

XPATH COMPENDIUM AND PRACTICE

XPath is the address of an HTML element.

There are examples of writing XPath in multiple ways in this document.

Two types of XPath:

- Absolute XPath
- Relative XPath

How to write an XPath?

1. single forward slash /
2. double forward slash //
3. XPath functions
4. Relative XPath using axes
5. Relative XPath without using axes

XPath syntax and Functions

- /tagName
- //tagName[@attributeName="attribute Value"]
- //tagName[@name,"subStringOfValue"]
- AND, OR functions
- text()
- //tagname[text()='value']
- //tagname[contains(text(),'value')]
- normalize-space()
- //tagname[normalize-space()='value']
- Index, position, last, etc.

What is the right platform to write and verify XPath

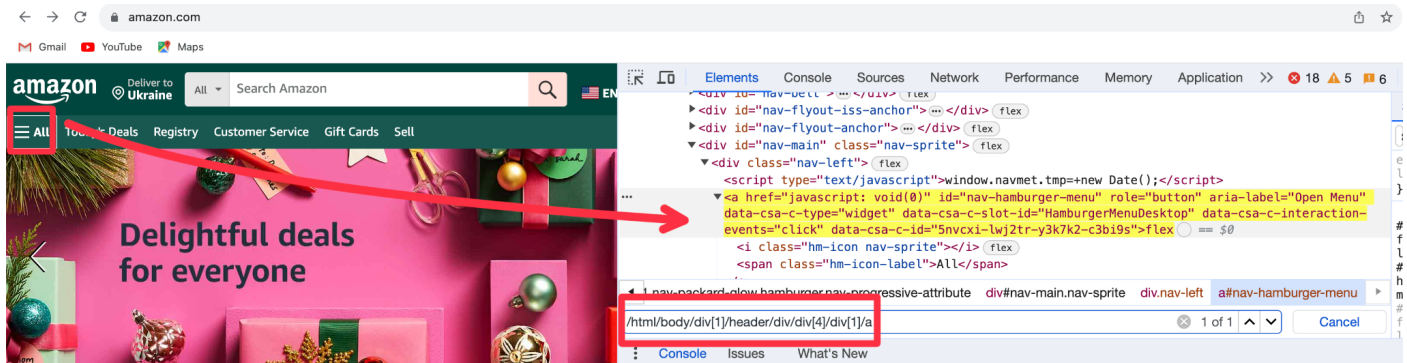
1. Chrome DevTools
2. Console Sx
3. Using SelectorsHub

Write XPath using XPath functions

single forward slash /

Website: <https://www.amazon.com/>

Element: hamburger menu button



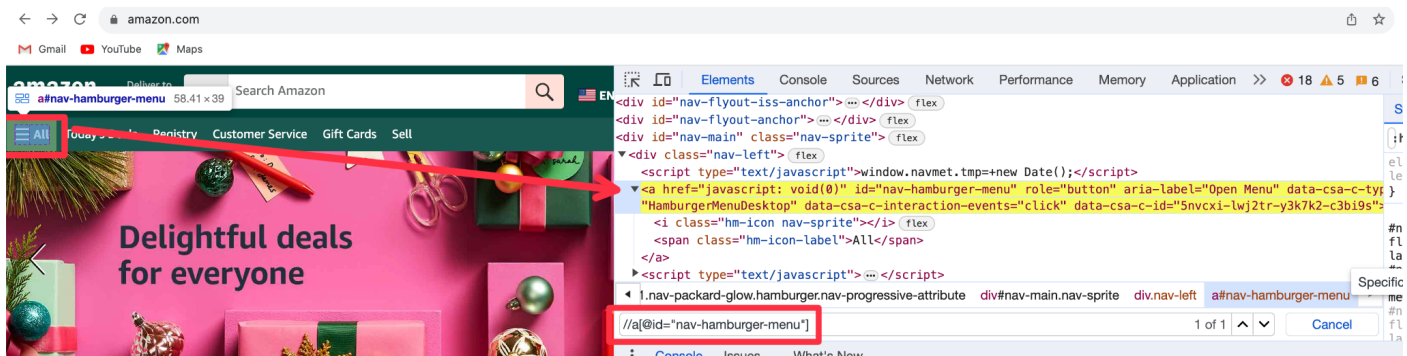
Absolute XPath:

`/html/body/div[1]/header/div/div[4]/div[1]/a` | `/tagName`
(not recommended to use because if any of the above elements changes the XPath will break)

double forward slash //

Website: <https://www.amazon.com/>

Element: hamburger menu button



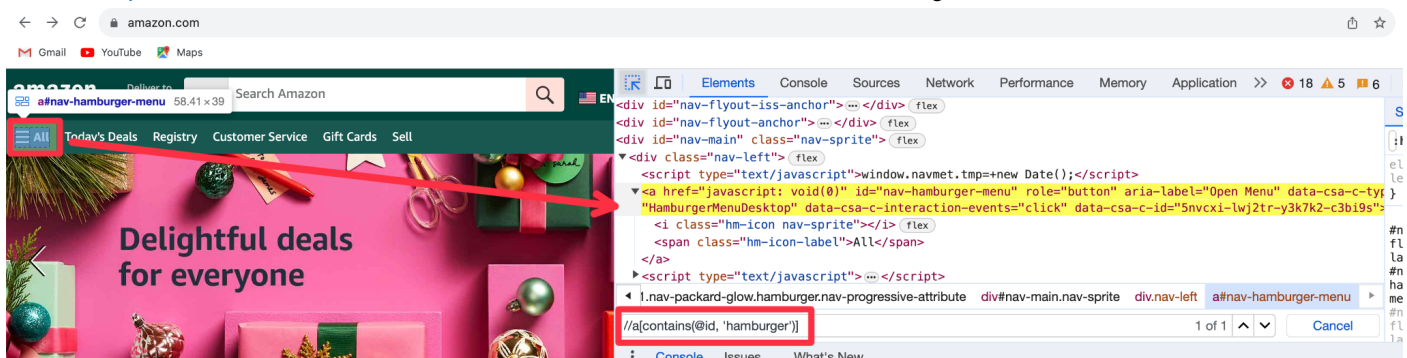
Relative XPath:

`//a[@id="nav-hamburger-menu"]` | `//tagName[@attributeName="attribute Value"]`

XPath functions

Website: <https://www.amazon.com/>

Element: hamburger menu button



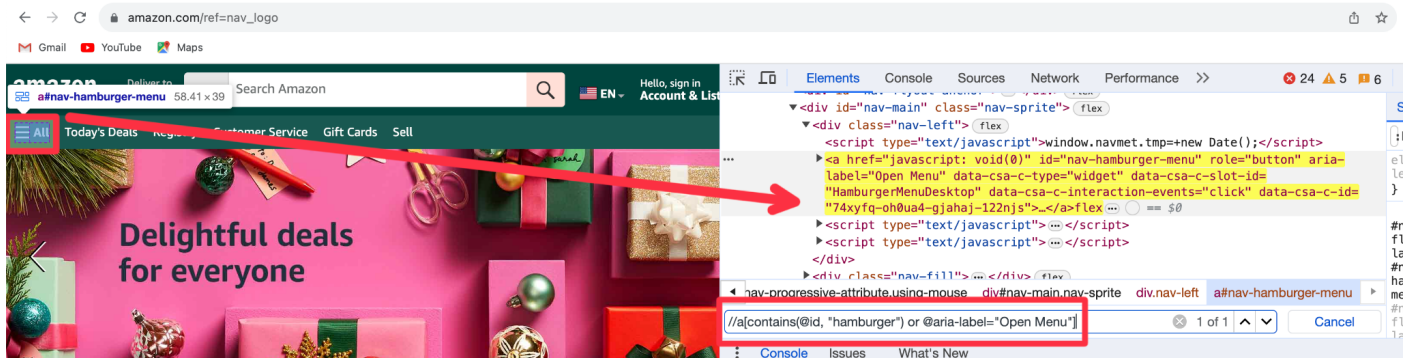
Using 'contains' method to shorten the XPath:

`//a[contains(@id,'hamburger')]` | `//tagName[@name,"substringOfValue"]`

AND, OR functions

Website: <https://www.amazon.com/>

Element: hamburger menu button



Add OR in case the first XPath won't work:

`//a[contains(@id,"hamburger") or @aria-label="Open Menu"]`

Add AND to make the XPath more robust:

`//a[contains(@id,"hamburger") and @aria-label="Open Menu"]`

Website: <https://www.google.com/>

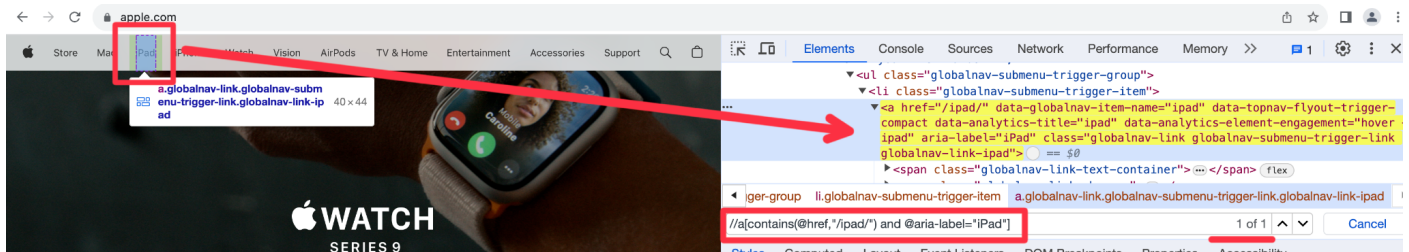
Element: Google logo



`//img[contains(@class,"InXdpd") or @alt="Google"]`

Website: <https://www.google.com/>

Element: Google logo



`//a[contains(@href,"/ipad/") and @aria-label="iPad"]`

(if not to use AND function in this case, the XPath selects 8 elements including those in the dropdown submenu of iPad category)

text() functions

Website: <https://www.amazon.com/>

Element: hamburger menu button with text



`//a/span[text()='All']`

`//a/span[text()='All' and @class="hm-icon-label"]`

`//a/span[contains(text(), 'All')]`

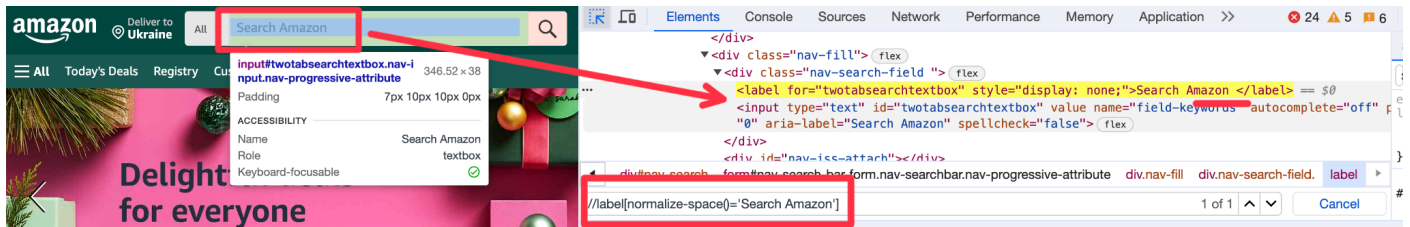
`//tagname[text()='value']`

`//tagname[contains(text(), 'value')]`

normalize-space()

Website: <https://www.amazon.com/>

Element: Search Amazon text inside the Search Field



The 'normalize-space' function removes an unnecessary space in the text:

`//label[normalize-space()='Search Amazon']`

`//tagname[normalize-space()='value']`

`//label[contains(normalize-space(),'Search Amazon')]`

`//label[contains(normalize-space(),'Search Amazon') and @style='display: none;']`

(of course Amazon.com don't have unnecessary spaces in their code, or I didn't find one. So I had to modify HTML a little for this example)