

### **Experiment 3:**

**a. Write a program to check request header for cookies.**

**b. Write node.js program to print the car object properties, delete the second property and get length of the object.**

**a. Write a program to check request header for cookies.**

Step 1: Write the code in VS code and save the file as cookies.js

Step 2: Nodejs is required to run JavaScript code outside of a web browser. If Nodejs is not installed in your system you need to install it by visiting the official Node.js website (nodejs.org) and download the appropriate installer for your operating system (Windows, macOS, or Linux). After installation, open a terminal or command prompt and type node -v and npm -v. If Node.js and npm (Node Package Manager) are installed correctly, you'll see their version numbers.

Step 3: Open Terminal in VS code and navigate to the directory where the file cookies.js is located

Step 4 : Run the code in the terminal as node cookies.js

You should see the following output in the terminal:

Server running at <http://localhost:3000/>

Step 5:

- To test the server, Open a web browser (like Chrome, Firefox, or Edge).
- Go to the URL <http://localhost:3000/>.
- You should see the message "Check console for cookies information." in the browser.

Step 6 :

- To test the cookie handling, you need to send a request with cookies. To Add Cookies to the Request:

- Using Browser Developer Tools:
  - Open the developer tools in your browser (usually by pressing F12).
  - Go to the "Application" or "Storage" tab.
  - In the "Cookies" section, you can add a cookie for localhost:3000.
  - Refresh the http://localhost:3000
- Now, look back at the terminal where you ran the Nodejs code. You'll see the request headers printed, and if there are cookies, you'll see cookies listed.

```
const http = require("http");

// Create a server

const server = http.createServer((req, res) =>
{
    const headers = req.headers; // Get request headers

    console.log(headers, ".....");

    // Check if 'cookie' header exists

    if (headers.cookie)
    {
        console.log("Cookies:", headers.cookie);
    }
    else
    {
        console.log("No cookies found in the request header.");
    }

    res.end("Check console for cookies information.");
}
```

```

});

// Listen on port 3000

server.listen(3000, () =>

{

console.log("Server running at http://localhost:3000/");

});

```

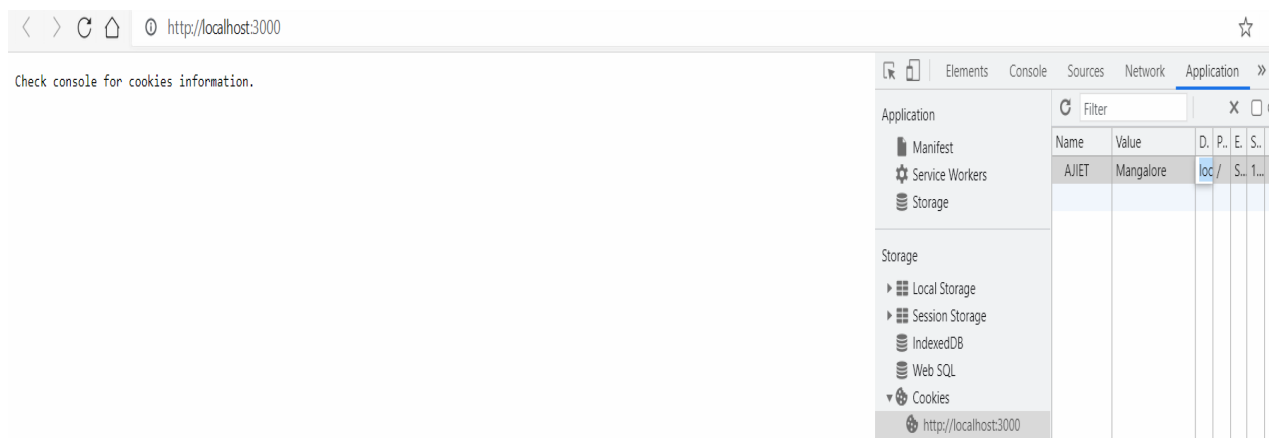
The screenshot shows the VS Code editor with a file named 'cookies.js' open. The code in the file is as follows:

```

1  const http = require("http");
2  // Create a server
3  const server = http.createServer((req, res) => {
4    // Get request headers
5    const headers = req.headers;
6    console.log(headers, ".....");
7    // Check if 'cookie' header exists
8    if (headers.cookie) {
9      console.log("Cookies:", headers.cookie);
10   } else {
11     console.log("No cookies found in the request header.");
12   }
13   res.end("Check console for cookies information.");
14 });
15 // Listen on port 3000
16 server.listen(3000, () => {
17   console.log("Server running at http://localhost:3000/");
18 });

```

The terminal at the bottom shows the command 'E:\Pgm3>node cookies.js' and the output 'Server running at http://localhost:3000/'.



After Refreshing,

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

pragma: 'no-cache',
'cache-control': 'no-cache',
'sec-ch-ua': '"Chromium";v="91", " Not;A Brand";v="99"',
'sec-ch-ua-mobile': '?0',
'user-agent': 'Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/91.0.4472.85 Safari/537.36 QIHU 36
accept: 'image/avif,image/webp,image/apng,image/svg+xml,image/*,*/*;q=0.8',
'sec-fetch-site': 'same-origin',
'sec-fetch-mode': 'no-cors',
'sec-fetch-dest': 'image',
referrer: 'http://localhost:3000/',
'accept-encoding': 'gzip, deflate, br',
'accept-language': 'en-US,en;q=0.9',
cookie: 'AJIET=Mangalore'
} .....
Cookies: AJIET=Mangalore
```

**b. Write node.js program to print the car object properties, delete the second property and get length of the object.**

Step 1: Write the code in VS code and save the file as carObject.js

Step 2: Nodejs is required to run JavaScript code outside of a web browser. If Nodejs is not installed in your system you need to install it by visiting the official Node.js website (nodejs.org) and download the appropriate installer for your operating system (Windows, macOS, or Linux). After installation, open a terminal or command prompt and type node -v and npm -v. If Node.js and npm (Node Package Manager) are installed correctly, you'll see their version numbers.

Step 3: Open Terminal in VS code and navigate to the directory where the file carObject.js is located

Step 4 : Run the code in the terminal as node carObject.js

You should see the following output in the terminal:

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

E:\Pgm3>node carobject.js
Original car object:
make: Toyota
model: Fortuner
year: 2025
color: black

Car object after deleting the second property:
make: Toyota
year: 2025
color: black

Length of the car object after deleting the second property: 3
```

```
// Define a car object

const car = {

    make: 'Toyota',

    model: 'Fortuner',

    year: 2025,

    color: 'black'

};

// Print the properties of the car object

console.log('Original car object:');

for (const property in car)

{

    console.log(`${property}: ${car[property]}`);

}

// Delete the second property

const secondProperty = Object.keys(car)[1];

delete car[secondProperty];
```

```
console.log(`\nCar object after deleting the second property:`);

for (const property in car)

{

  console.log(`${property}: ${car[property]}`);

}

// Get the length of the object

const length = Object.keys(car).length;

console.log(`\nLength of the car object after deleting the second property: ${length}`);
```