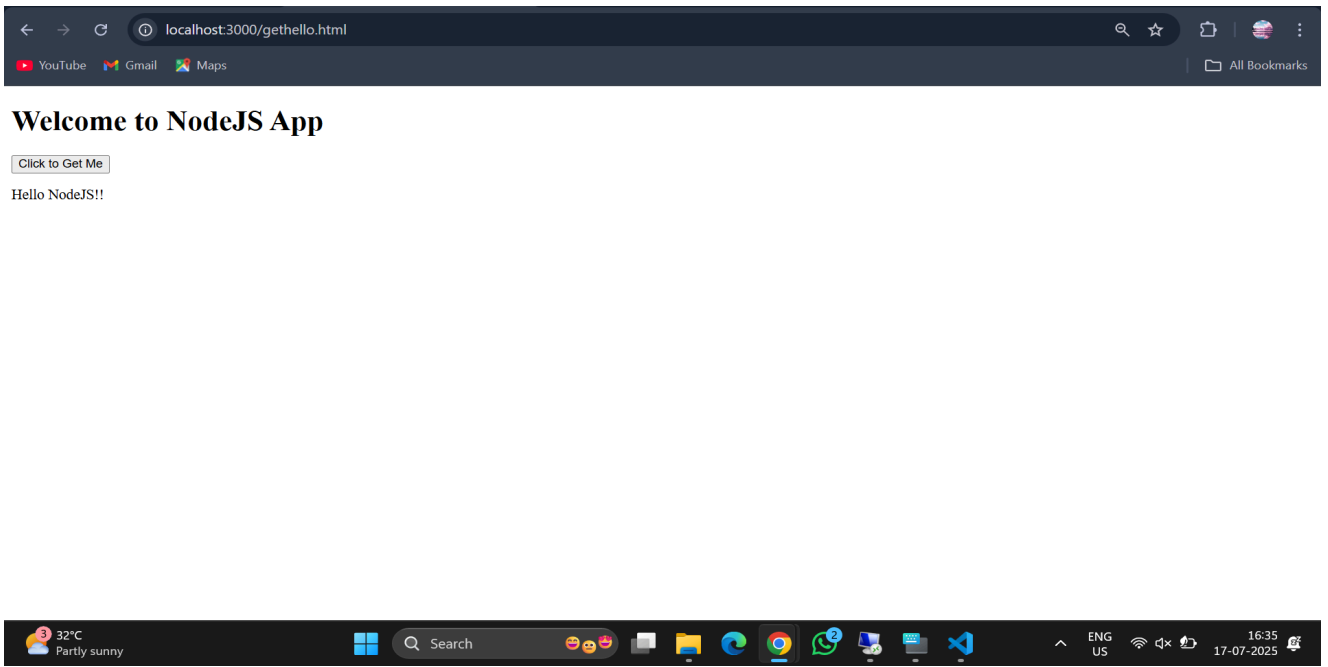
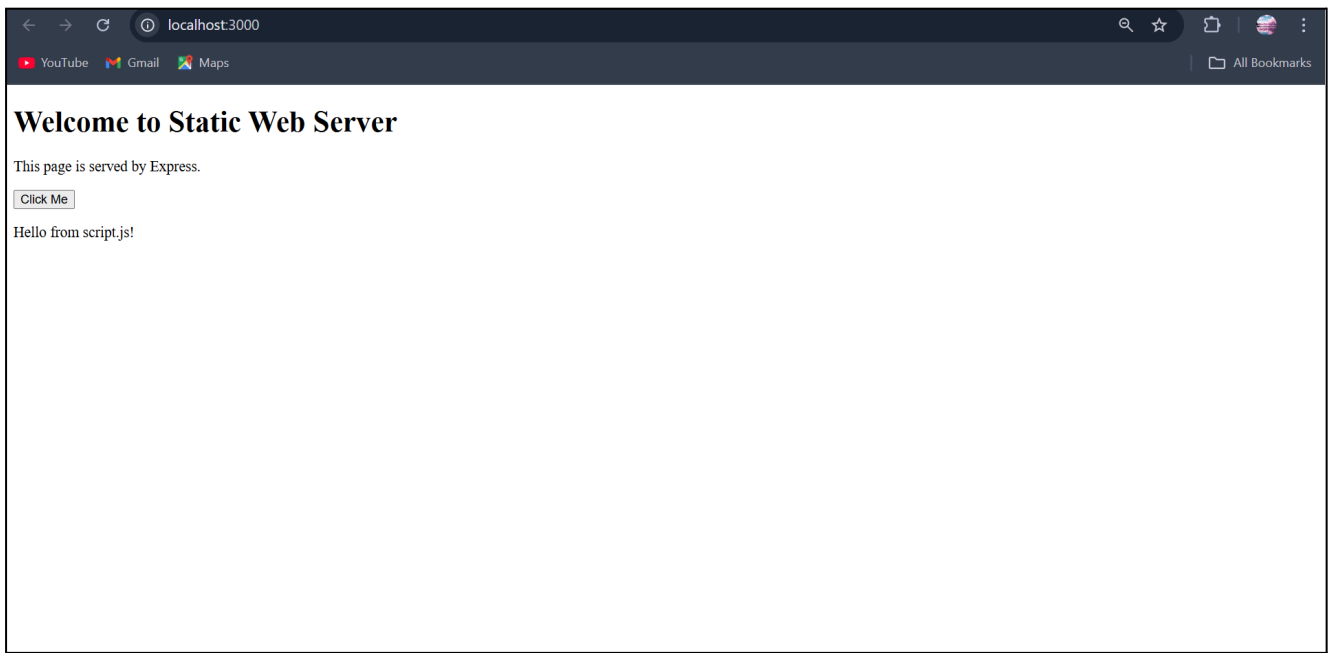


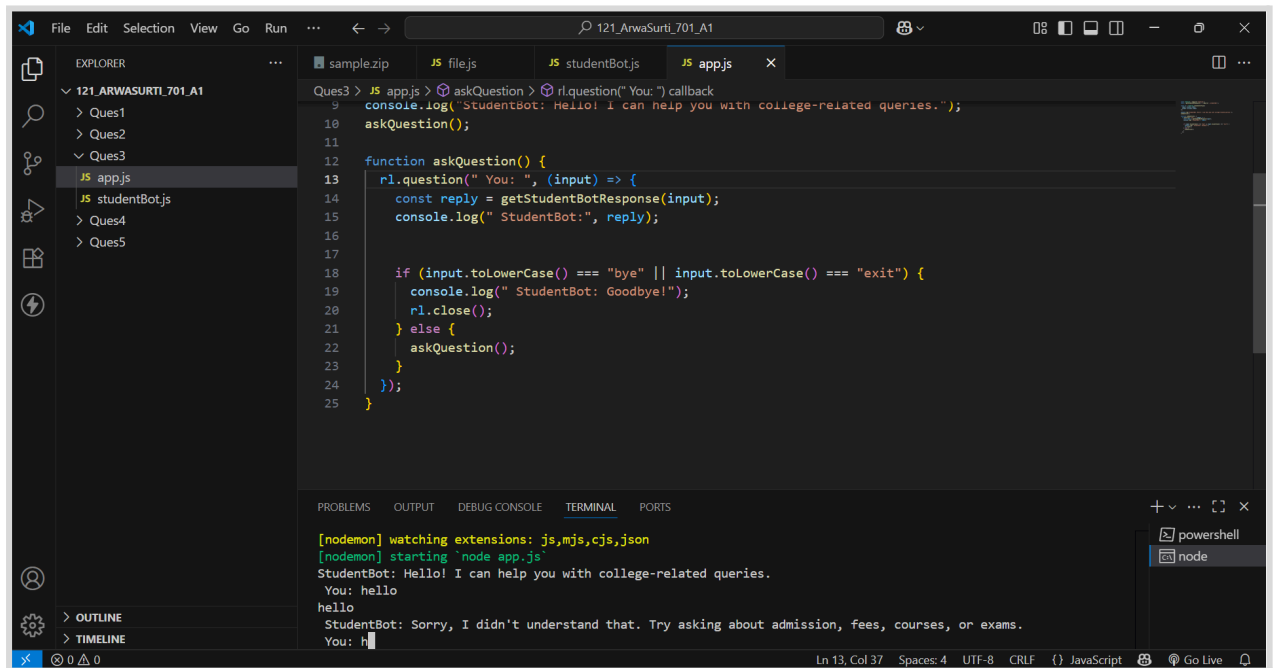
Ques 1:



Ques 2:



Ques 3:

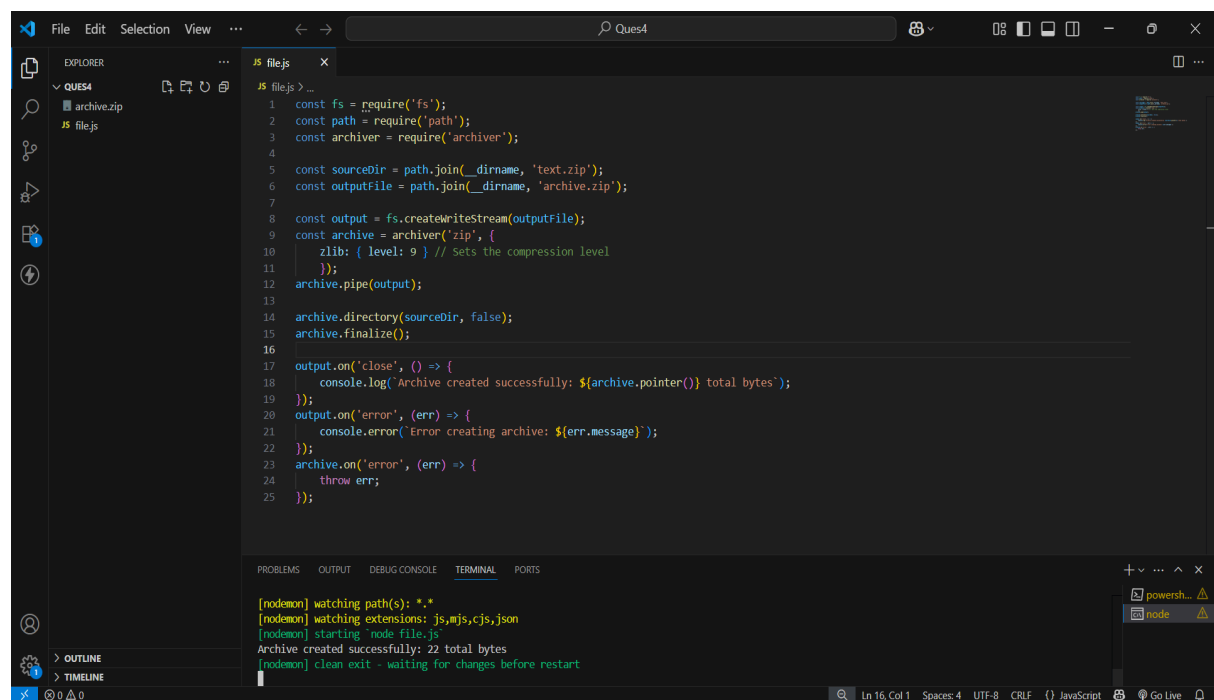


```
Ques3 > JS app.js > askQuestion > rl.question("You: ") callback
9 console.log("StudentBot: Hello! I can help you with college-related queries.");
10 askQuestion();
11
12 function askQuestion() {
13   rl.question("You: ", (input) => {
14     const reply = getStudentBotResponse(input);
15     console.log(" StudentBot:", reply);
16
17     if (input.toLowerCase() === "bye" || input.toLowerCase() === "exit") {
18       console.log(" StudentBot: Goodbye!");
19       rl.close();
20     } else {
21       askQuestion();
22     }
23   });
24 }
25 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
[nodeemon] watching extensions: js,mjs,cjs,json
[nodeemon] starting 'node app.js'
StudentBot: Hello! I can help you with college-related queries.
You: hello
hello
StudentBot: Sorry, I didn't understand that. Try asking about admission, fees, courses, or exams.
You: h
```

Ques 4:

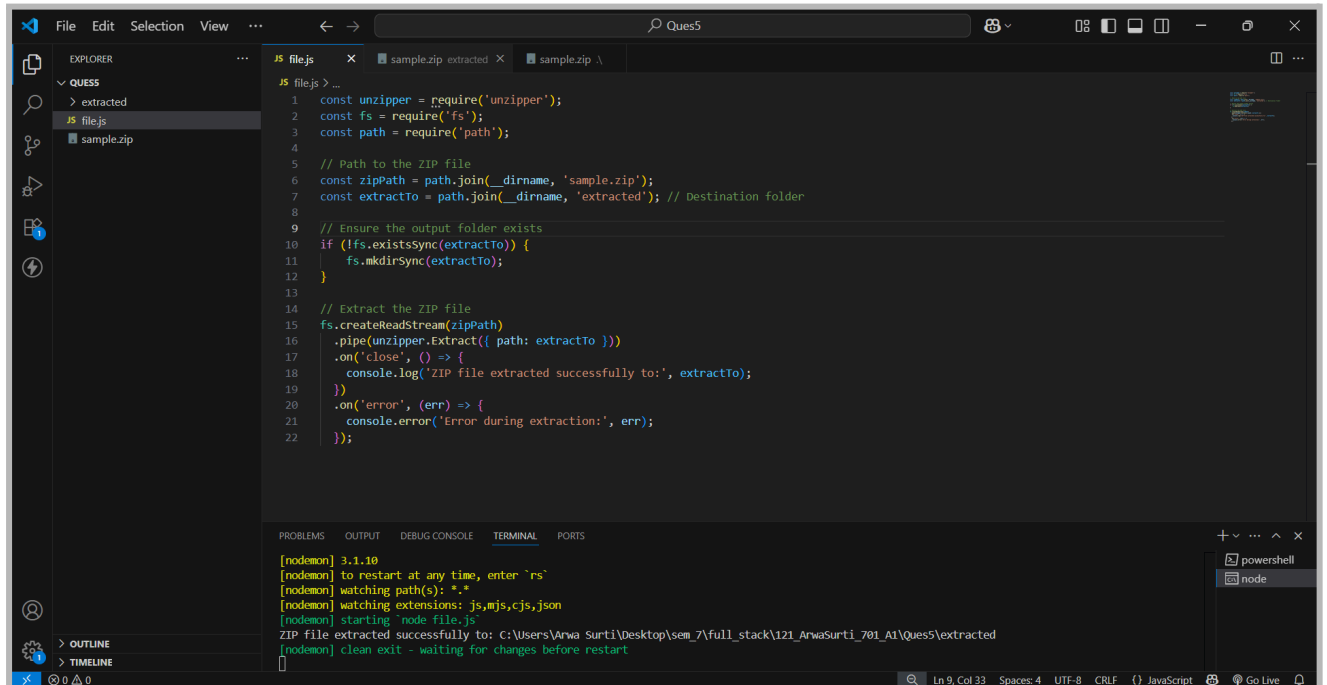


```
1 const fs = require('fs');
2 const path = require('path');
3 const archiver = require('archiver');
4
5 const sourceDir = path.join(__dirname, 'text.zip');
6 const outputFile = path.join(__dirname, 'archive.zip');
7
8 const output = fs.createWriteStream(outputFile);
9 const archive = archiver('zip', {
10   zlib: { level: 9 } // Sets the compression level
11 });
12 archive.pipe(output);
13
14 archive.directory(sourceDir, false);
15 archive.finalize();
16
17 output.on('close', () => {
18   console.log(`Archive created successfully: ${archive.pointer()} total bytes`);
19 });
20 output.on('error', (err) => {
21   console.error(`Error creating archive: ${err.message}`);
22 });
23 archive.on('error', (err) => {
24   throw err;
25 });
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
[nodeemon] watching path(s): *.*
[nodeemon] watching extensions: js,mjs,cjs,json
[nodeemon] starting 'node file.js'
Archive created successfully: 22 total bytes
[nodeemon] clean exit - waiting for changes before restart
```

Ques 5:

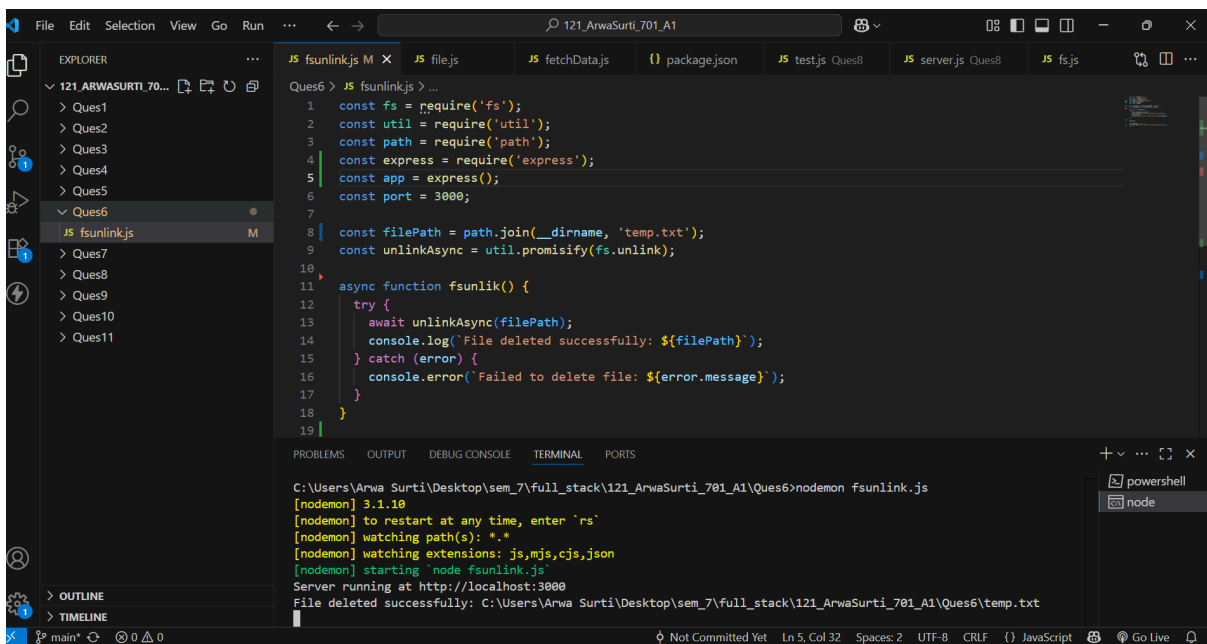


```
1 const unzipper = require('unzipper');
2 const fs = require('fs');
3 const path = require('path');
4
5 // Path to the ZIP file
6 const zipPath = path.join(__dirname, 'sample.zip');
7 const extractTo = path.join(__dirname, 'extracted'); // Destination folder
8
9 // Ensure the output folder exists
10 if (!fs.existsSync(extractTo)) {
11   fs.mkdirSync(extractTo);
12 }
13
14 // Extract the ZIP file
15 fs.createReadStream(zipPath)
16   .pipe(unzipper.Extract({ path: extractTo }))
17   .on('close', () => {
18     console.log('ZIP file extracted successfully to:', extractTo);
19   })
20   .on('error', (err) => {
21     console.error('Error during extraction:', err);
22   });
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
[node] 3.1.10
[node] to restart at any time, enter `rs`
[node] watching path(s): *.*
[node] watching extensions: js,mjs,cjs,json
[node] starting node file.js
ZIP file extracted successfully to: C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques5\extracted
[node] clean exit - waiting for changes before restart
```

Ques 6:



```
1 const fs = require('fs');
2 const util = require('util');
3 const path = require('path');
4 const express = require('express');
5 const app = express();
6 const port = 3000;
7
8 const filePath = path.join(__dirname, 'temp.txt');
9 const unlinkAsync = util.promisify(fs.unlink);
10
11 async function fsunlink() {
12   try {
13     await unlinkAsync(filePath);
14     console.log('File deleted successfully: ${filePath}');
15   } catch (error) {
16     console.error('Failed to delete file: ${error.message}');
17   }
18 }
19
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques6>node fsunlink.js
[node] 3.1.10
[node] to restart at any time, enter `rs`
[node] watching path(s): *.*
[node] watching extensions: js,mjs,cjs,json
[node] starting node fsunlink.js
Server running at http://localhost:3000
File deleted successfully: C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques6\temp.txt
```

Ques 7:

The screenshot shows a VS Code editor with a project named '121_ARWASURTI_701_A1'. The Explorer sidebar on the left shows a directory structure with 'Ques1' through 'Ques11'. The main editor area has a file named 'fetchData.js' open, containing the following JavaScript code:

```
1 const fetch = require('node-fetch');
2
3 async function fetchGoogleHomePage() {
4   try {
5     const response = await fetch('https://www.google.com');
6
7     if (!response.ok) {
8       throw new Error('HTTP Error Status: ${response.status}');
9     }
10
11     const data = await response.text();
12     console.log('Fetched Google homepage HTML:');
```

Below the code editor, the 'TERMINAL' tab is active, showing the output of running 'node fetchData.js'. The output includes Node.js version information, a deprecation warning for the 'punycode' module, and the fetched HTML content of Google's homepage.

Ques 8:

The screenshot shows a VS Code editor with a project named '121_ARWASURTI_701_A1'. The Explorer sidebar on the left shows a directory structure with 'Ques1' through 'Ques8', 'package.json', 'server.js', and 'test.js'. The main editor area has a file named 'server.js' open, containing the following JavaScript code:

```
1 const http = require('http');
2
3 const server = http.createServer((req, res) => {
```

Below the code editor, the 'TERMINAL' tab is active, showing the output of running 'npm run start' and 'npm test'. The output includes the lifecycle scripts for the project, the command to start the server, and the command to run the tests.

Ques 9:

The screenshot shows a VS Code editor window with a project named '121_ArwaSurti_701_A1'. The Explorer sidebar on the left shows a folder '121_ARWASURTI_701_A1' containing subfolders 'Ques1' through 'Ques9' and a file 'fs.js'. The file 'fs.js' is selected and open in the editor. The code in 'fs.js' is as follows:

```
1 const fs = require('fs');
2 const path = require('path');
3
4 const filePath = path.join(__dirname, 'example.txt');
5
6 // 1. Write to file
7 fs.writeFile(filePath, 'This is the first line.\n', (err) => {
8   if (err) throw err;
9   console.log('File created and data written.');
```

The TERMINAL panel at the bottom shows the command prompt output for running 'node fs.js' in the directory 'C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques9'. The output is:

```
C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques9>node fs.js
[nodemon] 3.1.10
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting node fs.js
File created and data written.
Data appended to file.
File contents:
This is the first line.
This is the appended line.

File renamed!!
File deleted successfully!!
[nodemon] clean exit - waiting for changes before restart
```

Ques 10:

The screenshot shows a VS Code editor window with a project named '121_ArwaSurti_701_A1'. The Explorer sidebar on the left shows a folder '121_ARWASURTI_701_A1' containing subfolders 'Ques1' through 'Ques9' and a file 'globalObjects.js'. The file 'globalObjects.js' is selected and open in the editor. The code in 'globalObjects.js' is as follows:

```
12 const intervalId = setInterval(() => {
13   // Using process global
14   console.log('Process Platform:', process.platform);
15   console.log('Process ID:', process.pid);
16   console.log('Current working directory:', process.cwd());
17 }, 1000);
18
19 // Using process global
20 console.log('Process Platform:', process.platform);
21 console.log('Process ID:', process.pid);
22 console.log('Current working directory:', process.cwd());
23
24 // Exit after 5 seconds
```

The TERMINAL panel at the bottom shows the command prompt output for running 'node globalObjects.js' in the directory 'C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques10'. The output is:

```
C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques10>node globalObjects.js
[nodemon] 3.1.10
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting node globalObjects.js
Current directory: C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques10
Current file: C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques10\globalObjects.js
Process Platform: win32
Process ID: 8800
Current working directory: C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques10
Interval count: 1
This message is shown after 2 seconds
Interval count: 2
Interval count: 3
Interval cleared after 3 executions
Exiting process...
[nodemon] clean exit - waiting for changes before restart
```

Ques 11:

The screenshot shows the Visual Studio Code interface with a project named '121_ArwaSurti_701_A1'. The Explorer panel on the left shows a file tree with 'package.json' and 'test.js' selected. The main editor displays the content of 'test.js', which contains two lines of JavaScript code: `console.log("Hello, Welcome to Node.js");` and `console.log("This is a test script for the server.");`. The TERMINAL panel at the bottom shows the output of the following commands: `npm login`, `npm publish`, and `npm notice`. The output of `npm publish` shows the package details, including the name 'ques11', version '1.0.0', and the package size. The status bar at the bottom indicates the current file is 'test.js' and the encoding is UTF-8.

```
Ques11 > JS test.js
1 console.log("Hello, Welcome to Node.js");
2 console.log("This is a test script for the server.");
3

C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques11>npm login
npm notice Log in on https://registry.npmjs.org/
Login at:
https://www.npmjs.com/login?next=/login/cli/7242f931-10b5-4e0e-8d8b-48fc46839dd7
Press ENTER to open in the browser...

Logged in on https://registry.npmjs.org/.

C:\Users\Arwa Surti\Desktop\sem_7\full_stack\121_ArwaSurti_701_A1\Ques11>npm publish
npm notice
npm notice  ques11@1.0.0
npm notice  Tarball Contents
npm notice  2198 package.json
npm notice  1008 test.js
npm notice  Tarball Details
npm notice  name: ques11
npm notice  version: 1.0.0
npm notice  filename: ques11-1.0.0.tgz
npm notice  package size: 335 B
npm notice  unpacked size: 319 B
npm notice  shasum: b40dd107731825e196164ea6e6ff2965161c3475
npm notice  shasum: b40dd107731825e196164ea6e6ff2965161c3475
npm notice  integrity: sha512-jYE2X62RQ3Csx[...]bZncF20k8c7SA==
npm notice  total files: 2
npm notice
```

