

Beginner's Guide to JavaScript Local & Session Storage Projects

Subtitle: Build practical web apps that store data in the browser for persistence and user convenience.

Website Name: haas.dev

Website Link: <https://dev-roast-app.vercel.app>

Introduction

Local Storage and Session Storage let developers **save data in the browser** without a backend. This guide helps beginners create real projects that **retain user data** and enhance user experience.

Step 1: Differences Between Local & Session Storage

Feature	Local Storage	Session Storage
Persistence	Permanent until cleared	Cleared on tab close
Scope	Entire domain	Single tab
Use case	User preferences, cached data	Temporary session data

Step 2: Basic Storage Operations

- **Set Data:**

```
localStorage.setItem('username', 'Hafsa');
sessionStorage.setItem('sessionID', '12345');
```

- **Get Data:**

```
const name = localStorage.getItem('username');
const session = sessionStorage.getItem('sessionID');
```

- **Remove Data:**

```
localStorage.removeItem('username');
sessionStorage.clear();
```

Step 3: Storing Objects/Arrays

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- Use `JSON.stringify` to store, `JSON.parse` to retrieve

```
const tasks = [{ task: 'Learn JS', done: false }];
localStorage.setItem('tasks', JSON.stringify(tasks));
const storedTasks = JSON.parse(localStorage.getItem('tasks'));
console.log(storedTasks[0].task); // "Learn JS"
```

Step 4: Project 1 – To-Do App

- Features: Add, delete, mark tasks complete
- Store tasks in Local Storage for persistence
- Update DOM dynamically based on storage

Step 5: Project 2 – Form Input Saver

- Save form inputs in Local Storage as users type
- Reload page → pre-fill inputs from storage
- Example: Saving username/email in a contact form

Step 6: Project 3 – Dark/Light Theme Toggle

- Toggle site theme
- Store user preference in Local Storage

```
const toggle = document.querySelector('#themeToggle');
toggle.addEventListener('click', () => {
  document.body.classList.toggle('dark');
  localStorage.setItem('theme', document.body.classList.contains('dark') ? 'dark' : 'light');
});
```

- Apply saved theme on page load

Step 7: Project 4 – Quiz App with Progress

- Save answers and current question index in Local Storage

- Users can resume quiz after refreshing or closing the browser
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Step 8: Best Practices

- Avoid storing sensitive info (passwords, tokens)
 - Keep data small (<5MB)
 - Modularize storage logic for readability
 - Always parse JSON safely
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Step 9: Key Takeaways

- Local Storage = persistent, Session Storage = temporary
 - Great for user preferences, form progress, and offline-like apps
 - Combine storage with DOM and events for interactive apps
 - Practice building multiple mini-projects to master storage
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Visit **haas.dev** for step-by-step storage-based projects, beginner-friendly tutorials, and practical JavaScript guides.

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