Seleinum L1 : Trend NXT Hands-on Assignments

2. parallel test case execution:

Selenium Grid uses a hub-node concept where you only run the test on a single machine called a **hub**, but the execution will be done by different machines called **nodes**.

* The hub is the central point wherein you load your tests.
* Nodes are the Selenium instances that will execute the tests that you loaded on the hub.

Selenium grid can be set up in two different ways:

1. command line
2. JSON config file.

Steps to Set up Selenium Grid using Command prompt:

1. Download the Selenium Server
2. place the Selenium Server .jar file anywhere in your HardDrive
3. Using the command prompt, navigate to the path where we placed the Selenium Server.
4. On the command prompt, type **java -jar selenium-server-standalone-2.30.0.jar -role hub**
5. The hub should successfully be launched
6. Go to Machine B and launch a command prompt there.
7. Type java -Dwebdriver.gecko.driver="C:\geckodriver.exe" -jar selenium-server-standalone-3.4.0.jar -role webdriver -hub [http://192.168.1.3:4444/grid/register -port 5566](http://192.168.1.3:4444/grid/register%20-port%205566)

Steps to Set up Selenium Grid using JSON config file:

1. Download the code for JSON config file
2. Copy and paste the code on a text editor such as Notepad with the extension '.json'
3. Launch the command prompt
4. Type java -jar selenium-server-standalone-2.53.1.jar -role hub -hubConfig hubconfig.json
5. the hub is set up successfully.
6. Go to Machine B and launch a command prompt there.
7. Type Java-Dwebdriver.chrome.driver="chromedriver.exe" -Dwebdriver.ie.driver="IEDriverServer.exe" -Dwebdriver.gecko.driver="geckodriver.exe" -jar selenium-server-standalone-2.53.1.jar -role node -nodeConfig node1.json
8. Navigate to the grid console to verify if the nodes have been successfully configured

To design test scripts that will run on the grid, we need touse DesiredCapabilites and the RemoteWebDriver objects.

* DesiredCapabilites is used to set the type of browser and OS that we will automate.
* RemoteWebDriver is used to set which node (or machine) that our test will run against.

1. **Selenium IDE**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Scenario / Object to be recognized** | **CSS Path** | **X path** |
| **1** | Launch Home Page - Recognize login link | ul[class="dropdown-menu dropdown-menu-right"] >li:nth-child(2) >a | //a[contains(text(),'Login')] |
| 2 | Samsung Galaxy Tab 10.1 Image | #slideshow0 > div > div.swiper-slide.text-center.swiper-slide-duplicate.swiper-slide-active > a > img | //div[@id="slideshow0"]/div/div[4]/a/img |
| 3 | First three Images under Featured |  |  |
| 4 | <Image 1>(MacBook) | #content >div.row >div >div >div> a >img | //img[@title='MacBook'] |
| 5 | <Image 2>(iPhone) | #content >div.row >div:nth-child(2) >div >div> a >img | //img[@title='iPhone'] |
| 6 | <Image 3>(Apple Cinema 30\*) | #content >div.row >div:nth-child(3) >div >div> a >img | //img[@title='Apple Cinema 30"'] |
| 7 | First three Add to cart button under featured |  |  |
| 8 | <Add to cart1> | button[onclick="cart.add('43');"] | //\*[@id="content"]/div[2]/div[1]/div/div[3]/button[1] |
| 9 | <Add to cart2> | button[onclick="cart.add('40');"] | //\*[@id="content"]/div[2]/div[2]/div/div[3]/button[1] |
| 10 | <Add to cart3> | button[onclick="cart.add('42');"] | //\*[@id="content"]/div[2]/div[3]/div/div[3]/button[1] |
| 11 | First three product name from hrader bar (eg. Desktop, ..) |  |  |
| 12 | <Product 1>(Desktop) | a.dropdown-toggle[href="https://demo.opencart.com/index.php?route=product/category&path=20"] | //\*[@id="menu"]/div[2]/ul/li[1]/a |
| 13 | <Product 2>(Laptops & Notebooks) | a.dropdown-toggle[href="https://demo.opencart.com/index.php?route=product/category&path=18"] | //\*[@id="menu"]/div[2]/ul/li[2]/a |
| 14 | <Product 3>(Components) | a.dropdown-toggle[href="https://demo.opencart.com/index.php?route=product/category&path=25"] | //\*[@id="menu"]/div[2]/ul/li[3]/a |

**5.Locators in Selenium**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.No** | **Scenario / Object to be recognized** | **CSS Path** | **X path** |
| **Account Login** | Email Address Text Box | input[id='input-email'] | //input[@name='email'] |
|  | Email Address Label | label[for='input-email'] | //label[contains(text(),'E-Mail Address')] |
|  | Login button | input[value='Login'] | //input[@value='Login'] |
|  | Both Login links (one on the header and the another on the right pane) | a[href="https://demo.opencart.com/index.php?route=account/login"] | //\*[contains(text(),'Login')] |
| **My Account (After Login)** | Both Logout links(one on the header and another on the right pane) | a[href="https://demo.opencart.com/index.php?route=account/logout"] | //\*[contains(text(),'Logout')] |
|  | Edit your account information link. | #content > ul:nth-child(2) > li:nth-child(1) > a | //\*[contains(text(),'Edit your account information')] |
|  | Modify your address book entries link. | #content > ul:nth-child(2) > li:nth-child(3) > a | //\*[contains(text(),'Modify your address book entries')] |
|  | Subscribe / unsubscribe to newsletter link | #content > ul:nth-child(6) > li > a | //\*[contains(text(),'Subscribe / unsubscribe to newsletter')] |
|  | Three Currency icon(Dollar, Euro, Pound sterling) |  |  |