Selenium IDE

AGENDA

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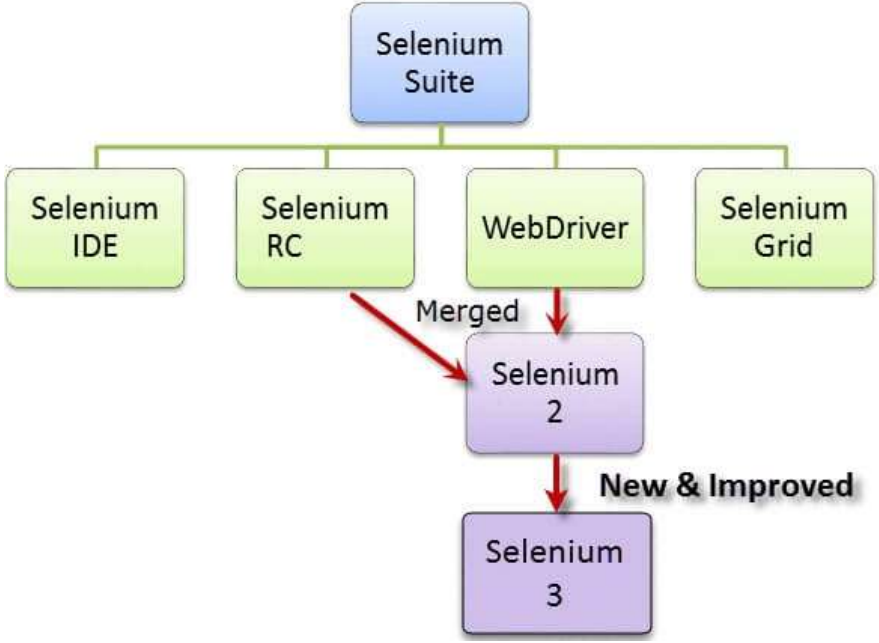
- What will Selenium IDE help you
- How to install Selenium IDE
- How to use Selenium with script and command
- Using Common Features Of Selenium IDE
- Selenium IDE Commands
- Locators
- How to use Locators in Selenium IDE

About Selenium

Selenium is a free (open source) automated testing suite for web applications across different browsers and platforms.



Senium IDE	Selenium RC	Selenium WebDriver
It only works in Mozilla browser.	It supports with all browsers like Firefox, IE, Chrome, Safari, Opera etc.	It supports with all browsers like Firefox, IE, Chrome, Safari, Opera etc.
It supports Record and playback	It doesn’t supports Record and playback	It doesn’t supports Record and playback
Doesn’t required to start server before executing the test script.	Required to start server before executing the test script.	Doesn’t required to start server before executing the test script.
It is a GUI Plug-in	It is standalone java program which allow you to run Html test suites.	It actual core API which has binding in a range of languages.
Core engine is Javascript based	Core engine is Javascript based	Interacts natively with browser application

Senium IDE	Selenium RC	Selenium WebDriver
It is not object oriented	API’s are less Object oriented	API’s are entirely Object oriented
It doesn’t supports of moving mouse cursors.	It doesn’t supports of moving mouse cursors.	It supports of moving mouse cursors.
Need to append full xpath with ‘xpath=\\’ syntax	Need to append full xpath with ‘xpath=\\’ syntax	No need to append full xpath with ‘xpath=\\’ syntax
It does not supports listeners	It does not supports listeners	It supports the implementation of listeners
It does not support to test iphone/Android applications	It does not support to test iphone/Android applications	It support to test iphone/Android applications

History of Selenium IDE

Shinya Kasatani of Japan created **Selenium IDE**, a Firefox extension that can automate the browser through a record-and-playback feature. He came up with this idea to further increase the speed in creating test cases. He donated Selenium IDE to the Selenium Project in **2006**.

Brief Introduction Selenium IDE

- Selenium IDE is an add-on in Firefox (This can’t be used in other browsers)
- Helping testers to record their actions such as:
  - Provides Record and play
  - Provides conversion of recorded script into Java,C#,Ruby,Python2
  - Provides one more feature like Verification and Assertion of element on page
  - Selenium IDE is also developed with help of JavaScript so able to handle Browser automation by injecting scripts in it

Pro and Cons of Selenium IDE

PROS	CONS
Very easy to use and install.	Available only in Firefox.
No programming experience is required, though knowledge of HTML and DOM are needed.	Designed only to create prototypes of tests.
Can export tests to formats usable in Selenium RC and WebDriver.	No support for iteration and conditional operations.
Has built-in help and test results reporting module.	Test execution is slow compared to that of Selenium RC and WebDriver.
Provides support for extensions.	

When do you need Selenium IDE

- You are new to automation testing

- You don’t know much about programing language

- You want to create simple test case using tool

- You want to know about concepts on automated testing

What will Selenium IDE help you

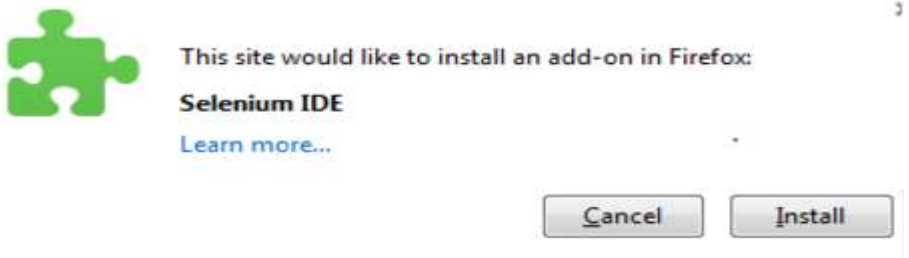
Learn about concepts on automated testing and Selenium, including:

- Selenese commands such as type, open, clickAndWait, assert, verify, etc.
- Locators such as id, name, xpath, css selector, etc.
- Exporting test cases in various formats
- Create simple test cases and test suites that you can export later to RC or WebDriver.
- Create tests with little or no prior knowledge in programming

How to install Selenium IDE

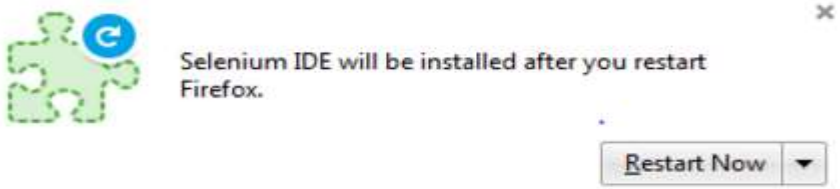
1. Install Firefox 34, 44, 47

2. Firefox will show one popup saying do you want to allow Mozilla Firefox to install Selenium IDE Add-ons or not. *Click* on *Install* button as Shown in Image below.

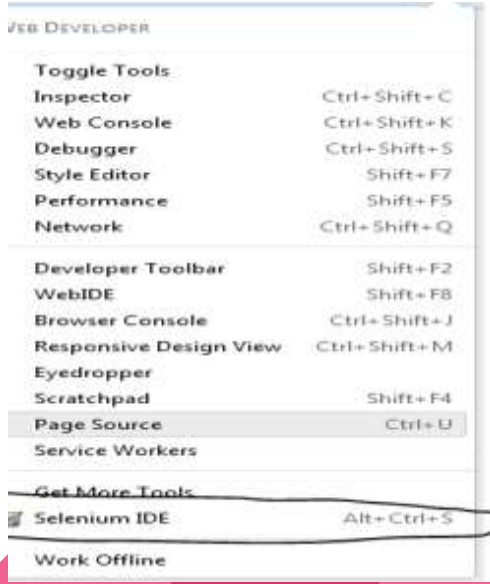


How to install Selenium IDE

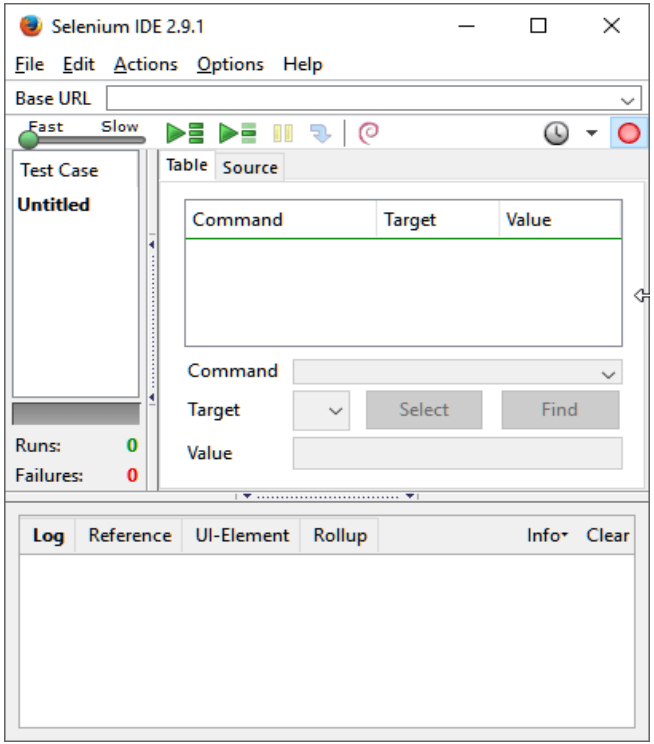
4. Firefox will automatically install Selenium IDE software. After the installation is completed, a pop up window appears asking to re-start the Firefox. Click on the "Restart Now" button to reflect the Selenium IDE installation. *Click* on *Restart Now* button.



5. On clicking on the Restart Now button, Firefox will restart automatically. In case you missed the pop-up, simply close the Firefox and launch again. Once the Firefox is booted and started again, we can see selenium IDE under the tools menu list. *Click* on *Tools* menu list displayed at the top bar. *Selenium IDE* will be displayed in the list.



This is how selenium IDE look like



How to use Selenium with script and command

Creating First Selenium IDE Script

Process #1: Recording

Process #2: Playing back

Process #3: Saving

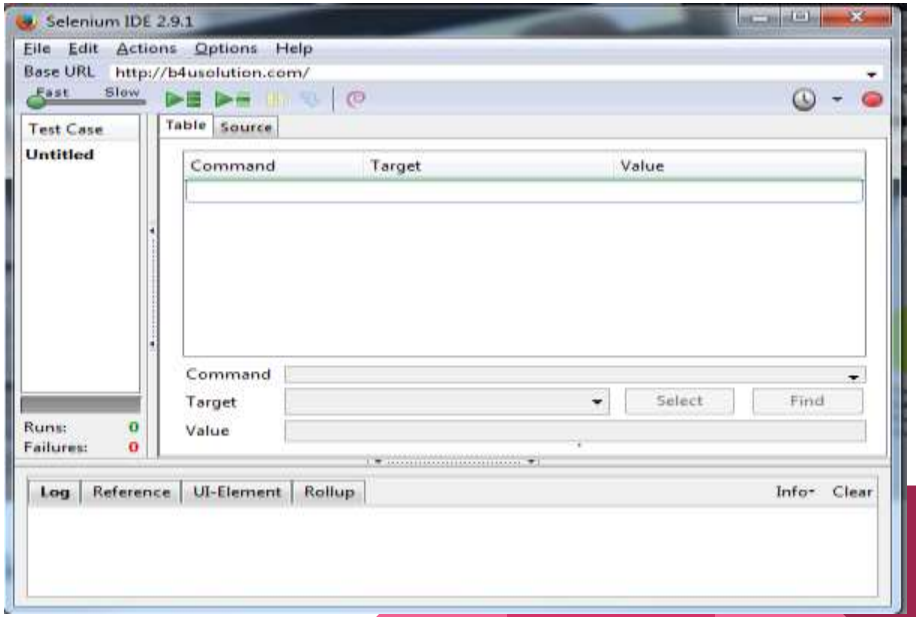
How to use Selenium with script and command

Creating First Selenium IDE Script

Process #1: Recording

Scenario

- Open “http://b4usolution.com/”.
- Assert Title of the application
- Verify text “Khoa Hoc” is displayed in homepage



Step 1 – Launch the Firefox and open Selenium IDE from the menu bar.

How to use Selenium with script and command

Creating First Selenium IDE Script

Process #1: Recording

Step 2 – Enter the address of site under test (“http://b4usolution.com”) inside the Base URL textbox.

step 3 – By default, the Record button is in ON state. Remember to tune it ON if it is in OFF state so as to enable the recording mode.

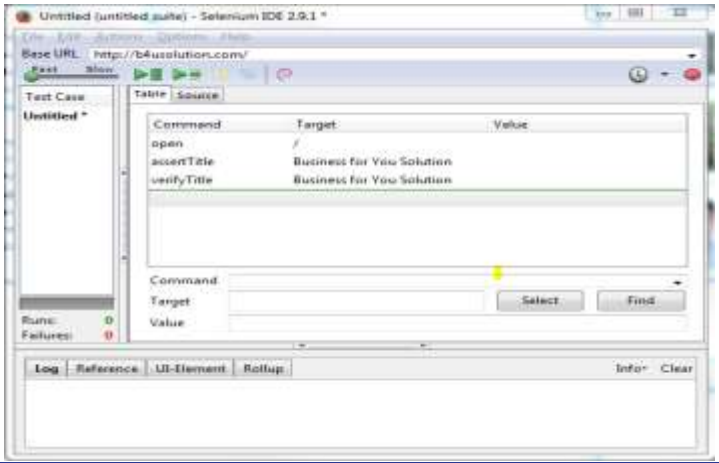
How to use Selenium with script and command

Creating First Selenium IDE Script

Process #1: Recording

Step 4 – Open the site under test (https://accounts.google.com) in the Firefox.

Step 5 – Verify text of Title is displayed in homepage

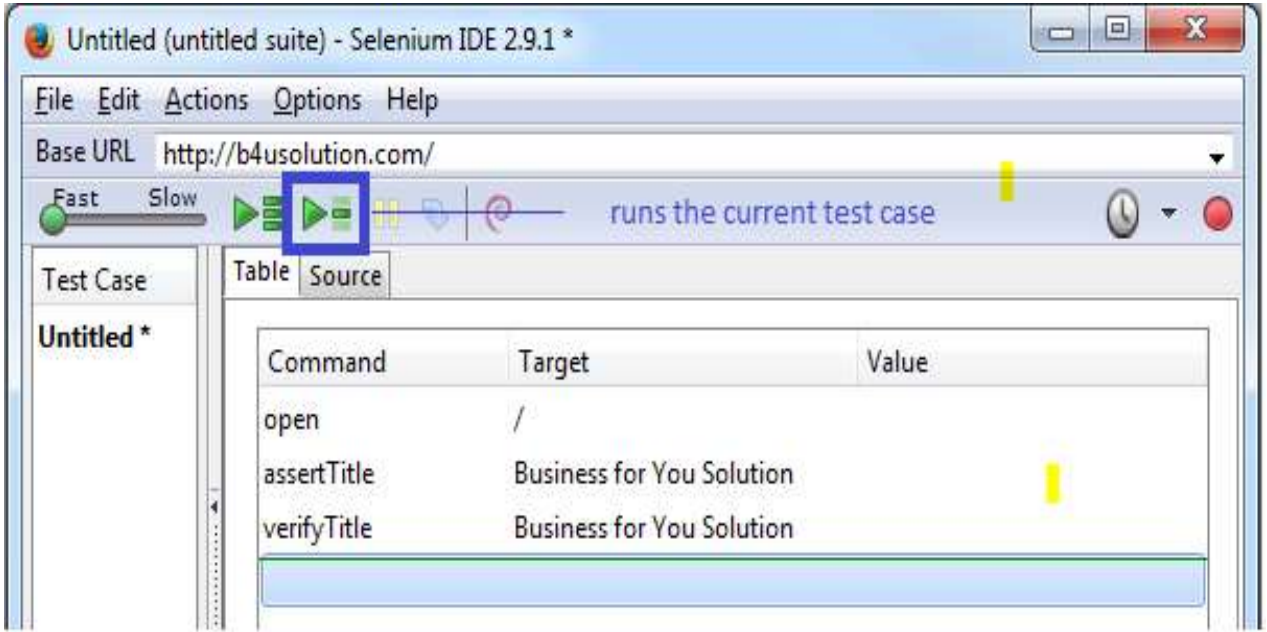


How to use Selenium with script and command

Creating First Selenium IDE Script

Process #2: **Playing back / executing a test script**

Now that we have created our first Selenium IDE script, we would want to execute it to see if the script is stable enough. Click on the playback button to execute the script.

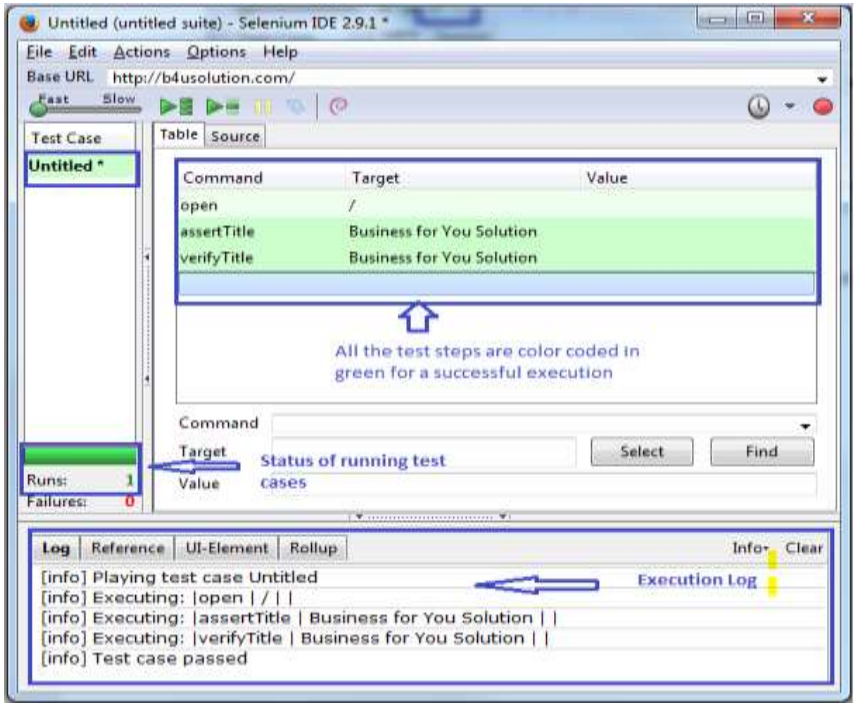


How to use Selenium with script and command

Creating First Selenium IDE Script

Process #2: Playing back / executing a test script

Post execution, all the test steps would be color coded in green for the successful run. The same would be evitable from the test case pane.



How to use Selenium with script and command

Creating First Selenium IDE Script

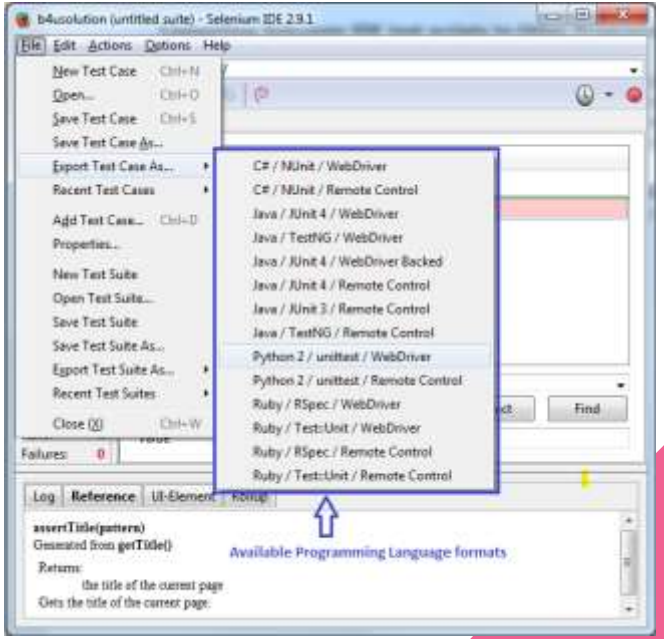
Process #3: Saving a test script

To save the test script, Click on the File menu and select “Save Test Case” option.

Using Common Features Of Selenium IDE

- Setting Execution speed

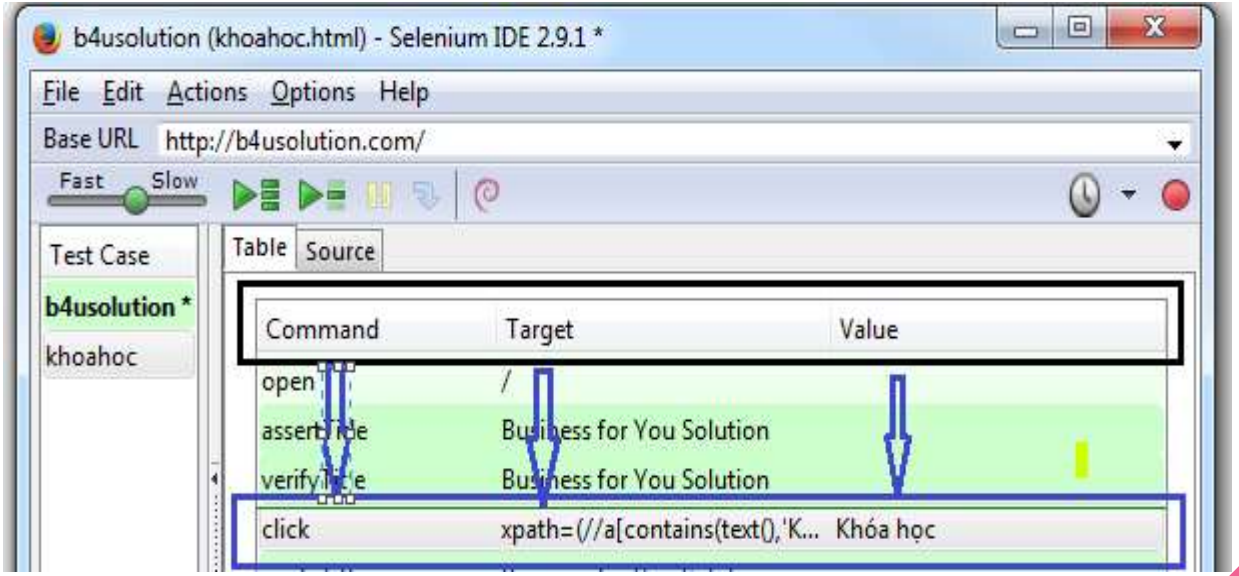
- Converting Selenium IDE test scripts to Other Programming Languages



Selenium IDE Commands

Each Selenium IDE test step can chiefly be split into following three components:

- Command
- Target
- Value



Commonly Used Selenium IDE Commands

Command	Description
open	Opens a specified URL in the browser.
assertTitle, VerifyTitle	Returns the current page title and compares it with the specified title
assertElementPresent, verifyElementPresent	Verify / Asserts the presence of an element on a web page.
assertTextPresent, verifyTextPresent	Verify / Asserts the presence of a text within the web page.
type, typeKeys, sendKeys	Enters a value (String) in the specified web element.
Click, clickAt, clickAndWait	Clicks on a specified web element within a web page.

Commonly Used Selenium IDE Commands

Command	Description
open	Opens a specified URL in the browser.
waitForPageToLoad	Sleeps the execution and waits until the page is loaded completely.
waitForElement Present	Sleeps the execution and waits until the specified element is present
chooseOkOnNextConfirmation, chooseOkOnNextConfirmationAndWait, chooseCancelOnNextConfirmation	Click on ”OK” or “Cancel” button when next confirmation box appears.

Locators

How to use Locators in Selenium IDE

Locator is a command that tells Selenium IDE which GUI elements (say Text Box, Buttons, Check Boxes etc) its needs to operate on. Identification of correct GUI elements is a prerequisite to creating an automation script.

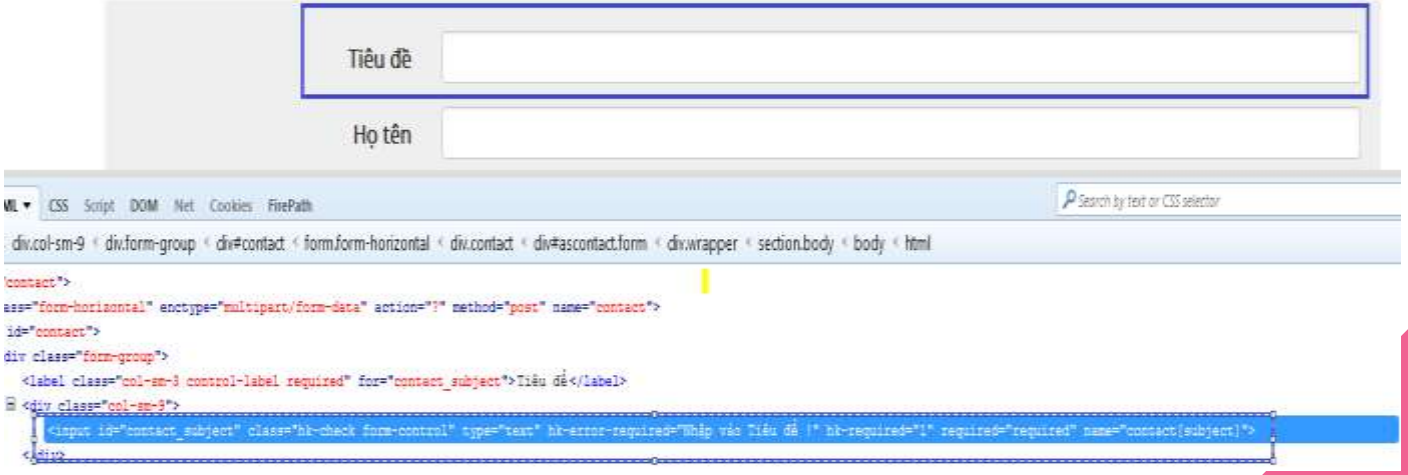
- There is 6 ways to locate elements in Selenium IDE, they are:
- ID
- Name
- Link Text
- CSS Selector
- DOM
- Xpath

How to use Locators in Selenium IDE

Locator by ID:

This is the most common way of locating elements because ID's are supposed to be unique for each element.

Target Format: id=*id of the element* : ***id="contact_subject"***

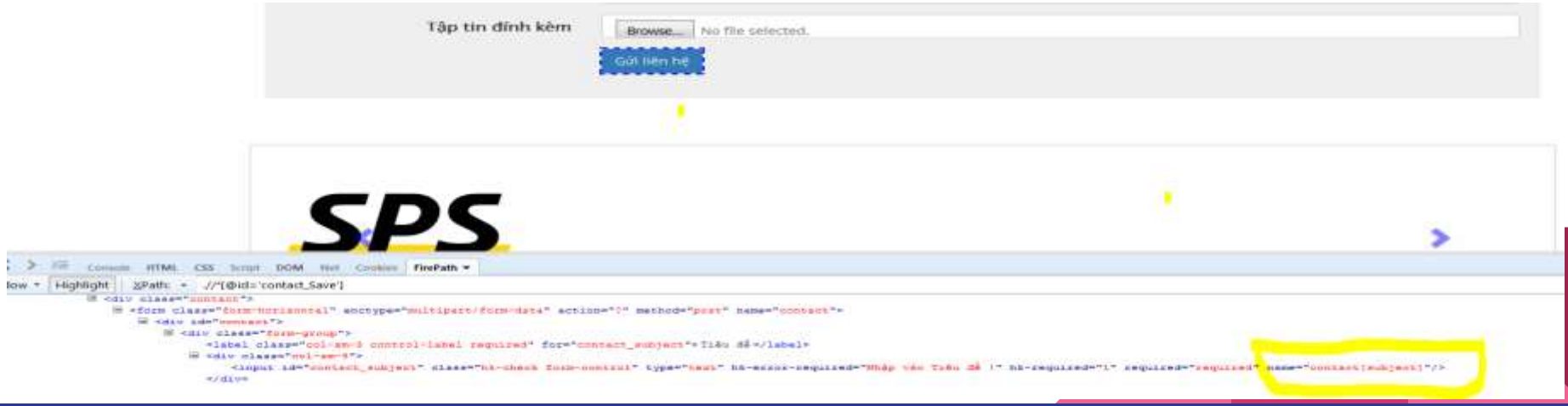


How to use Locators in Selenium IDE

Locator by Name:

Locating elements by name are very similar to locating by ID, except that we use the "**name=**" prefix instead.

Target Format: name=*name of the element* ***name="contact[subject]"***



How to use Locators in Selenium IDE

Locating by Link Text

This type of locator applies only to hyperlink texts. We access the link by prefixing our target with "link=" and then followed by the hyperlink text.

Target Format: link=*link text: **href="/tin-tuc/chi-tiet/book-developing-the-leader-***

How to use Locators in Selenium IDE

- **CSS Selector:** The CSS locator finds the first element with a specific CSS class attribute. This is useful for locating items that have a unique style on the page.

Target Format:

CSS is a language that describes the style of an HTML document. CSS describes how HTML elements should be displayed.

How to use Locators in Selenium IDE

- **DOM:** The Document Object Model represents an HTML document and can be accessed using JavaScript. This location strategy takes JavaScript that evaluates to an element on the page, which can be simply the element's location using the hierarchical dotted notation.

Target Format:

- Finding HTML elements by id
- Finding HTML elements by tag name
- Finding HTML elements by class name
- Finding HTML elements by CSS selectors
- Finding HTML elements by HTML object collections

```
var myElement = document.getElementById("intro");
```

How to use Locators in Selenium IDE

Locating by XPath: //*[@id='news']/div[@class="col-sm-6 col-md-4 news-box"]/span/a[text()="Book Developing The Leader Within you"]

Q&A?