

Practical Assignment- 1

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Div : A

Roll Number : 65

Subject : 701

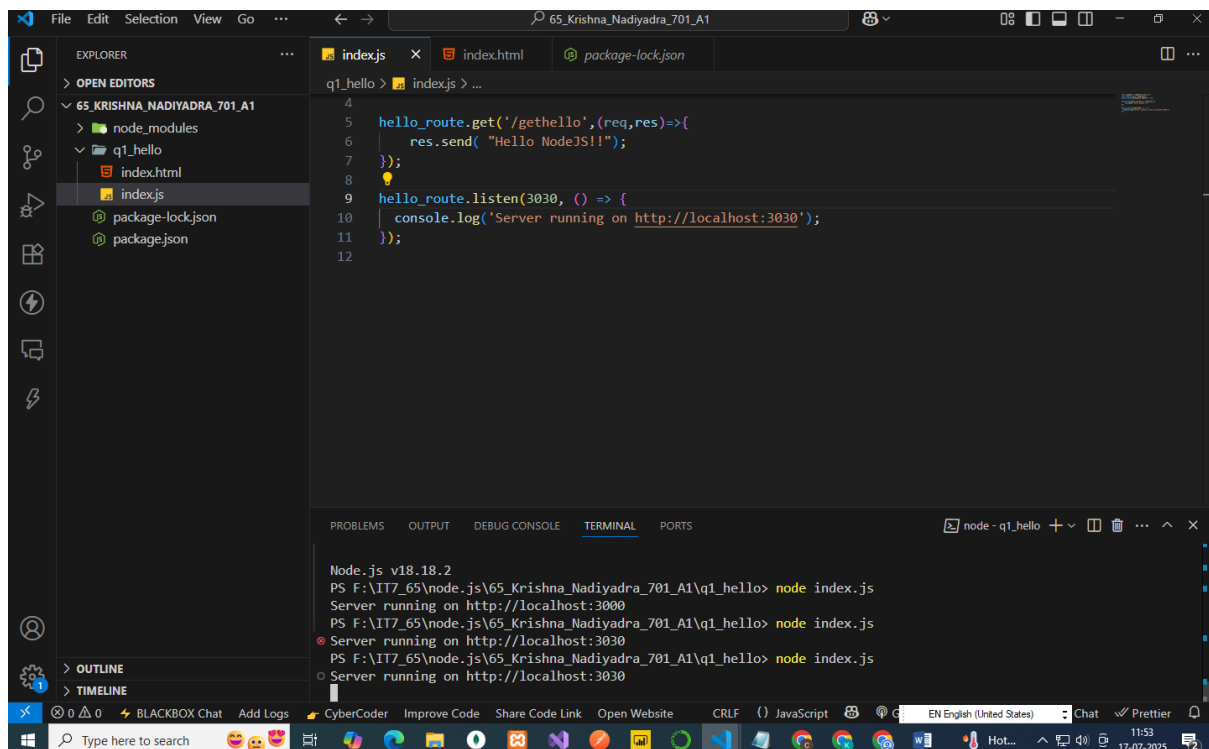
Q1



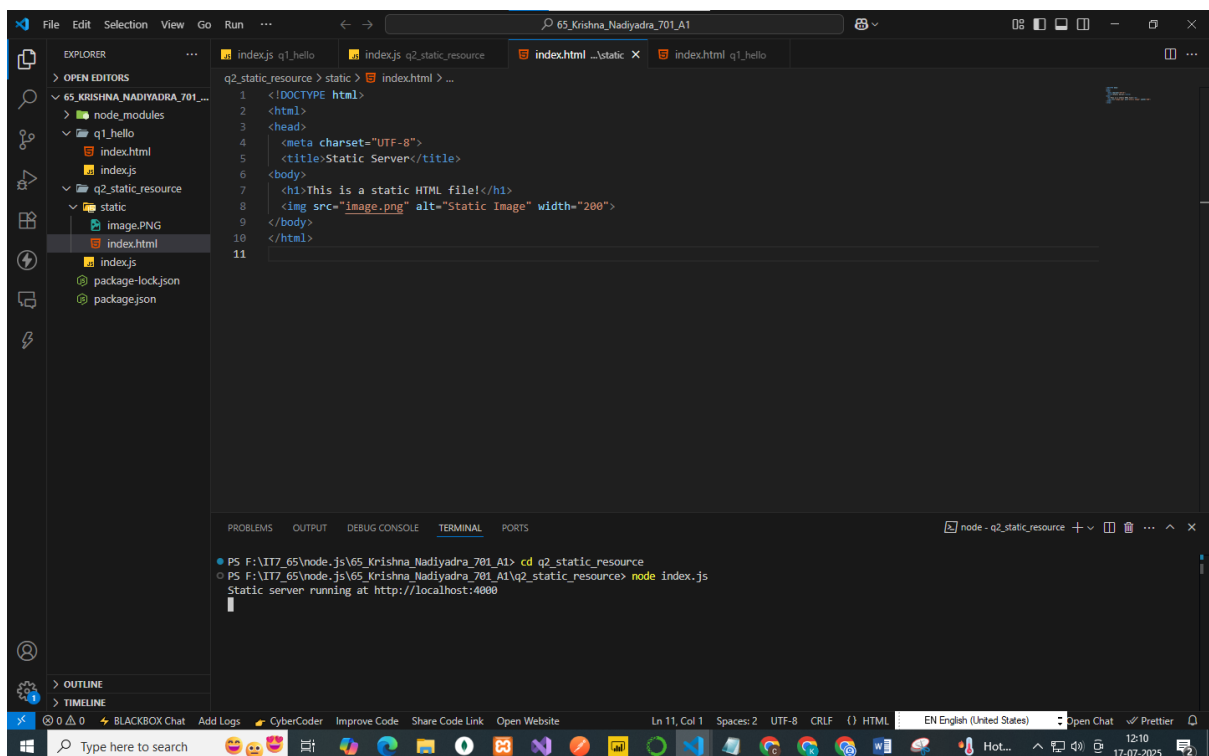
AJAX Demo

Call /gethello

Hello NodeJS!!



Q2



Q3

The screenshot shows a VS Code editor with a project named '65_Krishna_Nadiyadra_701_A1'. The Explorer sidebar shows a file structure with folders 'q1_hello', 'q2_static_resource', and 'q3_chatbot'. The 'q3_chatbot' folder contains 'app.js' and 'chatbotjs'. The 'chatbotjs' file is open in the editor, showing a JavaScript function 'ChatbotReply' that handles various messages like 'hello', 'balance', 'loan', 'transfer', and 'send money'. The terminal at the bottom shows the command 'node app.js' being executed, and the chatbot's responses are displayed.

```
q3_chatbot > chatbotjs > ChatbotReply > ChatbotReply
1 module.exports.ChatbotReply = function (message) {
2
3   this.Bot_Organization = "State Bank of NodeJS";
4   this.Bot_Country = "India";
5
6   message = message.toLowerCase();
7
8   if (
9     message.indexOf("hello") > -1 ||
10    message.indexOf("hi") > -1 ||
11    message.indexOf("hey") > -1
12  ) {
13    return "Hello! Welcome to " + this.Bot_Organization + "!";
14  } else if (message.indexOf("balance") > -1) {
15    return "Your current account balance is ₹12,500.";
16  } else if (
17    message.indexOf("transfer") > -1 ||
18    message.indexOf("send money") > -1
19  ) {
20    return "You can transfer money using our mobile banking app or by visiting a branch.";
21  } else if (message.indexOf("loan") > -1) {
22    return "We offer personal, home, and car loans. Visit our site or branch for more info.";
23  }
24 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Node.js v18.18.2
PS F:\IT7_65\Krishna_Nadiyadra_701_A1\q3_chatbot> node app.js
Welcome to the Banking Chatbot!
Ask about balance, loan, or transfers. Type 'exit' to quit.
You: hello
Bot: Hello! Welcome to State Bank of NodeJS!
You: show my balance
Bot: Your current account balance is ₹12,500.
You: loan details
Bot: We offer personal, home, and car loans. Visit our site or branch for more info.
You: exit
Bot: Thank you for banking with us. Have a great day!
PS F:\IT7_65\Krishna_Nadiyadra_701_A1\q3_chatbot>
```

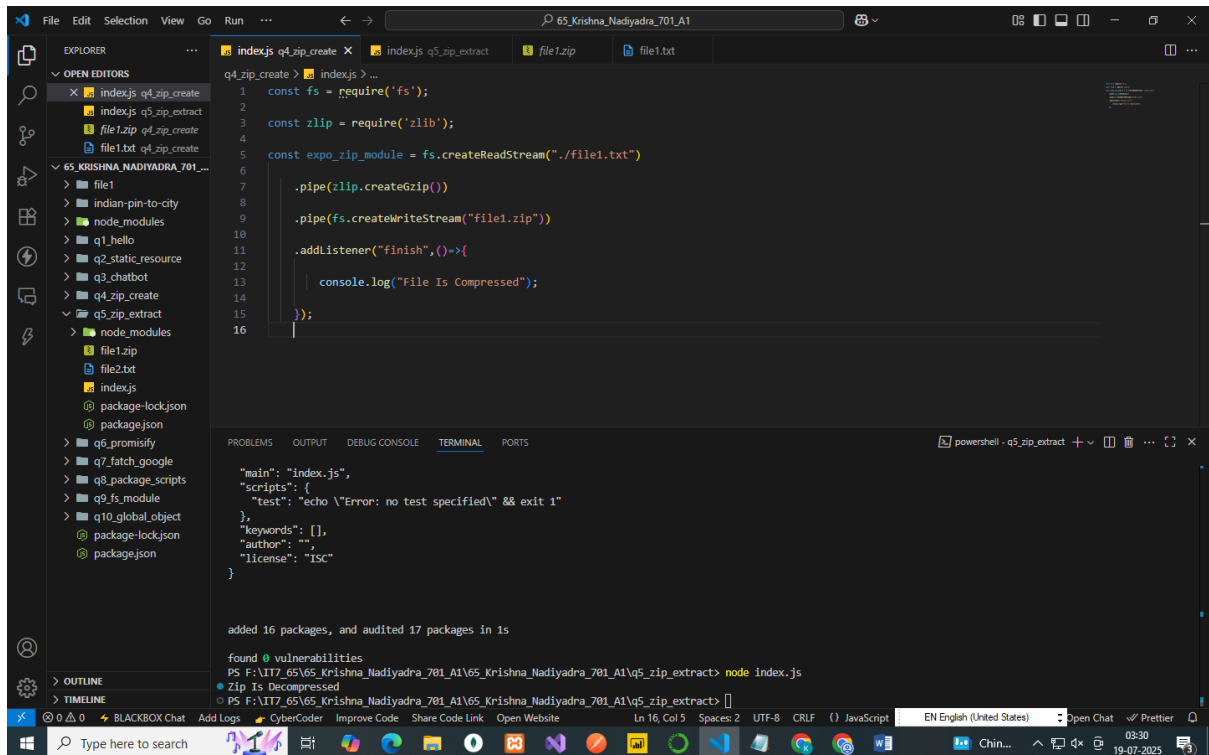
Q4

The screenshot shows a VS Code editor with a project named '65_Krishna_Nadiyadra_701_A1'. The Explorer sidebar shows a file structure with folders 'q1_hello', 'q2_static_resource', 'q3_chatbot', 'q4_zip_create', and 'q5_zip_extract'. The 'q4_zip_create' folder contains 'file1.txt' and 'q4_zip_create'. The 'q4_zip_create' file is open in the editor, showing a JavaScript script that creates a zip file from 'file1.txt'. The terminal at the bottom shows the command 'node index.js' being executed, and the output shows the file being compressed.

```
q4_zip_create > index.js > ...
1 const fs = require('fs');
2
3 const zlib = require('zlib');
4
5 const expo_zip_module = fs.createReadStream("./file1.txt")
6
7   .pipe(zlib.createGzip())
8
9   .pipe(fs.createWriteStream("file1.zip"))
10
11   .addListener("finish", ()=>{
12     console.log("File Is Compressed");
13   });
14
15
16

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
added 16 packages, and audited 17 packages in 1s
found 0 vulnerabilities
PS F:\IT7_65\Krishna_Nadiyadra_701_A1\q5_zip_extract> node index.js
Zip Is Decompressed
PS F:\IT7_65\Krishna_Nadiyadra_701_A1\q5_zip_extract> cd..
PS F:\IT7_65\Krishna_Nadiyadra_701_A1\q5_zip_extract> cd q4_zip_create
PS F:\IT7_65\Krishna_Nadiyadra_701_A1\q4_zip_create> node index.js
File Is Compressed
PS F:\IT7_65\Krishna_Nadiyadra_701_A1\q4_zip_create>
```

Q5



```
1 const fs = require('fs');
2
3 const zlib = require('zlib');
4
5 const expo_zip_module = fs.createReadStream("./file1.txt")
6
7     .pipe(zlib.createGzip())
8
9     .pipe(fs.createWriteStream("file1.zip"))
10
11     .addListener("finish", ()=>{
12         console.log("File Is Compressed");
13     });
14
15
16
```

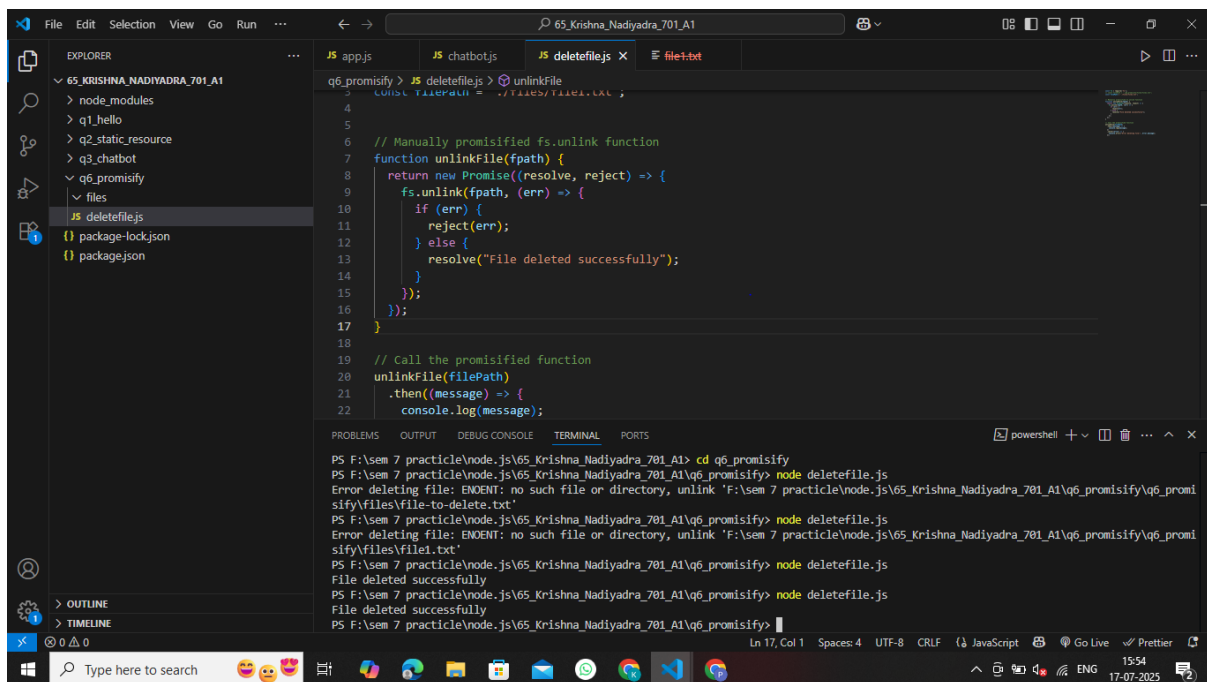
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
"main": "index.js",
"scripts": {
  "test": "echo \"Error: no test specified\" && exit 1"
},
"keywords": [],
"author": "",
"license": "ISC"

added 16 packages, and audited 17 packages in 1s

found 0 vulnerabilities
PS F:\IT7_65\65_Krishna_Nadiyadra_701_A1\65_Krishna_Nadiyadra_701_A1\q5_zip_extract> node index.js
PS F:\IT7_65\65_Krishna_Nadiyadra_701_A1\65_Krishna_Nadiyadra_701_A1\q5_zip_extract>
```

Q6



```
3 const unlinkFile = (filePath) => {
4
5
6 // Manually promisified fs.unlink function
7 function unlinkFile(filePath) {
8     return new Promise((resolve, reject) => {
9         fs.unlink(filePath, (err) => {
10             if (err) {
11                 reject(err);
12             } else {
13                 resolve("File deleted successfully");
14             }
15         });
16     });
17 }
18
19 // Call the promisified function
20 unlinkFile(filePath)
21     .then((message) => {
22         console.log(message);
23     });
24
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1> cd q6.promisify
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q6.promisify> node deletefile.js
Error deleting file: ENOENT: no such file or directory, unlink 'F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q6.promisify\q6_promi
sify\files\to-delete.txt'
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q6.promisify> node deletefile.js
Error deleting file: ENOENT: no such file or directory, unlink 'F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q6.promisify\q6_promi
sify\files\file1.txt'
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q6.promisify> node deletefile.js
File deleted successfully
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q6.promisify> node deletefile.js
File deleted successfully
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q6.promisify>
```

Q7

```
q7_fetch_google > JS fetchgoogle.js > ...
1 // No need to install or import node-fetch in Node.js v18+
2
3 async function asyncawait() {
4   try {
5     const res = await fetch("https://www.google.com/");
6     const data = await res.text(); // Convert HTML to text
7     console.log(data); // Print HTML content of Google's homepage
8   } catch (err) {
9     console.error("Error fetching Google page:", err.message);
10  }
11 }
12
13 asyncawait();
14
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
(function(){var pmc="{v22dv22:{},v22sb_hev22:{v22clientv22:v22heirloom-hp\v22,v22dh\v22:true,v22ds\v22:v22\v22,v22hst\v22:v22google.com\v22,v22jsnp\v22:true,v22msgsv22:{v22tbl\v22:v22clear_Search\v22,v22dym\v22:v22did_you_mean\v22,v22dly\v22:v221u00264939m Feeling Lucky\v22,v22lml\v22:v22learn more\v22,v22psrc\v22:v22this search was removed from your \u003Ca href\v3d\\\v22/history\\\v22\u003EWeb History\u003C/a\\\u003E\v22,v22psnl\v22:v22Remove\v22,v22sbit\v22:v22Search by Image\v22,v22srch\v22:v22Google Search\v22},v22ov\v22:{},v22pq\v22:v22\v22,v22rfsv22:[[],v22stok\v22:v22150WafL_45bMcTK1j60MfpoI\v22}";google.pmc=JSON.parse(pmc)}();</script></body></html>
PS F:\sem 7 practicle\node.js\65_Krishna_Nadiyadra_701_A1\q7_fetch_google> node fetchgoogle.js
<doctype html><html itemscope="" itemtype="http://schema.org/WebPage" lang="en-IN"><head><meta content="text/html; charset=UTF-8" http-equiv="Content-Type"><meta content="//images/branding/google/1x/googleleg_standard_color_128dp.png" itemprop="image"><title>Google</title><script nonce="03NPptgI7EVHnvoQrv1_A">(function(){var _g=(key:'Fhd5a0FxCpCvseMP9pvm6Ac',kEXPI:'0,202791,26,37,2,3497428,1100,448529,90132,85210,9708,344796,219810,50666,19568,11106,5230436,139,463,36812180,25345987,20962,14110,22917,42254,6754,23878,9139,4600,328,6225,1117,49459,13589,15049,8205,3292,4134,30379,28334,29247,18993,5971,353,18880,3118,3,2749,7714,5774,24949,7,2655,3050,2,1667,11805,3261,2990,35,3420,2864,10620,12107,5683,3604,591,10823,6358,1516,1215,631,5800,9470,283,363,4222,4,4,4811,935,3,1470,3858,1753,1857,3,2979,1,3463,2,78,821,2,393,2886,7,1378,600,1033,939,5,634,4859,379,3859,115,240,3168,7,882,1092,2646,103,4,1,320,1191,3912,667,34,2225,81,7,154,2028,2526,360,2815,1288,159,3,2,2,2,1331,4034,276,611,3,107,727,1412,849,2004,712,691,219,3314,1028,1421,1641,1157,122,54,352,185,2,1,1380,31,84,20,1279,549,284,168,7,6,466,312,821,520,936,714,475,508,210,403,573,380,754,2,269,494,518,06,5,1,367,314,43,85,311,18,308,108,211,21,67
```

Q8

```
q8_package_scripts > package.json > ...
4   "main": "server.js",
5   "scripts": {
6     "start": "node server.js",
7     "test": "echo Running tests...",
8     "hello": "echo Hello from script!",
9     "greet": "node greet.js",
10    "runfile": "node customscript.js"
11  },
12  "keywords": [],
13  "author": ""
14
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
runfile
node customscript.js
PS F:\sem 7 practicle\node.js\65_Krishna_Nadiyadra_701_A1\q8_package_scripts> npm start

> node server.js

Server started at http://localhost:3000
PS F:\sem 7 practicle\node.js\65_Krishna_Nadiyadra_701_A1\q8_package_scripts> npm run greet

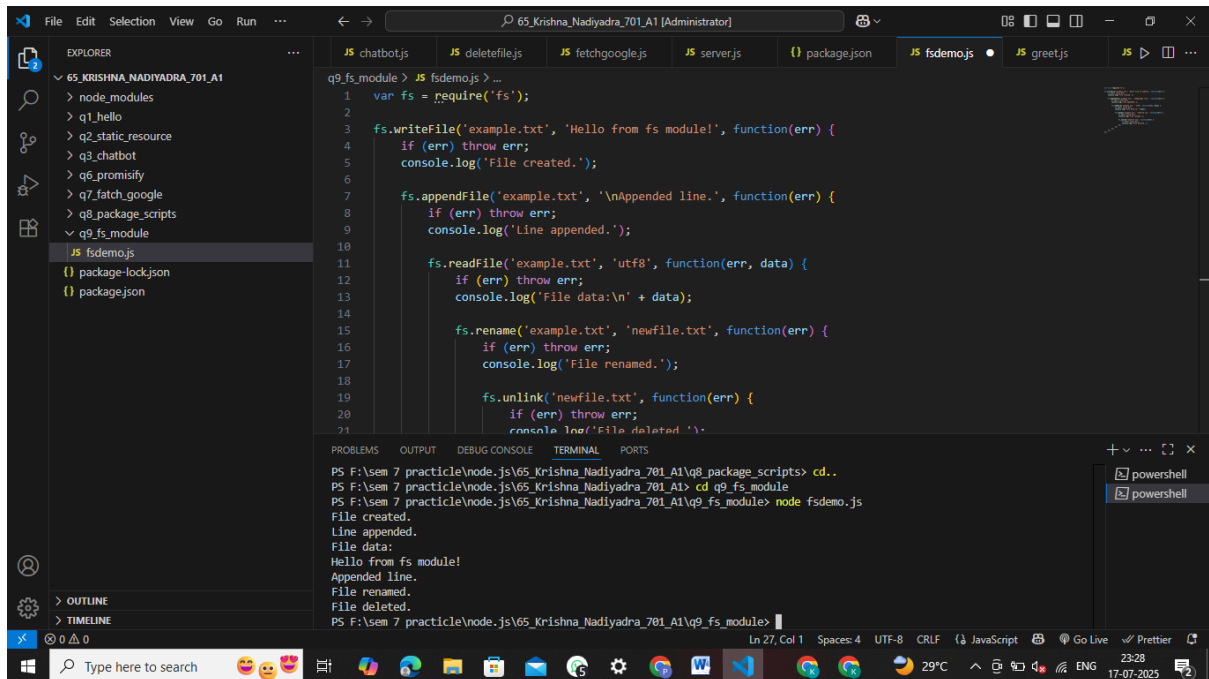
> q8_package_scripts@1.0.0 greet
> node greet.js

Greetings from Krishna!
PS F:\sem 7 practicle\node.js\65_Krishna_Nadiyadra_701_A1\q8_package_scripts> npm run hello

> q8_package_scripts@1.0.0 hello
> echo Hello from script!

Hello from script!
PS F:\sem 7 practicle\node.js\65_Krishna_Nadiyadra_701_A1\q8_package_scripts> npm run readfile
```

Q9



The screenshot shows the VS Code editor with a file named `fsdemo.js` open. The file contains the following JavaScript code:

```
1 var fs = require('fs');
2
3 fs.writeFile('example.txt', 'Hello from fs module!', function(err) {
4   if (err) throw err;
5   console.log('File created.');
```

```
6
7   fs.appendFile('example.txt', '\nAppended line.', function(err) {
8     if (err) throw err;
9     console.log('Line appended.');
```

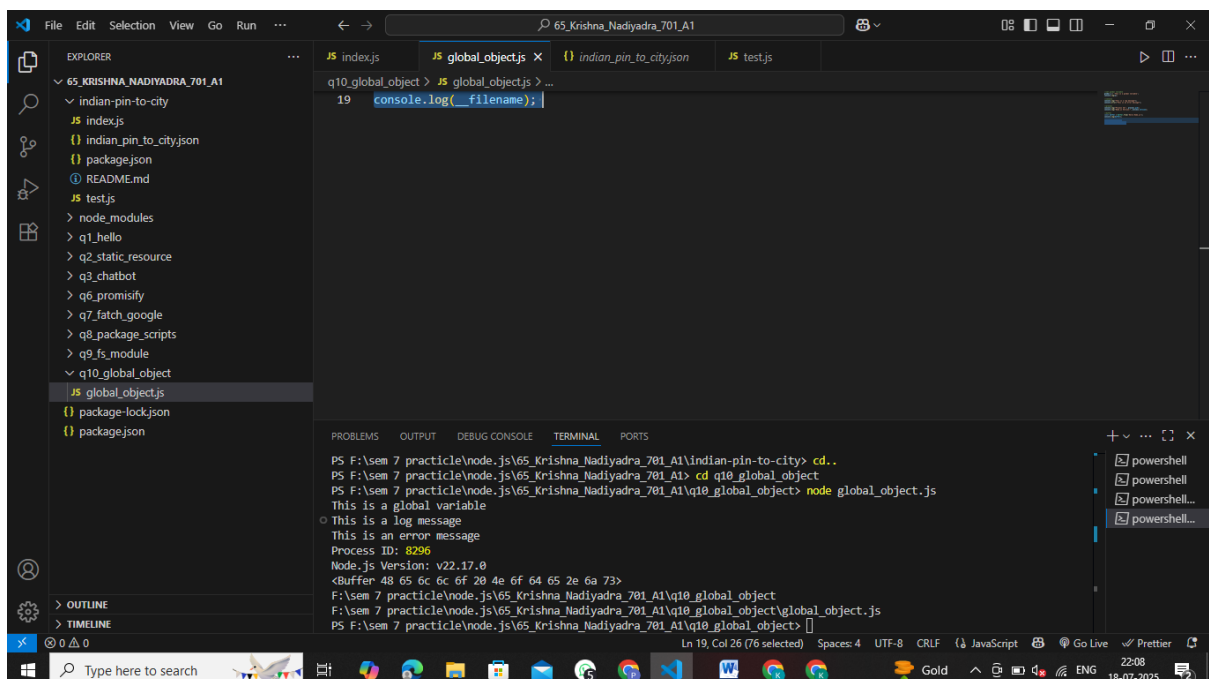
```
10
11   fs.readFile('example.txt', 'utf8', function(err, data) {
12     if (err) throw err;
13     console.log('File data:\n' + data);
14
15     fs.rename('example.txt', 'newfile.txt', function(err) {
16       if (err) throw err;
17       console.log('File renamed.');
```

```
18
19       fs.unlink('newfile.txt', function(err) {
20         if (err) throw err;
21         console.log('File deleted.');
```

The terminal window shows the following output:

```
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q8_package_scripts> cd..
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1> cd q9_fs_module
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q9_fs_module> node fsdemo.js
File created.
Line appended.
File data:
Hello from fs module!
Appended line.
File renamed.
File deleted.
```

Q10



The screenshot shows the VS Code editor with a file named `global_object.js` open. The file contains the following JavaScript code:

```
19 console.log(__filename);
```

The terminal window shows the following output:

```
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\indian-pin-to-city> cd..
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1> cd q10_global_object
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q10_global_object> node global_object.js
This is a global variable
This is a log message
This is an error message
Process ID: 8296
Node.js Version: v22.17.0
<Buffer 48 65 6c 6c 6f 20 4e 6f 64 65 2e 6a 73>
F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q10_global_object\global_object.js
F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q10_global_object\global_object.js
PS F:\sem 7 practice\node.js\65_Krishna_Nadiyadra_701_A1\q10_global_object>
```

Q11

The screenshot shows a VS Code editor window with a project named '65_KRISHNA_NADIYADRA_701_A1'. The Explorer sidebar on the left shows the file structure, including 'index.js' and 'test.js'. The main editor displays the 'index.js' file with the following code:

```
1 const fs = require('fs');
2 const path = require('path');
3
4 // Load the simplified JSON (object, not GeoJSON)
5
6 const rawData = fs.readFileSync(path.join(__dirname, 'indian-pin-to-city.json'), 'utf-8');
7 const pinDatabase = JSON.parse(rawData);
8
9 /**
10  * Get city and state by PIN code from simplified JSON
11  * @param {string|number} pin
12  * @returns {object|null}
13  */
14 function getCityByPin(pin) {
15   const pinStr = String(pin).trim();
```

The Output window at the bottom shows the results of running 'node test.js'. It displays details for PIN 395006 (Office: Varachha Road SO, District: Surat, State: Gujarat) and PIN 110001 (Office: New Delhi GPO, District: New Delhi GPO, State: Delhi).

The screenshot shows the npm website for the 'pin2city-india' package. The package is version 1.0.1, published 14 hours ago, and is public. It has 0 dependencies and 0 dependents. The package is available on npmjs.com/package/pin2city-india.

The package description states: "Convert any Indian PIN code (e.g., 395006) into the corresponding office, district, and state — offline using a local lightweight JSON database."

The package is unique because:

- ✓ No API calls needed
- ✓ Works 100% offline
- ✓ Fast lookup from local .json file
- ✓ Perfect for shipping calculators, address validation, or offline applications

The installation instructions are:

```
npm install pin2city-india
```

The package is licensed under MIT and has a size of 2.55 MB. It was last published 14 hours ago.