**1. what are limitations in selenium web driver**

It does not support non web-based applications, it only supports web based applications.

It is an open source tool.

To automate selenium test applications, we need to know atleast 1 supporting language.

**2. installing/configure selenium**

Install java on the computer.

Install Eclipse IDE

Download Selenium jar files

Configure Eclipse IDE with web driver

Create a new project in eclipse: New -> java project-> give a name to project.

Create new Package: Right click on project -> New-> Package, give a name to package

Create a Class: Right click on project-> New -> Class, give a name to Class.

Import selenium jar files into eclipse.

Right click on project-> Build path-> Configure build path-> Libraries->add external jars Select all jar files from the folder and click on add Open.

**3. what are different ways of locating elements in selenium**

package gmail;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Dayone {

public static void main(String[] args) throws InterruptedException

{

//Invoking the browser browser

System.setProperty("webdriver.chrome.driver", "/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver wd=new ChromeDriver();

//open urlusing get method

Thread.sleep(5000);

wd.get("https://www.google.com/?gws\_rd=ssl%22");

//click on gmail text using linktext locator

wd.findElement(By.linkText("Gmail")).click();

Thread.sleep(3000);

//click on Signin button using linktext locator

wd.findElement(By.linkText("SIGN IN")).click();

Thread.sleep(3000);

//using sendkeys method to enter the text into text box

wd.findElement(By.id("Email")).sendKeys("g.sravanthi1126@gmail.com");

Thread.sleep(2000);

//Using Id locator clicking on next using click method

wd.findElement(By.id("next")).click();

Thread.sleep(2000);

//entering password in the textbox

wd.findElement(By.id("Passwd")).sendKeys("Sraaaaa1");

Thread.sleep(1000);

//click on sign in button

wd.findElement(By.id("signIn")).click();

Thread.sleep(3000);

//Click on Compose button using xpath locator

wd.findElement(By.xpath("//\*[@id=':hp']/div/div")).click();

Thread.sleep(3000);

//Entering mail id using sendkeys method

wd.findElement(By.id(":na")).sendKeys("sravanthigokula@gmail.com");

Thread.sleep(2000);

// Entering the subject in the subject field using name locator

wd.findElement(By.name("subjectbox")).sendKeys("Hello");

Thread.sleep(2000);

//Entering the text using the id locator and sendkeys method

wd.findElement(By.id(":nz")).sendKeys("Hello... How are you???");

Thread.sleep(2000);

//Clicking on send button by using click method

wd.findElement(By.id(":mk")).click();

Thread.sleep(2000);

//Clicking on the icon

wd.findElement(By.xpath("//\*[@id='gb']/div[1]/div[1]/div[2]/div[4]/div[1]/a/span")).click();

Thread.sleep(2000);

//Clicking the logout button

wd.findElement(By.id("gb\_71")).click();

Thread.sleep(2000);

//Closing browser

wd.close();

}

}

**4. which is fastest way to identify elements in web page?**

the most accurate way is XPath as you can use XPath's to describe the exact position of an element within the DOM, however there are some instances where CSS locators work better than XPaths.

**5.what is absolute path and relative path in xpath**

Location path specifies the location of node in XML document. This path can be absolute or relative. If location path starts with root node or with '/' then it is an absolute path. Following are few of the example locating the elements using absolute path.

Location path specifies the location of node in XML document. This path can be absolute or relative. If location path starts with the node that we've selected then it is a relative path.

**6. different types of waits or synchronization in selenium webdriver**

Unconditional and Conditional Synchronization

**7. how to save screen shots using selenium webdriver**

public class TestSample

{

static WebDriver driver;

@Before

public void setUp() {

//start new webdriver session, for eg using firefox

driver = new FirefoxDriver();

}

@Test

public void aTest() {

driver.get("http://www.google.com/");

//more test logic - test might pass or fail at this point

}

@After

public void tearDown() {

// take the screenshot at the end of every test

File scrFile = ((TakesScreenshot)driver).getScreenshotAs(OutputType.FILE);

// now save the screenshto to a file some place

FileUtils.copyFile(scrFile, new File("c:\\tmp\\screenshot.png"));

//quit WebDriver session

driver.quit();

}

}

|  |
| --- |
|  |

**8. how to handle multiple windows in selenium webdriver**

package selenium;

import java.util.Iterator;

import java.util.Set;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Childwin {

public static void main(String[] args) {

System.setProperty("webdriver.chrome.driver", "/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver dr=new ChromeDriver();

dr.manage().window().maximize();

dr.get("https://accounts.google.com/signup");

dr.findElement(By.xpath(".//\*[@id='wrapper']/div[2]/div/div[1]/p/a")).click();

System.out.println("Before switching");

System.out.println(dr.getTitle());

Set<String> ids=dr.getWindowHandles();

Iterator<String> it=ids.iterator();

String parentid=it.next();

String childid=it.next();

dr.switchTo().window(childid);

System.out.println("After switching");

System.out.println(dr.getTitle());

dr.switchTo().window(parentid);

System.out.println(dr.getTitle());

}

}

**9. how to launch webpage using chrome driver**

package facebook;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Test2 {

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

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver","/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver wd = new ChromeDriver();

wd.get("https://www.facebook.com/");

Thread.sleep(2000);

wd.findElement(By.name("email")).sendKeys("Urmilareddy.billapati@gmail.com");

Thread.sleep(2000);

wd.findElement(By.name("pass")).sendKeys("Urmilaaaaa");

Thread.sleep(2000);

wd.findElement(By.id("loginbutton")).click();

Thread.sleep(2000);

wd.findElement(By.name("q")).sendKeys("ujwal reddy");

Thread.sleep(2000);

}

}

**10. what is desired capabilities in selenium webdriver**

Basically, the DesiredCapabilities help to set properties for the WebDriver. A typical usecase would be to set the path for the FirefoxDriver if your local installation doesn't correspond to the default settings.

**11. how to set language while opening website**

package selenium;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

Public class Languageset{

public static void main(String[] args)

{

System.setProperty(“webdriver.chrome.driver","/Users/sravanthigokula/Documents/space/chromedriver”);  
ChromeOptions options = new ChromeOptions();  
options.addArguments(“–lang= sl”);  
ChromeDriver driver = new ChromeDriver(options);  
driver.get(“[http://google.co.in](http://google.co.in/)”);

}

}

**12. how to handle windows based popups (upload and dropdown)**

package selenium;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Alerts {

public static void main(String[] args) throws InterruptedException

{

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver","/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver dr= new ChromeDriver();

dr.get("http://www.tizag.com/javascriptT/javascriptalert.php");

dr.findElement(By.xpath("html/body/table[3]/tbody/tr[1]/td[2]/table/tbody/tr/td/div[4]/form/input")).click();

Thread.sleep(2000);

// use accept method for possitive scenario

dr.switchTo().alert().accept();

// use dismiss method for negative scenario

dr.switchTo().alert().dismiss();

//to display the text in the output

System.out.println(dr.switchTo().alert().getText());

// to enter the text in the alert window

dr.switchTo().alert().sendKeys("good");

}

}

**13. write code to verify any application login page is working or not**

package gmail;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Dayone {

public static void main(String[] args) throws InterruptedException

{

//Invoking the browser browser

System.setProperty("webdriver.chrome.driver", "/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver wd=new ChromeDriver();

//open urlusing get method

Thread.sleep(5000);

wd.get("https://www.google.com/?gws\_rd=ssl%22");

//click on gmail text using linktext locator

wd.findElement(By.linkText("Gmail")).click();

Thread.sleep(3000);

//click on Signin button using linktext locator

wd.findElement(By.linkText("SIGN IN")).click();

Thread.sleep(3000);

//using sendkeys method to enter the text into text box

wd.findElement(By.id("Email")).sendKeys("g.sravanthi1126@gmail.com");

Thread.sleep(2000);

//Using Id locator clicking on next using click method

wd.findElement(By.id("next")).click();

Thread.sleep(2000);

//entering password in the textbox

wd.findElement(By.id("Passwd")).sendKeys("Sravanthi@26");

Thread.sleep(1000);

//click on sign in button

wd.findElement(By.id("signIn")).click();

Thread.sleep(3000);

//Click on Compose button using xpath locator

wd.findElement(By.xpath("//\*[@id=':hp']/div/div")).click();

Thread.sleep(3000);

//Entering mail id using sendkeys method

wd.findElement(By.id(":na")).sendKeys("sravanthigokula@gmail.com");

Thread.sleep(2000);

// Entering the subject in the subject field using name locator

wd.findElement(By.name("subjectbox")).sendKeys("Hello");

Thread.sleep(2000);

//Entering the text using the id locator and sendkeys method

wd.findElement(By.id(":nz")).sendKeys("Hello... How are you???");

Thread.sleep(2000);

//Clicking on send button by using click method

wd.findElement(By.id(":mk")).click();

Thread.sleep(2000);

/ /Clicking on the icon

wd.findElement(By.xpath("//\*[@id='gb']/div[1]/div[1]/div[2]/div[4]/div[1]/a/span")).click();

Thread.sleep(2000);

//Clicking the logout button

wd.findElement(By.id("gb\_71")).click();

Thread.sleep(2000);

//Closing browser

wd.close();

}

}

**14. how to select items from dropdown/select box**

package selenium;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.support.ui.Select;

public class Staticdropdown {

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

// Invoking the browser

System.setProperty("webdriver.chrome.driver","/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver dr=new ChromeDriver();

dr.get("http://spicejet.com/");

// Static Dropdown using Select method

Select dropdown=new Select(dr.findElement(By.xpath(".//\*[@id='ctl00\_mainContent\_ddl\_Adult']")));

// Selecting with index number

dropdown.selectByIndex(2);

Thread.sleep(2000);

//Selecting with value

dropdown.selectByValue("8");

// selecting with the visible text

dropdown.selectByVisibleText("7 Adults");

}

}

**15. how to know if checkbox is checked or not in webpage**

**Isselected:**

package selenium;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Checkbox {

public static void main(String[] args) {

System.setProperty("webdriver.chrome.driver","/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver dr=new ChromeDriver();

dr.get("http://spicejet.com/");

// Checkbox By using Isselected method we can check whether the checkbox is selected or not

System.out.println(dr.findElement(By.xpath(".//\*[@id='ctl00\_mainContent\_chk\_IndArm']")).isSelected());

// Selecting a Check box

dr.findElement(By.xpath(".//\*[@id='ctl00\_mainContent\_chk\_IndArm']")).click();

System.out.println(dr.findElement(By.xpath(".//\*[@id='ctl00\_mainContent\_chk\_IndArm']")).isSelected());

// De selectinng the Checkbox

dr.findElement(By.xpath(".//\*[@id='ctl00\_mainContent\_chk\_IndArm']")).click();

System.out.println(dr.findElement(By.xpath(".//\*[@id='ctl00\_mainContent\_chk\_IndArm']")).isSelected());

}

}

**16. tell me code to pass values from parent window to child window**

package selenium;

import java.util.Iterator;

import java.util.Set;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Childwin {

public static void main(String[] args) {

System.setProperty("webdriver.chrome.driver", "/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver dr=new ChromeDriver();

dr.manage().window().maximize();

dr.get("https://accounts.google.com/signup");

dr.findElement(By.xpath(".//\*[@id='wrapper']/div[2]/div/div[1]/p/a")).click();

System.out.println("Before switching");

System.out.println(dr.getTitle());

Set<String> ids=dr.getWindowHandles();

Iterator<String> it=ids.iterator();

String parentid=it.next();

String childid=it.next();

dr.switchTo().window(childid);

System.out.println("After switching");

System.out.println(dr.getTitle());

dr.switchTo().window(parentid);

System.out.println(dr.getTitle());

}

}

**17. write code to find out if all links are working or not**

package amazon;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Amazon {

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

// TODO Auto-generated method stub

System.setProperty( "webdriver.chrome.driver","/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver driver = new ChromeDriver();

driver.get("https://www.amazon.com/");

Thread.sleep(2000);

driver.findElement(By.id("twotabsearchtextbox")).sendKeys("iphone 6s case");

Thread.sleep(2000);

driver.findElement(By.xpath("//\*[@id='nav-search']/form/div[2]/div/input")).click();

Thread.sleep(2000);

driver.findElement(By.xpath("//\*[@id='result\_25']/div/div[2]/div/div/a/img")).click();

Thread.sleep(2000);

driver.findElement(By.name("submit.add-to-cart-ubb")).click();

Thread.sleep(2000);

driver.findElement(By.id("hlb-ptc-btn-native")).click();

Thread.sleep(2000);

//driver.findElement(By.id("signInSubmit")).click();

//Thread.sleep(2000);

//driver.findElement(By.id("Address\_selectShipToThisAddress")).click();

//Thread.sleep(2000);

}

}

**18. write code on how to use java script executor?**

Java Script Executor is an interface which provides mechanism to execute Javascript through selenium driver. It provides “executescript” & "executeAsyncScript" methods, to run JavaScript in the context of the currently selected frame or window.

package selenium;

import org.openqa.selenium.JavascriptExecutor;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Javscript {

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

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver", "/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver driver = new ChromeDriver();

//Launching the browser application

driver.get("http://www.uftHelp.com");

//Adding wait

Thread.sleep(2000);

//driver.manage().timeouts().implicitlyWait(20, TimeUnit.SECONDS);

//Maximize window

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

//Creating the Javascriptexecutor interface object by Type casting

JavascriptExecutor js = (JavascriptExecutor)driver;

Thread.sleep(2000);

//Fetching the Domain Name

String sDomain = js.executeScript("return document.domain;").toString();

System.out.println("Domain = "+sDomain);

Thread.sleep(2000);

//Fetching the URL

String sURL = js.executeScript("return document.URL;").toString();

System.out.println("URL = "+sURL);

Thread.sleep(2000);

//Fetching the Title

String sTitle = js.executeScript("return document.title;").toString();

System.out.println("Title = "+sTitle);

Thread.sleep(2000);

//Vertical scroll - down by 200 pixels

js.executeScript("window.scrollBy(0,200)");

System.out.println("Successfully did the vertical scroll by 200px");

Thread.sleep(2000);

//driver.close();

}

}

**19. difference between assert and verify?**

When a assert command fails then test execution will be aborted.

 When a verify command fails then test will continue executing and logging the failure.

Assert.assertEquals(28, multiply(10, 3));

**20. difference between driver.close and driver.quit methods?**

package selenium;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class Close {

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

// TODO Auto-generated method stub

System.setProperty("webdriver.chrome.driver",

"/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver dr= new ChromeDriver();

dr.get("htttp://google.com");

Thread.sleep(2000);

dr.close();

}

}

**21. common exceptions in selenium?**

NoSuchElement

NoSuchFrame

StaleElementReference

UnknownCommand

UnexpectedAlertOpen

InvalidSelector

Timeout

XPathLookupError

**22. how to handle Ajax calls in selenium?**

Thread.sleep()

Explicit waits()

Implicit Waits()

**23. we have web table, need to click on second row from table.**

**24. How to assign the value to textbox other than sendkeys method?**

WebDriver driver = new FirefoxDriver();

driver.get("[http://www.google.com](http://www.google.com/)");

WebElement searchbox = driver.findElement(By.xpath("//input[@name='q']"));

JavascriptExecutor myExecutor = ((JavascriptExecutor) driver);

myExecutor.executeScript("arguments[0].value='Kirtesh';", searchbox);

driver.quit();

**25. Selenium grid, how to execute scripts on multiple browser**

Selenium-Grid allows you run your tests on different machines against different browsers in parallel. That is, running multiple tests at the same time against different machines running different browsers and operating systems. Essentially, Selenium-Grid support distributed test execution. It allows for running your tests in a distributed test execution

A grid consists of a single hub, and one or more nodes. Both are started using the selenium-server.jar executable

**26. Write code for drag/drop in selenium**

package selenium;

import java.awt.Desktop.Action;

import org.junit.Test;

import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.interactions.Actions;

public class Dragdrop {

@Test

public void test() throws InterruptedException{

System.setProperty("webdriver.chrome.driver", "/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver driver = new ChromeDriver();

driver.get("http://dhtmlx.com/docs/products/dhtmlxTree/");

Thread.sleep(5000);

driver.findElement(By.cssSelector("#treebox1 > div > table > tbody > tr:nth-child(2) > td:nth-child(2) > table > tbody > tr:nth-child(2) > td:nth-child(2) > table > tbody > tr:nth-child(3) > td:nth-child(2) > table > tbody > tr > td.standartTreeRow > span")).click();

WebElement elementToMove = driver.findElement(By.cssSelector("#treebox1 > div > table > tbody > tr:nth-child(2) > td:nth-child(2) > table > tbody > tr:nth-child(2) > td:nth-child(2) > table > tbody > tr:nth-child(3) > td:nth-child(2) > table > tbody > tr > td.standartTreeRow > span"));

WebElement moveToElement = driver.findElement(By.cssSelector("#treebox1 > div > table > tbody > tr:nth-child(2) > td:nth-child(2) > table > tbody > tr:nth-child(2) > td:nth-child(2) > table > tbody > tr:nth-child(2) > td:nth-child(2) > table > tbody > tr:nth-child(1) > td.standartTreeRow > span"));

Actions Dragdrop = new Actions(driver);

org.openqa.selenium.interactions.Action Action = Dragdrop.dragAndDrop(elementToMove, moveToElement).build();

Action.perform();

}

}

**27. Write code for right click in selenium**

package selenium;

import org.openqa.selenium.By;

import org.openqa.selenium.Keys;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.interactions.Actions;

public class Actions1 {

public static void main(String[] args)

{

// invoking the browser

System.setProperty("webdriver.chrome.driver","/Users/sravanthigokula/Documents/space/chromedriver");

WebDriver dr= new ChromeDriver();

dr.get("http://www.amazon.in/");

// creating object for actions class

Actions abc=new Actions(dr);

// using WebElement return type

WebElement element=dr.findElement(By.xpath("//\*[@id='nav-link-yourAccount']/span[1]"));

// moving the mouse by using moveToElement method

// build() is to compile & perform is to run.

abc.moveToElement(element).build().perform();

WebElement cap=dr.findElement(By.xpath(".//\*[@id='twotabsearchtextbox']"));

// Using keysDown for entering keys & shift keyword for caps

abc.keyDown(Keys.SHIFT).moveToElement(cap).sendKeys("iphone 6s").build().perform();

// using contextClick for right mouse click

abc.contextClick(cap).build().perform();

}

}

**28. Write code for scroll to specific element**

$('html, body').animate({

scrollTop: ($('#element').offset().top)

},500);