**Web Storage**

**Web Storage** is use to **store data locally on the user’s computer** — inside the browser — using simple key-value pairs.

**Why We Use Web Storage**

* Save user data on the browser (no database needed)
* Remember settings like **theme**, **language**, or **login info**
* Improve performance (no need to refetch data from server)
* Store small pieces of information (up to ~5 MB)

## Types of Web Storage

* **Session Storage**
* **Local Storage**

**Local Storage:**

* Permanent Data
* Data does not expire unless manually removed
* The data remains in the user's browser even after they close the browser window or turn off their computer.
  + It's only cleared through a JavaScript command or by the user manually clearing their browser's cache.
  + Stored up to 5 mb data
  + Data always stored in **key:value** pair
  + **Key must be in string format**
  + **Data is only accessible from the same domain that is stored.**

## Real-Time Use Cases

Local storage is particularly useful for building applications that need to remember user preferences or temporary data to improve the user experience.

1. Saving User Preferences:

* Dark Mode: A website can store a user's preference for dark mode in local storage. When the user returns to the site, the application checks this value and automatically applies the dark theme, providing a consistent experience.
* Language Selection: Similarly, a user's chosen language can be saved so they don't have to select it every time they visit.

1. Shopping Cart Data:
   * For e-commerce sites, a user's shopping cart contents can be saved in local storage. If the user accidentally closes their browser or their internet connection drops, the items will still be in their cart when they return. This is especially useful for guest users who are not logged in.

**Method of localStorage -**

1. localStorage.**setItem**(key, value)
2. localStorage.**getItem**(key)
3. localStorage.**removeItem**(key)
4. localStorage.**clear**()
5. localStorage.**length**

### JSON.stringify() –

Json stands for javascript object notation, It is a lightweight data format used to store and exchange data between client and server.

Json data store in key value pair in string format(“”).

* **Local Storage only stored string data.**
* To stored object or array you must convert them into string format by using method JSON.stringify()
* To retrieve the converted object into original form then use JSON.parse()

**Example:**

1.localStorage.setItem("city","Pune")

2.const myUsername = localStorage.getItem("city”)

3.localStorage.removeItem("city")

4.localStorage.clear()

5.const totalKey = localStorage.length

console.log(totalKey)

**Session Storage**

* Temporary Data
* This stores data for a single session.
* The data is available as long as the browser tab or window is open. Once the user closes the tab or browser, the data is deleted.
* It's ideal for temporary data that doesn't need to persist after the user leaves the site.
* **Session storage data is lost when the tab is closed**
* **It can store upto 5MB data for each domain**