### Here is the 7th Experiment of Skill Development Lab:

## Here is the question :

#### Maintaining the transactional history of any user is very important. Explore the various session tracking mechanism (Cookies, HTTP Session)

# Session Tracking Using Cookies

This project demonstrates how to use cookies to track session data and display it dynamically in a simple HTML page. Users can simulate adding transactions and view the transaction history stored in cookies.

## Features

* **Add Transaction**: Simulates adding a new transaction and stores it in a cookie.
* **Show Cookies**: Displays all cookies for the current domain in an alert box.

## How It Works

1. **Set Cookie**:
   * Uses JavaScript to store transaction history in the transactionHistory cookie.
   * The cookie is set with an expiration period of 7 days.
2. **Get Cookie**:
   * Retrieves the transactionHistory cookie and parses it to display the transaction history.
3. **Display Cookies**:
   * Fetches all cookies for the current domain and shows them in an alert box.

## Code Overview

* **HTML Structure**:
  + A title and two buttons for user interaction: “Add Transaction” and “Show Cookies.”
  + A paragraph element to display transaction history.
* **JavaScript Functions**:
  + setCookie(name, value, days): Sets a cookie with the given name, value, and expiration period.
  + getCookie(name): Fetches the value of a specified cookie.
  + trackTransaction(): Adds a new transaction to the cookie and updates the display.
  + showCookies(): Alerts all cookies for the current domain.

## Usage

1. Open the index.html file in a browser.
2. Click **Add Transaction** to simulate a new transaction.
3. View the transaction history under the **History** section.
4. Click **Show Cookies** to see the current cookies in an alert box.

## Example

* After clicking **Add Transaction** multiple times, the **History** section will display:

### History: Transaction 1, Transaction 2, Transaction 3

Clicking \*\*Show Cookies\*\* will show:

### transactionHistory=[…]; other\_cookie=value; …

## Requirements  
  
- Any modern web browser (e.g., Chrome, Firefox, Edge).  
- No additional software or libraries are required.  
  
## File Structure

### project/

│ ├── index.html # Main HTML file containing the session tracking code

└── README.md # Documentation file (this file)

└── output.png #output of the experiment

## Source Code:

<!DOCTYPE html>

<html>

<head>

    <title>Session Tracking</title>

    <script>

        const setCookie = (name, value, days) =>

            document.cookie = `${name}=${value}; expires=${new Date(Date.now() + days \* 864e5).toUTCString()}; path=/`;

        const getCookie = name =>

            document.cookie.split('; ').find(row => row.startsWith(name + '='))?.split('=')[1] || "[]";

        const trackTransaction = () => {

            const transactions = JSON.parse(getCookie("transactionHistory"));

            transactions.push(`Transaction ${transactions.length + 1}`);

            setCookie("transactionHistory", JSON.stringify(transactions), 7);

            document.getElementById("history").textContent = transactions.join(", ");

        };

        const showCookies = () => {

            alert(document.cookie || "No cookies available!");

        };

    </script>

</head>

<body>

    <h1>Session Tracking</h1>

    <button onclick="trackTransaction()">Add Transaction</button>

    <button onclick="showCookies()">Show Cookies</button>

    <p>History: <span id="history"></span></p>

</body>

</html>

## OUTPUT:

A computer screen shot of a black box

AI-generated content may be incorrect.

## Notes

* This example is for demonstration purposes and is not intended for production use without proper security measures.
* Be cautious when working with cookies, as they can expose sensitive information.

## Contribution:

Feel free to fork the repository and submit pull requests for improvements, bug fixes, or feature additions.

## License:

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