

MSc. ICT -3rd Sem

Roll No. 10

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1. Develop nodejs application with following requirements:

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.)

AJAX Call to `/gethello`

Click to Get Data

Hello NodeJS

2. Develop a web server which serves static resources.

Hello From HTML Page

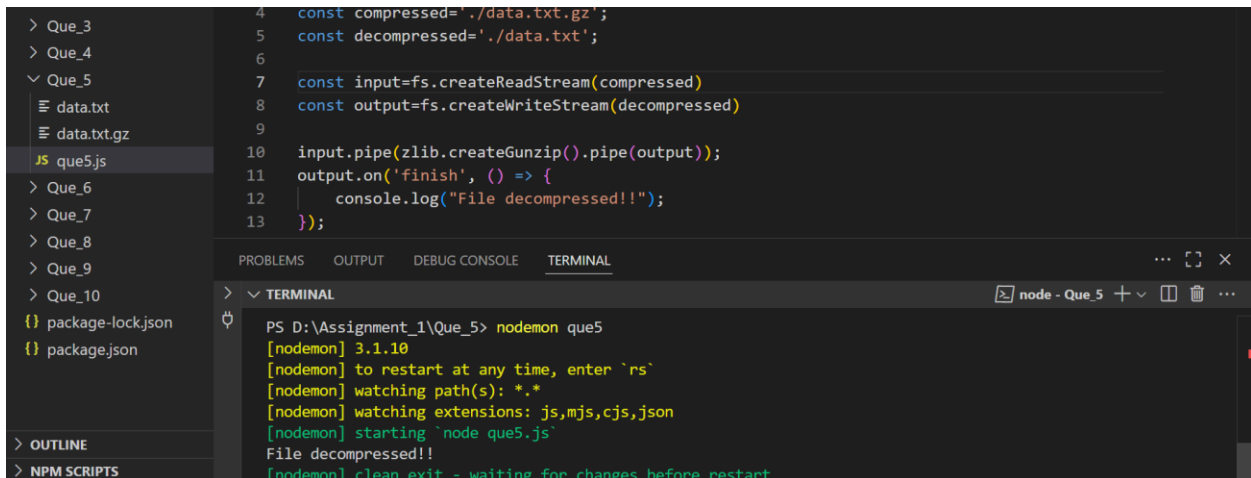
3. Develop a module for domain specific chatbot and use it in a command line application.

```
> ▾ TERMINAL node - Que_3 + ▾
[nodemon] starting `node Chatboat.js`
You==>hi
hi
Bot ==> Hi!
You==>how do you do?
how do you do?
Bot ==> I'm fine ^_^
You==>
```

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

```
> ▾ TERMINAL node - Que_4 +
[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 que4.js`
file compressed!!
[nodemon] clean exit - waiting for changes before restart
```

5. Write a program to extract a zip file.



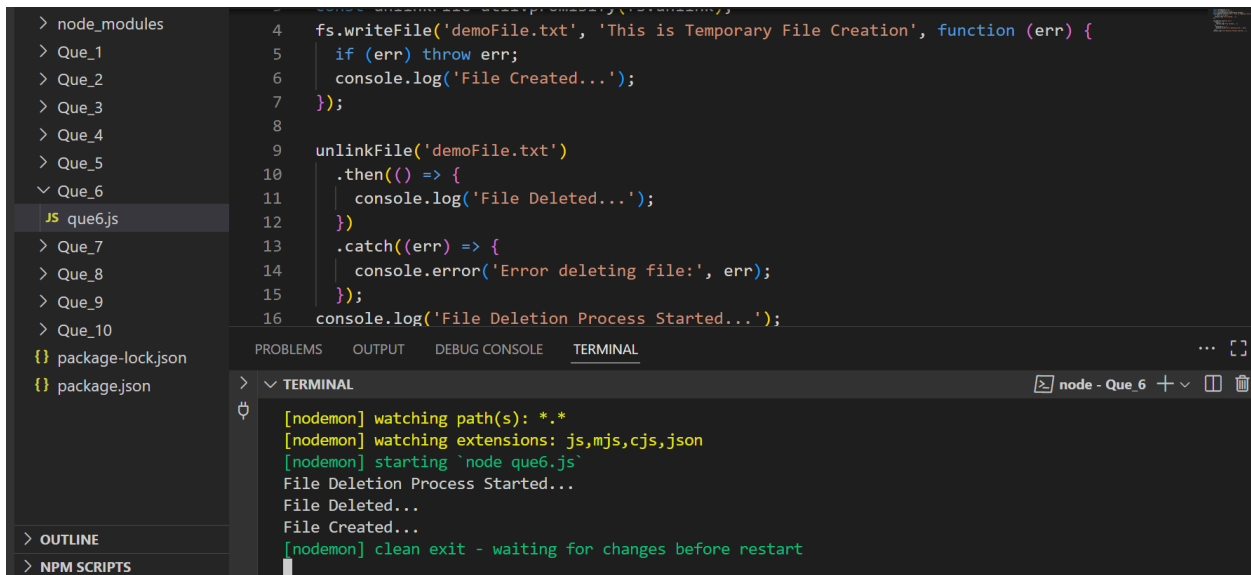
The screenshot shows a VS Code editor with a file explorer on the left containing files like `data.txt`, `data.txt.gz`, and `que5.js`. The main editor displays the following JavaScript code:

```
4 const compressed='./data.txt.gz';
5 const decompressed='./data.txt';
6
7 const input=fs.createReadStream(compressed)
8 const output=fs.createWriteStream(decompressed)
9
10 input.pipe(zlib.createGunzip().pipe(output));
11 output.on('finish', () => {
12   console.log("File decompressed!!");
13 });
```

The terminal at the bottom shows the command `node - Que_5` being executed, with the following output:

```
PS D:\Assignment_1\Que_5> nodemon que5
[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 que5.js`
File decompressed!!
[nodemon] clean exit - waiting for changes before restart
```

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 files like `node_modules`, `Que_1`, `Que_2`, `Que_3`, `Que_4`, `Que_5`, `que6.js`, `Que_7`, `Que_8`, `Que_9`, `Que_10`, `package-lock.json`, and `package.json`. The main editor displays the following JavaScript code:

```
4 fs.writeFile('demoFile.txt', 'This is Temporary File Creation', function (err) {
5   if (err) throw err;
6   console.log('File Created...');
7 });
8
9 unlinkFile('demoFile.txt')
10 .then(() => {
11   console.log('File Deleted...');
12 });
13 .catch((err) => {
14   console.error('Error deleting file:', err);
15 });
16 console.log('File Deletion Process Started...');
```

The terminal at the bottom shows the command `node - Que_6` being executed, with the following output:

```
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,cjs,json
[nodemon] starting `node que6.js`
File Deletion Process Started...
File Deleted...
File Created...
[nodemon] clean exit - waiting for changes before restart
```

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


```

[nodemon] watching extensions: js,mjs,cjs,json
• [nodemon] starting `node app.js`
file written successfully..
appending data successfully...
file content:
  hello,this is a same file..
• Appending more text.

file renamed...
[nodemon] clean exit - waiting for changes before restart

```

10. A program which uses global objects in nodejs.

The screenshot shows a VS Code editor with a file named 'que10.js' open. The file contains the following code:

```

9  setTimeout(() => {
10     console.log('1 seconds passed');
11     console.log('App name from global:', global.myAppName);
12
13     console.log('Memory usage:', process.memoryUsage());
14 }, 1000);
15
16 console.log('Running on platform:', process.platform);
17 console.log('Environment:', process.env);
18

```

The terminal output shows the following:

```

[nodemon] starting `node que10.js`
Current file: D:\Assignment_1\Que_10\que10.js
Current directory: D:\Assignment_1\Que_10
Running on platform: win32
Environment: {
  ALLUSERSPROFILE: 'C:\\ProgramData',
  APPDATA: 'C:\\Users\\IT CARE\\AppData\\Roaming',
  CHROME_CRASHPAD_PIPE_NAME: '\\\\.\\pipe\\crashpad_3148_RDPUUACRYDNZXFJA',
  COLORTERM: 'truecolor',
  CommonProgramFiles: 'C:\\Program Files\\Common Files',
  'CommonProgramFiles(x86)': 'C:\\Program Files (x86)\\Common Files',
  CommonProgramW6432: 'C:\\Program Files\\Common Files',

```

The screenshot shows a VS Code editor with a file explorer on the left. The file explorer shows a project named 'ASSIGNMENT_1' with a folder 'node_modules' and several files including 'Que_1' through 'Que_8', 'about.js', 'contact.js', 'home.js', 'package.json', 'server.js', 'package-lock.json', and 'package.json'. The file 'que10.js' is selected. The editor shows the following code:

```
Que_10 > JS que10.js > ...
9  setTimeout(() => {
10    console.log('1 seconds passed');
11    console.log('App name from global:', global.myAppName);
12
13    console.log('Memory usage:', process.memoryUsage());
14  }, 1000);
15
16  console.log('Running on platform:', process.platform);
17  console.log('Environment:', process.env);
18
```

The terminal output shows the following:

```
windir: 'C:\\WINDOWS',
ZES_ENABLE_SYSMAN: '1'
}
1 seconds passed
App name from global: NodeGlobalDemo
Memory usage: {
  rss: 34066432,
  heapTotal: 5758976,
  heapUsed: 4768664,
  external: 1603981,
  arrayBuffers: 10691
}
```

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

