**🌱 Digital Excellence Program – Class Plan  
 Local Storage and Data Persistence in the DOM**

**⏱ Time & Activity Breakdown**

| **Time Slot** | **Activity** | **Description** |
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| **First 5 minutes** | **Warm-up & Reflection** | **Start with a question that grounds the concept:**  **Example: “Have you ever filled out a form and lost everything when the page reloaded?”**  **Use this to introduce the need for local storage and persistence.** |
| **40 minutes** | **Core Concept Explanation – I** | **Topic: Introduction to Local Storage**  **Subtopics:**  **▫ The Web Storage API: localStorage vs sessionStorage**  **▫ Key-value data structure and storage limits**  **▫ Setting, getting, and removing data**  **Show basic syntax using localStorage.setItem(), getItem(), and removeItem(). Explain JSON stringification and parsing.** |
| **10 minutes** | **Interactive Activity** | **Create a small form (e.g., username and theme color selector) that saves the data to localStorage.**  **Reload the page and show how the data persists. Let students modify it and check results.** |
| **45 minutes** | **Core Concept Explanation – II** | **Topic: Advanced Use Cases & Best Practices**  **Subtopics:**  **▫ Persisting UI state (e.g., theme or sidebar toggle)**  **▫ Clearing and managing stored data**  **▫ Security and privacy concerns**  **Talk about how data can be manipulated through DevTools and the importance of not storing sensitive info.** |
| **15–30 minutes** | **Doubt Solving Session – I** | **Let students build a simple to-do list where tasks persist using localStorage.**  **Mentor walks around helping with:**  **– “Why isn’t my data saving across reloads?”**  **– “What if I want to store arrays?”**  **– “How do I remove a single item from a saved list?”** |
| **5 minutes** | **Class Wrap-up** | **Summarize key takeaways:**  **– localStorage is great for small, persistent data.**  **– Always serialize complex data.**  **– Be mindful of browser limits and user privacy.**  **Ask 2–3 students to share what they built or a challenge they faced. Preview next topic: Cookies vs localStorage vs IndexedDB.** |

**📘 References & Notes**

* [**MDN – Web Storage API**](https://developer.mozilla.org/en-US/docs/Web/API/Web_Storage_API)
* [**JavaScript.info – Local Storage**](https://javascript.info/localstorage)

**✅ 5 Checklist Questions to Assess Understanding**

1. **What’s the difference between localStorage and sessionStorage?**
2. **How do you store and retrieve a JavaScript object in localStorage?**
3. **What happens to localStorage data when the browser is closed?**
4. **Why shouldn't you store passwords in localStorage?**
5. **How can you clear a specific item in localStorage?**