# CLIENT-SIDE STATE MANAGEMENT

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# State Management, Revisited

- Server-Side State Options
  - Cookies
  - Session State
  - Hidden Form Fields
  - Database
  - Global Variables

# Client-Side Storage

- Global variables
- Cookies
- LocalStorage
- SessionStorage

# Global Variables

☐ JavaScript in a page can store state in global variables

☐ Limitations:

  ☐ State is lost when browser navigates to different page or user closes tab

  ☐ If the page loads multiple scripts, global variables are not shared between them

# Cookies

- JavaScript in a page can access data in cookies associated with the domain and path the page was loaded from
  - Access using document.cookies[] array
  - jQuery: $.cookie() function
- Limitations:
  - Limited storage capacity

# HTML Web Storage

- A client-side mechanism for storing state
- Two collections:
    - window.localStorage – stores data with no expiration
    - window.sessionStorage – stores data until browser tab is closed
- Both collections store name-value pairs
- Values must be strings
- Store JavaScript objects and arrays by converting to/from JSON strings

# Using LocalStorage

- Store value
  - localStorage.myColor = "blue";
- Retrieve value
  - var color = localStorage.myColor;
- Remove value
  - localStorage.removeItem("myColor");
- Demo:
  - https://www.w3schools.com/html/html5_webstorage.asp
  - Use web developer tools to view storage

# Further Reading

- https://www.w3schools.com/html/html5_webstorage.asp