1. what are limitations in selenium webdriver
2. It is an open source tool
3. It supports only web based applications
4. We need to know atleast one supporting language very well in order to automate your application successfully.
5. Lots of challenges with IE browser
6. installing/configure selenium
7. Download and install java
8. Download and configure Eclipse
9. Download selenium stand alone server latest 3.0
10. Open the eclipse click on java project and add selenium jars to that project
11. what are different ways of locating elements in selenium

Using Id, classname,xpath,tagname,css selection and link text

By id: driver.findElement(By.id("element id"))

By class: driver.findElement(By.className("element class"))

Linktest: driver.findElement(By.linkText("Click Here")).click();

Tag name: driver.findElement(By.tag Name(“a”))

By xpath: driver.findelement(“By.xpath(“htmltag[@attribute1=’value1’ and @attribute2=’value2’]))

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

ID selectors (By.ID – Matches by @id attribute)

1. what is absolute path and relative path in xpath

Absolute Xpath: It uses Complete path from the Root Element to the desire element. ... (//html//body/div[1]div[2]/div[1]/div/div/div[2]/div[3]/div/div/div[1]/form/div[1]/div[1]/div[1]/div[1]/div/div[1]/input

Relative Xpath: For Relative Xpath the path starts from the middle of the HTML DOM structure. Its start with the double forward slash (//), which means it can search the element anywhere at the webpage. You can starts from the middle of the HTML DOM structure and no need to write long xpath.

.//input[@id=’u\_0\_1’]

|  |
| --- |
| different types of waits or synchronization in selenium webdriver |
| ex: write code  1.Implicit weight: An implicit wait is to tell WebDriver to poll the DOM for a certain amount of time when trying to find an element or elements if they are not immediately available.  Syntax: driver.manage.TimeOuts.implicitwait(6,Timeunit.SECONDS)  EX: WebDriver driver = **new** FirefoxDriver();  driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS); driver.**get**("[http://www.google.com"](http://www.google.com/));  2. Expilicit weight:  It is more extendible in the means that you can set it up to wait for any condition you might like. Usually, you can use some of the prebuilt **ExpectedConditions** to wait for elements to become clickable, visible, invisible, etc. |
| WebDriverWait wait-new WebDriverWaoit(driver,10);  WebElement element-wait.unitl(ExpectedConditions.element ToBeCheckable(By.id(“some id”))); |
| how to save screen shots using selenium webdriver |
| Ex: write code  import java.io.IOException; import org.apache.commons.io.FileUtils; import org.openqa.selenium.OutputType; import org.openqa.selenium.TakesScreenshot; import java.io.File;  import org.openqa.selenium.WebDriver; import org.openqa.selenium.chrome.ChromeDriver; import org.testng.annotations.Test;  public class Screenshot {  @Test  public void TestJavaS1() {            System.setProperty("webdriver.chrome.driver","C:\\Selenium\\chromedriver.exe"); WebDriver driver = new ChromeDriver(); driver.manage().window().maximize(); driver.get("[http://www.google.com](http://www.google.com/)");    File src= ((TakesScreenshot)driver).getScreenshotAs(OutputType.FILE); try {  FileUtils.copyFile(src, new File("C:/Selenium/error.png")); }  catch (IOException e)  {   System.out.println(e.getMessage());   }  }  } |
|  |
| how to handle multiple windows in selenium webdriver  **import** java.util.concurrent.TimeUnit;  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.chrome.ChromeDriver;  **public** **class** MultipleWindows {  **public** **static** **void** main(String[] args) **throws** InterruptedException {    System.*setProperty*("webdriver.chrome.driver","C:\\Selenium\\chromedriver.exe");  WebDriver driver = **new** ChromeDriver();  driver.get("http://seleniumhq.org/");  driver.manage().timeouts().implicitlyWait(10, TimeUnit.***SECONDS***);  driver.manage().window().maximize();    driver.findElement(By.*linkText*("Documentation")).click();  System.***out***.println(driver.getCurrentUrl());  driver.navigate().back();  System.***out***.println(driver.getCurrentUrl());  Thread.*sleep*(30000);  driver.navigate().forward();  System.***out***.println("Forward");  Thread.*sleep*(30000);  driver.navigate().refresh();  }  } |
| how to launch webpage using chrome driver |
| Ex: write code  **import** org.openqa.selenium.WebDriver;    **import** org.openqa.selenium.chrome.ChromeDriver;    **public** **class** WebPage {    **public** **static** **void** main(String[] args) {    System.*setProperty*("webdriver.chrome.driver","C:\\Selenium\\chromedriver.exe");      // Initialize browser  WebDriver driver=**new** ChromeDriver();    // Open youtube  driver.get("http://www.youtube.com");    // Maximize browser    driver.manage().window().maximize();    }} |
|  |
| what is desired capabilities in selenium webdriver |
| Ex: write code  **import** org.openqa.selenium.WebDriver;                         **import**org.openqa.selenium.ie.InternetExplorerDriver;                         **import**org.openqa.selenium.remote.DesiredCapabilities;                           **public** **class**UsingDesireCapabilityMethods {                         **public** **staticvoid** main(String[] args) { DesiredCapabilities desirecapabilities = DesiredCapabilities.*internetExplorer*();                                     desirecapabilities.setBrowserName("IE");                                     desirecapabilities.getBrowserName();                                     String version =desirecapabilities.getVersion();                                     System.***out***.println("version of the IE using: "+version);                                                  System.*setProperty*("webdriver.ie.driver","C:\\selenium\\IEDriverServer.exe");                                                                          WebDriver driver = **new** InternetExplorerDriver(desirecapabilities);                                     driver.get("[http://Facebook.com/index.php](http://www.google.com/url?q=http%3A%2F%2FFacebook.com%2Findex.php&sa=D&sntz=1&usg=AFQjCNE8SHKj_bZSAQ6r7RxMmVQl45EeOg)");                                                                                                                }                           } |
|  |
| how to set language while opening website |
| Ex: write code  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **import** org.openqa.selenium.firefox.FirefoxProfile;    **public** **class** ChangeLanguage {  **public** **static** **void** main(String[] args) {  //for Firefox    FirefoxProfile fireFoxProfile = **new** FirefoxProfile();  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  // setting language to hindi using firefox profile  fireFoxProfile.setPreference("intl.accept\_languages", "hi");  WebDriver driver = **new** FirefoxDriver(fireFoxProfile);  driver.get("https://www.Google.com/");    }  } |
|  |
| how to handle windows based popups (upload and dropdown) |
| Ex: write code |
| **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **import** org.openqa.selenium.support.ui.Select;    **public** **class** DropDown {    **public** **static** **void** main(String[] args) {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();  driver.get("https://www.facebook.com/");  Select month = **new** Select( driver.findElement(By.*id*("month")));  month.selectByVisibleText("Mar");  Select day =**new** Select( driver.findElement(By.*id*("day")));  day.selectByIndex(6);  Select year = **new** Select(driver.findElement(By.*id*("year")));  //note: it is not as same as visible value. get the value of the element using firebug  year.selectByValue("2016");  }    } |
| write code to verify any application login page is working or not |
| (u should write code to use textbox, button click events) |
| Ex: write code  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;    **public** **class** VerifyLogin {  **public** **static** **void** main(String[] args) {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();  driver.get("https://www.facebook.com/");  driver.findElement(By.*id*("email")).sendKeys("Sindhureddy7777@gmail.com");  driver.findElement(By.*id*("pass")).sendKeys("Password");  driver.findElement(By.*id*("u\_0\_n")).click();    }    } |
|  |
| how to select items from dropdown/select box |
| Ex: write code  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **import** org.openqa.selenium.support.ui.Select;    **public** **class** DropDown {    **public** **static** **void** main(String[] args) {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();  driver.get("https://www.facebook.com/");  Select month = **new** Select( driver.findElement(By.*id*("month")));  month.selectByVisibleText("Mar");  Select day =**new** Select( driver.findElement(By.*id*("day")));  day.selectByIndex(6);  Select year = **new** Select(driver.findElement(By.*id*("year")));  //note: it is not as same as visible value. get the value of the element using firebug  year.selectByValue("2016");  }    } |
|  |
| how to know if checkbox is checked or not in webpage |
| ex: write code  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **public** **class** CheckboxChecked {  **public** **static** **void** main(String[] args) {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();  driver.get("https://www.gmail.com");  driver.findElement(By.*id*("Email")).sendKeys("sudhavani568@gmail.com");  driver.findElement(By.*id*("next")).click();  // steps to find checkbox checked  **boolean** ischecked;  ischecked = driver.findElement(By.*id*("PersistentCookie")).isSelected();  System.***out***.println(" CheckBox checked? : "+ischecked);  driver.close();  }  } |
|  |
| tell me code to pass values from parent window to child window |
| Ex: write code  **import** java.util.Set;  **import** java.util.concurrent.TimeUnit;  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **import** com.gargoylesoftware.htmlunit.javascript.host.Iterator;  **public** **class** ParentChild{  **public** **static** **void** main(String[] args) {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();    driver.manage().timeouts().implicitlyWait(20,TimeUnit.***SECONDS***);  driver.manage().window().maximize();  driver.get("http://www.google.com/");  driver.findElement(By.*xpath*("//\*@1d='signipanel']/span/a")).click();  driver.findElement(By.*xpath*("//\*@1d='signin']/div[6]/button")).click();  Set<String> set1 = driver.getWindowHandles();  Iterator win1=(Iterator) set1.iterator();  String parent=(String) win1.next();  String child= (String) win1.next();  driver.switchTo().window(child);  }} |
|  |
| write code to find out if all links are working or not |
| Ex: write code |
| **import** java.io.IOException;  **import** java.net.HttpURLConnection;  **import** java.net.MalformedURLException;  **import** java.net.URL;  **import** java.util.ArrayList;  **import** java.util.List;  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.WebElement;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **public** **class** AllLinks {  **public** **static** **void** main(String[] args) **throws** IOException {  **int** workingLinks =0;  **int** nonWorkingLinks =0;  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();  driver.get("http://facebook.com");  driver.get("http://youtube.com");  //storing all the existing links using tag name "a"  List<WebElement> listOfLinks = driver.findElements(By.*tagName*("a"));    **for**(WebElement e : listOfLinks)  {  //getting the URl and saving in URL class  URL u = **new** URL(e.getAttribute("href"));  //opening each connection  HttpURLConnection urlconnection = (HttpURLConnection)u.openConnection();  urlconnection.connect();  // 200 is the Http response when links work fine  **if**(urlconnection.getResponseCode()==200)  {  workingLinks++; //increasing the count when link works  }  **else**  {  nonWorkingLinks++; //increasing the count when link fails  }  urlconnection.disconnect();  }    System.***out***.println("Total Number of Links: "+listOfLinks.size());  System.***out***.println("No of working links: "+workingLinks);  System.***out***.println("No of non working Links: "+nonWorkingLinks);  driver.close();          }  } |
|  |
|  |
|  |
| difference between assert and verify? |
| Ex: write code  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **public** **class** AssertVerify {    // assert class can be found in testng and there is no verify in testng    **public** **void** testMethod() {  WebDriver driver = **new** FirefoxDriver();  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  driver.get("https://en.wikipedia.org/wiki/Rothschild\_family");    String heading= driver.findElement(By.*id*("firstHeading")).getText();  // assert will stop the execution if it fails.  Assert.assertEquals(heading, "Rothschild family");  driver.close();  }    } |
|  |
| difference between driver.close and driver.quit methods? |
| Ex: write code  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **public** **class** DriverCloseQuit {  **public** **static** **void** usingClose() {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();    driver.get("http://automationpractice.com/index.php");  driver.findElement(By.*xpath*(".//\*[@id='social\_block']/ul/li[2]/a")).click();  //doesn't close child pages  driver.close();  }  **public** **static** **void** usingQuit(){  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();    driver.get("http://automationpractice.com/index.php");  driver.findElement(By.*xpath*(".//\*[@id='social\_block']/ul/li[2]/a")).click();  // closes all the pages  driver.quit();  }  **public** **static** **void** main(String[] args) {  *usingClose*();  *usingQuit*();  }  } |
|  |
| common exceptions in selenium? |
| Ex: write code  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.NoSuchElementException;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **public** **class** ExceptionInSelenium {  **public** **static** **void** main(String[] args) {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  /\*They are many execptions in selenium and can be caught using try catch block  \* all the exceptions can be caught using catch(exeception e) below is an example of NoSuchElementException  \* \*/  WebDriver driver = **new** FirefoxDriver();  driver.get("http://automationpractice.com/index.php");  **try**{ // actual id = search\_query\_top  driver.findElement(By.*id*("query\_top")).sendKeys("this will not work");  }  **catch**(NoSuchElementException e)  {  System.***out***.println( "execption found and caught. This way it will not stop the execution of the program");  }  driver.close();  }    } |
|  |
| how to handle Ajax calls in selenium? |
| Ex: write code |
|  |
| we have webtable, need to click on second row from table.  assume your row="2" ypur column ="2"  Set obj=Browser("browser").page("page").Frame("frame").webtable("webtable").object  obj.rows(row-1).cells(column-1).click |
| when we click on child will be populated. first column in primary column for each row. |
| tell me steps to verify child form has proper data or not |
| Ex: |
|  |
| How to assign the value to textbox other than sendkeys method?  **import** org.openqa.selenium.JavascriptExecutor;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **public** **class** SendKeys {  **public** **static** **void** main(String[] args) {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();  driver.get("http://automationpractice.com/index.php?controller=contact");  JavascriptExecutor javaex = (JavascriptExecutor)driver;  javaex.executeScript( "document.getElementById('Facebook').value='Sudha';");      }    } |
|  |
| Xpath:  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **public** **class** Xpaths {  **public** **static** **void** main(String[] args) {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");    WebDriver driver = **new** FirefoxDriver();  driver.get("http://automationpractice.com/index.php?controller=authentication&back=order-slip");  //absolute xpath. creates problem when physical location of the element changes  driver.findElement(By.*xpath*(".//\*[@id='header']/div[3]/div/div/div[3]/div/a/b")).click();  //// navigating back  driver.navigate().back();  //using relative path. short and accurate even if the physical place changes  driver.findElement(By.*xpath*("//a[contains(@title,'View my shopping cart')]")).click();  driver.close();  }  } |
|  |
| Write code for drag/drop in selenium  **import** java.util.concurrent.TimeUnit;    **import** org.openqa.selenium.By;    **import** org.openqa.selenium.WebDriver;    **import** org.openqa.selenium.WebElement;    **import** org.openqa.selenium.firefox.FirefoxDriver;    **import** org.openqa.selenium.interactions.Action;    **import** org.openqa.selenium.interactions.Actions;    **public** **class** DragAndDrop {    **public** **static** **void** main(String[] args) **throws** InterruptedException {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");    WebDriver driver = **new** FirefoxDriver();    driver.get("http://only-testing-blog.blogspot.in/2014/09/drag-and-drop.html");  Actions action = **new** Actions(driver);  action.dragAndDrop(driver.findElement(By.*id*("dragdiv")), driver.findElement(By.*id*("dropdiv")));  action.perform();    }    } |
|  |
| Write code for right click in selenium  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.firefox.FirefoxDriver;  **import** org.openqa.selenium.interactions.Actions;  **public** **class** RightClick {  **public** **static** **void** main(String[] args) {  System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");  WebDriver driver = **new** FirefoxDriver();  driver.get("http:www.facebook.com");  Actions action = **new** Actions(driver);  action.contextClick(driver.findElement(By.*xpath*(".//\*[@id='content']/div/div/div")));  action.perform();  }  } |
|  |
|  |

Write code for scroll to specific element

**import** org.openqa.selenium.By;

**import** org.openqa.selenium.JavascriptExecutor;

**import** org.openqa.selenium.WebDriver;

**import** org.openqa.selenium.firefox.FirefoxDriver;

**import** org.openqa.selenium.interactions.Actions;

**public** **class** Scroolling {

**public** **static** **void** main(String[] args) {

System.*setProperty*("webdriver.gecko.driver", "C:\\geckodriver\\geckodriver.exe");

WebDriver driver = **new** FirefoxDriver();

driver.get("http://www.dtelepathy.com/blog/inspiration/long-page-scrolling-designs");

Actions action = **new** Actions(driver);

action.moveToElement(driver.findElement(By.*xpath*("html/body/div[4]/div[4]/a")));

action.perform();

}

}