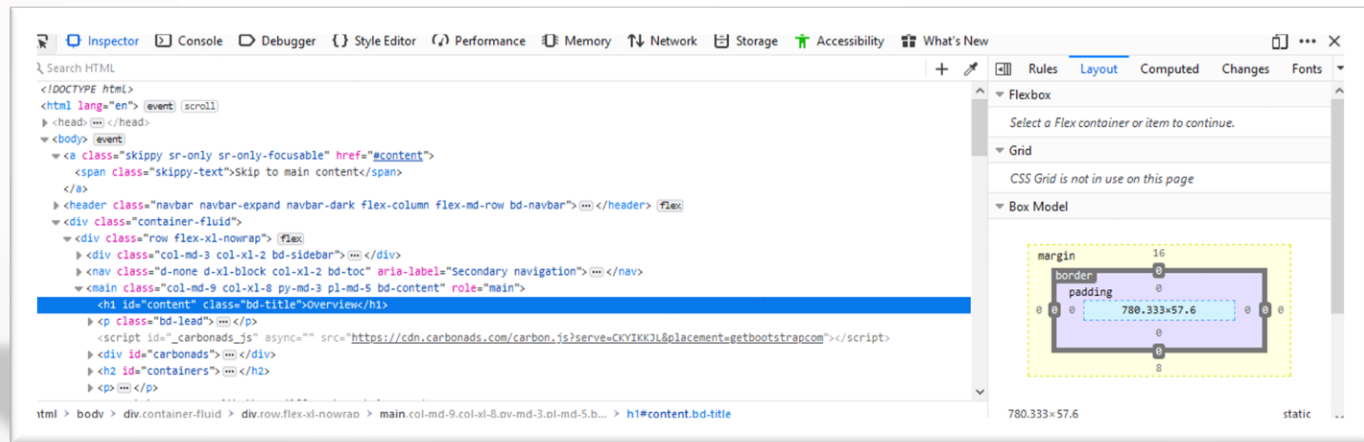




Front-end Development

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Web Developer Tools

Chrome DevTools
Firefox Developer Tools

Web Developer Tools

- A set of web developer tools built into browsers
 - Firefox Developer Tools
 - Chrome DevTools
- Can help you edit pages on-the-fly and **diagnose problems quickly**
 - debugging CSS,
 - prototyping CSS,
 - debugging JavaScript,
 - and analyzing load performance
 - ...

How to open

There are three ways to open:

- Keyboard:
 - Ctrl + Shift + I
 - F12
- Menu bar
- Context menu

Right-click an item on a webpage, and choose **Inspect Element** from the context menu

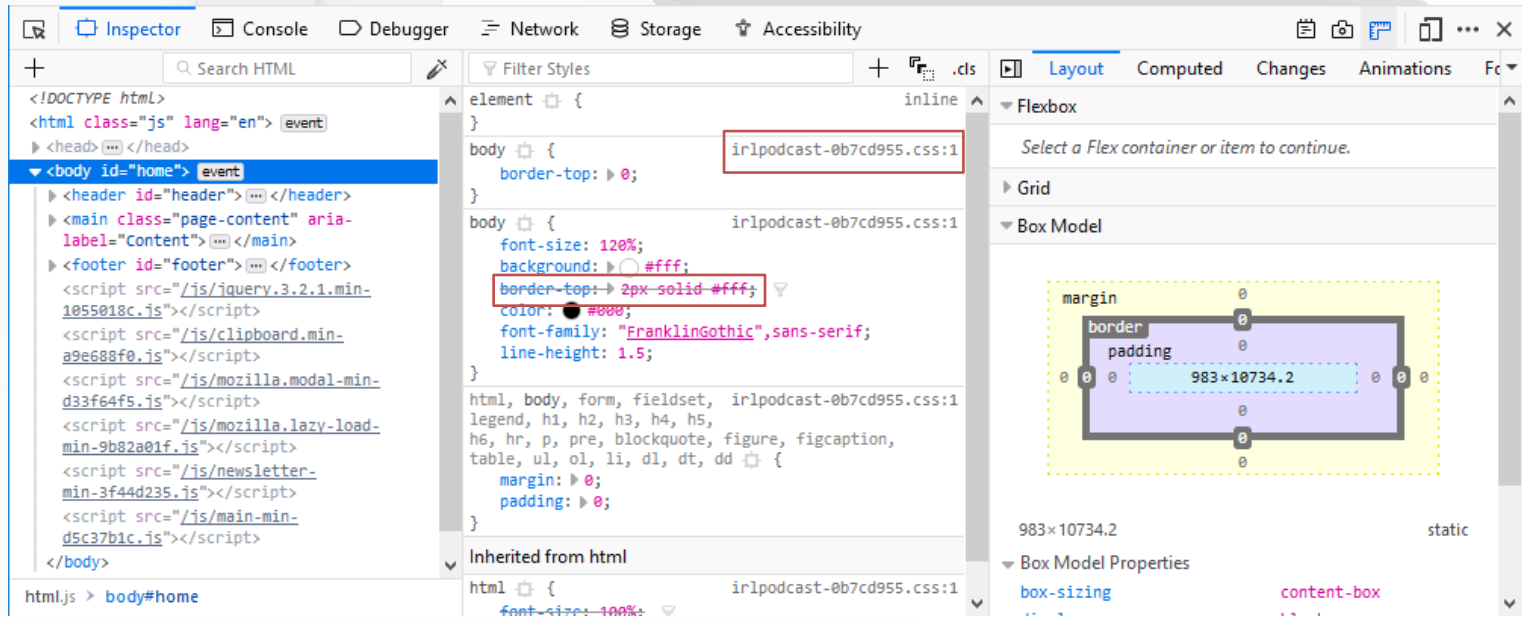
The Core Tools

- Page Inspector
- Web console
- JavaScript Debugger
- Performance Tools
- Responsive Design Mode
- Accessibility inspector



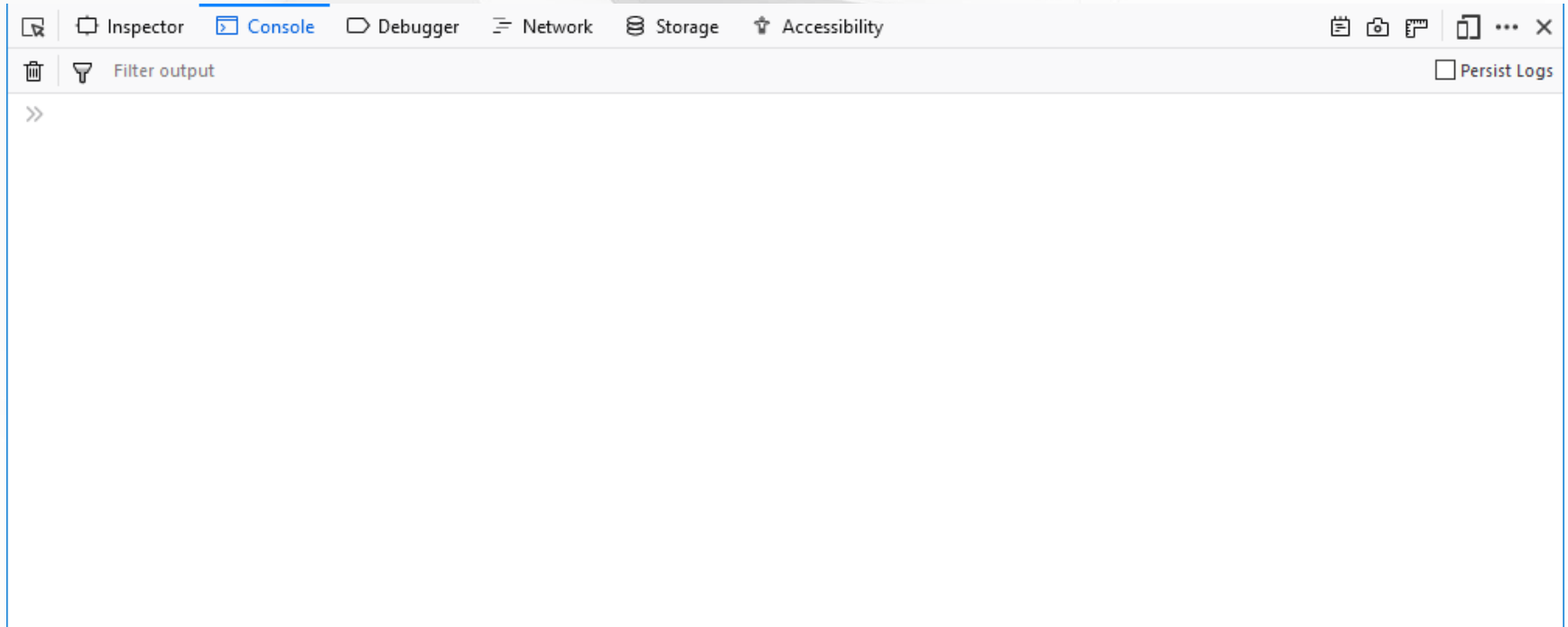
Page Inspector

- View and edit page content and layout
- Visualize many aspects of the page including the box model, animations, and grid layouts



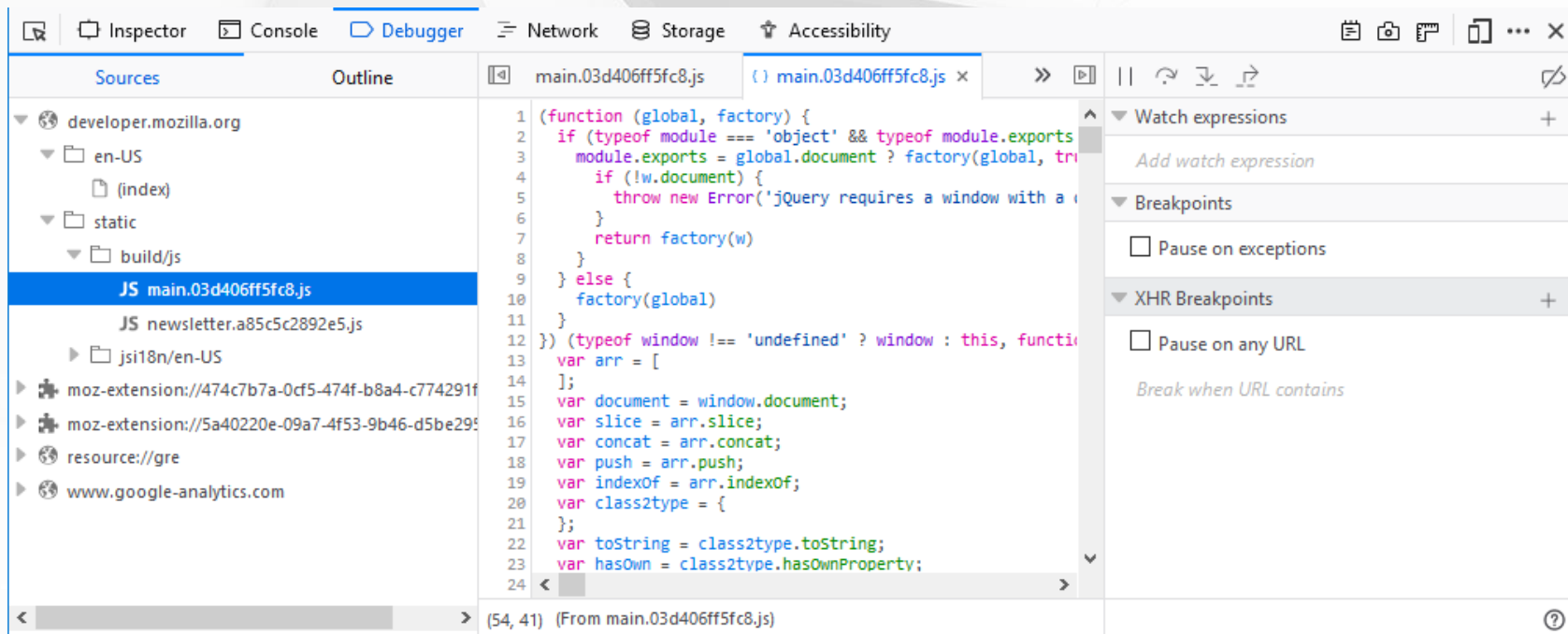
Web Console

See messages logged by a web page and **interact** with the page **using JavaScript**



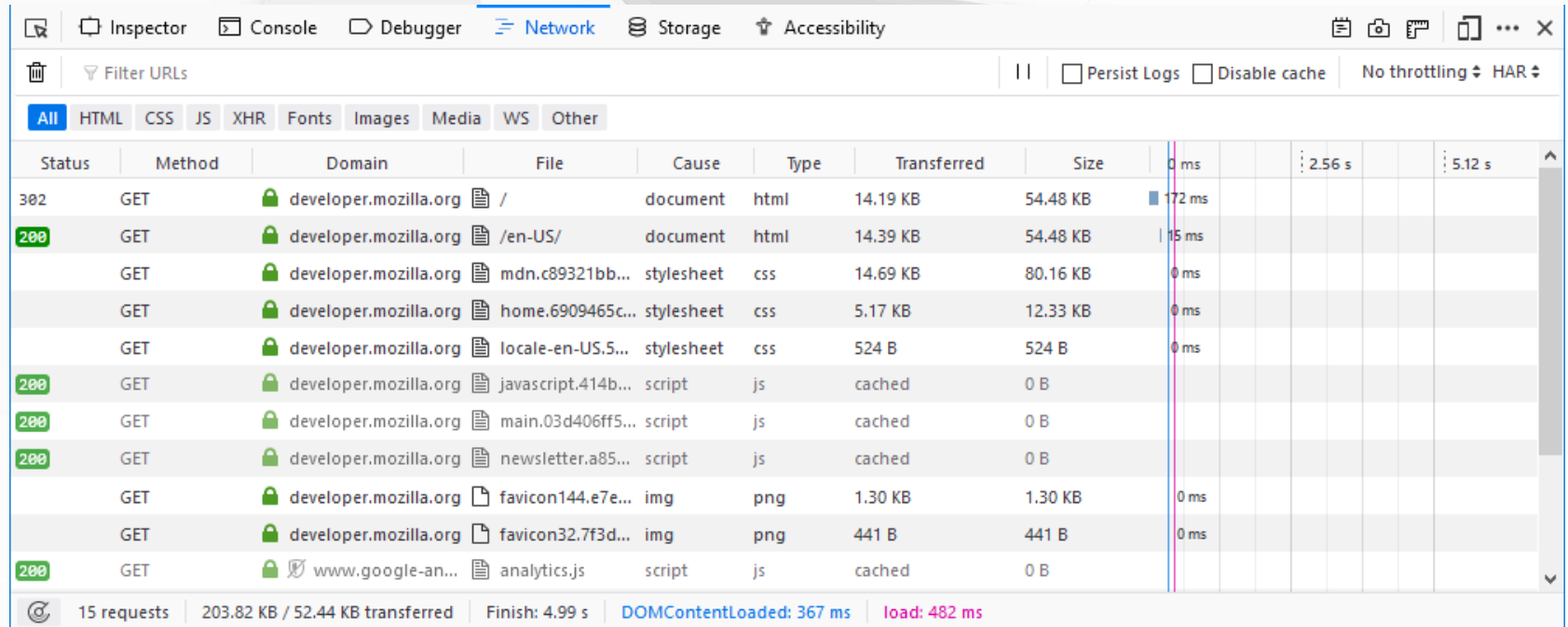
JavaScript Debugger

Stop, step through, examine, and modify the JavaScript running in a page



Network Monitor

See the network requests made when a page is loaded



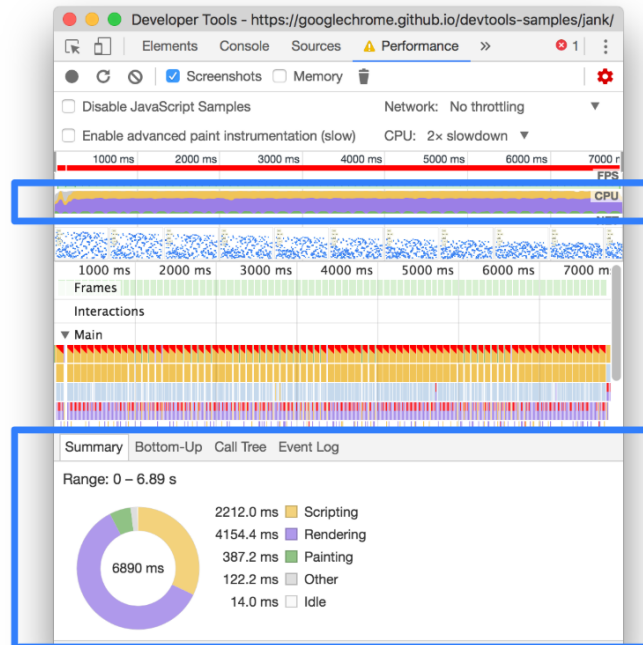
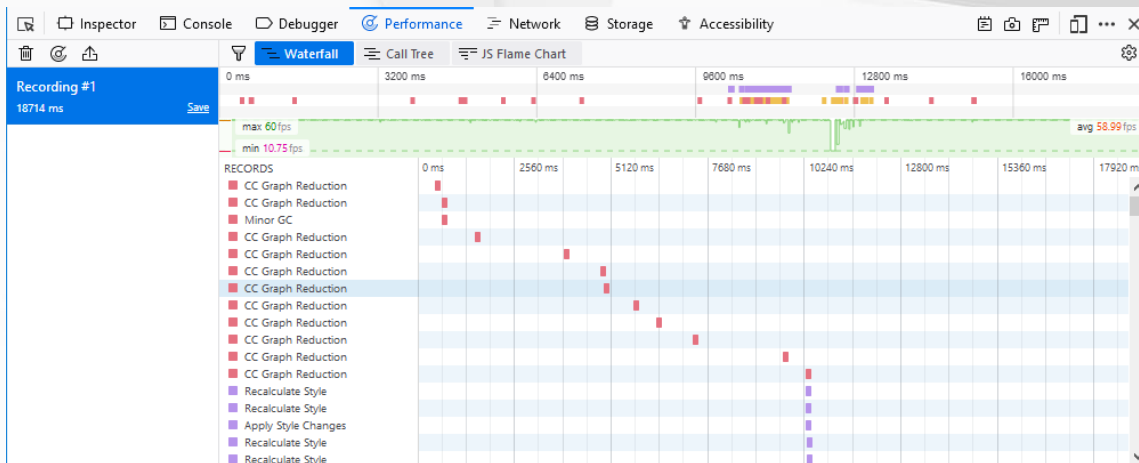
The screenshot shows the Chrome DevTools Network Monitor interface. The top bar includes tabs for Inspector, Console, Debugger, Network (selected), Storage, and Accessibility. Below the tabs is a search bar labeled 'Filter URLs' and a toolbar with buttons for 'Persist Logs', 'Disable cache', 'No throttling', and 'HAR'. The main area displays a list of network requests with columns for Status, Method, Domain, File, Cause, Type, Transferred, Size, and Time. The requests are for various resources from developer.mozilla.org, including HTML documents, CSS stylesheets, JavaScript files, and images. The status of each request is indicated by a green '200' in a box. The bottom of the interface shows a summary of the network activity: 15 requests, 203.82 KB / 52.44 KB transferred, Finish: 4.99 s, DOMContentLoaded: 367 ms, and load: 482 ms.

Status	Method	Domain	File	Cause	Type	Transferred	Size	Time
302	GET	developer.mozilla.org	/	document	html	14.19 KB	54.48 KB	172 ms
200	GET	developer.mozilla.org	/en-US/	document	html	14.39 KB	54.48 KB	15 ms
	GET	developer.mozilla.org	mdn.c89321bb...	stylesheet	css	14.69 KB	80.16 KB	0 ms
	GET	developer.mozilla.org	home.6909465c...	stylesheet	css	5.17 KB	12.33 KB	0 ms
	GET	developer.mozilla.org	locale-en-US.5...	stylesheet	css	524 B	524 B	0 ms
200	GET	developer.mozilla.org	javascript.414b...	script	js	cached	0 B	
200	GET	developer.mozilla.org	main.03d406ff5...	script	js	cached	0 B	
200	GET	developer.mozilla.org	newsletter.a85...	script	js	cached	0 B	
	GET	developer.mozilla.org	favicon144.e7e...	img	png	1.30 KB	1.30 KB	0 ms
	GET	developer.mozilla.org	favicon32.7f3d...	img	png	441 B	441 B	0 ms
200	GET	www.google-an...	analytics.js	script	js	cached	0 B	

15 requests | 203.82 KB / 52.44 KB transferred | Finish: 4.99 s | DOMContentLoaded: 367 ms | load: 482 ms

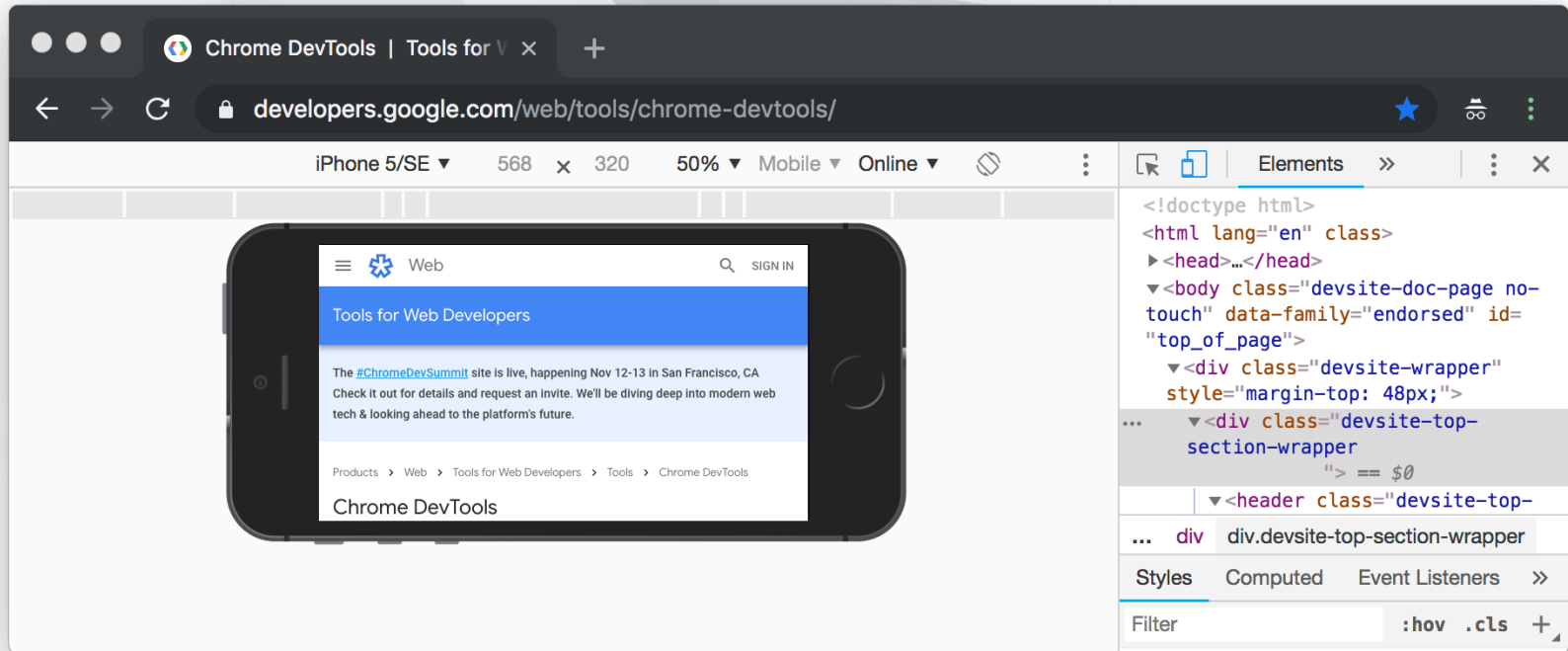
Performance Tools

Analyze your site's general responsiveness, JavaScript, and layout performance



Responsive Design Mode

See how your website or app will look and behave on different devices and network types



Storage Inspector

Enables you to inspect various types of storage that a web page can use:

- **Cache Storage** — any DOM caches created using the Cache API
- **Cookies** — All the cookies created by the page or any iframes inside of the page.
Cookies created as a part of response of network calls are also listed
- **Session Storage** — All session storage items created by the page or any iframes inside the page
- **IndexedDB**
- **Local Storage**

Storage Inspector

For complete beginners to the Web

Getting started with the Web

Getting started with the Web is a concise series introducing you to the practicalities of web development. You'll set up the tools you need to construct a simple webpage and publish your own simple code.

HTML Tutorials

Storage Tree

Name	Domain	Path	Expires on	Last access
..ga	.mozilla.org	/	Tue, 23 Feb 2021 1...	Sun, 23 Ju
csrftoken	..developer...	/	Mon, 08 Jun 2020 ...	Sun, 23 Ju
csrftoken	..developer...	/	Thu, 26 Mar 2020 0...	Sun, 23 Ju
dwt_sg_t...	..developer...	/	...	Sun, 23 Ju
lux_uid	..developer...	/	Sun, 23 Jun 2019 1...	Sun, 23 Ju

Table Widget

Sidebar

Data

..ga: "GA1.2.1812154749.1526560462"

CreationTime: "Thu, 17 May 2018 12:34:22 GMT"

Domain: ".mozilla.org"

Expires: "Tue, 17 May 2018 12:34:22 GMT"

HostOnly: false

HttpOnly: false

LastAccessed: "Sun, 23 Jun 2019 18:15:54 GMT"

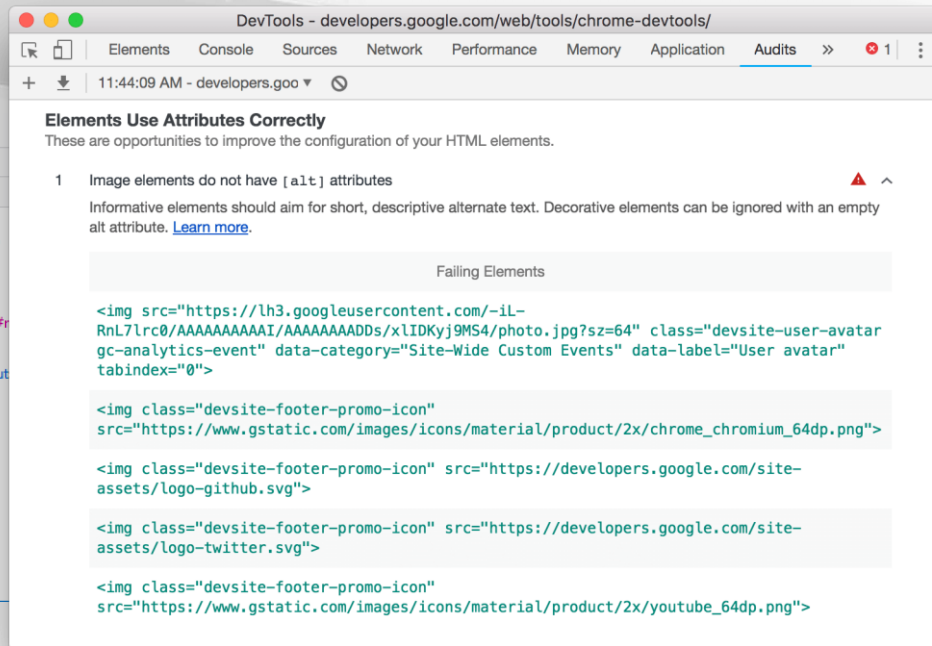
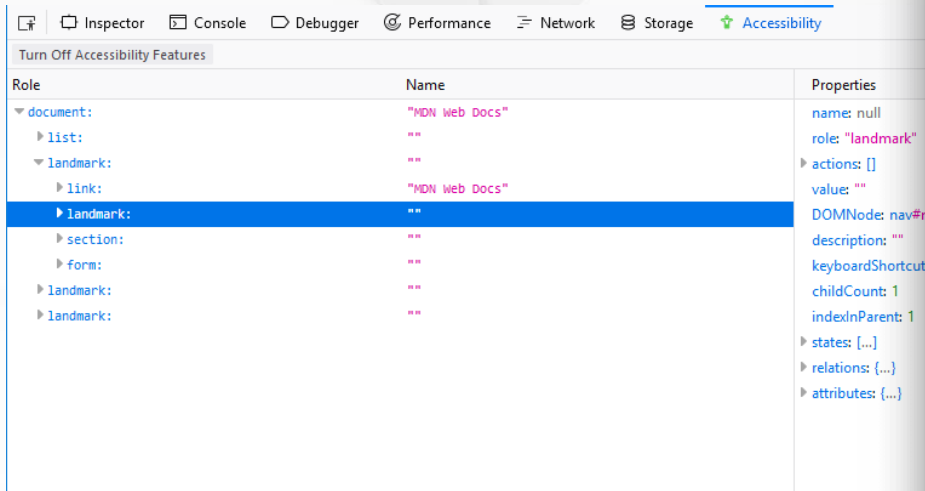
Path: "/"

Secure: false

sameSite: "Unset"

Accessibility inspector

Provides a means to access the page's accessibility tree, allowing you to check what's missing or otherwise needs attention





Summary



Q&A



Web Programming

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