Locating Elements & Navigating Dynamic Web Pages

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Module Overview

What is an element? What are dynamic elements?

Methods to locate elements

Demo : Locating elements in a webpage – Part 1
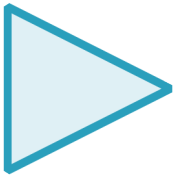
Demo : Locating elements in a webpage – Part 2
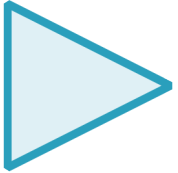
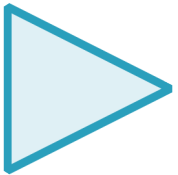Demo: Navigating a webpage

Introduction to Elements

What Are Elements? Why Locate Them?

Everything you see on a page is an element

Field, link, text, image etc.

To interact with webpage, first locate the necessary element

Dynamic Web Elements

Elements whose ID, name, class or css-attributes are not fixed

Change whenever page is reloaded

Session or database driven change

Ubiquitous in modern day web applications

Methods to Locate Elements

Locating Elements - 1

Locating element by Name

Locating element by ID

Locating element by Link Text

Locating element by Partial Link Text

Locating Elements - 2

Locating element by CSS Selector

Locating element by Tagname

Locating element by Classname

Locating element by XPath

XPath

XPath - language used for locating nodes in an XML document

Goes beyond locating by id, attributes

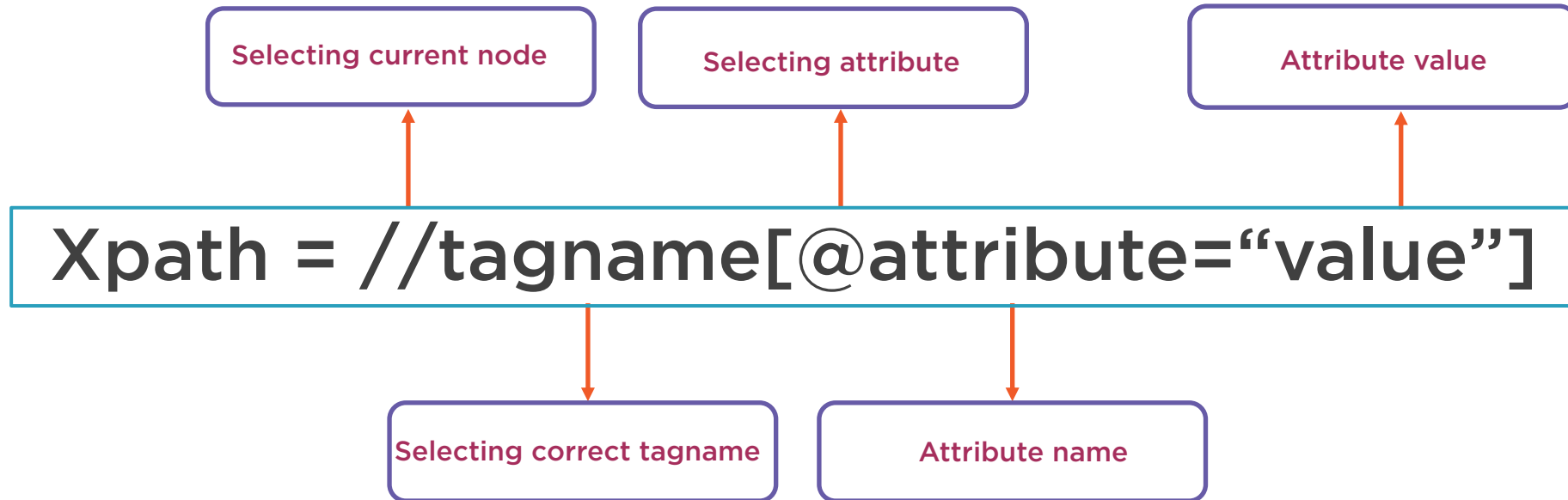Used when there isn't a suitable id or name attribute for target element

Absolute XPath (not advised)

Relative XPath

Can use attributes other than name and id to specify elements

XPath – Basic Format

Selecting current node

Selecting attribute

Attribute value

Xpath = //tagname[@attribute="value"]

Selecting correct tagname

Attribute name

Element Locating Techniques

Find Element	Find Elements
Returns first element if there are multiple web elements found with the same locator	Returns a list of web elements
Throws exception "NoSuchElementException" if there are no elements matching the locator strategy	Returns an empty list if there are no web elements matching the locator strategy
Not Applicable	Each web element is indexed starting from 0, like an array.

Demo

Demo: Locating elements in a webpage with Selenium and Python – Part 1

Demo

Demo: Locating elements in a webpage with Selenium and Python – Part 2

Demo

Demo: Methods to navigate a webpage with Selenium

Summary

Elements and different methods of locating them

Practical implementation of these methods

Ways to navigate a webpage