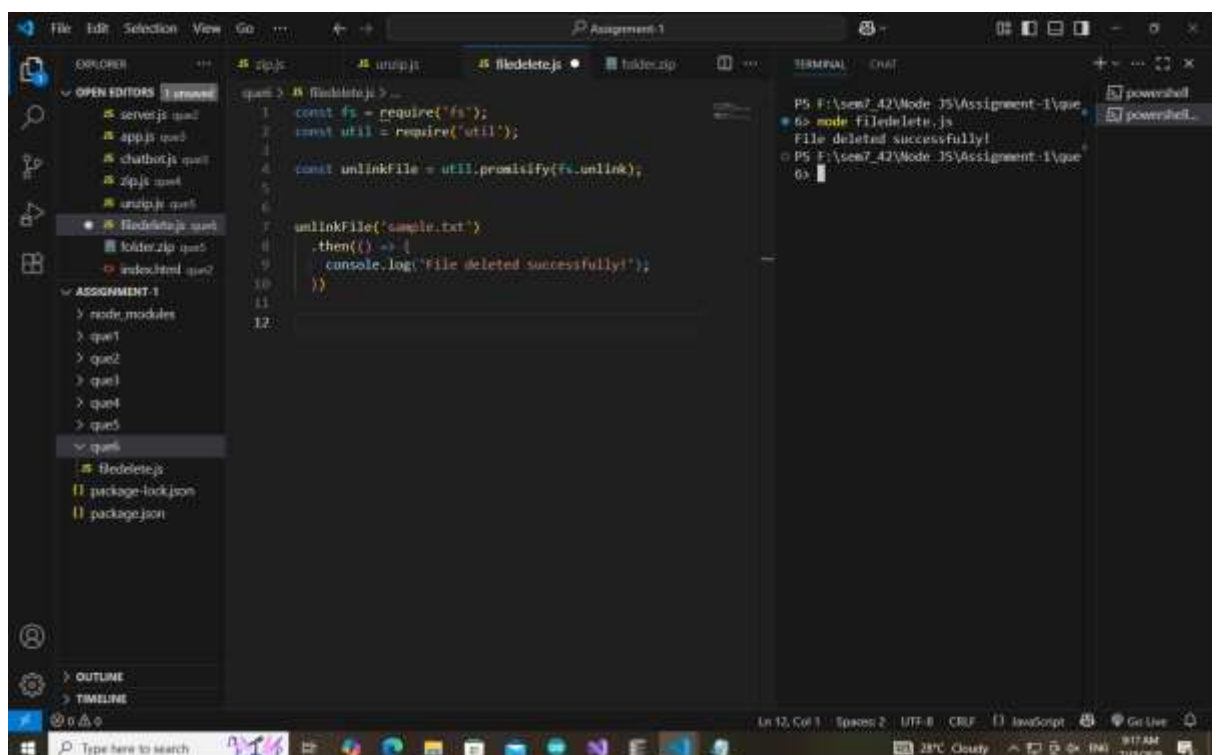
```
File Edit Selection View Go ... Assignment-1
EXPLORER
OPEN EDITORS
server.js ques1
app.js ques1
chatbot.js ques1
zip.js ques1
util.js ques1
filedelete.js ques1
sample.txt ques1
index.html ques1
ASSIGNMENT-1
node_modules
ques1
ques2
ques3
ques4
ques5
ques6
filedelete.js
sample.txt
package-lock.json
package.json
OUTLINE
TIMELINE
Type here to search
Ln 12, Col 1 | Spaces: 2 | UTF-8 | CR LF | JavaScript | Go Live
38°C Cloudy 9:17 AM 3/18/2021
```

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

const unlinkFile = util.promisify(fs.unlink);

unlinkFile('sample.txt')
  .then(() => {
    console.log('File deleted successfully!');
  })
  .catch(err => {
    console.log(err);
  });
```

```
PS F:\sem7_42\Mode JS\Assignment-1> npm install util
added 2 packages, and audited 158 packages in 3s
11 packages are looking for funding
run 'npm fund' for details
found 0 vulnerabilities
PS F:\sem7_42\Mode JS\Assignment-1>
```



```
File Edit Selection View Go ... Assignment-1
EXPLORER
OPEN EDITORS
server.js ques1
app.js ques1
chatbot.js ques1
zip.js ques1
util.js ques1
filedelete.js ques1
sample.txt ques1
index.html ques1
ASSIGNMENT-1
node_modules
ques1
ques2
ques3
ques4
ques5
ques6
filedelete.js
sample.txt
package-lock.json
package.json
OUTLINE
TIMELINE
Type here to search
Ln 12, Col 1 | Spaces: 2 | UTF-8 | CR LF | JavaScript | Go Live
38°C Cloudy 9:17 AM 3/18/2021
```

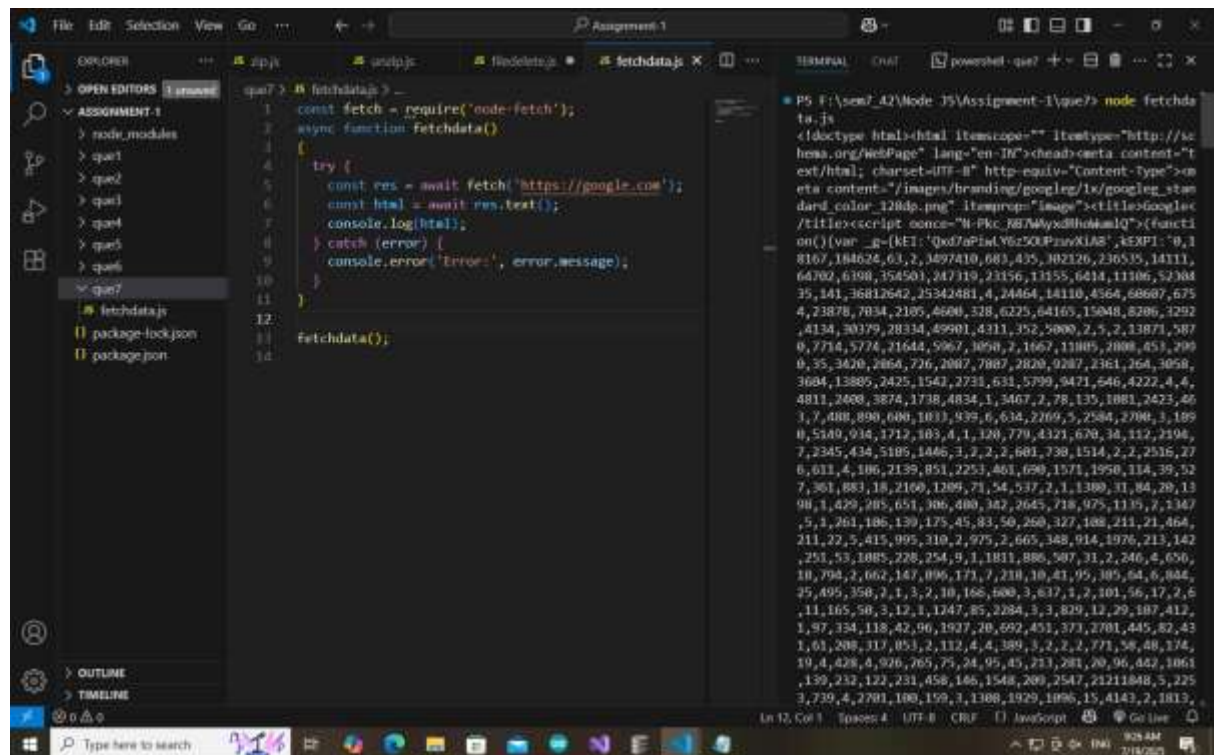
```
const fs = require('fs');
const util = require('util');

const unlinkFile = util.promisify(fs.unlink);

unlinkFile('sample.txt')
  .then(() => {
    console.log('File deleted successfully!');
  })
  .catch(err => {
    console.log(err);
  });
```

```
PS F:\sem7_42\Mode JS\Assignment-1> node filedelete.js
File deleted successfully!
PS F:\sem7_42\Mode JS\Assignment-1>
```

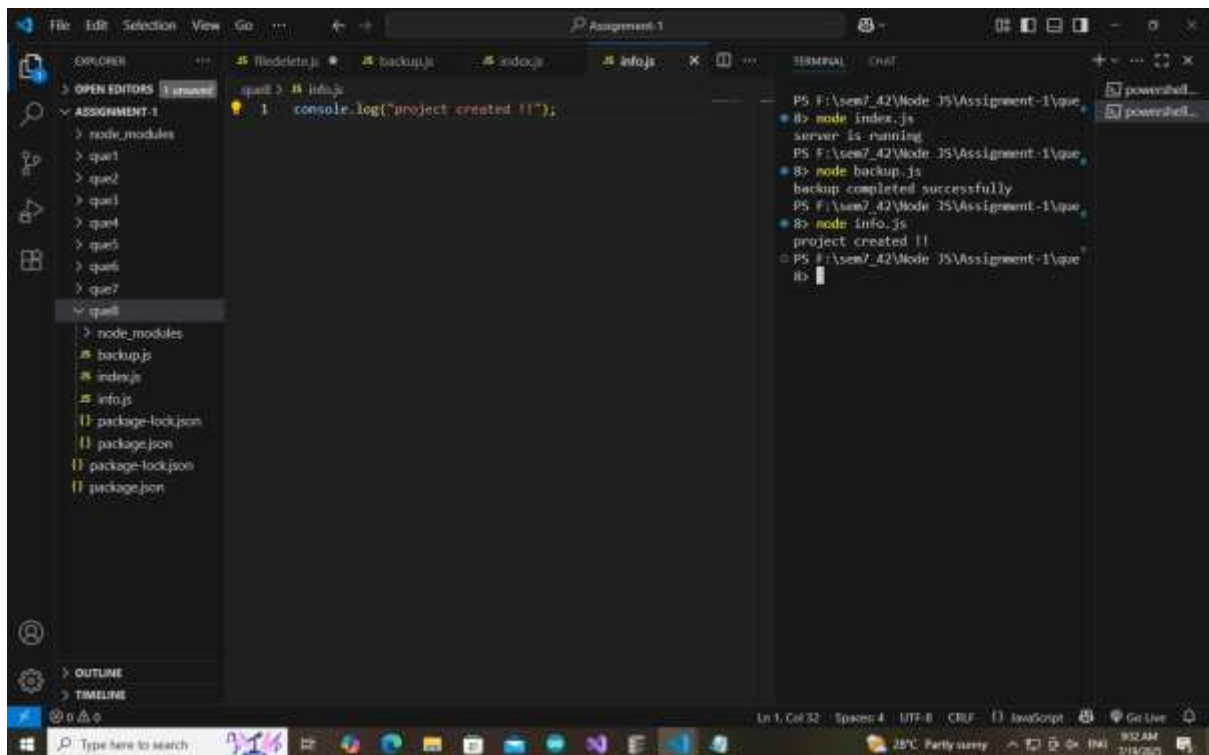
Q:7



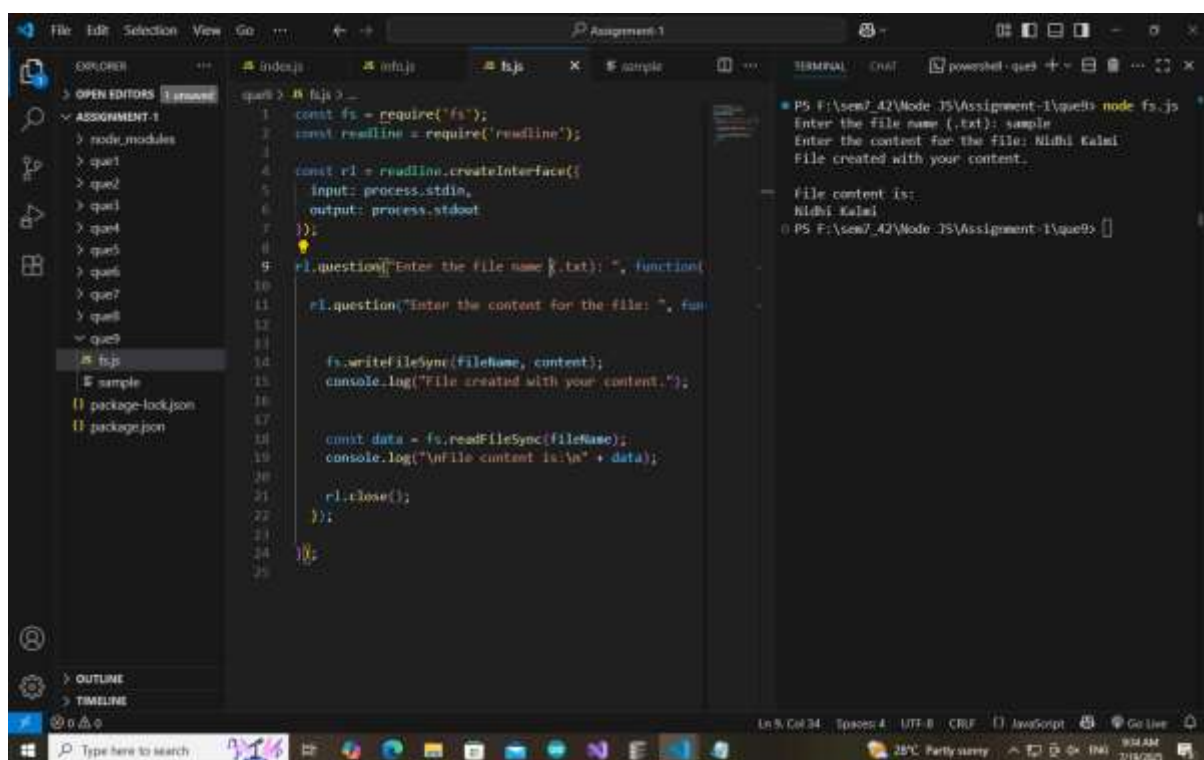
```
File Edit Selection View Go ... Assignment-1
EXPLORER
> OPEN EDITORS
> ASSIGNMENT-1
  node_modules
  > que1
  > que2
  > que3
  > que4
  > que5
  > que6
  > que7
    fetchdata.js
  package-lock.json
  package.json
fetchdata.js
1 const fetch = require('node-fetch');
2 async function fetchdata() {
3   try {
4     const res = await fetch('https://google.com');
5     const html = await res.text();
6     console.log(html);
7   } catch (error) {
8     console.error('Error:', error.message);
9   }
10 }
11
12 fetchdata();
13
14
Terminal
P5 F:\sem7_42\Node JS\Assignment-1\que7> node fetchdata.js
<!doctype html><html itemscope="" itemtype="http://schemas.org/WebPage" lang="en-IN"><head><meta 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 nonce="W-Pkc_N87MysdHhokmIQ">(function() {var _g={REI:'Qod7aPiaY6z50UPzwXIA8',EXPI:'0,18167,184624,63,2,3497410,683,435,302126,236535,14111,64702,6398,354501,247319,23156,13155,6414,11106,52304,35,141,36812642,25342481,4,24464,14110,4364,68607,675,4,23878,7034,2185,4600,328,6225,64169,15048,8206,1292,4134,30379,28334,49901,4311,352,5000,2,5,2,13871,587,0,7714,5774,21644,9867,8898,2,1667,11885,2088,453,209,0,35,3420,3864,726,2007,7007,2020,9287,2361,264,3058,3684,13885,2425,1542,2731,631,5799,3471,646,4222,4,4,4811,2400,3874,1738,4834,1,3467,2,78,135,1081,2423,46,1,7,608,898,600,1033,939,6,634,2269,5,2584,2706,1,189,0,5160,934,1712,103,4,1,120,779,4321,670,34,112,2194,7,2345,434,5185,1446,1,2,2,2,601,730,1514,2,2,2516,27,6,611,4,106,2139,851,2253,461,690,1571,1950,114,39,52,7,361,883,18,2160,1289,71,54,537,2,1,1389,31,84,20,13,98,1,429,205,651,306,400,342,2645,718,975,1139,2,1347,5,1,261,186,139,175,45,83,50,260,327,188,211,21,864,211,22,5,415,995,310,2,975,2,665,348,914,1978,213,142,251,53,1085,228,254,9,1,1811,886,507,31,2,246,4,650,10,794,2,662,147,896,173,7,210,10,41,95,305,64,6,844,25,495,350,2,1,3,2,10,168,600,3,637,1,2,101,56,17,2,6,11,165,50,3,12,1,1247,85,2284,1,3,829,12,29,187,412,1,97,334,118,42,96,1927,20,692,451,373,2701,445,82,43,1,61,208,317,851,2,132,4,4,389,1,2,2,2,771,58,48,174,19,4,428,4,926,765,75,24,95,45,213,281,20,96,442,1061,130,232,122,231,458,146,1548,209,2547,21211848,5,225,3,739,4,2781,100,159,3,1388,1929,1896,15,4142,2,1813,
```



Q:8



Q:9



The screenshot shows a Visual Studio Code editor window with a project named "Assignment-1". The Explorer sidebar on the left shows a folder structure with "ASSIGNMENT-1" containing subfolders "node\_modules" and "fs.js". The "fs.js" file is open in the editor, displaying the following JavaScript code:

```
1 const fs = require('fs');
2 const readline = require('readline');
3
4 const rl = readline.createInterface({
5   input: process.stdin,
6   output: process.stdout
7 });
8
9 rl.question("Enter the file name (.txt): ", function(
10
11   rl.question("Enter the content for the file: ", fun
12
13
14   fs.writeFileSync(fileName, content);
15   console.log("File created with your content.");
16
17   const data = fs.readFileSync(fileName);
18   console.log("\nFile content is:\n" + data);
19
20   rl.close();
21 });
22
23
24
25
```

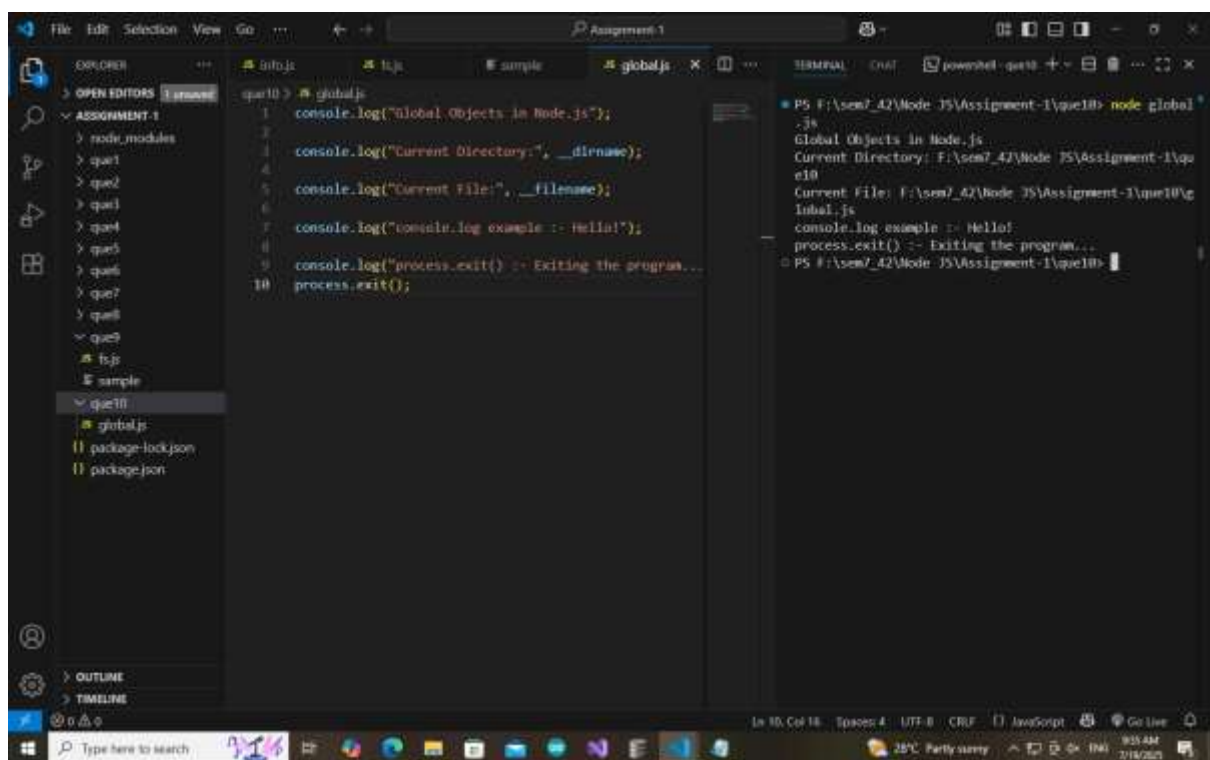
The terminal on the right shows the execution of the script using the command `node fs.js`. The output of the program is as follows:

```
P5 F:\sem7_42\Node JS\Assignment-1\que9> node fs.js
Enter the file name (.txt): sample
Enter the content for the file: Hldhi Kalai
File created with your content.

File content is:
Hldhi Kalai
P5 F:\sem7_42\Node JS\Assignment-1\que9>
```

The status bar at the bottom indicates the current file is "fs.js" at line 5, column 34, with a UTF-8 encoding and CRLF line endings. The system tray at the bottom shows the date and time as 9:54 AM on 2/19/2023.

Q:10



The screenshot shows the Visual Studio Code editor interface. The Explorer sidebar on the left displays a project structure with a folder named 'ASSIGNMENT-1' containing subfolders 'node\_modules' and 'sample', and a file 'global.js'. The main editor area shows the content of 'global.js' with the following code:

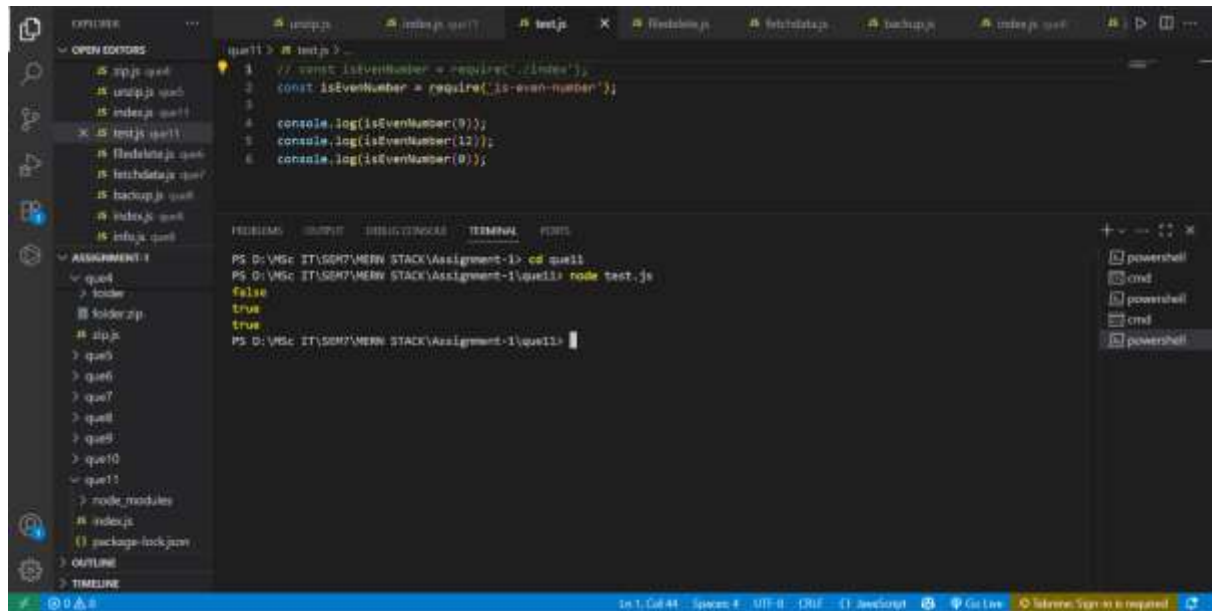
```
1 console.log("Global Objects in Node.js");
2
3 console.log("Current Directory:", __dirname);
4
5 console.log("Current File:", __filename);
6
7 console.log("console.log example :- Hello!");
8
9 console.log("process.exit() :- Exiting the program...");
10 process.exit();
```

The TERMINAL panel on the right shows the output of running the command 'node global.js' in a PowerShell window. The output is as follows:

```
PS F:\sem7_42\Node JS\Assignment-1\que10> node global.js
Global Objects in Node.js
Current Directory: F:\sem7_42\Node JS\Assignment-1\que10
Current File: F:\sem7_42\Node JS\Assignment-1\que10\global.js
console.log example :- Hello!
process.exit() :- Exiting the program...
PS F:\sem7_42\Node JS\Assignment-1\que10>
```

The status bar at the bottom indicates the current line and column (Ln 10, Col 16), encoding (UTF-8), and file type (CRLF).

Q:11



The screenshot shows the Visual Studio Code editor interface. The left sidebar displays the 'EXPLORER' view with a file tree for a project named 'Assignment-1'. The main editor area shows the 'test.js' file with the following code:

```
1 // const isEvenNumber = require('./index');
2 const isEvenNumber = require('is-even-number');
3
4 console.log(isEvenNumber(9));
5 console.log(isEvenNumber(12));
6 console.log(isEvenNumber(0));
```

The bottom panel shows the 'TERMINAL' view with the following output:

```
PS D:\VMS IT\SEM7\WORK STACK\Assignment-1> cd quell
PS D:\VMS IT\SEM7\WORK STACK\Assignment-1\quell> node test.js
false
true
true
```

The status bar at the bottom indicates the file is 'test.js' at line 1, column 44, with 4 spaces, UTF-8 encoding, and CRLF line endings.