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Semester : 7

Division : B

Roll Number : 153

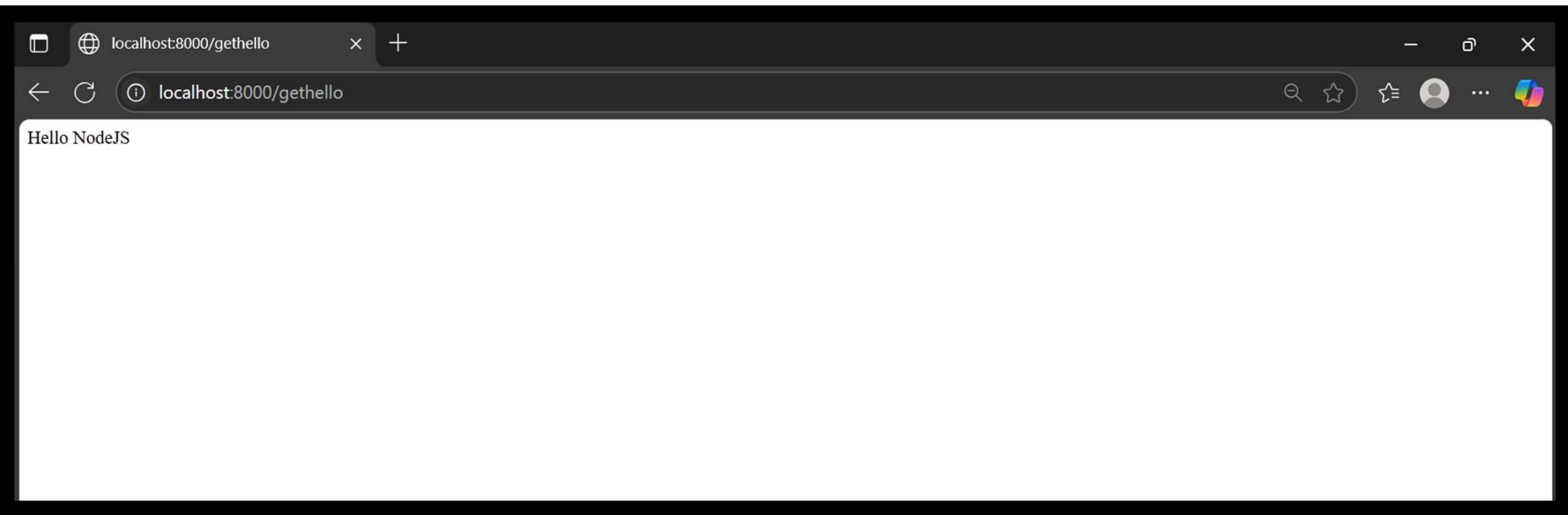
Subject: MERN Stack Practical  
Assignment-1

## Question:1

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

node - q1 + v [ ] [ ] ... [ ] [ ]

PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7\_153\Mern Stack\153\_Hardik\_Sachdev\_701\_A1\q1> node q1.js  
App Listening at http://localhost:8000

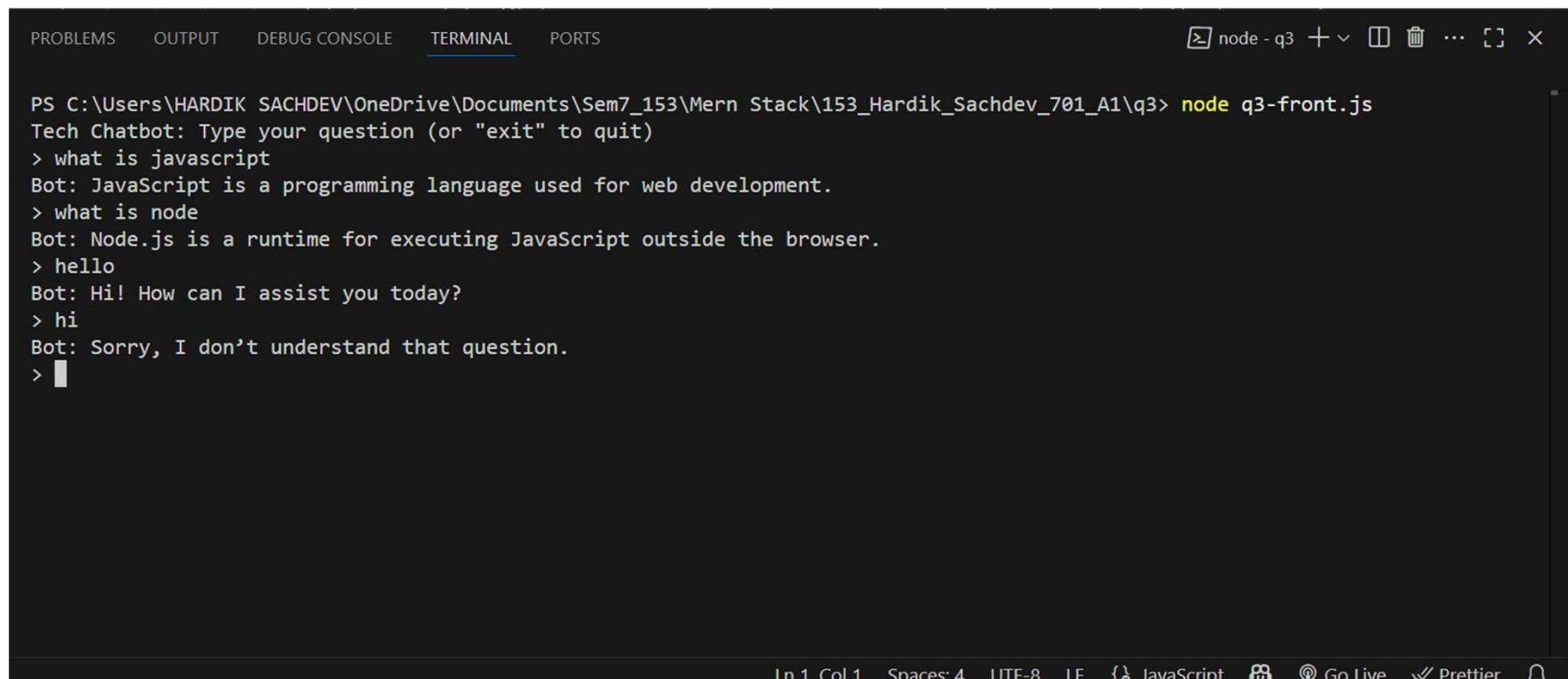


## Question:2

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\HARDIK_SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q2> node q2.js
App Listening at http://localhost:8000
█
```

```
JS q2.js > ...
1 // 2. Develop a web server which serves static resources.
2 const express= require('express');
3 const app=express();
4 const port=8000;
5
6 app.use(express.static('public'));
7
8
9 app.listen(port,()=>{
10 |   console.log(`App Listening at http://localhost:${port}`);
11 | });|
```

# Question:3

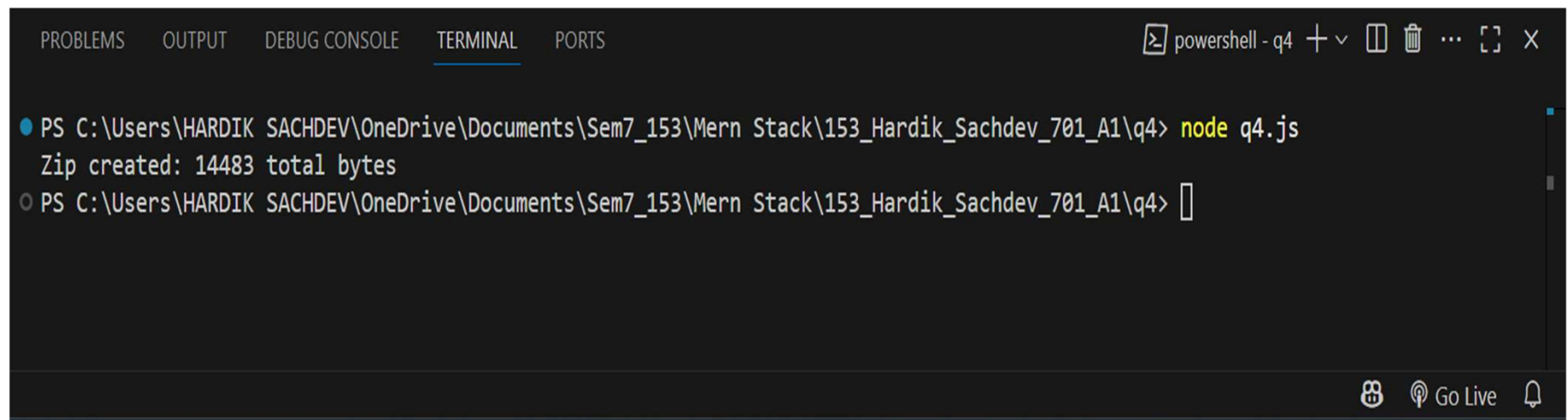


The image shows a screenshot of a Visual Studio Code terminal window. The terminal has tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL (which is active), and PORTS. The title bar of the terminal window says "node - q3". The terminal content shows a command prompt where the user has run "node q3-front.js". The chatbot responds with a greeting and asks for a question. The user asks "what is javascript", and the bot responds with a definition. The user asks "what is node", and the bot responds with a definition. The user says "hello", and the bot responds with a greeting. The user says "hi", and the bot responds with an apology for not understanding the question. The user then enters a blank line.

```
PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q3> node q3-front.js
Tech Chatbot: Type your question (or "exit" to quit)
> what is javascript
Bot: JavaScript is a programming language used for web development.
> what is node
Bot: Node.js is a runtime for executing JavaScript outside the browser.
> hello
Bot: Hi! How can I assist you today?
> hi
Bot: Sorry, I don't understand that question.
> 
```

Ln 1, Col 1 Spaces: 4 UTF-8 LF JavaScript Go Live Prettier

# Question:4



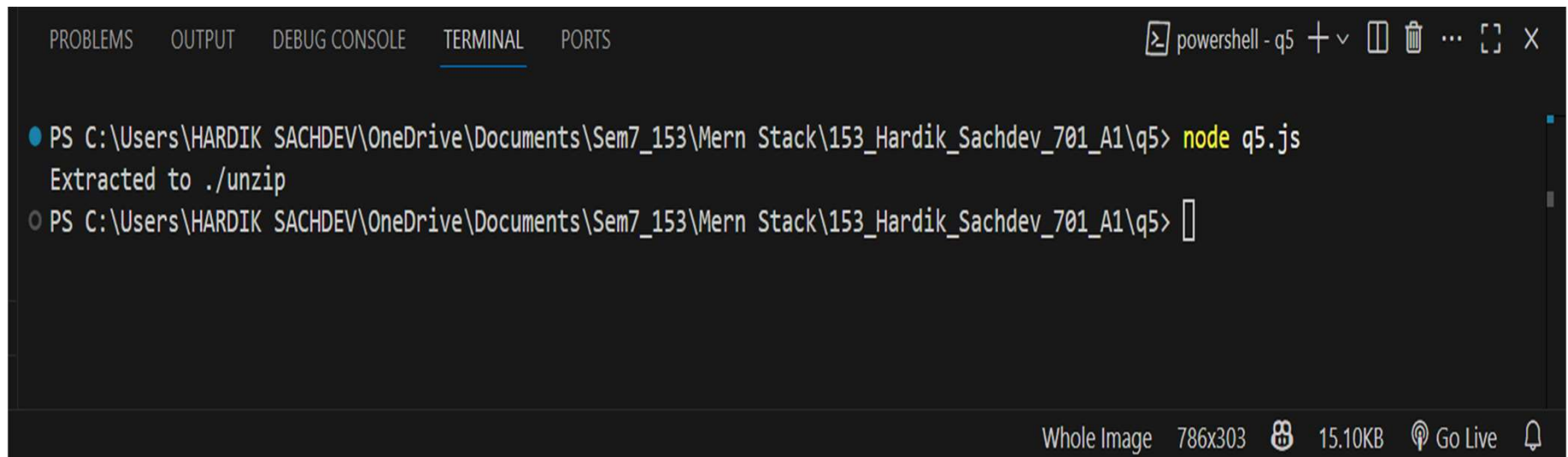
The image shows a screenshot of a Visual Studio Code terminal window. The terminal has a dark background with light-colored text. At the top, there is a tab bar with 'TERMINAL' selected. The terminal content shows a PowerShell prompt where the command 'node q4.js' was executed. The output indicates that a zip file was created with a total size of 14483 bytes. The prompt is now ready for the next command.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS powershell - q4 + v [ ] [ ] [ ] [ ] X
```

```
● PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q4> node q4.js  
  Zip created: 14483 total bytes  
○ PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q4> [ ]
```

Go Live [ ] [ ] [ ]

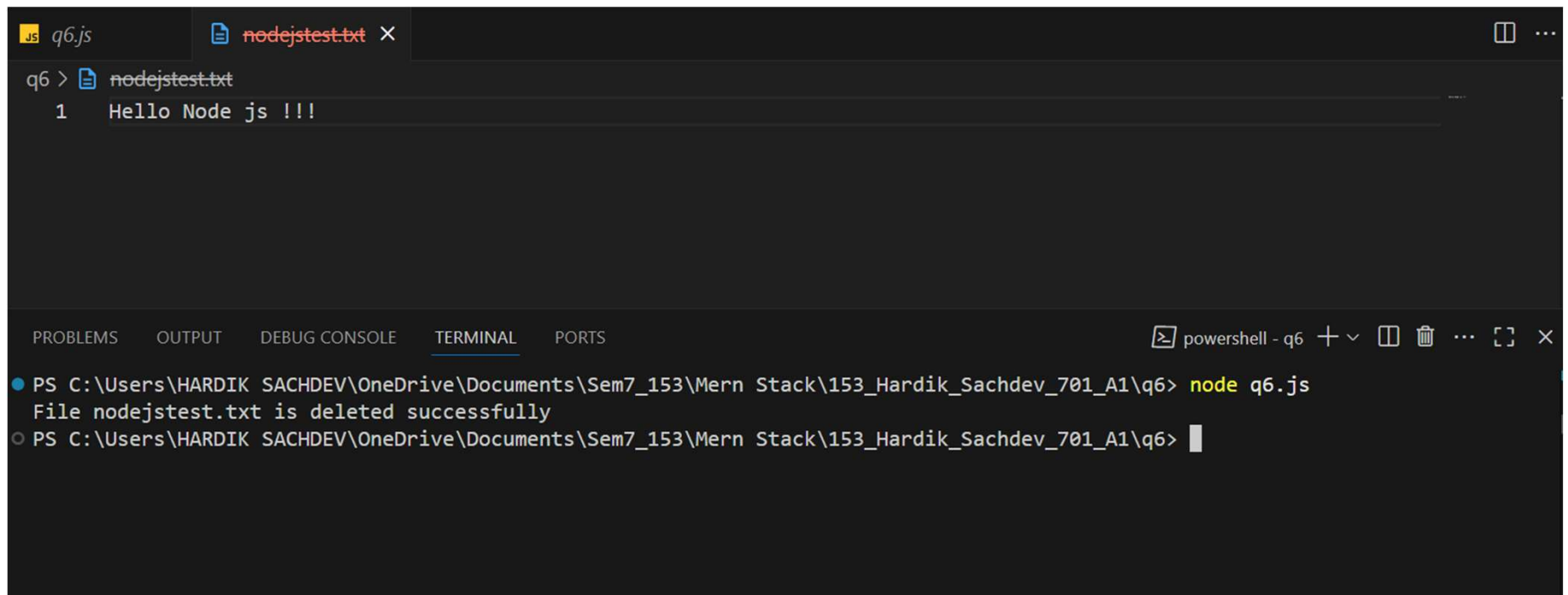
# Question:5



The image shows a screenshot of a Visual Studio Code terminal window. The terminal is titled "powershell - q5" and has tabs for "PROBLEMS", "OUTPUT", "DEBUG CONSOLE", "TERMINAL" (which is active), and "PORTS". The terminal content shows a PowerShell prompt at the path "C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7\_153\Mern Stack\153\_Hardik\_Sachdev\_701\_A1\q5". The user has entered the command "node q5.js", which has been executed, resulting in the output "Extracted to ./unzip". The prompt is now ready for the next command. At the bottom of the terminal window, there is a status bar with the text "Whole Image 786x303 15.10KB Go Live" and a bell icon.

```
PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q5> node q5.js
Extracted to ./unzip
PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q5> 
```

# Question:6

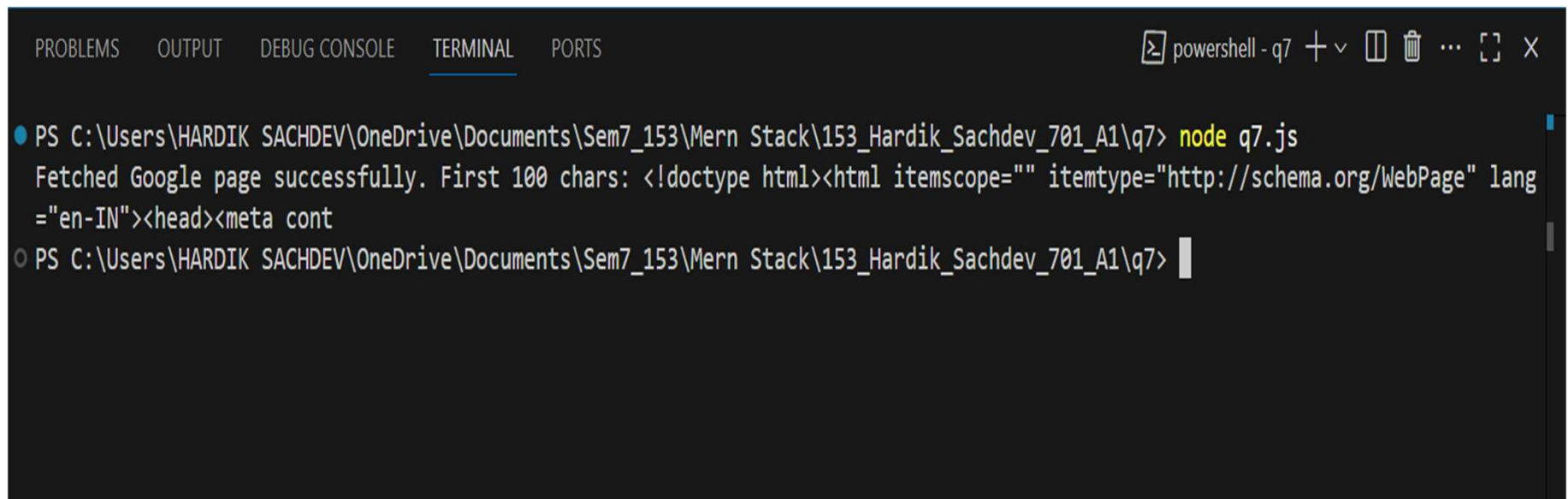


The image shows a Visual Studio Code editor window with a dark theme. At the top, there are two tabs: 'q6.js' with a JavaScript icon and 'nodejstest.txt' with a text file icon. The 'nodejstest.txt' tab is active, showing a single line of code: '1 Hello Node js !!!'. Below the editor, there is a panel with tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL', and 'PORTS'. The 'TERMINAL' tab is selected, displaying a PowerShell prompt. The terminal shows the command 'node q6.js' being executed, which results in the message 'File nodejstest.txt is deleted successfully'. The terminal path is 'C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7\_153\Mern Stack\153\_Hardik\_Sachdev\_701\_A1\q6>'. The terminal window title is 'powershell - q6'.

```
q6 > nodejstest.txt
1 Hello Node js !!!

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS powershell - q6
● PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q6> node q6.js
  File nodejstest.txt is deleted successfully
○ PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q6>
```

# Question:7



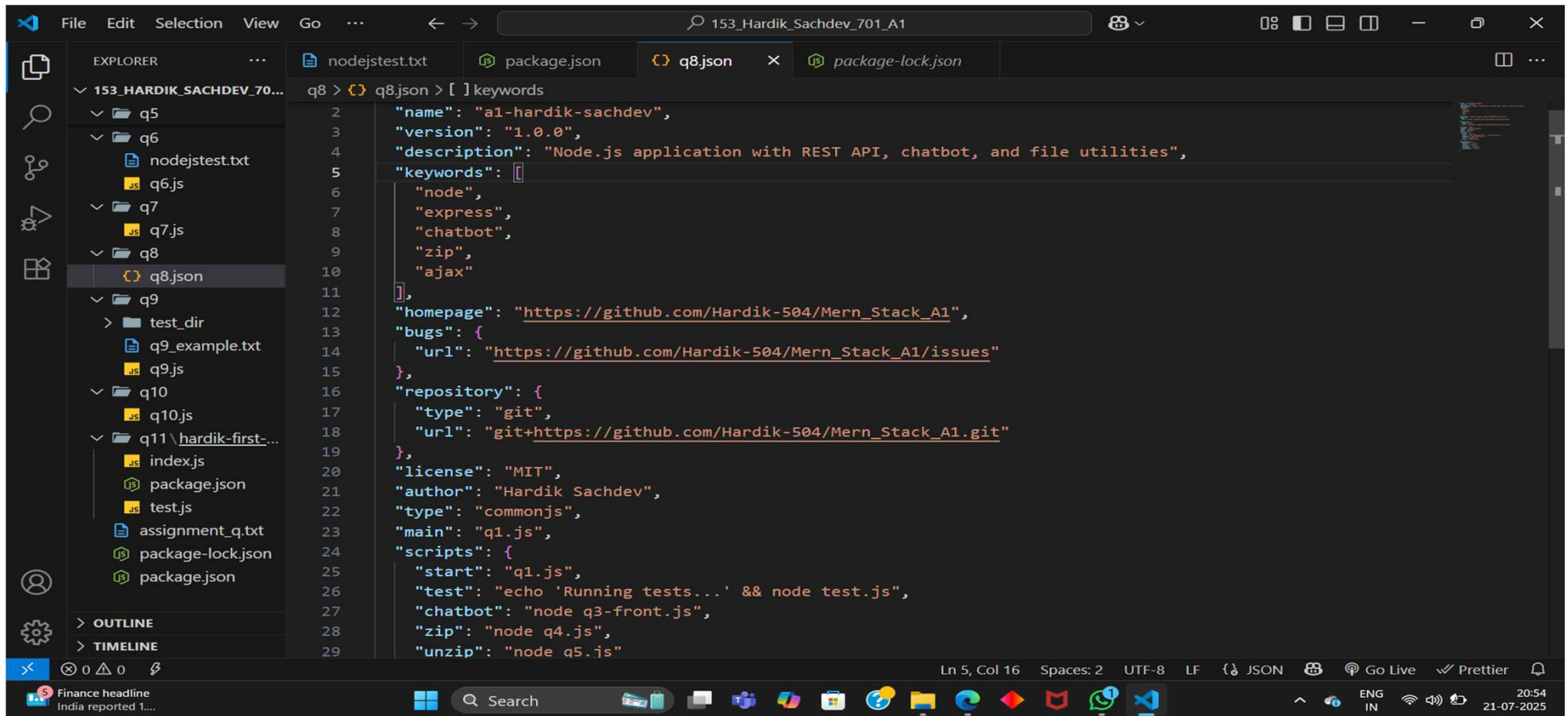
The image shows a screenshot of a Visual Studio Code terminal window. The terminal has a dark background with light-colored text. At the top, there are tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL' (which is active and underlined), and 'PORTS'. In the top right corner of the terminal, there is a title bar that says 'powershell - q7' followed by standard window control icons (minimize, maximize, close). The terminal content shows a PowerShell prompt 'PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7\_153\Mern Stack\153\_Hardik\_Sachdev\_701\_A1\q7>' where the command 'node q7.js' has been executed. The output of the script is 'Fetched Google page successfully. First 100 chars: <!doctype html><html itemscope="" itemtype="http://schema.org/WebPage" lang="en-IN"><head><meta cont'. The prompt is now ready for another command.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS powershell - q7 + v [] [] ... [] X
```

```
● PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q7> node q7.js
  Fetched Google page successfully. First 100 chars: <!doctype html><html itemscope="" itemtype="http://schema.org/WebPage" lang
    ="en-IN"><head><meta cont
○ PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q7> 
```



# Question:8



The screenshot shows the Visual Studio Code editor interface. The Explorer panel on the left displays a project structure with folders q5 through q11. The file q8.json is selected. The main editor area shows the content of q8.json, which is a JSON file defining a Node.js application. The file includes fields for name, version, description, keywords, homepage, bugs, repository, license, author, type, main, and scripts. The status bar at the bottom indicates the current position is Line 5, Column 16, with 2 spaces, UTF-8 encoding, and LF line endings. The file is named q8.json and is part of a project named 153\_Hardik\_Sachdev\_701\_A1.

```
q8 > q8.json > [ ] keywords
 2  "name": "a1-hardik-sachdev",
 3  "version": "1.0.0",
 4  "description": "Node.js application with REST API, chatbot, and file utilities",
 5  "keywords": [
 6    "node",
 7    "express",
 8    "chatbot",
 9    "zip",
10    "ajax"
11  ],
12  "homepage": "https://github.com/Hardik-504/Mern_Stack_A1",
13  "bugs": {
14    "url": "https://github.com/Hardik-504/Mern_Stack_A1/issues"
15  },
16  "repository": {
17    "type": "git",
18    "url": "git+https://github.com/Hardik-504/Mern_Stack_A1.git"
19  },
20  "license": "MIT",
21  "author": "Hardik Sachdev",
22  "type": "commonjs",
23  "main": "q1.js",
24  "scripts": {
25    "start": "q1.js",
26    "test": "echo 'Running tests...' && node test.js",
27    "chatbot": "node q3-front.js",
28    "zip": "node q4.js",
29    "unzip": "node q5.js"
```

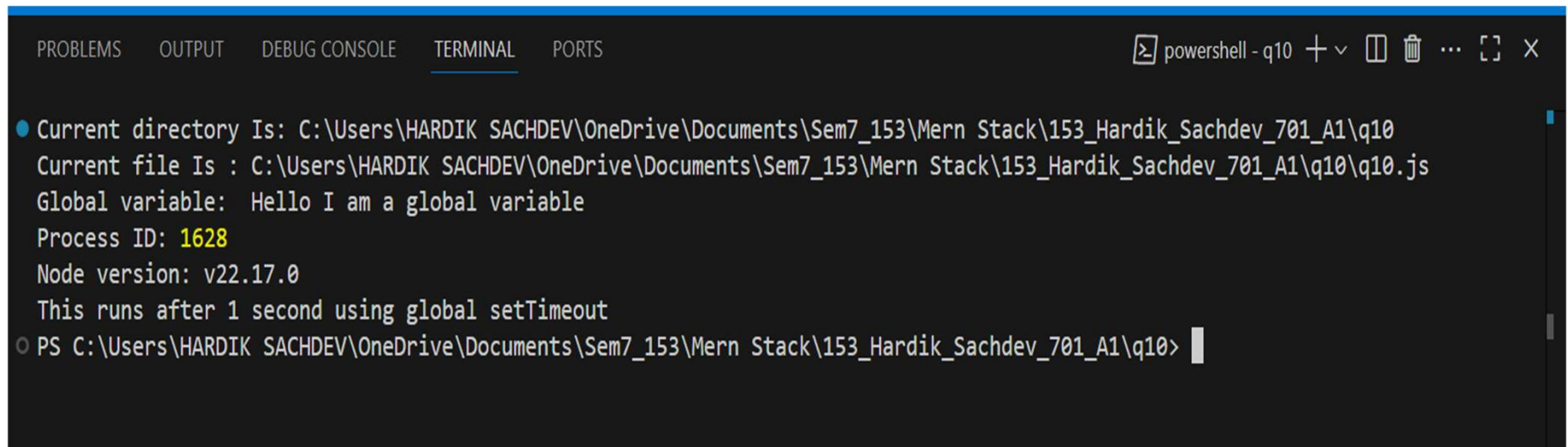
## Question:9

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
powershell - q9 + v [ ] [ ] ... [ ] [ ] X

PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q9> node q9.js
File content: Hello, fs module node js question_9!
File exists Here
Directory created Successfully
File stats: Stats {
  dev: 2531272849,
  mode: 33206,
  nlink: 1,
  uid: 0,
  gid: 0,
  rdev: 0,
  blksize: 4096,
  ino: 1125899907290697,
  size: 36,
  blocks: 0,
  atimeMs: 1753107295193.353,
  mtimeMs: 1753107295193.353,
  ctimeMs: 1753107295193.353,
  birthtimeMs: 315513000000
}
```

# Question:10



The screenshot shows a VS Code terminal window with the title bar "powershell - q10". The terminal content is as follows:

```
● Current directory Is: C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q10
  Current file Is : C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q10\q10.js
  Global variable: Hello I am a global variable
  Process ID: 1628
  Node version: v22.17.0
  This runs after 1 second using global setTimeout
○ PS C:\Users\HARDIK SACHDEV\OneDrive\Documents\Sem7_153\Mern Stack\153_Hardik_Sachdev_701_A1\q10> |
```

# Question:11

```
nodejstest.txt  package.json  test.js
q11 > hardik-first-pkg > package.json > ...
1  {
2    "name": "hardik-first-pkg",
3    "version": "1.0.0",
4    "description": "A simple String utility package",
5    "keywords": [
6      "string",
7      "utils",
8      "javascript"
9    ],
10   "homepage": "https://github.com/Hardik-504/Mern_Stack_A1",
11   "bugs": {
12     "url": "https://github.com/Hardik-504/Mern_Stack_A1/issues"
13   },
14   "repository": {
15     "type": "git",
16     "url": "git+https://github.com/Hardik-504/Mern_Stack_A1.git"
17   },
18   "license": "MIT",
19   "author": "Hardik Sachdev",
20   "type": "commonjs",
21   "main": "index.js",
22   "scripts": {
23     "test": "echo \"Error: no test specified\" && exit 1"
24   }
25 }
26
```