

# HTML5 Web Storage, IndexedDB and File System

Web Storage

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**pluralsight**   
hardcore developer training

# Contents

Introduction

Web  
Storage

IndexedDB

File System

Conclusion



# HELLO

my name is

# HELLO

my name is

## WEB STORAGE

# HELLO

my name is

**DOM STORAGE**

# HELLO

my name is

DOM

LOCAL STORAGE

GE

# HELLO

my name is

SESSION STORAGE

# **What is Web Storage?**



# Demo

Key	Value
firstName	Craig
lastName	Shoemaker
twitter	@craigshoemaker

# Capacity

## Web Storage

Editor's Draft 23 October 2013

User agents should limit the total amount of space allowed for storage areas, because hostile authors could otherwise use this feature to exhaust the user's available disk space.

User agents should guard against sites storing data under their origin's other affiliated sites, e.g. storing up to the limit in a1.example.com, a2.example.com, a3.example.com, etc, circumventing the main example.com storage limit.

User agents may prompt the user when quotas are reached, allowing the user to grant a site more space. This enables sites to store many user-created documents on the user's computer, for instance.

User agents should allow users to see how much space each domain is using.

A mostly arbitrary limit of five megabytes per origin is suggested. Implementation feedback is welcome and will be used to refine the specification.

For predictability



# Web Storage Specification

<http://bit.ly/1gkSLMF>

# Capacity

A large, solid orange circle is positioned in the lower-left quadrant of the image. It contains the text '5MB' in white, bold, sans-serif font, centered within the circle.

**5MB**

# Capacity

5MB



**1 character != 1 byte**

# Capacity



5MB



2.5MB

# Demo

## Web Storage Support Test

This page will test whether your browser supports localStorage, sessionStorage or globalStorage.

The tests will also determine if there is a storage limit for any storage system that is supported.

[Run Web Storage Tests](#)



## Web Storage Support Test

<http://bit.ly/1b4u6Vq>

# Features



# **Sandboxed data**

# Demo

Elements Resources Network Sources Timeline Profiles Audits Console					
<div>▼ Frames</div> <div>▶ (01-local-api.html)</div> <div>▶ Web SQL</div> <div>▼ IndexedDB</div> <div>▼ Local Storage</div> <div>http://localhost:1505</div> <div>▶ Session Storage</div> <div>▶ Cookies</div> <div>▶ Application Cache</div>	Key	Value			
	firstName	Craig			
	lastName	Shoemaker			
	twitter	@craigshoemaker			
			↶	✕	⚙

**Data remains on  
client**

**Is string-based**

# **Browser Support**

## Web Storage - name/value pairs - Recommendation

Method of storing data locally like cookies, but for larger amounts of data (sessionStorage and localStorage, used to fall under HTML5).

Global user stats\*:

Support:	89.13%
Partial support:	0.1%
Total:	89.23%

Resources: [Support library](#) [WebPlatform Docs](#) [Simple demo](#) [Gecko reference](#) [has.js test](#)

	IE	Firefox	Chrome	Safari	Opera	iOS Safari	Opera Mini	Android Browser	Blackberry Browser	Opera Mobile	Chrome for Android	Firefox for Android	IE Mobile
26 versions back			4.0										
25 versions back		2.0	5.0										
24 versions back		3.0	6.0										
23 versions back		3.5	7.0										
22 versions back		3.6	8.0										
21 versions back		4.0	9.0										
20 versions back		5.0	10.0										
19 versions back		6.0	11.0										
18 versions back		7.0	12.0										
17 versions back		8.0	13.0										
16 versions back		9.0	14.0										
15 versions back		10.0	15.0										
14 versions back		11.0	16.0										
13 versions back		12.0	17.0		9.0								
12 versions back		13.0	18.0		9.5-9.6								
11 versions back		14.0	19.0		10.0-10.1								
10 versions back		15.0	20.0		10.5								
9 versions back		16.0	21.0		10.6								
8 versions back		17.0	22.0		11.0								
7 versions back		18.0	23.0	3.1	11.1								
6 versions back	5.5	19.0	24.0	3.2	11.5			2.1		10.0			
5 versions back	6.0	20.0	25.0	4.0	11.6	3.2		2.2		11.0			
4 versions back	7.0	21.0	26.0	5.0	12.0	4.0-4.1		2.3		11.1			
3 versions back	8.0	22.0	27.0	5.1	12.1	4.2-4.3		3.0		11.5			
2 versions back	9.0												
Previous version	10.0												
Current	11.0										9.0	24.0	10.0
Near future		2											
Farther future		2											

<http://caniuse.com/namevalue-storage>

**Note:** In private browsing mo

## Web Storage - name/value pairs - Recommendation

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6 versions back	5.5	19.0	24.0	3.2	11.5			2.1		10.0			
5 versions back	6.0	20.0	25.0	4.0	11.6	3.2		2.2		11.0			
4 versions back	7.0	21.0	26.0	5.0	12.0	4.0-4.1		2.3		11.1			
3 versions back	8.0	22.0	27.0	5.1	12.1	4.2-4.3		3.0		11.5			
2 versions back	9.0	23.0	28.0	6.0	15.0	5.0-5.1		4.0		12.0			
Previous version	10.0	24.0	29.0	6.1	16.0	6.0-6.1		4.1	7.0	12.1			
Current	11.0	25.0	30.0	7.0	17.0	7.0	5.0-7.0	4.2-4.3	10.0	16.0	29.0	24.0	10.0
Near future		26.0	31.0		18.0								
Farther future		27.0	32.0										

**Note:** In private browsing mode Safari and iOS Safari don't support setting localStorage.

# **Caveats**



# Context

**Data is serialized to  
file system**

**Size limitations**

**No search**



# Fallbacks & Polyfills

## Web Storage (LocalStorage and sessionStorage)

---

- [storage polyfill](#) by Joshua Bell
- [CupCake.js](#) by [Rivindu Perera](#) *Support both local and session storages with one generic API*
- [storage polyfill](#) by Remy Sharp
- [sessionstorage](#) by Andrea Giammarchi
- [Amplify.js](#) by appendTo
- [YUI3 CacheOffline](#) by YUI team
- [textStorage.js](#) by sofish *Using localStorage API, fallback for IE6+*



**The All-In-One Entirely-Not-  
Alphabetical Guide to HTML5  
Fallbacks**

<http://bit.ly/1cCk40p>

# Summary

NEXT

2.5

## IndexedDB

CLIENT-SIDE  
PERSISTENCE APIs

Storage

IndexedDB

File System

Concepts

Libraries

### Add Home

Add a new home for listing.

Address

City

State

Zip Code

Comments

Address	City	Action
568 Elm Street	Whittier	<a href="#">Select</a> <a href="#">Delete</a>
5612 Edgewood Avenue	Los Angeles	<a href="#">Select</a> <a href="#">Delete</a>

Elements Resources Net

- Frames
  - (01-local-api.html)
- Web SQL
- IndexedDB
- Local Storage
- http://localhost:1505**
- Session Storage
- Cookies
- Application Cache

