DevTools in QA Testing

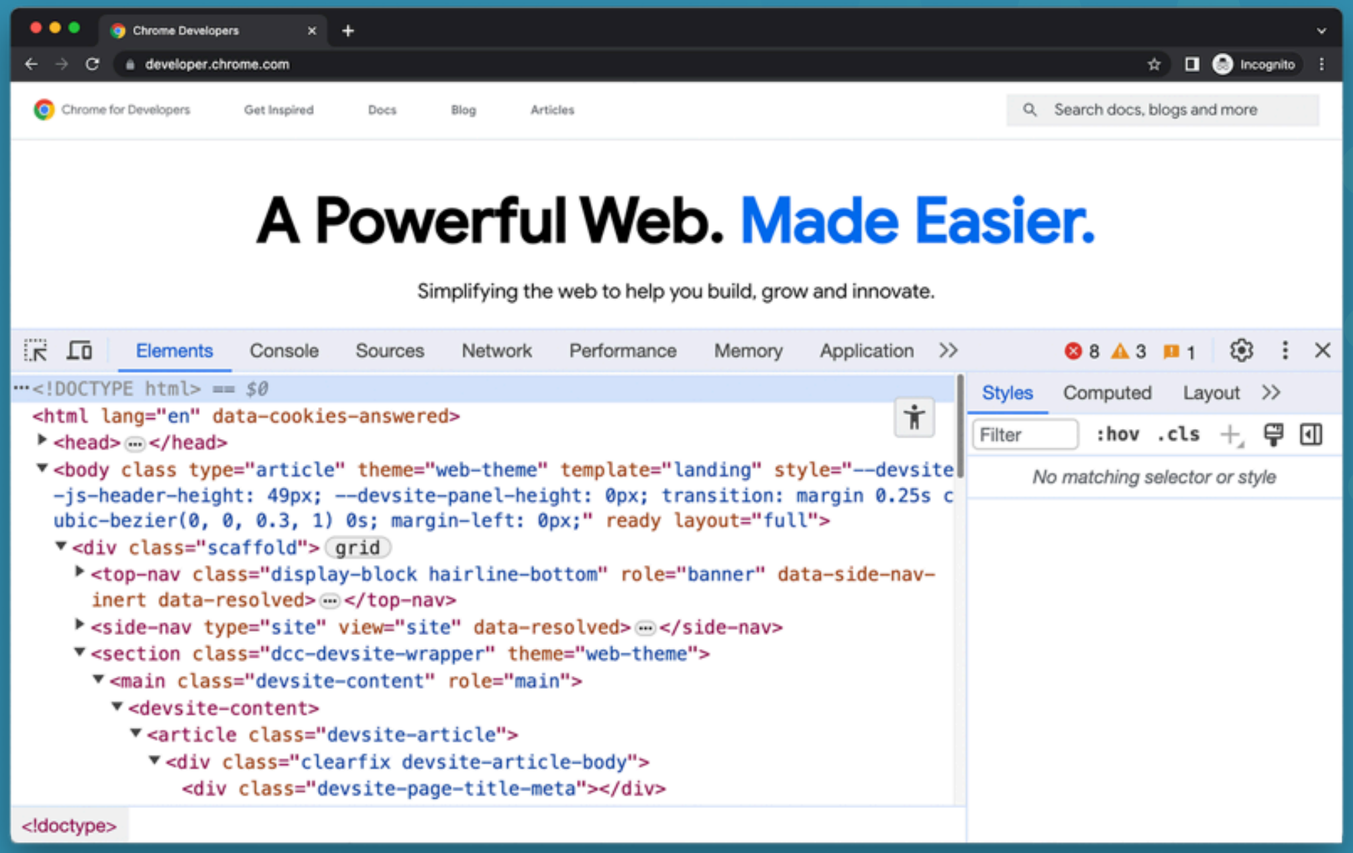
How a Junior Tester can find UI, JavaScript and API issues using browser DevTools

DevTools

Developer Tools (DevTools) are built-in tools available in web browsers that allow inspection and analysis of web applications in real time.

They provide access to:

- page structure (HTML)
- styles (CSS)
- browser logs
- network activity



How to open DevTools

- Right click on page → Inspect
- WINDOWS/LINUX: Keyboard shortcut F12 or Ctrl+Shift+I.
- MAC: Command+Option+I
- Available in all modern browsers

HOW TESTERS USE DEVTOOLS

Testers use DevTools to:

- identify UI and layout issues
- detect JavaScript errors
- analyze API requests and responses
- verify data stored in the browser
- simulate slow network or offline mode

🔍 For testers: DevTools is the first place to check when something does not work as expected.

TABS

🔍**Testers usually focus on Elements, Console, Network and Application tabs.**

- ELEMENTS
- CONSOLE
- SOURCES
- NETWORK
- PERFORMANCE
- MEMORY
- APPLICATION
- SECURITY
- LIGHTHOUSE

ELEMENTS TAB (UI TESTING)

Elements – UI and CSS issues

What testers check:

- missing or hidden elements
- incorrect styles (display, color, size)
- layout issues on mobile devices

How:

- inspect HTML elements
- modify CSS values temporarily
- use device toolbar (responsive mode)

🐞 Example bug:
Button visible on desktop, hidden on mobile.

CONSOLE TAB (JS ERRORS)

Console – JavaScript errors

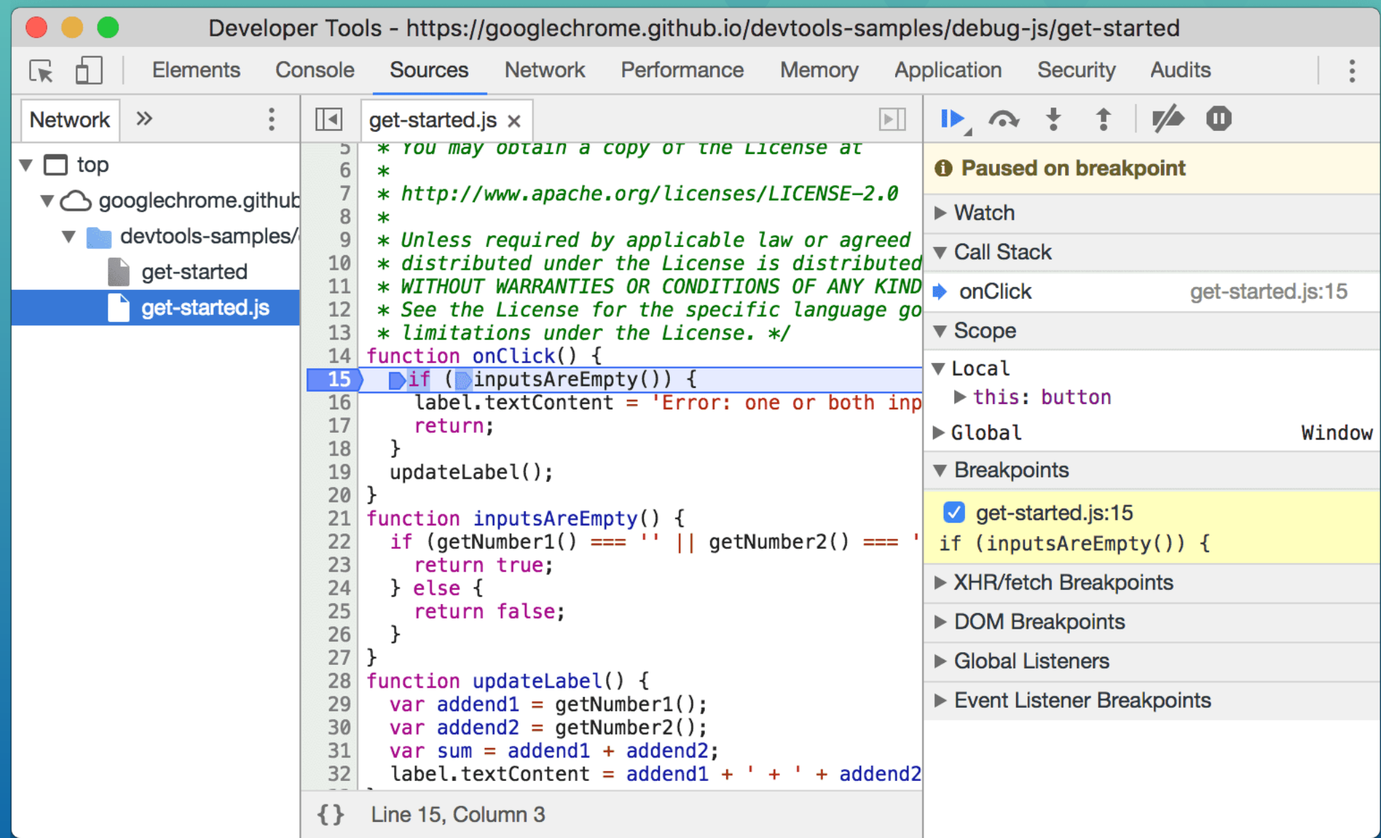
What testers check:

- red errors (Uncaught TypeError)
- warnings
- error messages after user actions

Test case:

1. Perform an action (e.g. submit a form)
2. Check Console
3. No errors = test passed

🐞 Example bug:
Uncaught TypeError after submitting a form.
JS errors often break functionality.



NETWORK TAB (API TESTING)

Network – API testing without Postman

What testers check:

- request type (GET / POST)
- HTTP status codes (200, 400, 500)
- request payload
- response body

Test case:

- Form submitted
- POST request returns 500
- Bug reported

🐞 Example bug:

POST request returns 500 Internal Server Error.

NETWORK THROTTLING

Testing slow network and offline mode

Why it matters:

- users may have slow internet
- application should handle delays

How:

- Network → Throttling → Slow 3G
- Offline mode

🐞 Example bug:
Application crashes when internet connection is lost.

PERFORMANCE TAB (BASICS)

Performance – basic speed analysis

What testers check:

- page loading time
- long tasks
- UI freezes

How:
Record page load in Performance tab.

Used mainly for basic performance awareness.

🐞 Example bug:
Page takes longer than 5 seconds to load.

APPLICATION TAB (STORAGE)

Application – user data verification

What testers check:

- Local Storage
- Session Storage
- Cookies

Test case:

- User logs in
- Data should be saved in storage
- Missing or incorrect value = bug

🔐 Important for login and user sessions.

🐞 Example bug:
User session data is missing after page refresh.

LIGHTHOUSE – AUTOMATED AUDITS

Lighthouse – Your Assistant for Quality & Accessibility

An automated tool for improving the quality of web pages.

Key Metrics:

- Performance: Analyzes loading speed and interactivity
- Accessibility: Detects issues for users with disabilities (e.g., low color contrast)
- Best Practices: Checks for modern web standards and security

Tester Use Case: Generate a full report after a release to ensure no performance regressions were introduced

SUMMARY (TESTER FLOW)

When should a tester use DevTools?

- UI looks wrong → Elements
- Feature does not work → Console
- Data not saved / API issue → Network
- User session problems → Application
- Page is slow → Performance

✅ DevTools help testers find bugs faster and report them with evidence.