Notes on Selenium Project

***Selenium automates browsers*.** It is a free automation testing tool for web applications.

Selenium works with different browsers like Chrome, Firefox, IE, etc. and can work on different operating systems like windows, mac, linux etc. It lets us interacts with all the different elements in a webpage. On a webpage, It lets us to click on the links or buttons, input text, extract text and much more. By covering all the different functionalities on the website with Selenium tests, we will be able to quickly catch new and reappearing old bugs.

Today with a simple example, we will learn how to work with the various selectors that Selenium offers us to use like:

- Name selector
- ID Selector
- Class Name selector
- CSS Path selector
- XPath selector

After that we will learn how to work with some special elements like:

- Input text boxes
- Check boxes
- Radio buttons
- Drop down menus
- JavaScript Alert boxes

Steps:

Open Visual Studio

Set up environment by

- creating New Project (select Console Application), give the name to your project.

- Include all the Selenium libraries by right clicking on your project, click on Manage NuGet Packages, click on browse, install Selenium WebDriver,

Selenium Support and Selenium.WebDriver.ChromeDriver (that is the driver of the browser we are going to use).

- First we always initialize the driver by
  IWebDriver driver = new ChromeDriver();

  Selenium WebDriver is the most important tool for writing test cases in programmatic fashion. It supports the following PL: Java, python, C#, Perl, Ruby, .Net.

- Using driver we can open the webpage by saying driver.Navigate().GoToUrl("url")
  In our case this the testing website which is
  http://executeautomation.com/demosite/index.html?UserName=&Password=&Login=Login

- To find element we use, **IWebElement** interface which represents an HTML element, using which the user controls the elements on the page. Generally, all interesting operations to do with interacting with a page will be performed through this interface. Some of the methods are FindElement(), Click(), GetAttribute(), SendKeys().

- Create a pause by using Thread.Sleep(), which lets us see the page otherwise it closes too fast.

- We use WebDriver.**Quit()** to close our driver. This is the method used to destroy the instance **of** WebDriver. It closes all Browser Windows associated with that **driver** and safely ends the session.We can also use WebDriver.**Close()** method which is used to **close** the current open window. It closes the current open window on which **driver** has focus on.

- To Select elements by using different selectors like Name, ID, CssSelector, XPath, Class Name selector.

- IAlert Interface - Defines the interface through which the user can manipulate JavaScript alerts. Some of the methods are Accept() - accepts the alert, Dismiss() - dismiss the alert, SendKeys() - send keys to the alert.

- Console.ForegroundColor Property - Gets or sets the foreground color of the console. A ConsoleColor is that which specifies the foreground color of the console; that is, the color of each character that is displayed. The default is gray.

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