

CSS Locators – In Detail

What are CSS Locators?

CSS Locators (or CSS Selectors) are patterns used to select and style HTML elements. In automation testing, they are used to identify elements for interaction. They are faster than XPath, widely used in Playwright, Selenium, and Cypress, and supported by all modern browsers.

Basic CSS Selector Syntax

[attribute='value'], .class, #id

Types of CSS Selectors

Universal: *, Type: tagname, Class: .class, ID: #id, Attribute: [attr='value']

Attribute Selector Examples

input[type='text'], input[placeholder*='name'], input[placeholder^='Enter'], input[placeholder\$='name']

Descendant & Child Selectors

Descendant: div input, Child: ul > li

Sibling Selectors

Adjacent (+): label + input, General (~): label ~ input

Group Selector

h1, h2, p

Pseudo-classes

:first-child, :last-child, :nth-child(2), :hover, :checked, :not(.disabled)

Pseudo-elements

::before, ::after, ::placeholder

CSS Locator Examples

input, #username, .form-control, input[placeholder='Enter name'], input[placeholder*='name'],
input[placeholder^='Enter'], input.form-control, div input

CSS vs XPath

CSS is faster, simpler but doesn't support text() or backward traversal like XPath.

Usage in Playwright / Selenium

Playwright: page.locator('input#username').fill('admin')

Selenium: driver.findElement(By.cssSelector('input#username')).sendKeys('admin')

Best Practices

Use ID when available, combine tag + class, avoid deep nesting, use attribute selectors for dynamic content.