**How to use Selenium Grid for parallel execution**

Making machine A as Hub:-

Download selenium server file.

Open CMD.

Go to the folder where selenium server file is available.

Type below command.

java -jar selenium-server-standalone-3.13.0.jar -role hub

How to check Hub is running or not:

Checking in CMD :-

C:\selenium>java -jar selenium-server-standalone-3.13.0.jar -role hub

23:36:29.755 INFO [GridLauncherV3.launch] - Selenium build info: version: '3.13.0', revision: '2f0d292'

23:36:29.776 INFO [GridLauncherV3$2.launch] - Launching Selenium Grid hub on port 4444

2018-08-09 23:36:31.086:INFO::main: Logging initialized @3847ms to org.seleniumhq.jetty9.util.log.StdErrLog

23:36:32.792 INFO [Hub.start] - Selenium Grid hub is up and running

23:36:32.804 INFO [Hub.start] - Nodes should register to http://192.168.0.8:4444/grid/register/

23:36:32.805 INFO [Hub.start] - Clients should connect to http://localhost:4444/wd/hub

Using browser :-

Go to browser and type “http://localhost:4444/grid/console”.

Also check in machine B(node) , whether machine B is able to communicate with Hub machine.

go to browser of machine B and type <http://192.168.0.8:4444/grid/console>.

(we can able to see same Hub web interface)

Making Machine B as node:-

Now type below command to make system B as node system.

“java -jar selenium-server-standalone-3.4.0.jar -role webdriver -hub http://192.168.0.8:4444/grid/register -port 5566”

Now go to system A(Hub) and run the program.

we can see the script is running in system B(node).

Program for checking selenium Grid:-

|  |  |  |
| --- | --- | --- |
| **Step no.** | **Steps to be executed** | **Expected result** |
| 1 | Launch open cart application | User must be able to login to open cart. |
| 2 | Click on login link | Login page should be displayed . |
| 3 | Enter Email address and password and click on “login” button. | User must be able to login open cart application. |

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package day1;

import java.net.MalformedURLException;

import java.net.URL;

import org.openqa.selenium.By;

import org.openqa.selenium.Platform;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.remote.DesiredCapabilities;

import org.openqa.selenium.remote.RemoteWebDriver;

public class grid {

public static void main(String[] args) throws MalformedURLException {

DesiredCapabilities dc = DesiredCapabilities.chrome();//creating desired capability oblect as per the browser

dc.setBrowserName("chrome");//setting browser name which we want to automate

dc.setPlatform(Platform.WIN10);//set platform of the node system

String con ="http://192.168.0.8:4444/wd/hub";

WebDriver driver = new RemoteWebDriver(new URL(con),dc);//passing desiredcapabilities object //below is the program which is going to run in the node system

driver.manage().window().maximize();

driver.get("http://10.207.182.108:81/opencart/");

driver.findElement(By.xpath("//\*[@id=\"welcome\"]/a[1]")).click();

Thread.sleep(2000);

driver.findElement(By.xpath("//input[@name='email']")).sendKeys("bikram@gmail.com");

driver.findElement(By.xpath("//input[@name='password']")).sendKeys("bikram1234");

Thread.sleep(2000);

driver.findElement(By.xpath("//input[@type='submit']")).click();

}

}