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# WebDriver Vs EventFiringWebDriver

<http://www.mozilla.org/en-US/firefox/organizations/all.html>

Selenium has the facility to inject Javascript code during the execution of java code in selenium.This can be done by extending the object features (i.e.,reference to the object) in our case "d".

WebDriver d= new

FirefoxDriver();

EventFiringWebDriver Driver = new EventFiringWebDriver(d);

The above code actually extends the features of "d" by giving it power to execute javascript code as well.This is done by passing "d" as arguement in the next line.

The below code actually opens "wikipedia" and scrolls down to the bottom of the page using javascript.

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.openqa.selenium.support.events.EventFiringWebDriver;

public class Test

{

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

{

WebDriver d= new FirefoxDriver();

d.get("http://en.wikipedia.org/wiki/Wiki");

EventFiringWebDriver Driver = new

EventFiringWebDriver(d);

//Thread.*sleep*(5000L);

Driver.executeScript("scroll(0,20000)"); //JS to scroll to the end of the page

Thread.*sleep*(5000L);

Driver.executeScript("alert('Hi')"); // JS Alert is popped with message Hi

// d.executeScript("alert('Hi')");//Does not work ie.,cannot run Js with Webdriver

//d.executeScript("scroll(0,20000)");//Cannot Execute JS code using only WebDriver

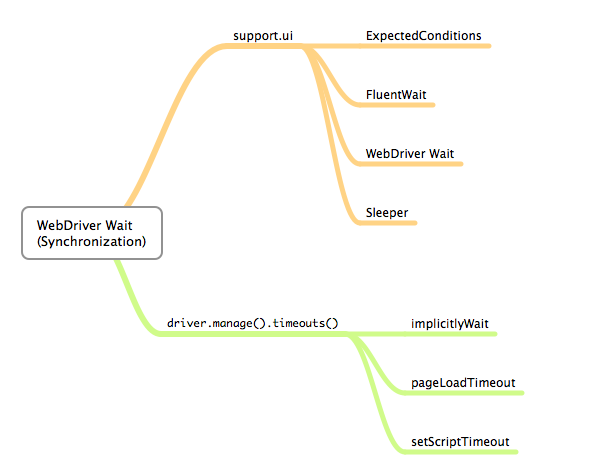
}

}

# Wait commands in WebDriver

Listing out the different WebDriver Wait statements that can be useful for an effective scripting and can avoid using the Thread.sleep() comamnds

**After few searches and digging into the WebDriver Java doc, I managed to design a mindmap of the different WebDriver commands available**

[](http://assertselenium.com/wp-content/uploads/2013/01/screen-shot-2013-01-27-at-3-26-48-pm.png)

### WebDriver.manage().timeouts()

### implicitlyWait

WebDriver driver = new FirefoxDriver();

driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

driver.get("http://somedomain/url\_that\_delays\_loading");

WebElement myDynamicElement = driver.findElement(By.id("myDynamicElement"));

**The ImplicitWait will tell the webDriver to poll the DOM for a certain duration when trying to find the element, this will be useful when certain elements on the webpage will not be available immediately and needs some time to load.**  
**By default it ill take the value to 0, for the life of the WebDriver object instance through out the test script.**

### pageLoadTimeout

driver.manage().timeouts().pageLoadTimeout(100, SECONDS);

**Sets the amount of time to wait for a page load to complete before throwing an error. If the timeout is negative, page loads can be indefinite.**

### setScriptTimeout

driver.manage().timeouts().setScriptTimeout(100,SECONDS);

**Sets the amount of time to wait for an asynchronous script to finish execution before throwing an error. If the timeout is negative, then the script will be allowed to run indefinitely.**

### Support.ui

### FluentWait

// Waiting 30 seconds for an element to be present on the page, checking

// for its presence once every 5 seconds.

Wait<WebDriver> wait = new FluentWait<WebDriver>(driver)

.withTimeout(30, SECONDS)

.pollingEvery(5, SECONDS)

.ignoring(NoSuchElementException.class);

WebElement foo = wait.until(new Function<WebDriver, WebElement>() {

public WebElement apply(WebDriver driver) {

return driver.findElement(By.id("foo"));

}

});

**Each FluentWait instance defines the maximum amount of time to wait for a condition, as well as the frequency with which to check the condition. Furthermore, the user may configure the wait to ignore specific types of exceptions whilst waiting, such as NoSuchElementExceptions when searching for an element on the page.**

### ExpectedConditions

WebDriverWait wait = new WebDriverWait(driver, 10);

WebElement element = wait.until(ExpectedConditions.elementToBeClickable(By.id(>someid>)));

**Models a condition that might reasonably be expected to eventually evaluate to something that is neither null nor false.**  
**Examples : Would include determining if a web page has loaded or that an element is visible.**  
**Note that it is expected that ExpectedConditions are idempotent. They will be called in a loop by the WebDriverWait and any modification of the state of the application under test may have unexpected side-effects.**

WebDriverWait will be used as we used in the Expected conditions code snippet as above.

**sleeper is something same as the Thread.sleep() method, but this with an Abstraction around the thread.sleep() for better testability**

# Annotation Support

The annotation supports are implemented in both JUnit 4 and TestNG look similar.

|  |  |  |
| --- | --- | --- |
| Feature | JUnit 4 | TestNG |
| test annotation | @Test | @Test |
| run before all tests in this suite have run | – | @BeforeSuite |
| run after all tests in this suite have run | – | @AfterSuite |
| run before the test | – | @BeforeTest |
| run after the test | – | @AfterTest |
| run before the first test method that belongs to any of these groups is invoked | – | @BeforeGroups |
| run after the last test method that belongs to any of these groups is invoked | – | @AfterGroups |
| run before the first test method in the current class is invoked | @BeforeClass | @BeforeClass |
| run after all the test methods in the current class have been run | @AfterClass | @AfterClass |
| run before each test method | @Before | @BeforeMethod |
| run after each test method | @After | @AfterMethod |
| ignore test | @ignore | @Test(enbale=false) |
| expected exception | @Test(expected = ArithmeticException.class) | @Test(expectedExceptions = ArithmeticException.class) |
| timeout | @Test(timeout = 1000) | @Test(timeout = 1000) |

# Tagged Hooks

It is possible to define a hook so that it is only executed before or after scenarios that are tagged with a specified annotation, for example:

src/test/resources/web\_text\_munger.feature

|  |  |
| --- | --- |
| 1  2  3  4 | Feature: web text munger kata    @web    Scenario: It should process a sentence      // The steps |

WebTextMungerStepsdef.java

|  |  |
| --- | --- |
| 1  2  3  4  5  6  7  8  9 | @Before("@web")  public void beforeScenario() {    // actions  }  @After("@web")  public void afterScenario() {    // actions  } |

# Xpath equivalent CSS

|  |  |  |
| --- | --- | --- |
| XPath | CSS equiv | Explanation |
| //div | div | Find elements of a particular type |
| id(‘bob’) or //\*[@id='bob'] | #bob | Find elements with a specific ID |
| //div[@id='bob'] | div#bob | Find an elements of a particular type with a specific ID |
| //\*[@class='bob'] | .bob | Find elements with a specific class |
| //div[@class='bob'] | div.bob | Find elements of a particular type with a specific class |
| //div//a | div a | Find descendant elements of a particular type |
| //div/a | div > a | Find direct child elements of a particular type |
| //a[@title] | a[title] | Find elements of a particular type that have a specific attribute |
| //a[@title='bob'] | a[title="bob"] | Find elements of a particular type that have an attribute of a specific value |
| //a[contains(@title,'bob')] | a[title\*="bob"] | Find elements of a particular type that have an attribute that contains a specific value |
| //a[starts-with(@title,'bob')] | a[title^="bob"] | Find elements of a particular type that have an attribute that starts with a specific value |

# Question and Answers

**1. Which Driver implementation will allow headless mode**  
A) FireFoxDriver() B) HtmlUnitDriver() C)SafariDriver D) ChromeDriver

Answer: HTMLUnitDriver

### 1. What is the difference between assert and verify command?

Assert : If you use this, the test will be terminated at the point where [check](javascript:void(0);) fails. The main plus point of this is you can immediately see if the test passed or failed. However, the disadvantage of doing this is the remaining checks and verification that will never be performed and you cannot track that.

Verify : This is in contrast, will not terminate the whole test. If you only used Verify commands in your tests, all tests are going to run guaranteed even if any of the checks fails when test is running. However, there is a bit of work in order to find out your results in details

Reference http://selenium-suresh.blogspot.in/2013/10/steps-to-configure-selenium-webdriver.html

### 1 .Browser Back and Forward (NAVIGATION)

Steps to implement Browser back and forward through Selenium Web Driver

1. Create Driver for any Browser(Mozilla)

2. Go to the URL

3. Navigate to some page in website.

4. Use Selenium code to Navigate Back to Main Page.

**CODE:**driver.navigate().back();

           driver.navigate().forward();

**Example**

WebDriver driver =new FirefoxDriver();

driver.get("http://seleniumhq.org/");

driver.findElement(By.linkText("Download")).click();

Thread.sleep(3000);            //delay

driver.navigate().back();

driver.navigate().forward();

### 2. Handling DRAG and DROP

Steps to Handle Drag and Drop through Selenium Web Driver

1. Create Driver for any Browser(Mozilla)

2. Go to the URL

3. Create an Action object for Driver

4. Fetch and create WebElement object for the SOURCE element.

5. Fetch  and create WebElement object for the DESTINATION element.

6.Perform ACTION

  1.Click and Hold the source WebElement

  2.Move to destination WebElement

  3.Release the Element.

**Example**

WebDriver driver = new FirefoxDriver();  
driver.get("http://www.ericbieller.com/examples/dragdrop/");  
driver.manage().timeouts().implicitlyWait(3,TimeUnit.MINUTES);  
   
Actions act = new Actions(driver);  
WebElement src = driver.findElement(By.xpath("//div[@id='items']/div[1]"));  
WebElement des = driver.findElement(By.id("trash"));  
   
act.clickAndHold(src).build().perform();                //For each action we need to build and Perform  
act.moveToElement(des).build().perform();  
act.release(des).build().perform();

### 3.Making Single Select in Drop down (Option List)

Steps to make Single Select in Drop down through Selenium Web Driver.  
  
1. Create Driver for any Browser(Mozilla)  
2. Go to the URL  
3. Fetch the Drop Down element and create an object as WebElement.  
4. Create an Select object for the Drop Down Element object.  
5. Create a List and collect all Options through Select Object.  
6. Create a Iterator object for the List.  
7. Get the size of the List.  
8. Loop through and check for required element.  
  
**Example**  
  
WebElement element = driver.findElement(By.name("selectedCustomer"));  
Select dd= new Select(element);  
List allOptions= dd.getOptions();   
  
//To go through the list, we can use an Iterator.   
//Iterator should be of the same type as the List  
//which is WebElement in this case.   
  
Iterator it = allOptions.iterator();  
//Using while loop, we can iterate till the List has   
//a next WebElement [hasNext() is true]  
//number of items in the list  
System.out.println(allOptions.size());  
  
while(it.hasNext()){  
//When you say it.next(), it points to a particular  
//WebElement in the List.  
WebElement el = it.next();  
 //Check for the required element by Text and click it  
if(el.getText().equals("mango")){  
  System.out.println(el.getAttribute("value"));  
   el.click();   
 }  
}

### 4.Making Single Select in Drop down (By INDEX, VALUE, TEXT)

Steps to make Single Select in Drop down through Selenium Web Driver.  
  
1. Create Driver for any Browser(Mozilla)  
2. Go to the URL  
3. Fetch the Drop Down element and create an object as WebElement.  
4. Convert the Drop Down Element in to Select object.  
5. Select by INDEX  
6. Select by VALUE  
7. Select by VISIBLE TEXT  
  
**Example**

WebElement customerdd = driver.findElement(By.name("customerProject.shownCustomer"));

//convert the element to select object

Select cust = new Select(customerdd);

cust.selectByIndex(1);                                       //Select by Index

Thread.sleep(3000);

cust.selectByValue("2");                                   //Select by Value

Thread.sleep(3000);

cust.selectByVisibleText("mango");                //Select by Visible Text

### 5.Multiple Select List Box Window

Steps to make Multiple Select in Drop down through Selenium Web Driver.  
  
1. Create Driver for any Browser(Mozilla)  
2. Go to the URL  
3. Fetch the Drop Down element and create an object as WebElement.  
4. Convert the Drop Down Element in to Select object.  
5. Select by Index(Start index)   
6. Select by Index(End index)  
  
**Example**  
  
WebElement userdd = driver.findElement(By.name("users"));  
Select usr = new Select(userdd);  
usr.selectByIndex(0);                     //Select by Index(From Start location)  
usr.selectByIndex(2);                     //Select by index(To End Location)

### 6.Multiple Select List Box Window - DESELECT

Steps to make Deselect in Drop down through Selenium Web Driver.

1. Create Driver for any Browser(Mozilla)

2. Go to the URL

3. Fetch the Drop Down element and create an object as WebElement.

4. Convert the Drop Down Element in to Select object.

5. Select by Index(Start index)

6. Select by Index(End index)

**Example**

WebElement userdd = driver.findElement(By.name("users"));  
Select usr = new Select(userdd);  
usr.selectByIndex(0);  
usr.selectByIndex(2);

//You can deselect the options  
usr.deselectAll();                                          //Deselect ALL selected elements  
//or   
usr.deselectByIndex(0);                              //Deselect By using Index  
//or  
usr.deselectByValue(value);                       //Deselect By using Value  
//or  
usr.deselectByVisibleText(text);                 //Deselect By using Text

### 7.iFRAMES - How to handle Frames in Web Driver

Steps to get Source of each iFrame through Selenium Web Driver.

1. Create Driver for any Browser(Mozilla)

2. Go to the URL  
3. Make a List containing FRAME web elements of a Web Page.  
4. Get the Size of Frames.  
5. Loop though and print the Source of each Frame  
  
**Example**  
  
/\*times of india website - multiple frames\*/  
  
driver.get("http://timesofindia.indiatimes.com/");  
driver.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);  
  
List frms= driver.findElements(By.tagName("iframe"));  //Frame List  
System.out.println(frms.size());  
for(int i=0;i  
{  
 System.out.println(frms.get(i).getAttribute("src"));  
}

### 8.iFRAMES - How to perform action in Frames

Steps to perform Action in iFrame through Selenium Web Driver.

1. Create Driver for any Browser(Mozilla)

2. Go to the URL  
3. Fetch iFrame element and create an Web Element object.  
4. Using iFrame Web Element object, switch to IFrame.  
5. Perform SendKeys/ Click action in iFrame.  
  
**Example**

WebElement ifr = driver.findElement(By.xpath("//iframe[@src='/poll.cms']"));

driver.switchTo().frame(ifr);                                     //Switch to iFrame  
driver.findElement(By.id("mathuserans2")).sendKeys("8");  //Perform Action in iFrame

### 9.iFRAMES - How to switch to a perticular Frame through index

Steps to switch to perticular iFrame by index through Selenium Web Driver.

1. Create Driver for any Browser(Mozilla)

2. Go to the URL  
3. Make a List containing FRAME web elements of a Web Page.  
4. Get the Size of Frames.  
5. Switch to required iFrame through index.  
  
  
**Example**  
  
driver.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);  
  
List frms= driver.findElements(By.tagName("iframe"));  
System.out.println(frms.size());  
driver.switchTo().frame(0);  
driver.findElement(By.id("clicktripad")).click();

### 10. TABS / New Window

When Browser opens in a new window or in a new tab, Web Driver cannot shift the control to the new Window/ Tab. We need to collect the window handles in a page. Whenever a new window opens we need to iterate and shift to the latest window handle.  
  
**TABS/New Window - 1**  
Steps to iterate through the Window Handles

1. Create Driver for any Browser(Mozilla)

2. Go to the URL  
3. Collect Window Handles through Set  
4. Create an iterator to iterate through Window Handles.  
5. At First iterator will not be pointing to any Window Handle, only First increment Points to First Window Handle, Second increment Points to second iterator.  
  
  
Set windowHandles = driver.getWindowHandles();  
Iterator it = windowHandles.iterator();  
while(it.hasNext())  
{  
 System.out.println(it.next());  
}   
  
**TABS/New Window - 2**  
When two browsers are opened and Web Driver need to shift the control from Parent Window to Child Window.   
  
Please follow the steps mentioned below.

1. Create Driver for any Browser(Mozilla)

2. Go to the URL  
3. Collect Window Handles through Set  
4. Create an iterator to iterate through Window Handles.  
5. Increment the iterator and store the Window Handle as Parent.  
6. Increment the iterator and store next Window Handle as Child.  
7. Switch to Child Browser using Child Window Handle.  
  
  
Set windowHandles = driver.getWindowHandles();  
Iterator it = windowHandles.iterator();  
  
  
String parentBrowser= it.next();  
String childBrowser = it.next();  
driver.switchTo().window(childBrowser);

**TABS/New Window - 3**  
When second browser is closed/you close it and Web Driver need to shift the control from Child Window to Parent Window.   
  
Please follow the steps mentioned below.

1. Create Driver for any Browser(Mozilla)

2. Go to the URL  
3. Collect Window Handles through Set  
4. Create an iterator to iterate through Window Handles.  
5. Increment the iterator and store the Window Handle as Parent.  
6. Increment the iterator and store next Window Handle as Child.  
7. Switch to Child Browser using Child Window Handle.  
8. When Child browser get closed, Switch from Child browser to Parent Window.  
  
  
Set windowHandles = driver.getWindowHandles();  
Iterator it = windowHandles.iterator();  
  
String parentBrowser= it.next();  
String childBrowser = it.next();  
driver.switchTo().window(childBrowser);   
Thread.sleep(3000);  
  
driver.close(); //close the current window(Child Browser)  
driver.switchTo().window(parentBrowser); //Switch to Parent Browser

### 11. CALENDAR popups

**Calendar PopUp - 1**

Normal Calender(current month) Popup can be handled in the following way.

1. Create Driver for any Browser(Mozilla)

2. Go to the URL  
3. Fetch the Calender element and click to open.  
4. Fetch the required date through xpath and click.  
  
  
/\*IRCTC calendar\*/  
driver.findElement(By.id("calendar\_icon1")).click();   
driver.findElement(By.xpath("//div[@id='CalendarControl']/table[tbody[tr[td[text()='October 2012']]]]/descendant::a[text()='5']")).click();  
   
  
**Calendar PopUp - 2 (Customized wait)**  
 In a Calender if we want to click on future month which is not currently displayed, we need to click on next link until we get the required month.  
           This can be done by writing Customized wait. Check for particular date element in each month, if not found move to next month.  
  
/\*makemytrip calendar\*/  
driver.get("http://www.makemytrip.com/");  
driver.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);  
driver.findElement(By.id("deptDateRtripimgExact")).click(); //find Calendar  
driver.manage().timeouts().implicitlyWait(0, TimeUnit.SECONDS);  
boolean flag=true;  
while(flag){  
  try {  
 WebElement el = driver.findElement(By.xpath("//div[contains(@class,'ui-datepicker-group') and descendant::span[text()='March']]/descendant::a[text()='5']")); // Required future date  
 if(el !=null)   //Check if the required date element is found or not  
       {  
 el.click(); // if required Date is found, then click  the date  
 flag=false;  
 }  
    }   
catch (Exception e) { //Catches exception if no element found  
try {  
 Thread.sleep(500);  
 driver.findElement(By.xpath("//a[@title='Next']")).click(); //Click on next month  
 }  
catch (InterruptedException e1)   
      {  
 // TODO Auto-generated catch block  
  e1.printStackTrace();  
      }  
  }  
} 

### 12. Drop Down MENU

 In order to click on an menu item, first we need to move the mouse over Parent menu, later we can click on any of the Menu child item.  
  
Please follow the steps mentioned below.

1. Create Driver for any Browser(Mozilla)

2. Go to the URL  
3. Fetch the MENU Parent element and create a WebElement object.  
4. Create an Action object for Driver  
5. Through Action object, move to Parent element.  
6. Give a Delay for menu items to be displayed.  
7. Fetch the Child item through xpath and Click on it.

WebElement parentMenu = driver.findElement(By.linkText("Tourist Trains"));

Actions act = new Actions(driver); // Create an Action object  
//move to the parent menu item

act.moveToElement(parentMenu).build().perform();

Thread.sleep(3000);   //wait till the child items are displayed

driver.findElement(By.linkText("Bharat Tirth")).click();

### 13. Context Click (Right Click)

We can use keyboard keys to Make a Right Click.

Please follow the steps mentioned below.

1. Create Driver for any Browser(Mozilla).

2. Go to the URL.  
3. Fetch the MENU Parent element and create a WebElement object.  
4. Create an Action Object for Driver.  
5. Through Action Object, make a Context Click on Menu Parent object.  
6. Through Action Object, send keys for ARROW\_DOWN/ARROW\_UP/Keys.ENTER.  
  
  
**Example**  
  
WebElement parentMenu = driver.findElement(By.linkText("Tourist Trains"));  
   
Actions act = new Actions(driver); //Create Action object for Driver  
  
act.contextClick(parentMenu).build().perform(); //Context Click  
  
act.sendKeys(Keys.ARROW\_RIGHT).build().perform();  
Thread.sleep(1000);  
act.sendKeys(Keys.ARROW\_DOWN).build().perform();  
Thread.sleep(1000);  
act.sendKeys(Keys.ENTER).build().perform();

### 14. JAVA SCRIPT example

We can use java script command to perform actions.

We can write code to fill up the text box through java script.

Please follow the steps mentioned below.

1. Create Driver for any Browser(Mozilla).

2. Go to the URL.  
3. Create Java Script executor object for the Driver.  
4. Store the Java Script command in a String Variable.  
5. Java Script Executor object executes the command in the Variable.

JavascriptExecutor js = (JavascriptExecutor) driver;  
String jsCmd = "document.getElementsByName('city')[0].value='ban'";  
js.executeScript(jsCmd);

### 15. Multiple Elements

We can count the number of links present in the page. We can also print the link text of each Web link.  
  
  
Please follow the steps mentioned below.

1. Create Driver for any Browser(Mozilla).

2. Go to the URL.  
3. Fetch elements with tag //a in the entire page, store it in a List.  
4. Get the count of Links present in the Page.  
5. Loop through the links and print the Attributes   
  
  
List allLinks= driver.findElements(By.xpath("//a"));  
//display the count of links in the page  
System.out.println(allLinks.size());  
//display the text for each link on the page  
for(int i=0;i  
{  
        //display href for each link  
 System.out.println(allLinks.get(i).getAttribute("href"));  
 //display text for each link  
 System.out.println(allLinks.get(i).getText());  
 //perform click action  
 allLinks.get(i).click();  
  
}  
  
   
 **16. Other Browser (Internet Explorer)**

Using Internet Explorer with Web Driver.

Please follow the steps mentioned below.  
1. Set System Property for the Driver and give path of the IE Driver.  
2. Create an Web Driver Object.  
3. Open an URL

System.setProperty("webdriver.ie.driver", "D:\\sel\\browserdrivers\\IEDriverServer.exe");

WebDriver driver =new InternetExplorerDriver();  
driver.get("www.google.com");

### 17. Other Browser (Chrome)

Using Chrome with Web Driver.

Please follow the steps mentioned below.  
  
1. Set System Property for the Driver and give path of the Chrome Driver.  
2. Create an Web Driver Object.  
3. Open an URL  
  
  
  
System.setProperty("webdriver.chrome.driver", "D:\\sel\\browserdrivers\\Chromedriver.exe");  
  
WebDriver driver = new ChromeDriver();   
driver.get("www.google.com");

### 18. PROXY settings.

Please follow the steps mentioned below.

1. Import Selenium.Proxy

2. Create a Profile object for Firefox

3. Create a string variable with value.

4. Create a Proxy object.

5. Set the values through proxy.

6. Set the proxy preference to proxy object using profile object.

7. Pass the profile object to Firefox Driver.

import org.openqa.Selenium.Proxy  
  
FirefoxProfile profile = new FirefoxProfile();  
String PROXY = "xx.xx.xx.xx:xx";  
Proxy proxy = new Proxy();  
proxy.HttpProxy=PROXY;  
proxy.FtpProxy=PROXY;  
proxy.SslProxy=PROXY;  
profile.SetProxyPreferences(proxy);  
FirefoxDriver driver = new FirefoxDriver(profile);

### 19. Page Onload authentication

Sometimes when you are Automating Web pages, you may come across Page onload Authentication window. This window is not java popup/div. It is windows popup. Selenium directly cannot handle this windows popup.

Hence we use Autoit sowftware tool. Through Selenium we can handle this situation using Autoit.

Please follow the steps mentioned below.

1.Download Autoit from the following URl

  ( http://www.autoitscript.com/site/autoit/downloads/ )

2.Install downloaded software.

3. Open Script Editor

   Start=>ProgramFiles=>AutoIt =>SciTE Script Editor.

4.Open Object Identifier.

  Start=>ProgramFiles=>AutoIt =>AutoIt Window Info.

5.Drag and Drop finder tool in AutoIt Window Info, to the Window you need to     identify.

6.Collect the Title Name of window from (AutoIt Window Info.)

7.Write the Script in the Editor.

----------------------------------------------------AUTOIT CODE-----------------------------------------------------

WinWaitActive("Authentication Required")

Send("admin")

Send("{TAB} admin{TAB} {ENTER}")

8.Save the file as default save.(Authentication1.exe)

9.RUN/Compile the SCRIPT, it creates an exe.

10.Mention the exe path in the Program before creation of Driver.

EXAMPLE:  
  
  
Process P = Runtime.getRuntime().exec("D:\\java\_prj\\SELENIUM WEBDRIVER\\AUTOIT\\Authentication1.exe");  
WebDriver driver = new FirefoxDriver();  
driver.get("http://192.168.1.1");

### 20. File Download

Please follow the steps mentioned below.

1. Create a PROFILE object of Browser.  
2. Set Preference, by giving Download destination Directory.  
3. Set Preference, by giving Default Folder. 0 => Desktop, 1=>System Default Location, 2 => Indicates a custom Folder Location  
4. Set Preference, A comma-separated list of MIME types to save to disk without asking what to use to open the file. Default value is an empty string.  
  
After coding the above mentioned steps, now start the driver and click on Download button/link.  
1. Create Driver for any Browser(Mozilla).

2. Go to the URL.  
3. Fetch the Download web element and click.  
  
  
FirefoxProfile Prof = new FirefoxProfile();  
Prof.setPreference("browser.download.dir", "D:\\java prj");  
Prof.setPreference("browser.download.folderList", 2);  
Prof.setPreference("browser.helperApps.neverAsk.saveToDisk","application/zip");  
   
WebDriver driver = new FirefoxDriver(Prof);  
driver.get("http://seleniumhq.org/download/");  
driver.manage().timeouts().implicitlyWait(3,TimeUnit.MINUTES);  
driver.findElement(By.xpath("//a[@name='client-drivers']/table/tbody/tr[1]/td[4]/a")).click();

### 21. File Upload

Please follow the steps mentioned below.

1. Create Driver for any Browser(Mozilla).

2. Go to the URL.  
3. Store the Source path of file in a variable.  
4. Fetch the Upload web element text box and give path using variable.  
5. Fetch the upload button and click  
  
  
WebDriver driver = new FirefoxDriver();  
driver.get("http://www.2shared.com/");  
String FilePath = "C:\\Users\\abc\\Desktop\\test.xml";  
driver.findElement(By.id("upField")).sendKeys(FilePath);  
driver.findElement(By.xpath("//input[@type='image']")).click();

### 22. Handling JAVA ALERT

Sometimes you may get alerts as anticipated(through Insert/update/delete operation in database). These may be JAVA alerts.  
Please follow the steps mentioned below to handle  Alerts.

1. Create Driver for any Browser(Mozilla).

2. Go to the URL.  
3. You get an alert asking to click on 'YES' or 'NO' button.  
4. First Confirm if it is JAVA alert window.  
5. Write a code to switch the control to Alert window.  
6. In the Alert window, either ACCEPT by clicking on 'YES'  
    or CANCEL by clicking on 'NO'.  
  
  
WebDriver driver = new FirefoxDriver();  
driver.get("http://www.2shared.com/");  
driver.manage().timeouts().implicitlyWait(3,TimeUnit.MINUTES);  
  
Alert alert = driver.switchTo().alert();  
alert.accept();  
//or  
alert.dismiss();

http://selenium-suresh.blogspot.in/2013/09/selenium-webdriver-methods-with-examples.html

# Java snippets

**public** **static** **void** fileread() **throws** SocketException, IOException {

File file = **new** File("C:\\Users\\smuniapp\\Desktop\\ceas");

File files[] = file.listFiles();

File rfile = **new** File("C:\\Users\\smuniapp\\Desktop\\scenario.txt");

// if file doesnt exists, then create it

**if** (!rfile.exists()) {

rfile.createNewFile();

}

FileWriter fw = **new** FileWriter(rfile.getAbsoluteFile());

BufferedWriter bw = **new** BufferedWriter(fw);

**for** (File file1 : files) {

System.*out*.println(file1.getName());

**if** (file1.isDirectory())

{

File sfile = **new** File("C:\\Users\\smuniapp\\Desktop\\ceas\\"+file1.getName());

File sfiles[] = sfile.listFiles();

**for** (File file2 : sfiles) {

System.*out*.println("file2:" +file2.getName());

//bw.write(file2.getName());

//bw.newLine();

BufferedReader br = **new** BufferedReader(**new** FileReader(file2.getAbsoluteFile()));

String sCurrentLine;

**int** k=0;

**while** ((sCurrentLine = br.readLine()) != **null**) {

**if**(k==1){

System.*out*.println("Title "+sCurrentLine);

String[] title=sCurrentLine.split(":");

**if** (title.length>1)

bw.write(title[1]);

**else**

bw.write(sCurrentLine);

bw.newLine();

k=0;

}

**if** (sCurrentLine.contains("@Ttv")){

System.*out*.println("id "+sCurrentLine);

String[] id=sCurrentLine.split("@");

**int** o=0;

**for**(**int** k1=0;k1<id.length;k1++)

{

String o1=id[k1].trim();

**if** (o1.equalsIgnoreCase("sanity") || o1.equalsIgnoreCase("regression"))

o=k1;

}

bw.write(file2.getName()+":"+id[o]+":"+id[1]+":");

k=1;

}

}

}

}

**if** (file1.isFile()) {

{

FileInputStream input = **new** FileInputStream(file1);

System.*out*.println("after");

System.*out*.println("file1"+file1.getName());

}

}

}

bw.close();

}

# Frame handling

You can directly call the switchto method on frame name like:  
driver.switchto.frame("Frame1");  
  
You can also switch to frame by using index of the frame.  
In the above example, to switch to "Frame1" using index, the code will be like :   
driver.switchto.frame(0);  
  
And the last thing is once you switch to a frame, then you must go out of the frame to find elements outside of the frame boundry.  
driver.switchto.defaultcontent();

### iFrame handling

driver.switchTo().frame(driver.findElements(By.tagName("iframe").get(0));

### iframe Example

<iframe id="1"></iframe>

<iframe id="2"></iframe>

The above would require:

driver.switchTo().frame("1");

//doSomething in frame 1

driver.switchTo().defaultContent();

driver.switchTo().frame("2");

//doSomething in frame 2

But if the DOM looks like this:

<iframe id="1">

<iframe id="2"></iframe>

</iframe>

Then you would use:

driver.switchTo().frame("1");

driver.switchTo().frame("2");

//doSomething in frame 2

driver.switchTo().defaultContent()

### Different Browser on same client

**package** test.sat;

**import** java.io.File;

**import** org.openqa.selenium.Capabilities;

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

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

**import** org.openqa.selenium.chrome.ChromeDriver;

**import** org.openqa.selenium.chrome.ChromeOptions;

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

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

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

**import** org.openqa.selenium.remote.DesiredCapabilities;

**import** org.openqa.selenium.remote.RemoteWebDriver;

**public** **class** App

{

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

{

System.***out***.println( "Hello World!" );

//System.setProperty("webdriver.firefox.bin", "C:\\Program Files\\ff\\firefox.exe");

FirefoxBinary binary = **new** FirefoxBinary(**new** File("C:\\Program Files\\ff\\firefox.exe"));

FirefoxProfile profile = **new** FirefoxProfile();

WebDriver driver = **new** FirefoxDriver(binary,profile);

driver.get("https://10.126.44.125:6605/vcsconsole");

System.***out***.println(driver.getTitle());

Capabilities cap = ((RemoteWebDriver) driver).getCapabilities();

String browserName = cap.getBrowserName().toLowerCase();

System.***out***.println(browserName);

String os = cap.getPlatform().toString();

System.***out***.println(os);

String v = cap.getVersion().toString();

System.***out***.println(v);

String s = (String) ((JavascriptExecutor) driver).executeScript("return navigator.userAgent;");

System.***out***.println(s);

driver.close();

driver.quit();

System.***out***.println( "Hello World!" );

// System.setProperty("webdriver.firefox.bin", "C:\\Program Files (x86)\\Mozilla Firefox\\firefox.exe");

// WebDriver driver1 = new FirefoxDriver();

FirefoxBinary binary1 = **new** FirefoxBinary(**new** File("C:\\Program Files (x86)\\Mozilla Firefox\\firefox.exe"));

FirefoxProfile profile1 = **new** FirefoxProfile();

WebDriver driver1 = **new** FirefoxDriver(binary1,profile1);

driver1.get("https://10.126.44.125:6605/vcsconsole");

System.***out***.println(driver1.getTitle());

Capabilities cap1 = ((RemoteWebDriver) driver1).getCapabilities();

String browserName1 = cap1.getBrowserName().toLowerCase();

System.***out***.println(browserName1);

String os1= cap1.getPlatform().toString();

System.***out***.println(os1);

String v1 = cap1.getVersion().toString();

System.***out***.println(v1);

String s1 = (String) ((JavascriptExecutor) driver1).executeScript("return navigator.userAgent;");

System.***out***.println(s1);

driver1.close();

driver1.quit();

ChromeOptions options = **new** ChromeOptions();

options.setBinary("C:\\Program Files (x86)\\Google\\Chrome\\Application\\chrome.exe");

DesiredCapabilities desiredCapabilities = DesiredCapabilities.*chrome*();

desiredCapabilities.setCapability(ChromeOptions.***CAPABILITY***, options);

System.*setProperty*("webdriver.chrome.driver", "C:\\Users\\smuniapp\\git\\util\\Utils\\src\\it\\resources\\chrome\\chromedriver.exe");

WebDriver cdriver = **new** ChromeDriver(desiredCapabilities);

cdriver.get("https://10.126.44.125:6605/vcsconsole");

System.***out***.println(cdriver.getTitle());

Capabilities cap1c = ((RemoteWebDriver) cdriver).getCapabilities();

String browserName1c = cap1c.getBrowserName().toLowerCase();

System.***out***.println(browserName1c);

String os1c= cap1c.getPlatform().toString();

System.***out***.println(os1c);

String v1c = cap1c.getVersion().toString();

System.***out***.println(v1c);

String s1c = (String) ((JavascriptExecutor) cdriver).executeScript("return navigator.userAgent;");

System.***out***.println(s1c);

cdriver.close();

cdriver.quit();

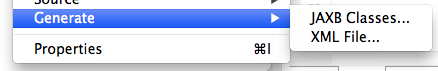
}

}

# JAXB with Eclipse

1. Download <http://java.net/downloads/jaxb-workshop/IDE%20plugins/org.jvnet.jaxbw.zip>
2. Extract the zip file .
3. Place the org.jvnet.jaxbw.eclipse\_1.0.0 folder into .eclipse\plugins folder
4. Restart the eclipse.
5. Right click on XSD file and you can find contect menu. JAXB 2.0 -> Run XJC .

For Eclipse (STS 3.5 at least) you don't need to install anything. **Right click on schema.xsd -> Generate -> JAXB Classes.** You'll have to specify the package & location in the next step and that's all, your classes should be generated. I guess all the above mentioned solutions work, but this seems by far the easiest (for STS users).



# ORACLE Query

## Date / Time related queries

#### Get the first day of the month

Quickly returns the first day of current month. Instead of current month you want to find first day of month where a date falls, replace SYSDATE with any date column/value.

|  |
| --- |
| SELECT TRUNC (SYSDATE, 'MONTH') "First day of current month"      FROM DUAL; |

#### Get the last day of the month

This query is similar to above but returns last day of current month. One thing worth noting is that it automatically takes care of leap year. So if you have 29 days in Feb, it will return 29/2. Also similar to above query replace SYSDATE with any other date column/value to find last day of that particular month.

|  |
| --- |
| SELECT TRUNC (LAST\_DAY (SYSDATE)) "Last day of current month"      FROM DUAL; |

#### Get the first day of the Year

First day of year is always 1-Jan. This query can be use in stored procedure where you quickly want first day of year for some calculation.

|  |
| --- |
| SELECT TRUNC (SYSDATE, 'YEAR') "Year First Day" FROM DUAL; |

#### Get the last day of the year

Similar to above query. Instead of first day this query returns last day of current year.

|  |
| --- |
| SELECT ADD\_MONTHS (TRUNC (SYSDATE, 'YEAR'), 12) - 1 "Year Last Day" FROM DUAL |

#### Get number of days in current month

Now this is useful. This query returns number of days in current month. You can change SYSDATE with any date/value to know number of days in that month.

|  |
| --- |
| SELECT CAST (TO\_CHAR (LAST\_DAY (SYSDATE), 'dd') AS INT) number\_of\_days    FROM DUAL; |

#### Get number of days left in current month

Below query calculates number of days left in current month.

|  |
| --- |
| SELECT SYSDATE,         LAST\_DAY (SYSDATE) "Last",         LAST\_DAY (SYSDATE) - SYSDATE "Days left"    FROM DUAL; |

#### Get number of days between two dates

Use this query to get difference between two dates in number of days.

|  |
| --- |
| SELECT ROUND ( (MONTHS\_BETWEEN ('01-Feb-2014', '01-Mar-2012') \* 30), 0)            num\_of\_days    FROM DUAL;    OR    SELECT TRUNC(sysdate) - TRUNC(e.hire\_date) FROM employees; |

Use second query if you need to find number of days since some specific date. In this example number of days since any employee is hired.

#### Display each months start and end date upto last month of the year

This clever query displays start date and end date of each month in current year. You might want to use this for certain types of calculations.

|  |
| --- |
| SELECT ADD\_MONTHS (TRUNC (SYSDATE, 'MONTH'), i) start\_date,         TRUNC (LAST\_DAY (ADD\_MONTHS (SYSDATE, i))) end\_date    FROM XMLTABLE (            'for $i in 0 to xs:int(D) return $i'            PASSING XMLELEMENT (                       d,                       FLOOR (                          MONTHS\_BETWEEN (                             ADD\_MONTHS (TRUNC (SYSDATE, 'YEAR') - 1, 12),                             SYSDATE)))            COLUMNS i INTEGER PATH '.'); |

#### Get number of seconds passed since today (since 00:00 hr)

|  |
| --- |
| SELECT (SYSDATE - TRUNC (SYSDATE)) \* 24 \* 60 \* 60 num\_of\_sec\_since\_morning    FROM DUAL; |

#### Get number of seconds left today (till 23:59:59 hr)

|  |
| --- |
| SELECT (TRUNC (SYSDATE+1) - SYSDATE) \* 24 \* 60 \* 60 num\_of\_sec\_left    FROM DUAL; |

## Data dictionary queries

#### Check if a table exists in the current database schema

A simple query that can be used to check if a table exists before you create it. This way you can make your create table script rerunnable. Just replace table\_name with actual table you want to check. This query will check if table exists for current user (from where the query is executed).

|  |
| --- |
| SELECT table\_name    FROM user\_tables   WHERE table\_name = 'TABLE\_NAME'; |

#### Check if a column exists in a table

Simple query to check if a particular column exists in table. Useful when you tries to add new column in table using ALTER TABLE statement, you might wanna check if column already exists before adding one.

|  |
| --- |
| SELECT column\_name AS FOUND    FROM user\_tab\_cols   WHERE table\_name = 'TABLE\_NAME' AND column\_name = 'COLUMN\_NAME'; |

#### Showing the table structure

This query gives you the DDL statement for any table. Notice we have pass ‘TABLE’ as first parameter. This query can be generalized to get DDL statement of any database object. For example to get DDL for a view just replace first argument with ‘VIEW’ and second with your view name and so.

|  |
| --- |
| SELECT DBMS\_METADATA.get\_ddl ('TABLE', 'TABLE\_NAME', 'USER\_NAME') FROM DUAL; |

#### Getting current schema

Yet another query to get current schema name.

|  |
| --- |
| SELECT SYS\_CONTEXT ('userenv', 'current\_schema') FROM DUAL; |

#### Changing current schema

Yet another query to change the current schema. Useful when your script is expected to run under certain user but is actually executed by other user. It is always safe to set the current user to what your script expects.

|  |
| --- |
| ALTER SESSION SET CURRENT\_SCHEMA = new\_schema; |

## Database administration queries

#### Database version information

Returns the Oracle database version.

|  |
| --- |
| SELECT \* FROM v$version; |

#### Database default information

Some system default information.

|  |
| --- |
| SELECT username,         profile,         default\_tablespace,         temporary\_tablespace    FROM dba\_users; |

#### Database Character Set information

Display the character set information of database.

|  |
| --- |
| SELECT \* FROM nls\_database\_parameters; |

#### Get Oracle version

|  |
| --- |
| SELECT VALUE    FROM v$system\_parameter   WHERE name = 'compatible'; |

#### Store data case sensitive but to index it case insensitive

Now this ones tricky. Sometime you might querying database on some value independent of case. In your query you might do UPPER(..) = UPPER(..) on both sides to make it case insensitive. Now in such cases, you might want to make your index case insensitive so that they don’t occupy more space. Feel free to experiment with this one.

|  |
| --- |
| CREATE TABLE tab (col1 VARCHAR2 (10));    CREATE INDEX idx1     ON tab (UPPER (col1));    ANALYZE TABLE a COMPUTE STATISTICS; |

#### Resizing Tablespace without adding datafile

Yet another DDL query to resize table space.

|  |
| --- |
| ALTER DATABASE DATAFILE '/work/oradata/STARTST/STAR02D.dbf' resize 2000M; |

#### Checking autoextend on/off for Tablespaces

Query to check if autoextend is on or off for a given tablespace.

|  |
| --- |
| SELECT SUBSTR (file\_name, 1, 50), AUTOEXTENSIBLE FROM dba\_data\_files;    (OR)    SELECT tablespace\_name, AUTOEXTENSIBLE FROM dba\_data\_files; |

#### Adding datafile to a tablespace

Query to add datafile in a tablespace.

|  |
| --- |
| ALTER TABLESPACE data01 ADD DATAFILE '/work/oradata/STARTST/data01.dbf'      SIZE 1000M AUTOEXTEND OFF; |

#### Increasing datafile size

Yet another query to increase the datafile size of a given datafile.

|  |
| --- |
| ALTER DATABASE DATAFILE '/u01/app/Test\_data\_01.dbf' RESIZE 2G; |

#### Find the Actual size of a Database

Gives the actual database size in GB.

|  |
| --- |
| SELECT SUM (bytes) / 1024 / 1024 / 1024 AS GB FROM dba\_data\_files; |

#### Find the size occupied by Data in a Database or Database usage details

Gives the size occupied by data in this database.

|  |
| --- |
| SELECT SUM (bytes) / 1024 / 1024 / 1024 AS GB FROM dba\_segments; |

#### Find the size of the SCHEMA/USER

Give the size of user in MBs.

|  |
| --- |
| SELECT SUM (bytes / 1024 / 1024) "size"    FROM dba\_segments   WHERE owner = '&owner'; |

#### Last SQL fired by the User on Database

This query will display last SQL query fired by each user in this database. Notice how this query display last SQL per each session.

|  |
| --- |
| SELECT S.USERNAME || '(' || s.sid || ')-' || s.osuser UNAME,           s.program || '-' || s.terminal || '(' || s.machine || ')' PROG,           s.sid || '/' || s.serial# sid,           s.status "Status",           p.spid,           sql\_text sqltext      FROM v$sqltext\_with\_newlines t, V$SESSION s, v$process p     WHERE     t.address = s.sql\_address           AND p.addr = s.paddr(+)           AND t.hash\_value = s.sql\_hash\_value  ORDER BY s.sid, t.piece; |

## Performance related queries

#### CPU usage of the USER

Displays CPU usage for each User. Useful to understand database load by user.

|  |
| --- |
| SELECT ss.username, se.SID, VALUE / 100 cpu\_usage\_seconds      FROM v$session ss, v$sesstat se, v$statname sn     WHERE     se.STATISTIC# = sn.STATISTIC#           AND NAME LIKE '%CPU used by this session%'           AND se.SID = ss.SID           AND ss.status = 'ACTIVE'           AND ss.username IS NOT NULL  ORDER BY VALUE DESC; |

#### Long Query progress in database

Show the progress of long running queries.

|  |
| --- |
| SELECT a.sid,           a.serial#,           b.username,           opname OPERATION,           target OBJECT,           TRUNC (elapsed\_seconds, 5) "ET (s)",           TO\_CHAR (start\_time, 'HH24:MI:SS') start\_time,           ROUND ( (sofar / totalwork) \* 100, 2) "COMPLETE (%)"      FROM v$session\_longops a, v$session b     WHERE     a.sid = b.sid           AND b.username NOT IN ('SYS', 'SYSTEM')           AND totalwork > 0  ORDER BY elapsed\_seconds; |

#### Get current session id, process id, client process id?

This is for those who wants to do some voodoo magic using process ids and session ids.

|  |
| --- |
| SELECT b.sid,         b.serial#,         a.spid processid,         b.process clientpid    FROM v$process a, v$session b   WHERE a.addr = b.paddr AND b.audsid = USERENV ('sessionid'); |

* + V$SESSION.SID AND V$SESSION.SERIAL# is database process id
  + V$PROCESS.SPID is shadow process id on this database server
  + V$SESSION.PROCESS is client PROCESS ID, ON windows it IS : separated THE FIRST # IS THE PROCESS ID ON THE client AND 2nd one IS THE THREAD id.

#### Last SQL Fired from particular Schema or Table:

|  |
| --- |
| SELECT CREATED, TIMESTAMP, last\_ddl\_time    FROM all\_objects   WHERE     OWNER = 'MYSCHEMA'         AND OBJECT\_TYPE = 'TABLE'         AND OBJECT\_NAME = 'EMPLOYEE\_TABLE'; |

#### Find Top 10 SQL by reads per execution

|  |
| --- |
| SELECT \*    FROM (  SELECT ROWNUM,                   SUBSTR (a.sql\_text, 1, 200) sql\_text,                   TRUNC (                      a.disk\_reads / DECODE (a.executions, 0, 1, a.executions))                      reads\_per\_execution,                   a.buffer\_gets,                   a.disk\_reads,                   a.executions,                   a.sorts,                   a.address              FROM v$sqlarea a          ORDER BY 3 DESC)   WHERE ROWNUM < 10; |

#### Oracle SQL query over the view that shows actual Oracle connections.

|  |
| --- |
| SELECT osuser,           username,           machine,           program      FROM v$session  ORDER BY osuser; |

#### Oracle SQL query that show the opened connections group by the program that opens the connection.

|  |
| --- |
| SELECT program application, COUNT (program) Numero\_Sesiones      FROM v$session  GROUP BY program  ORDER BY Numero\_Sesiones DESC; |

#### Oracle SQL query that shows Oracle users connected and the sessions number for user

|  |
| --- |
| SELECT username Usuario\_Oracle, COUNT (username) Numero\_Sesiones      FROM v$session  GROUP BY username  ORDER BY Numero\_Sesiones DESC; |

#### Get number of objects per owner

|  |
| --- |
| SELECT owner, COUNT (owner) number\_of\_objects      FROM dba\_objects  GROUP BY owner  ORDER BY number\_of\_objects DESC; |

## Utility / Math related queries

#### Convert number to words

More info: [Converting number into words in Oracle](http://viralpatel.net/blogs/convert-number-into-words-oracle-sql-query/)

|  |
| --- |
| SELECT TO\_CHAR (TO\_DATE (1526, 'j'), 'jsp') FROM DUAL; |

Output:

|  |
| --- |
| one thousand five hundred twenty-six |

#### Find string in package source code

Below query will search for string ‘FOO\_SOMETHING’ in all package source. This query comes handy when you want to find a particular procedure or function call from all the source code.

|  |
| --- |
| --search a string foo\_something in package source code  SELECT \*    FROM dba\_source   WHERE UPPER (text) LIKE '%FOO\_SOMETHING%'  AND owner = 'USER\_NAME'; |

#### Convert Comma Separated Values into Table

The query can come quite handy when you have comma separated data string that you need to convert into table so that you can use other SQL queries like IN or NOT IN. Here we are converting ‘AA,BB,CC,DD,EE,FF’ string to table containing AA, BB, CC etc. as each row. Once you have this table you can join it with other table to quickly do some useful stuffs.

|  |
| --- |
| WITH csv       AS (SELECT 'AA,BB,CC,DD,EE,FF'                     AS csvdata             FROM DUAL)      SELECT REGEXP\_SUBSTR (csv.csvdata, '[^,]+', 1, LEVEL) pivot\_char        FROM DUAL, csv  CONNECT BY REGEXP\_SUBSTR (csv.csvdata,'[^,]+', 1, LEVEL) IS NOT NULL; |

#### Find the last record from a table

This ones straight forward. Use this when your table does not have primary key or you cannot be sure if record having max primary key is the latest one.

|  |
| --- |
| SELECT \*    FROM employees   WHERE ROWID IN (SELECT MAX (ROWID) FROM employees);    (OR)    SELECT \* FROM employees  MINUS  SELECT \*    FROM employees   WHERE ROWNUM < (SELECT COUNT (\*) FROM employees); |

#### Row Data Multiplication in Oracle

This query use some tricky math functions to multiply values from each row. Read below article for more details.  
More info: [Row Data Multiplication In Oracle](http://viralpatel.net/blogs/row-data-multiplication-in-oracle/)

|  |
| --- |
| WITH tbl       AS (SELECT -2 num FROM DUAL           UNION           SELECT -3 num FROM DUAL           UNION           SELECT -4 num FROM DUAL),       sign\_val       AS (SELECT CASE MOD (COUNT (\*), 2) WHEN 0 THEN 1 ELSE -1 END val             FROM tbl            WHERE num < 0)    SELECT EXP (SUM (LN (ABS (num)))) \* val      FROM tbl, sign\_val  GROUP BY val; |

#### Generating Random Data In Oracle

You might want to generate some random data to quickly insert in table for testing. Below query help you do that. Read this article for more details.  
More info: [Random Data in Oracle](http://viralpatel.net/blogs/generating-random-data-in-oracle/)

|  |
| --- |
| SELECT LEVEL empl\_id,             MOD (ROWNUM, 50000) dept\_id,             TRUNC (DBMS\_RANDOM.VALUE (1000, 500000), 2) salary,             DECODE (ROUND (DBMS\_RANDOM.VALUE (1, 2)),  1, 'M',  2, 'F') gender,             TO\_DATE (                   ROUND (DBMS\_RANDOM.VALUE (1, 28))                || '-'                || ROUND (DBMS\_RANDOM.VALUE (1, 12))                || '-'                || ROUND (DBMS\_RANDOM.VALUE (1900, 2010)),                'DD-MM-YYYY')                dob,             DBMS\_RANDOM.STRING ('x', DBMS\_RANDOM.VALUE (20, 50)) address        FROM DUAL  CONNECT BY LEVEL < 10000; |

#### Random number generator in Oracle

Plain old random number generator in Oracle. This ones generate a random number between 0 and 100. Change the multiplier to number that you want to set limit for.

|  |
| --- |
| --generate random number between 0 and 100  SELECT ROUND (DBMS\_RANDOM.VALUE () \* 100) + 1 AS random\_num FROM DUAL; |

#### Check if table contains any data

This one can be written in multiple ways. You can create count(\*) on a table to know number of rows. But this query is more efficient given the fact that we are only interested in knowing if table has any data.

|  |
| --- |
| SELECT 1    FROM TABLE\_NAME   WHERE ROWNUM = 1; |

If you have some cool query that can make life of other Oracle developers easy, do share in comment section.

1. \d+ for Digit
2. < > for scenario outline

#### To get the table description using sql

select t1.column\_name, substr(data\_type||'('||data\_length||')', 0, 20) as data\_type, decode(nullable,'N','NOT NULL', '') as null\_status, comments from all\_tab\_columns t1, all\_col\_comments t2 where t1.table\_name = t2.table\_name and t1.column\_name = t2.column\_name and t1.table\_name = 'SSO\_CONFIG' ORDER BY COLUMN\_ID;

## oracle commands

su - oracle

source oracleenv

sqlplus / as sysdba

SQL> shutdown immediate;

Database closed.

Database dismounted.

ORACLE instance shut down.

SQL> startup

## Oracle Log:

df -h

100%

du -sh \*

/opt/oracle/base/fast\_recovery\_area/WCS/archivelog

## Oracle User creation 1:

su - oracle

source CABHE.env (/opt/oracle)

sqlplus / as sysdba

CREATE USER xmpdba\_user IDENTIFIED BY xmpdba;

GRANT CONNECT,RESOURCE TO xmpdba;

GRANT UNLIMITED TABLESPACE TO xmpdba\_user;

## Oracle User creation 2:

CREATE USER xmpdba\_user IDENTIFIED BY "xmpdba"

DEFAULT TABLESPACE TOOLS

TEMPORARY TABLESPACE TEMP

PROFILE default

ACCOUNT UNLOCK;

GRANT CREATE SESSION TO xmpdba\_user;

GRANT CREATE TABLE TO xmpdba\_user;

GRANT CREATE SEQUENCE TO xmpdba\_user;

GRANT CREATE PROCEDURE TO xmpdba\_user;

GRANT CREATE TRIGGER TO xmpdba\_user;

GRANT EXECUTE ON SYS.DBMS\_LOB TO xmpdba\_user;

GRANT EXECUTE ON SYS.DBMS\_RANDOM TO xmpdba\_user;

GRANT UNLIMITED TABLESPACE TO xmpdba\_user;

note: xmpdba\_user is user, xmpdba is password, TOOLS is the oracle tablespace name

## Listener Stop / Start

less /common/oracle/base/product/11.2.0/dbhome\_1/network/admin/listener.ora

lsnrctl status wcs

lsnrctl start wcstns

lsnrctl stop wcs

# MySQL:

## SQL Installation:

* Download mysql.community.repo rpm from following link

[https://dev.mysql.com/downloads/repo/yum/[http://wikicentral.cisco.com/images/icons/linkext7.gif](https://dev.mysql.com/downloads/repo/yum/)](https://dev.mysql.com/downloads/repo/yum/)

* Copy the (mysql-community-release-el6-5.noarch.rpm) in SQL Server
* rpm -ivh mysql-community-release-el6-5.noarch.rpm
* It will automatically  Copy the mysql-community.repo to /etc/yum.repos.d and Copy RPM-GPG-KEY-mysql to /etc/pki/rpm-gpg
* yum install mysql-community-server
* service mysqld start
* Verify the SQL process are running

             service mysqld status

## Changing the root password(password length should be between 6 and 1)

 1)      service mysqld stop

 2)      mysqld\_safe --skip-grant-tables &

 3)      mysql -u root

 4)      use <dbname> (mysql is the default database)

Eg: use mysql

 5)      update user set password=PASSWORD("<new password>") where User='root';

 6)      update user set password=PASSWORD("<new password>") where User='xmpdba';

 6)      flush privileges;

 7)      quit

 8)      service mysqld stop or /etc/init.d/mysqld stop

 9)      service mysqld start or /etc/init.d/mysqld start

 10)   mysql -u root -p <dbname> (mysql -u root -p mysql)

## Grant Privileges to xmpdba and root user:

 1)      service mysqld stop

 2)      mysqld\_safe --skip-grant-tables &

 3)      mysql -u root

 4)      use <dbname> (mysql is the default database)

Eg: use mysql

5)      GRANT ALL PRIVILEGES ON \*.\* TO 'xmpdba'@'%' IDENTIFIED BY 'xmpdba' WITH GRANT OPTION;

6)      GRANT ALL PRIVILEGES ON \*.\* TO 'root'@'%' IDENTIFIED BY '<password>' WITH GRANT OPTION;

7)      service mysqld stop

8)      service mysqld start

## Before creating schema

  Set lower\_case\_table\_names=1 in /etc/**my.cnf** in MySQL to avoid case-sensitivity issues.

## MySQL windows client:

**MysqlConnectorJ**: [http://dev.mysql.com/downloads/file/?id=459313[http://wikicentral.cisco.com/images/icons/linkext7.gif](http://dev.mysql.com/downloads/file/?id=459313)](http://dev.mysql.com/downloads/file/?id=459313)

unzip the connector and copy the mysql-connector-java-5.1.37-bin to the C:\Program Files\squirrel-sql-snapshot-20150907\_2145\lib after installing the squirrel client.

## MySQL Client

**squirrel:**  [http://sourceforge.net/projects/squirrel-sql/files/1-stable/3.7.0/squirrel-sql-3.7-standard.jar/download[http://wikicentral.cisco.com/images/icons/linkext7.gif](http://sourceforge.net/projects/squirrel-sql/files/1-stable/3.7.0/squirrel-sql-3.7-standard.jar/download)](http://sourceforge.net/projects/squirrel-sql/files/1-stable/3.7.0/squirrel-sql-3.7-standard.jar/download)

jdbc:mysql://<IP>:3306/mysql

# Core Java

1. **What are the objectives of Java Technology ?**

* A programming language that is easy to program
* Increase speed of development
* Code Portability - Write once deploy any where
* Multi Threading
* Improved Security

1. **What are the Major Features of Java Technology Architecture ?**

1. Java Run Time Environment

2. Java Virtual Machine

3. Just in Time Compiler

4. Java Tools

5. Garbage Collector

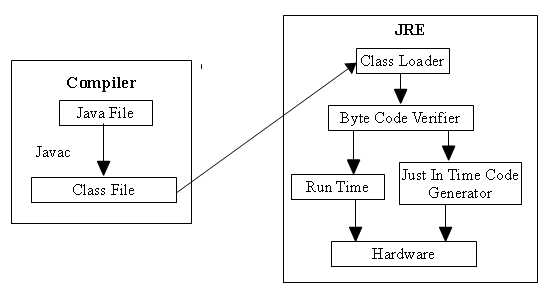
1. **What is Java Virtual Machine (JVM) ?**

Java Compilers compile JAVA source code into byte code. Java Virtual Machine(JVM) interpreters Java byte code and send necessary commands to underlying hardware or Just in time compiled to native machine code and execute it directly on the underlying hardware

1. **What is Java Run Time Environment ?**

Java Virtual Machine (JVM) along with Java Class Libraries which implement the Java application programming interface (API) form the Java Runtime Environment (JRE).

1. **Explain the architecture of code execution process inside JRE ?**



1. **What is Java Development Kit (JDK) ?**

Java Development Kit (JDK) is a super set of the JRE, which contains Java Run-time Environment (JRE) , Compilers and debuggers required to develop applets and applications.

1. **What are the steps involved in Java Application Execution ?**

1. Compiling Java Source Files into \*.class file. (Byte Code)

2. Loading class file into Java Run Time (JRE) using class loader

3. Use Bytecode verifier to check for byte code specification

4. Use Just In time Code Generator or Interpreter for byte code execution

1. **What is Just in Time Compiler ?**

Just in time Compiler (JIT) compiles JAVA byte code to native machine code and execute it directly on the underlying hardware.

1. **What is Garbage Collector ?**

For executing programs, application are allocated memory at runtime. After execution of programs, unused memory need to be allocated. Java internally uses garbage collector to deallocate unused memory which make the life of programmer easy.

1. **What is class loader ?**

Class loader is used to load all the classes required execute the application into Java Virtual Machine (JVM). After the class is loaded memory required for the application is determined.

1. **What is byte code verifier ?**

Byte code verifier checks for illegal code like forges pointers, violated access rights on objects etc. in complied byte code.

1. **What are the verifications done by byte code verifier ?**

1. Check whether classes follow JVM specification for classes

2. Check for stack overflows

3. Check for access restriction violations

4. Illegal data conversions

1. **What is the relevance of “this” keyword in Java ?**

This keyword is used resolve the ambiguity between instance variable and parameters.

1. **What is difference between Path and Classpath?**

Path and Classpath are operating system level environment variales. Path is used define where the system can find the executables(.exe) files and classpath is used to specify the location .class files.

1. **What will be the initial value of an object reference which is defined as an instance variable?**

The object references are all initialized to null in Java.

1. **What is the default value of the local variables?**

The local variables are not initialized to any default value, neither primitives nor object references.

1. **What is the difference between Iterator and Enumeration?**

Iterator has an option to remove elements from the collection which is not available in Enumeration

1. **How is Iterator different from ListIterator?**

Iterator can retrieve the elements only in forward direction. But ListIterator can retrieve the elements in forward and reverse direction also. So ListIterator is preferred to Iterator.

1. **Which collection class allows you to grow or shrink its size and provides indexed access to its elements, but whose methods are not synchronized?** java.util.ArrayList
2. **Is HashMap synchronized?**  No
3. **Which of the following implementation will you use if you were to insert elements at any position in the collection ?**  LinkedList
4. **Which of the following are false about Collections and Collection ?**  Collections is a special type of collection which holds Set of collections
5. **Is Hashtable synchronized?** Your Answer: Yes

Question: 6 What is the output of the following program ?

import java.util.HashMap;

import java.util.Map;

public class MapTest {

public static void main(String aga[]){

Map m= new HashMap();

m.put(null, "Test");

m.put(null,"Fest");

System.out.println(m);

}

}

Output:

{null=Fest}

1. **Set allows at most one null element?** True
2. **What is the output of the following program ?**

import java.util.HashSet;

class Animal {

public int i=12;

public Animal(){

i=13;

}

public String toString(){

return "Animal"+i;

}

}

public class Test {

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

HashSet s= new HashSet();

s.add(new Animal());

s.add(new Animal());

for(Animal a : s){

System.out.println(a);

}

}

}

Output: Animal 13 Animal 13

1. **Enumeration is an interface helps to iterate collection,but it can´t remove any element the collection it is iterating?**  True
2. **What is the data structure that a Set uses to store its elements ?** Map
3. **TreeSet maintains which order**? Ascending Order

Question: 12 If you were to use a List implementation,but not sure which one to, bacause the requirement is not yet clear. In this case which List implementation will you use ?

Your Answer: ArrayList

Correct Answer: ArrayList

Description: None

Question: 13 If you were to store objects into an implementation of List which happens only once in the entire life cycle of the product, but reading these objects inside the List implementation is quite high, then which one would you use?

Your Answer: ArrayList

Correct Answer: ArrayList

Description: None

Question: 14 How do you get immutable object of a collection ? For example if you were to write an API which return a List or a Set or a Map when a method is called, but you also want that you don´t want the client of your API to add or delete any object in the returned collection ?

Your Answer: Use the Collections.unmodifiableXxxx() method with the collection as an argument,which returns an immutable object of specific type.

Correct Answer: Use the Collections.unmodifiableXxxx() method with the collection as an argument,which returns an immutable object of specific type.

Description: None

Question: 15 Which implementation of Set would you choose if the you want the iterator of set would give you objects in the order it were inserted ?

Your Answer: LinkedHashSet

Correct Answer: LinkedHashSet

Description: None

1. **assert Windows -> Preferences -> highlight the default JRE -> click Edit... -> In the Default VM arguments input box, enter -ea**

**package** test;

**public** **class** Test {

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

{

**int** value = 1;

**assert** value>=20 : " Underweight";

System.***out***.println("value is "+value);

}

}

1. **Sample code to redirect “System.out.println” console output to a file**

**package** test;

**import** java.io.File;

**import** java.io.FileNotFoundException;

**import** java.io.PrintStream;

**public** **class** Test {

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

{

**try** {

PrintStream o = **new** PrintStream(**new** File("A.txt"));

PrintStream console = System.***out***;

// Store current System.out before assigning a new value

System.*setOut*(o);

**int** value = 1\_00;

**assert** value>=20 : " Underweight";

System.***out***.println("value is "+value);

System.*setOut*(console);

System.***out***.println("value is "+value+1);

} **catch** (FileNotFoundException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

}

}

1. **What are Generics?**

Generics are used to create Generic Classes and Generic methods which can work with different Types(Classes).

1. **Why do we need Generics? Can you give an example of how Generics make a program more flexible?**

Consider the class below:

class MyList {

private List<String> values;

void add(String value) {

values.add(value);

}

void remove(String value) {

values.remove(value);

}

}

MyList can be used to store a list of Strings only.

MyList myList = new MyList();

myList.add("Value 1");

myList.add("Value 2");

To store integers, we need to create a new class. This is problem that Generics solve. Instead of hard-coding String class as the only type the class can work with, we make the class type a parameter to the class.

##### Example with Generics

Let’s replace String with T and create a new class. Now the MyListGeneric class can be used to create a list of Integers or a list of Strings

class MyListGeneric<T> {

private List<T> values;

void add(T value) {

values.add(value);

}

void remove(T value) {

values.remove(value);

}

T get(int index) {

return values.get(index);

}

}

MyListGeneric<String> myListString = new MyListGeneric<String>();

myListString.add("Value 1");

myListString.add("Value 2");

MyListGeneric<Integer> myListInteger = new MyListGeneric<Integer>();

myListInteger.add(1);

myListInteger.add(2);

1. **How do you declare a Generic Class?**

Note the declaration of class:Instead of T, We can use any valid identifier.

class MyListGeneric<T>

1. **What are the restrictions in using generic type that is declared in a class declaration?**

If a generic is declared as part of class declaration, it can be used any where a type can be used in a class - method (return type or argument), member variable etc. For Example: See how T is used as a parameter and return type in the class MyListGeneric.

1. **How can we restrict Generics to a subclass of particular class?**

In MyListGeneric, Type T is defined as part of class declaration. Any Java Type can be used a type for this class. If we would want to restrict the types allowed for a Generic Type, we can use a Generic Restrictions. Consider the example class below: In declaration of the class, we specified a constraint "T extends Number". We can use the class MyListRestricted with any class extending (any sub class of) Number - Float, Integer, Double etc.

class MyListRestricted<T extends Number> {

private List<T> values;

void add(T value) {

values.add(value);

}

void remove(T value) {

values.remove(value);

}

T get(int index) {

return values.get(index);

}

}

MyListRestricted<Integer> restrictedListInteger = new MyListRestricted<Integer>();

restrictedListInteger.add(1);

restrictedListInteger.add(2);

String not valid substitute for constraint "T extends Number".

//MyListRestricted<String> restrictedStringList =

// new MyListRestricted<String>();//COMPILER ERROR

1. **How can we restrict Generics to a super class of particular class?**

In MyListGeneric, Type T is defined as part of class declaration. Any Java Type can be used a type for this class. If we would want to restrict the types allowed for a Generic Type, we can use a Generic Restrictions. In declaration of the class, we specified a constraint "T super Number". We can use the class MyListRestricted with any class that is a super class of Number class.

1. **Can you give an example of a Generic Method?**

A generic type can be declared as part of method declaration as well. Then the generic type can be used anywhere in the method (return type, parameter type, local or block variable type).

Consider the method below:

static <X extends Number> X doSomething(X number){

X result = number;

//do something with result

return result;

}

The method can now be called with any Class type extend Number.

Integer i = 5;

Integer k = doSomething(i);

1. What is a static method?

A Method that works on the class, and not a specific instance.

1. public class Singleton<T> {

public static T getInstance() {

if (instance == null)

instance = new Singleton<T>();

return instance;

}

private static T instance = null;

}

* 1. You can't use a class's generic type parameters in static methods or static fields. The class's type parameters are only in scope for instance methods and instance fields. For static fields and static methods, they are shared among all instances of the class, even instances of different type parameters, so obviously they cannot depend on a particular type parameter.

1. Set up nds repo **/etc/yum.repos.d/nds.repo**

[nds]

name=10.84.65.191 nds

baseurl=http://10.84.65.191/nds

enabled=1

protect=0

gpgcheck=0

metadata\_expire=30s

autorefresh=1

[nds-1]

name=10.84.65.191 nds-1

baseurl=http://10.84.65.191/6.4/os/

enabled=1

protect=0

gpgcheck=0

metadata\_expire=30s

autorefresh=1

1. Install Git “**yum install git**”
2. Install rpm-build “**yum install rpm-build**”
3. Install JDK “**yum install jdk-1.7.0\_05-fcs.x86\_64**”  I didn’t install it as it was already installed in your set up
4. Copy Maven and Eclipse to folder “**/paasaith/DEV\_Installs**”

[root@monitorsrv DEV\_Installs]# ls –lrt

total 303260

-rw-r–r–1 root root   6533120 Apr  8 09:26 apache-maven-3.1.1-bin.tar

-rwxr–r–1 root root 304005120 Apr  8 09:27 eclipse-jee-luna-SR1-linux-gtk-x86\_64.tar

1. Untar Maven “**tar –xvf apache-maven-3.1.1-bin.tar**”

total 303264

-rw-r–r–1 root root   6533120 Apr  8 09:26 apache-maven-3.1.1-bin.tar

-rwxr–r–1 root root 304005120 Apr  8 09:27 eclipse-jee-luna-SR1-linux-gtk-x86\_64.tar

**drwxr-xr-x 6 root root      4096 Apr  8 09:33 apache-maven-3.1.1 -> Extracted**

1. Untar Eclipse “**tar –xvf eclipse-jee-luna-SR1-linux-gtk-x86\_64.tar**”

total 303268

**drwxrwsr-x 9  100 users      4096 Sep 25  2014 eclipse -> Extracted**

-rw-r--r-- 1 root root    6533120 Apr  8 09:26 apache-maven-3.1.1-bin.tar

-rwxr--r-- 1 root root  304005120 Apr  8 09:27 eclipse-jee-luna-SR1-linux-gtk-x86\_64.tar

drwxr-xr-x 6 root root       4096 Apr  8 09:33 apache-maven-3.1.1

1. Create a link for eclipse in folder /**paasaith**

ln -s /paasaith/DEV\_Installs/eclipse/eclipse eclipse

1. You can set up the workspace in /**paasaith/VCSWorspace**

mkdir /paasaith/VCSWorspace

1. Set up environment by creating file “env.sh” in folder /**paasaith**

[root@monitorsrv paasaith]# cat env.sh

JAVA\_HOME=/usr/java/jdk1.7.0\_05

MAVEN\_HOME=/paasaith/DEV\_Installs/apache-maven-3.1.1

export JAVA\_HOME

export MAVEN\_HOME

export PATH=$JAVA\_HOME/bin:$MAVEN\_HOME/bin:$PATH

export MAVEN\_OPTS="-Xms700m -Xmx1800m -XX:PermSize=512m -Dmaven.artifact.threads=25"

1. Change mode for env.sh. (Execute “. ./env.sh” every time you want to login and setup environment)

chmod 755 env.sh

----------------------------------

1. Run “ssh-keygen” to create public key to access git –> I have already run this

**Add /root/.ssh/id\_rsa.pub to your git profile -> You will have to do this**

ssh-keygen -t rsa -C [xxxxxx@cisco.com](mailto:xxxxxx@cisco.com) (CEC user name) or ssh-keygen -t rsa -U [xxxxxx@cisco.com](mailto:xxxxxx@cisco.com) (CEC user name)

1. Go to folder /**paasaith**  and run “**git clone ssh://** [**paasaith@bgl-apl-grt13.cisco.com:29418/vcsconsole.git**](mailto:paasaith@bgl-apl-grt13.cisco.com:29418/vcsconsole.git)”  **You will have to run this after key is added in git**
2. Go to /paasaith/vcsconsole and run **“mvn clean install”**

Cucumber Parallel run:

Note: 2 IT file with different report directory

<plugin>

artifactId>maven-failsafe-plugin</artifactId>

<version>2.14.1</version>

<executions>

<execution>

<phase>integration-test</phase>

<goals>

<goal>integration-test</goal>

</goals>

</execution>

</executions>

<configuration><forkCount>2</forkCount>

<reuseForks>false</reuseForks>

<argLine>-Duser.language=en</argLine>

<argLine>-Xmx1024m</argLine>

<argLine>-XX:MaxPermSize=256m</argLine>

<argLine>-Dfile.encoding=UTF8</argLine>

<useFile>false</useFile>

<includes>

<include>\*\*/\*IT.class</include>

</includes>

<testFailure>true</testFailure>

</configuration>

</plugin>

# Mysql login

mysql -u root -p

sathish

use mysql;

update mysql.user set password=PASSWORD('sathish') where user='root'

select user,host from user

delete from user where user='';

show databases;

show tables;

# Agile:

Home URL:  <http://devplaybook.cisco.com>

Scrum Board Picture:  <http://devplaybook.cisco.com:8080/display/PBK/Scrum+Board>

Scrum Room:  <http://devplaybook.cisco.com:8080/display/PBK/Video+-+Team+Room>

Pages Specific to Each Role: <http://devplaybook.cisco.com:8080/display/PBK/Playbook#Navigation+by%20topic>

Page with Topics Based on Agile Maturity: <http://devplaybook.cisco.com:8080/display/PBK/Playbook#Playbook-nav372623017>

# Artifactory Installation Procedure:

Download:

https://www.jfrog.com/open-source/

Download: rpm and zip artifactory 3.4.1

Install the rpm

Change the $ARTIFACTORY\_HOME/bin/artifactory.default

JAVA HOME

ARTIFACTORY\_HOME

$ARTIFACTORY\_HOME/bin/installService.sh

service artifactory start | stop | status

System Requirement:

https://www.jfrog.com/confluence/display/RTF/System+Requirements

Installation Step:

https://www.jfrog.com/confluence/display/RTF/Installing+on+Linux+Solaris+or+Mac+OS

Support link:

https://www.jfrog.com/video/artifactory-1-min-setup/

# version of ff

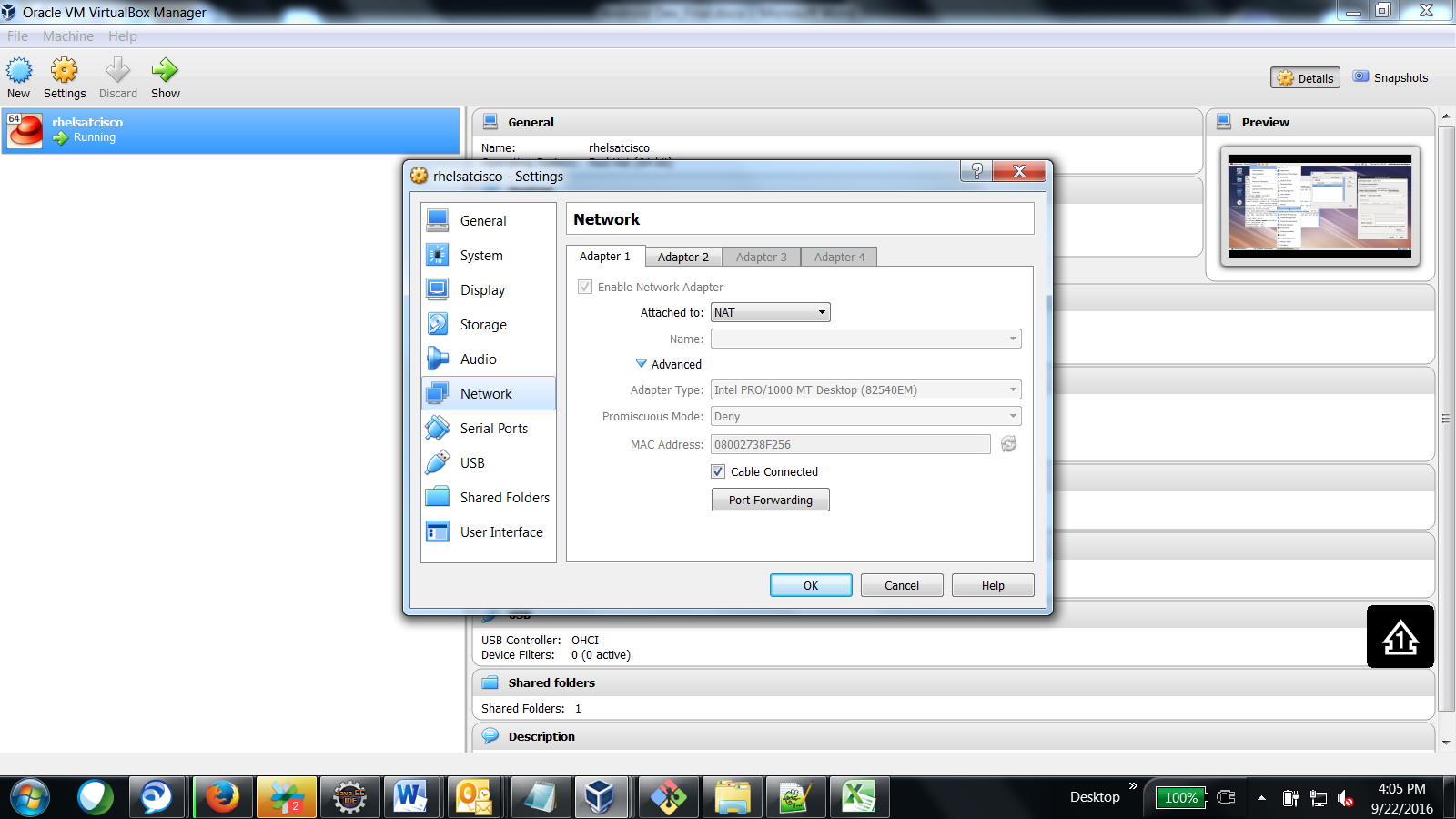
<https://github.com/SeleniumHQ/selenium/blob/master/java/CHANGELOG>

<http://www.seleniumhq.org/about/platforms.jsp>

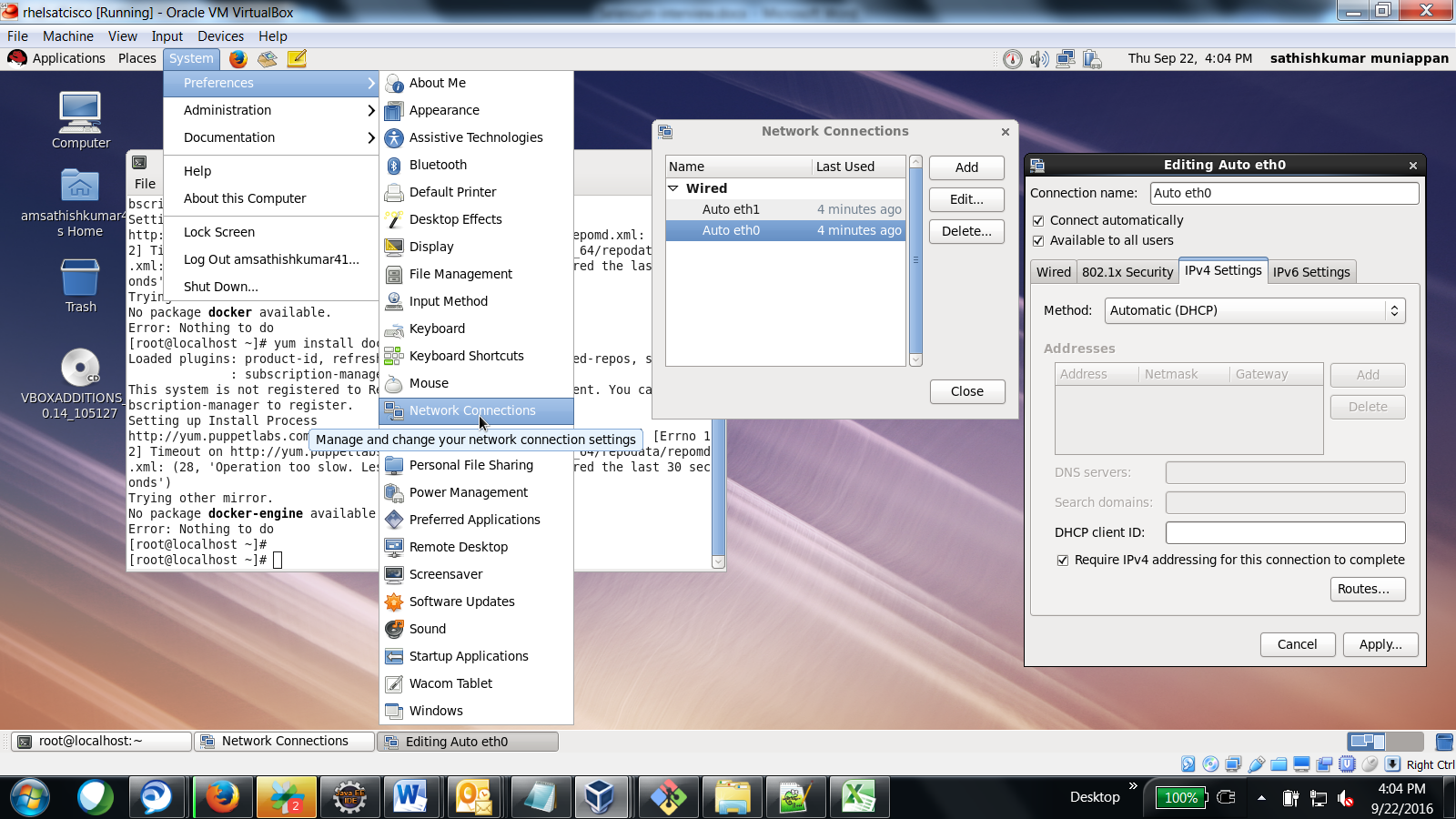
# Virtual Box with wifi access with internet

* + - Create VM with 2 Adapter

**Adapter1 with NAT for internet access**



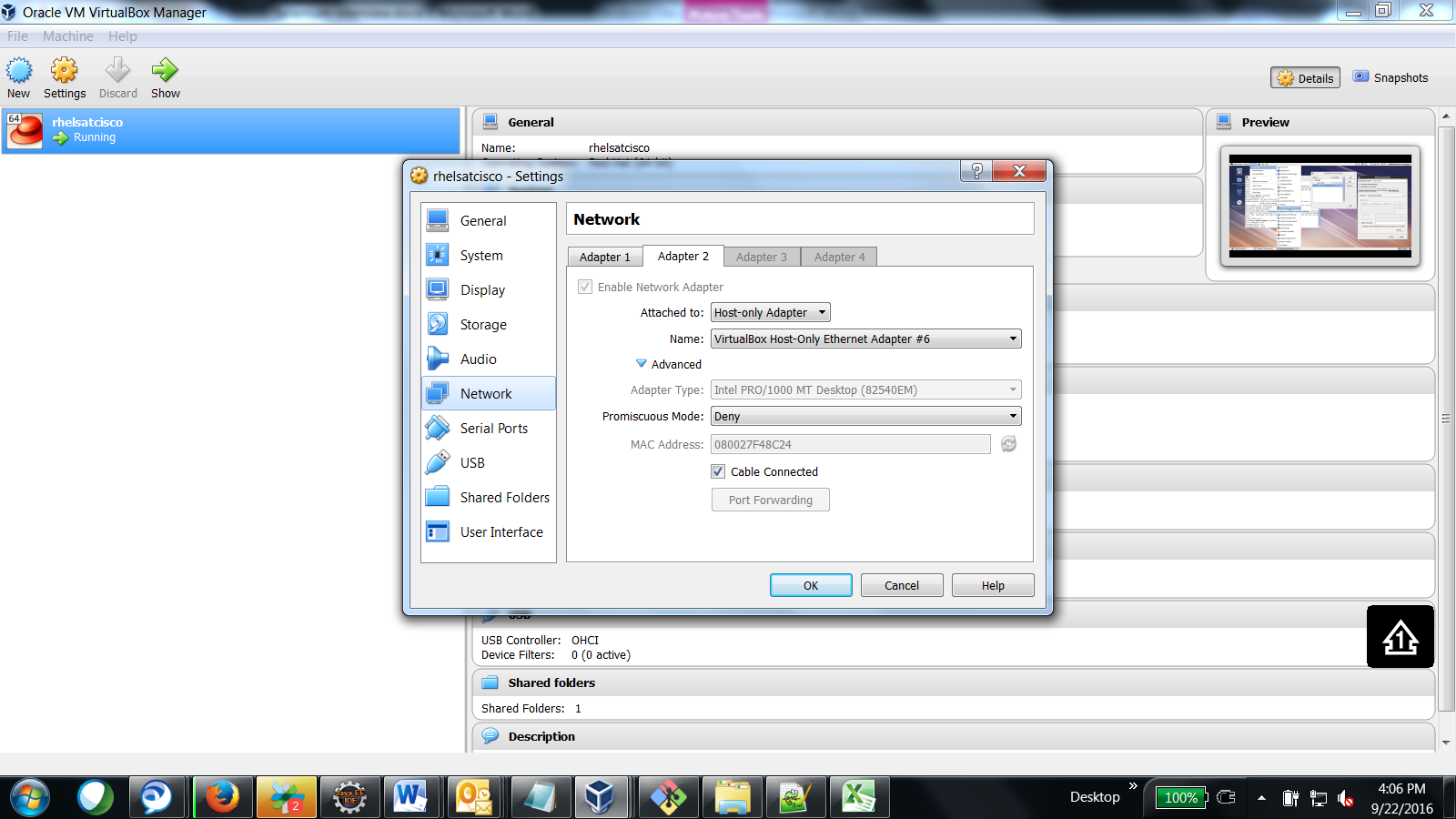
System > preference > Network Connection > Auto eth0 > edit > IPV4 settings > method: automatic (DHCP)



**Adapter2with Host only Adaptor:**

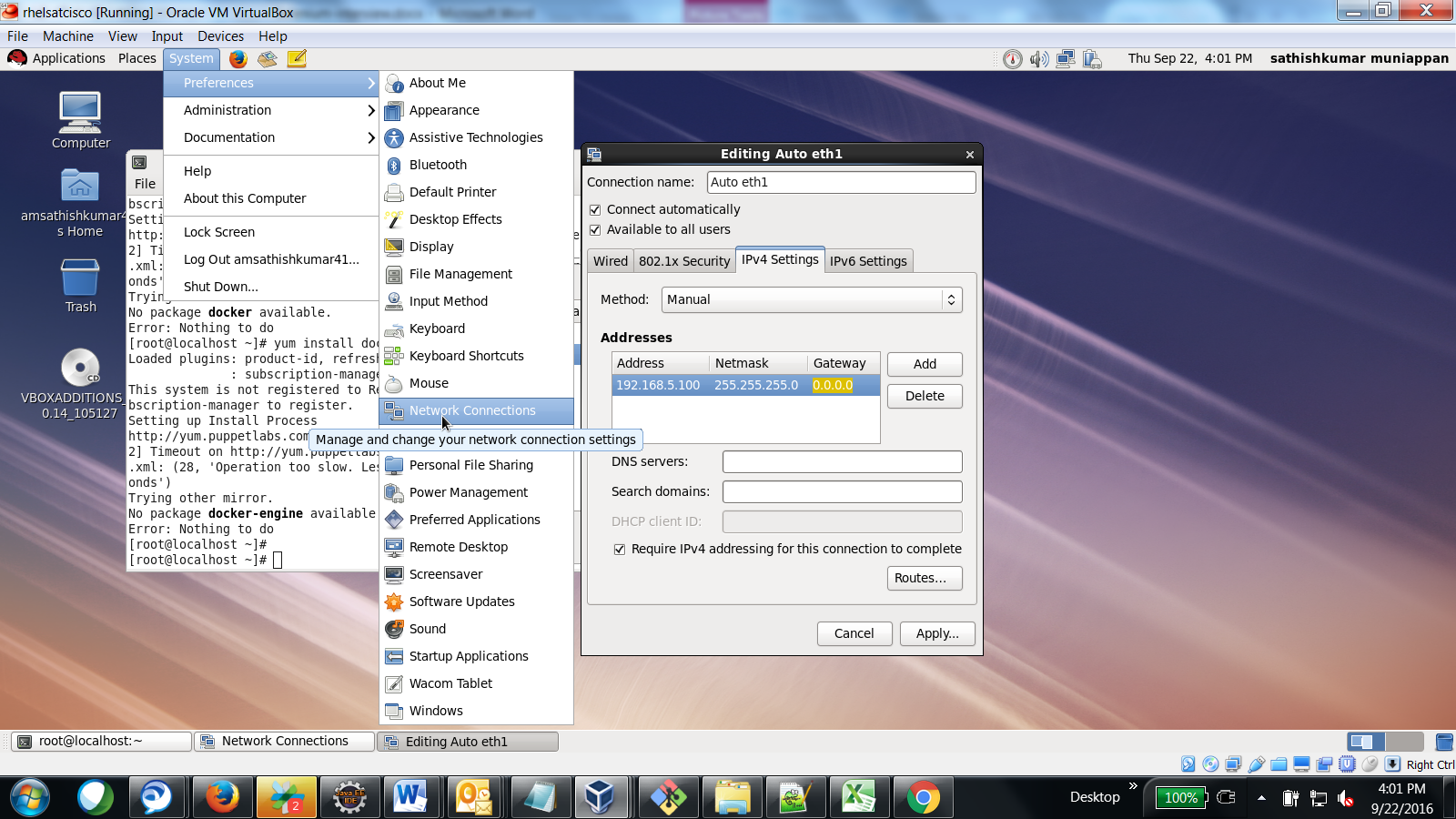
Attached to : Hostonly Adaptor

Name: Virtual host only Ethernet adaptor #6 (192.168.5.1)



System > preference > Network Connection > Auto eth0 > edit > IPV4 settings > method: Mannual > Add

Address: 198.168.5.100; Netmask: 255.255.255.0; Gateway: 0.0.0.0



vi /etc/sysconfig/network-scripts/ifcfg-Auto\_eth2

TYPE=Ethernet

BOOTPROTO=none

IPADDR=192.168.5.100

PREFIX=24

DEFROUTE=yes

IPV4\_FAILURE\_FATAL=yes

IPV6INIT=no

NAME="Auto eth1"

ONBOOT=yes

# Centos7:

1. vi /etc/sysconfig/network-scripts/ifcfg-enp0s3

TYPE=Ethernet

BOOTPROTO=dhcp

DEFROUTE=yes

PEERDNS=yes

PEERROUTES=yes

NAME=enp0s3

IPv4 CONFIGURATION=Automatic

UUID=f077cce7-2369-4049-aff6-533e62447bbb

DEVICE=enp0s3

ONBOOT=yes

NM\_CONTROLLED=no

1. vi /etc/sysconfig/network-scripts/ifcfg-enp0s4

TYPE=Ethernet

BOOTPROTO=none

IPADDR=192.168.5.101 <as per local netwok>

PREFIX=24

DEFROUTE=yes

IPV4\_FAILURE\_FATAL=yes

IPV6INIT=no

NAME="epn0s4"

ONBOOT=yes

yum install docker

yum install git

* 1. <http://isoredirect.centos.org/centos/7/isos/x86_64/>
  2. One of the first thing you might notice when logging into a new CentOS 7 minimal installation is there is no ifconfig command.

[root@node01 ~] # ifconfig  
- bash : ifconfig : command not found

First thought may be, maybe /sbin/ isn’t in my PATH [environment variable](http://centoshowtos.org/environment-variables/), but this isn’t the case.

You can use the "yum provides" command to figure out what packages provide certain commands or files you're used to using.

yum provides ifconfig

The utility has been deprecated, but if you want to use it, just install net-tools.

yum -y install net-tools

Alternatively, you can get and manipulate your IP address using the ip command:

ip addr sh

Ansible

<http://www.linuxtechi.com/install-and-use-ansible-in-centos-7/>

rpm -iUvh <http://dl.fedoraproject.org/pub/epel/7/x86_64/e/epel-release-7-8.noarch.rpm>

yum install ansible

ansible --version

ssh-keygen

ssh-copy-id –i root@clientip

docker :

Error: Package: systemd-sysv-219-19.el7.x86\_64

yum -y update && yum -y install initscripts

yum install docker

File "/usr/bin/docker-compose", line 5, in <module>

pip install backports.ssl\_match\_hostname –upgrade

apt-get install libc6:i386 libncurses5:i386 libstdc++6:i386

System.out.println("Hello World");  
1)**System: I**t is the name of standard class that contains objects that encapsulates the standard **I/O** devices of your system.  
It is contained in the **package** java.lang.Since java.lag package is imported in every java program by default,therefore **java.lang package**is the only package in Java API which doesnot require an import declaration.  
2)**out:**The object out represents output stream(i.e Command window)and is the static data member of the class **system**.  
So note here **System.out** (System -Class & out- static object i.e why its simply refered by classname and we need not to create any object).  
3).**println:**The println() is **method** of out object that takes the text string as an argument and displays it to the standard output i.e *on monitor screen*.  
*Note*  
**System -Class**  
**out -static Object**  
**println() –method**

<http://beginnersbook.com/2013/04/oops-concepts/>

# Conversation:

* int i = Interger.parseint(“11111”)
* int i=0; String s= String. valueOf ( i)
* boolean bvar = Boolean.parseBoolean(str);
* boolean boovar = true; String str = String.valueOf(boovar); or boolean boovar = false; String str = Boolean.toString(boovar);

Collections:

* HashMap doesn’t maintain any order.
* TreeMap sort the entries in ascending order of keys.
* LinkedHashMap maintains the insertion order.

# Thread vs Process

1) A program in execution is often referred as process. A thread is a subset(part) of the process.

2) A process consists of multiple threads. A thread is a smallest part of the process that can execute concurrently with other parts(threads) of the process.

3) A process is sometime referred as task. A thread is often referred as lightweight process.

4) A process has its own address space. A thread uses the process’s address space and share it with the other threads of that process.

# Types of exceptions

There are two types of exceptions

1)Checked exceptions

2)Unchecked exceptions

Below is a brief about each however if you want a detailed tutorial with examples then you can refer Checked and Unchecked exceptions in Java.

Checked exceptions

All exceptions other than Runtime Exceptions are known as Checked exceptions as the compiler checks them during compilation to see whether the programmer has handled them or not. If these exceptions are not handled/declared in the program, it will give compilation error.

Examples of Checked Exceptions :-

ClassNotFoundException

IllegalAccessException

NoSuchFieldException

EOFException etc.

Unchecked Exceptions

Runtime Exceptions are also known as Unchecked Exceptions as the compiler do not check whether the programmer has handled them or not but it’s the duty of the programmer to handle these exceptions and provide a safe exit.

These exceptions need not be included in any method’s throws list because compiler does not check to see if a method handles or throws these exceptions.

Examples of Unchecked Exceptions:-

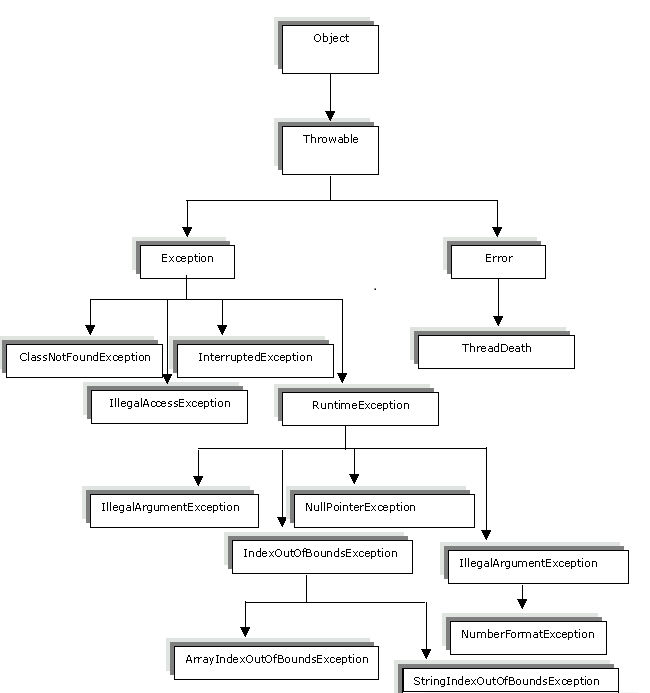
ArithmeticException

ArrayIndexOutOfBoundsException

NullPointerException

NegativeArraySizeException etc.

# Exception classes Hierarchy



# Stack (lifo)

Stack is a subclass of Vector that implements a standard last-in, first-out stack.

Stack only defines the default constructor, which creates an empty stack. Stack includes all the methods defined by Vector, and adds several of its ow

import java.util.\*;

public class StackDemo {

static void showpush(Stack st, int a) {

st.push(new Integer(a));

System.out.println("push(" + a + ")");

System.out.println("stack: " + st);

}

static void showpop(Stack st) {

System.out.print("pop -> ");

Integer a = (Integer) st.pop();

System.out.println(a);

System.out.println("stack: " + st);

}

public static void main(String args[]) {

Stack st = new Stack();

System.out.println("stack: " + st);

showpush(st, 42);

showpush(st, 66);

showpush(st, 99);

showpop(st);

showpop(st);

showpop(st);

try {

showpop(st);

}catch (EmptyStackException e) {

System.out.println("empty stack");

}

}

}

## Output

stack: [ ]

push(42)

stack: [42]

push(66)

stack: [42, 66]

push(99)

stack: [42, 66, 99]

pop -> 99

stack: [42, 66]

pop -> 66

stack: [42]

pop -> 42

stack: [ ]

pop -> empty stack

# Queue

Queue interface orders the element in FIFO(First In First Out) manner. In FIFO, first element is removed first and last element is removed at last.

1. import java.util.\*;
2. class TestCollection12{
3. public static void main(String args[]){
4. PriorityQueue<String> queue=new PriorityQueue<String>();
5. queue.add("Amit");
6. queue.add("Vijay");
7. queue.add("Karan");
8. queue.add("Jai");
9. queue.add("Rahul");
10. System.out.println("head:"+queue.element());
11. System.out.println("head:"+queue.peek());
12. System.out.println("iterating the queue elements:");
13. Iterator itr=queue.iterator();
14. while(itr.hasNext()){
15. System.out.println(itr.next());
16. }
17. queue.remove();
18. queue.poll();
19. System.out.println("after removing two elements:");
20. Iterator<String> itr2=queue.iterator();
21. while(itr2.hasNext()){
22. System.out.println(itr2.next());
23. }
24. }
25. }
26. Output:head:Amit
27. head:Amit
28. iterating the queue elements:
29. Amit
30. Jai
31. Karan
32. Vijay
33. Rahul
34. after removing two elements:
35. Karan
36. Rahul
37. Vijay

<dependency> <groupId>informix</groupId> <artifactId>ifxjdbc</artifactId>   
<version>1.0</version> <scope>system</scope> <systemPath>${basedir}/src/it/resources/jars/informix/ifxjdbc.jar</systemPath>   
</dependency>

# ELK:

<https://www.digitalocean.com/community/tutorials/how-to-install-elasticsearch-logstash-and-kibana-elk-stack-on-centos-7#load-filebeat-index-template-in-elasticsearch>

# What is GeckoDriver?

Since ***Selenium 3*** has launched, firefox browser initialisation became the most common problem among the Selenium testers. Selenium 3 does not support default Firefox with in it. Now onwards Selenium will suport Marionette

Let us first start with the very basics – What is Gecko and GeckoDriver? Gecko is a web browser engine used in many applications developed by Mozilla Foundation and the Mozilla Corporation.

Reference: <http://toolsqa.com/selenium-webdriver/how-to-use-geckodriver/>

curl http://localhost:9200/index/\_search?q=\*&pretty

# Headless Ubuntu:

1. lsb\_release -a
   1. No LSB modules are available.
   2. Distributor ID: Ubuntu
   3. Description: Ubuntu 15.04
   4. Release: 15.04
   5. Codename: vivid
2. sudo apt-get update && sudo apt-get install –f
3. sudo apt-get install xvfb xserver-xephyr
4. pip install pyvirtualdisplay ==0.2.1
   1. sudo pip show pyvirtualdisplay
5. pip install selenium==2.53.6
6. sudo apt-get install chromium-browser
   1. **chromium-browser -version**
   2. **Chromium 48.0.2564.82 Ubuntu 15.04**
7. get appropriate version of chrome driver from
   1. <http://chromedriver.storage.googleapis.com/index.html>

|  |  |
| --- | --- |
|  |  |

import os

from selenium import webdriver

from pyvirtualdisplay import Display

display = Display(visible=0, size=(800, 600))

display.start()

driver = webdriver.Chrome()

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

print driver.page\_source.encode('utf-8')

driver.quit()

display.stop()

<http://www.guru99.com/introduction-to-selenium-grid.html>

# Maven:

## mvn with cucumber tags:

mvn clean install –P integration-tests -Dcucumber.options="--tags @TIMSID"

mvn -e clean integration-test -P integrationtest -s <folder\_location>/settings.xml exec:java -Dcucumber.options="--tags @Completed”

# Jenkins API

<http://10.78.216.52:8080/job/DeployNightlyDTACS/165/api/json>

# python code to get jekins report

import cStringIO

import json

import urllib

import urllib2

import os

import sys

import paramiko

import sys,smtplib

import time

import ftplib

import jenkinsapi

from jenkinsapi.jenkins import Jenkins

import smtplib

from email.mime.multipart import MIMEMultipart

from email.mime.text import MIMEText

global brokenlist

brokenlist=[]

global objectslist

objectslist=[]

file=open("Report.txt",'w+')

file1=open("Report1.html",'w+')

txt\_file = open("C:\SIMBU\AutoInstaller\stage1count1.txt")

source\_content = txt\_file.read()

target = open ("C:\SIMBU\AutoInstaller\stage1count2.txt", 'w') ## a will append, w will over-write

target.write(source\_content)

print "we have added those text to the file"

target.close()

file10=open("C:\SIMBU\AutoInstaller\stage1count1.txt",'w')

def PreHtmlfortable():

file1.write("\n")

file1.write('<table border="1" style="width:100%;color:"black"> \n')

file1.write("<thead>\n")

file1.write('<tr>\n')

j="<th>"+"Component"+"</th>"

f="<th rowspan="+'"2"'">"+"Service name"+"</th>"

z="<th colspan="+'"2"'">"+"Unit Test"+"</th>"

b="<th rowspan="+'"2"'">"+"Clover %"+"</th>"

y="<th colspan="+'"2"'">"+"Automation"+"</th>"

k="<th rowspan="+'"2"'">"+"Stage 1 Execution Status"+"</th>"

g="<th rowspan="+'"2"'">"+"Stage 1 Duration"+"<br>"+"(HH:MM:SS.ms)"+"</th>"

h="<th rowspan="+'"2"'">"+"Stage 1 Execution Date "+"</th>"

dur="<th rowspan="+'"2"'">"+"Stage 1 Execution count"+"</th>"

envi="<th rowspan="+'"2"'">"+"Environment"+"</th>"

jc="<th>"+"Count"+"</th>"

jp="<th>"+"Pass %"+"</th>"

cc="<th>"+"Count"+"</th>"

cp="<th>"+"Pass %"+"</th>"

file1.write(f)

file1.write("\n")

file1.write(z)

file1.write("\n")

file1.write(b)

file1.write("\n")

file1.write(y)

file1.write("\n")

file1.write(k)

file1.write("\n")

file1.write(g)

file1.write("\n")

file1.write(h)

file1.write("\n")

file1.write(dur)

file1.write("\n")

file1.write(envi)

file1.write("\n")

file1.write('<tr>\n')

file1.write(jc)

file1.write("\n")

file1.write(jp)

file1.write("\n")

file1.write(cc)

file1.write("\n")

file1.write(cp)

file1.write("\n")

file1.write("</thead>\n")

file1.write("</tr>\n")

file1.write("<tbody>\n")

def PreHtml():

file1.write("<!DOCTYPE html>")

file1.write("\n")

file1.write("<html>")

file1.write("\n")

file1.write('<body style="background-color:lightgrey">')

def htmlclose():

file1.write("</table> \n")

file1.write("</body>\n")

file1.write("<br> \n")

file1.write('<form style="background-color:white"> \n')

file1.write("<fieldset> \n")

file1.write('<h4>Stage 1 Static components</h4>\n')

file1.write('<h5 >PKCB - COMPONENTS</h5>\n')

file1.write('<p >ECMS Manager -> nTED,CCG,CCAP-Simulator,SD,RabbitMQServer and VOD-SM</p>\n')

file1.write('<p >ACG -> SD,RabbitMQServer,AcManager</p>\n')

file1.write('<p >GACS -> nTED</p>\n')

file1.write('<p>VOD-SM -> SD,CCG,ECMS-Manager,nTED and CCAP-Simulator</p>\n')

file1.write('<h5 >CCG</h5>\n')

file1.write('<p >CCG 2.0 -> SD,nTED,CCAP Simulator and AcManager</p>\n')

file1.write("</fieldset> \n")

file1.write("<fieldset> \n")

file1.write('<legend >LEGEND</legend> \n')

file1.write('<p style="background-color:gold"> Unit test and Clover percentage above 50% is GREEN</p>\n')

file1.write('<p style="background-color:gold"> Automation above 80% is GREEN</p>\n')

file1.write('<p style="background-color:gold">YELLOW - Unable to Retrieve Unit test details or Automation details</p>\n')

file1.write('<p style="background-color:gold">NA in Automation field indicates there is no automation suite so far</p>\n')

file1.write('<p style="background-color:gold">Stage 1 duration column reports RED that have a duration greather 30 minutes</p>\n')

file1.write("</fieldset> \n")

file1.write("</form> \n")

file1.write("</html>\n")

file1.close()

file10.close()

def sendmail():

me = "magebala@cisco.com"

#you = ["vcbu-che-mgrs@cisco.com","vcte\_chennai@cisco.com","surmehta@cisco.com","richart@cisco.com","vivsriva@cisco.com","tindalle@cisco.com","silsunda@cisco.com","kimbleb@cisco.com","overtond@cisco.com","jenmccoy@cisco.com","cooperbi@cisco.com","dorvillj@cisco.com","svcsmgmt\_scrum@cisco.com","peachecmg\_scrum@cisco.com","pkc\_scb\_scrum@cisco.com","scrum\_pkc\_che@cisco.com","dtacs50\_scrum@cisco.com"]

you =["vector\_ci\_status@cisco.com"]

#you =["magebala@cisco.com"]

file3=open("Report1.html",'r')

# Create message container - the correct MIME type is multipart/alternative.

msg = MIMEMultipart('alternative')

msg['Subject'] = "Vector 8.0 Components CI Status"

msg['From'] = me

msg['To'] = ', '.join(you)

# Create the body of the message (a plain-text and an HTML version).

#text = "Hi!\nHow are you?\nHere is the link you wanted:\nhttps://www.python.org"

html = file3.read()

file3.close()

# Record the MIME types of both parts - text/plain and text/html.

#part1 = MIMEText(text, 'plain')

part2 = MIMEText(html, 'html')

# Attach parts into message container.

# According to RFC 2046, the last part of a multipart message, in this case

# the HTML message, is best and preferred.

#msg.attach(part1)

msg.attach(part2)

# Send the message via local SMTP server.

s = smtplib.SMTP('outbound.cisco.com')

# sendmail function takes 3 arguments: sender's address, recipient's address

# and message to send - here it is sent as one string.

s.sendmail(me, you, msg.as\_string())

s.quit()

class jobDetails:

def \_\_init\_\_(self,serivicename,displayname,component,stage0automationlink,stage1automationlink,env):

self.serivicename=serivicename

self.displayname=displayname

self.component=component

self.stage0automationlink=stage0automationlink

self.stage1automationlink=stage1automationlink

self.stage2automationlink=None

self.unittestlink=None

self.stage1testlink=None

self.cloverlink="None"

self.unittestres="0"

self.cloverresult="0"

self.stag1result="0"

self.stage2result=0

self.stage1date=None

self.executiontime=None

self.rpmdate=None

self.env=env

self.stage1executionstatus="Not Completed"

self.unittotalcount=0

self.automationtotalcount=0

self.finalcount=0

self.duration=0

self.mm=0

self.hh=0

def printDetails(self):

print "Service display name",self.displayname

print "Service Component",self.component

print "Service unit Test",self.unittestres

print "service clover",self.cloverresult

print "service automation",self.stag1result

print "service automation link",self.stage1testlink

print "service clover link",self.cloverlink

print "service unit test link",self.unittestlink

print "service duration",self.executiontime

print "service automation date",self.stage1date

print "service rpm date",self.rpmdate

def esn(self):

print "inside ESN IF"

automationlink="http://10.78.216.52:8080/job/ESN-SANITY\_Parasoft/HTML\_Report/final.html"

Automationreport=urllib2.urlopen(automationlink)

list3=Automationreport.readlines()

for value in list3:

if "Percentage" in value:

aE=value[21495:21499]

print "Success 1",aE

print "Type of aE",type(aE)

if ">" in aE:

print "inside if"

aE=aE.replace('>','')

else:

print "inside else"

aE=aE

automationpassper=aE

print "Automation pass percentage",automationpassper

self.automationtotalcount=aE

eE=value[21345:21348]

print "Total count value",eE

fE=value[21023:21030]

print "Time",fE

kE=value[20535:20552]

print "Total time",kE

self.stage1automationlink=automationlink

self.stag1result=automationpassper

if eE >0:

self.stage1executionstatus="Completed"

else:

self.stage1executionstatus="Not completed"

self.executiontime=fE

self.automationtotalcount=eE

self.finalcount=1

self.stage1date=kE

self.mm=31

def timeformat(self):

print "Inside time foramt"

print "duration value",self.duration

k=self.duration

y=k.split(" ")

print "Whats the value of Y",y

if len(y) == 3:

print "No hours value"

mm=y[0].split("m")

print "val",mm[0]

ss=y[1].split("s")

ms=y[2].split("ms")

print "Minitues val",mm[0]

print "Val of min",type(mm)

print ss[0]

print ms[0]

time="00"+":"+mm[0]+":"+ss[0]+"."+ms[0]

print time

self.mm=int(mm[0])

self.executiontime=time

elif len(y) == 4:

print "Hour value"

hh=y[0].split("h")

mm=y[1].split("m")

ss=y[2].split("s")

ms=y[3].split("ms")

time=hh[0]+":"+mm[0]+":"+ss[0]+"."+ms[0]

self.mm=int(mm[0])

self.hh=int(hh[0])

self.executiontime=time

elif len(y) == 1:

print "Only milli seconds"

ms=y[0].split("ms")

time="00"+":"+"00"+":"+"00"+"."+ms[0]

print "In only seconds",time

self.executiontime=time

elif len(y) == 2:

print "Only seconds"

ss=y[0].split("s")

ms=y[1].split("ms")

time="00"+":"+"00"+":"+ss[0]+"."+ms[0]

print "In only seconds",time

self.executiontime=time

elif len(y) == 8:

time="00"+":"+y[0]+":"+y[3]+"."+y[6]

print time

self.executiontime=time

elif len(y) == 5:

time="00"+":"+"00"+":"+y[0]+"."+y[3]

print time

self.executiontime=time

elif len(y) == 11:

time=y[0]+":"+y[3]+":"+y[6]+"."+y[9]

print time

self.executiontime=time

else:

print "Is it coming in else of timeformat"

self.executiontime=k

def DataRetriver(self):

list0=[]

totalcountiter=0

stage1skipflag=0

try:

jobname=self.serivicename

jobstage0url=self.stage0automationlink

print "StageoURL",jobstage0url

jobstag1url=self.stage1automationlink

print "Stage1URL",jobstag1url

jobstag1url=jobstag1url.replace('\n','')

if "Nolink" in jobstag1url:

stage1skipflag=1

if "Nolink" in jobstage0url:

print "Stage0 URL in none"

self.unittestres=0

self.cloverresult=0

self.cloverlink="99"

automationlink1=jobstag1url+"lastBuild/api/json"

print "Dev link",automationlink1

if "ESN" in jobstag1url:

print "ESN job details"

self.esn()

else:

print "Non-ESN"

automationlink=jobstag1url+"lastBuild/cucumber-html-reports/"

print "Dev link1",automationlink

automationcompletionlink=jobstag1url + "lastBuild/consoleText"

autoStream = urllib2.urlopen( automationlink1 )

print "automation1 link is ",automationlink

buildStatusJson1 = json.load( autoStream )

Automationreport=urllib2.urlopen(automationlink)

AutomationCompletionReport=urllib2.urlopen(automationcompletionlink)

print "automation link is ",automationlink

autodate=buildStatusJson1['id']

list3=Automationreport.readlines()

for value in list3:

if "stats-total-scenarios" in value:

value1=value.split(">")[1].replace('</td','')

value1=value1.replace('</th','')

list0.append(value1)

if "Feature Overview for Build" in value:

cc=value.split(":")

print "Harshitha",cc[1]

fc=cc[1]

print "fc value1",fc

fc=fc.lstrip()

print "fc lstrip",fc

fc=fc.split("<")

fc=fc[0]

print "fc split",fc[0]

print "FC value",fc

count2=int(fc)

print "Countt",count2

file10.write(self.displayname+":"+fc)

file10.write("\n")

with open ("C:\SIMBU\AutoInstaller\stage1count2.txt", "r") as myfile:

for line in myfile:

print "Sekkffffff",self.displayname

if self.displayname in line:

print "Inside new logic"

prevcc=line.split(":")

print prevcc

prevcc=prevcc[1].strip()

count1=int(prevcc)

print "2 value",prevcc

print "1 value",fc

print "Typpe 1",type(count1)

print "Typpe 2",type(count2)

finalcount = count2 - count1

print "Finalllll count",finalcount

self.finalcount=finalcount

myfile.close()

print "before printing file"

print "Inside Automation only",list0

Automationtotal=int(list0[0])

print "Automation total is",Automationtotal

self.automationtotalcount=Automationtotal

automationtotalpass=int(list0[1])

print "Automationtotal pass",automationtotalpass

automationpassper=automationtotalpass\*100

if automationpassper > 0:

print automationpassper

automationpassper=automationpassper/Automationtotal

else:

automationpassper = 0

print "Automation T percentage pass:",automationpassper

print "Automation Report Link:",automationlink

self.stag1result=automationpassper

self.stage1testlink=automationlink

for value in list3:

if "stats-total-duration" in value:

print value.split(">")[1].replace('</td','')

value1=value.split(">")[1].replace('</td','')

value1=value1.replace('</th','')

list0.append(value1)

duration=list0[-1]

print "duration",duration

self.duration=duration

self.timeformat()

self.stage1date=autodate

list3=AutomationCompletionReport.readlines()

for value in list3:

if "Tests run" in value:

print "value is", value

totaltestcountlist=value.split(",")

totaltestcountlist2=totaltestcountlist[0].split(":")

totaltestcount=int(totaltestcountlist2[1])

print "total test count is",totaltestcount

if totaltestcount > 0 :

self.stage1executionstatus="Completed"

print "Total test value greather than 0"

print "AutoInstaller Unit test result",self.unittestres

print "AutoInstaller Clover test result",self.cloverresult

stage1skipflag=1

if "full" in jobname:

job1=jobname.replace("full","vcsconsole")

jobname="full"

jobname=jobname.replace(" ","%20")

jsonurl= jobstage0url + jobname + "/lastSuccessfulBuild/api/json"

jenkinsStream = urllib2.urlopen( jsonurl )

print "json link is ",jsonurl

if stage1skipflag == 0:

automationlink1=jobstag1url+"lastBuild/api/json"

automationlink=jobstag1url+"lastBuild/cucumber-html-reports/"

automationcompletionlink=jobstag1url + "lastBuild/consoleText"

autoStream = urllib2.urlopen( automationlink1 )

print "automation1 link is ",automationlink

buildStatusJson1 = json.load( autoStream )

Automationreport=urllib2.urlopen(automationlink)

AutomationCompletionReport=urllib2.urlopen(automationcompletionlink)

print "automation link is ",automationlink

autodate=buildStatusJson1['id']

buildStatusJson = json.load( jenkinsStream )

builddate=buildStatusJson['id']

buildnum=buildStatusJson['number']

list1=buildStatusJson['actions']

except:

print "URL is"

return 0

print "ServiceName:",self.displayname

#file.write("ServiceName&&")

#file.write(self.displayname)

#file.write("\n")

print "\*\*\*\*\*\*\*\*\*\*\*\* Report Start\*\*\*\*\*\*\*\*\*\*"

for value in list1:

if "buildsByBranchName" in value:

dict=value

dict1=dict['buildsByBranchName']

keys=dict1.keys()

dict1=dict1[keys[0]]

buildnum=dict1['buildNumber']

#print buildnum

elif "totalCount" in value:

totalcountiter=1

print "In total count loop",value

totalcount=value

value=totalcount.values()

utotal=int(value[1])

self.unittotalcount=utotal

utestfail=int(value[0])+int(value[2])

utestpass=utotal-utestfail

utestpass=utestpass\*100

if utestpass > 0:

Utestpassper=float(utestpass/utotal)

else:

Utestpassper=0

print "Percentage Unit Test Pass:",Utestpassper

#file.write("Percentage Unit Test Pass&&")

#file.write(str(Utestpassper))

#file.write("\n")

self.unittestres=Utestpassper

uniturl=jobstage0url+jobname+"/lastSuccessfulBuild/"

print "Unit test link:",uniturl

#file.write("Unit Test URL&&")

#file.write(uniturl)

self.unittestlink=uniturl

#file.write("\n")

if totalcountiter != 1:

print "Percentage Unit Test Pass:0",

#file.write("Percentage Unit Test Pass&&")

#file.write("0")

#file.write("\n")

self.unittestres=0

uniturl=jobstage0url+jobname+"/lastSuccessfulBuild/"

print "Unit test link:",uniturl

#file.write("Unit Test URL&&")

#file.write(uniturl)

#file.write("\n")

self.unittestlink=uniturl

totalcountiter=0

cloverlink=jobstage0url + jobname +"/"+str(buildnum)+"/"

if "vcsconsole" in jobstage0url:

cloverlink="http://cabci-ba.in.nds.com/job/InfrastructureManagement/job/Frameworks/job/vcsconsole\_health\_status/lastBuild/"

else:

cloverlink=jobstage0url + jobname +"/"+str(buildnum)+"/"

cloverreport=urllib2.urlopen(cloverlink)

print "cloverlink is "+ cloverlink

list2=cloverreport.readlines()

cloverflag=2

cloverpasspercentage=0

for value in list2:

if "Clover Code Coverage" in value:

cloverflag=20

clovercoverage=value.strip()

cloverlist=clovercoverage.split("%")

cloverlist1=cloverlist[0].split("-")

cloverpasspercentage=cloverlist1[1].strip()

print "Percentage Clover coverage on 123",cloverpasspercentage

#file.write("Percentage Clover coverage&&")

#file.write(str(cloverpasspercentage))

#file.write("\n")

#file.write("Clover coverage URL&&")

#file.write(cloverlink)

#file.write("\n")

print "Clover Link:",cloverlink

self.cloverresult=cloverpasspercentage

self.cloverlink=cloverlink

if cloverflag == 2:

print "Percentage Clover coverage",cloverpasspercentage

#file.write("Percentage Clover coverage&&")

#file.write(str(0))

#file.write("\n")

#file.write("Clover coverage URL&&")

#file.write(cloverlink)

#file.write("\n")

print "Clover Link:",cloverlink

self.cloverresult=0

self.cloverlink=cloverlink

self.rpmdate=builddate

if stage1skipflag == 0:

list3=Automationreport.readlines()

for value in list3:

if "stats-total-scenarios" in value:

value1=value.split(">")[1].replace('</td','')

value1=value1.replace('</th','')

list0.append(value1)

if "Feature Overview for Build" in value:

cc=value.split(":")

print "Harshitha",cc[1]

fc=cc[1]

print "fc value1",fc

fc=fc.lstrip()

print "fc lstrip",fc

fc=fc.split("<")

fc=fc[0]

print "fc split",fc[0]

print "FC value",fc

count2=int(fc)

print "Countt",count2

file10.write(self.displayname+":"+fc)

file10.write("\n")

with open ("C:\SIMBU\AutoInstaller\stage1count2.txt", "r") as myfile:

for line in myfile:

print "Sekkffffff",self.displayname

if self.displayname in line:

print "Inside new logic"

prevcc=line.split(":")

print prevcc

prevcc=prevcc[1].strip()

count1=int(prevcc)

print "2 value",prevcc

print "1 value",fc

print "Typpe 1",type(count1)

print "Typpe 2",type(count2)

finalcount = count2 - count1

print "Finalllll count",finalcount

self.finalcount=finalcount

myfile.close()

print "before printing file"

print "list0 is",list0

Automationtotal=int(list0[0])

self.automationtotalcount=Automationtotal

print "Automation total is",Automationtotal

automationtotalpass=int(list0[1])

print "Automationtotal pass",automationtotalpass

automationpassper=automationtotalpass\*100

if automationpassper > 0:

print automationpassper

automationpassper=automationpassper/Automationtotal

else:

automationpassper = 0

print "Automation T percentage pass:",automationpassper

#file.write("Automation T percentage pass&&")

#file.write(str(automationpassper))

#file.write("\n")

print "Automation Report Link:",automationlink

#file.write("Automation Report Link&&")

#file.write(automationlink)

#file.write("\n")

self.stag1result=automationpassper

self.stage1testlink=automationlink

for value in list3:

if "stats-total-duration" in value:

print value.split(">")[1].replace('</td','')

value1=value.split(">")[1].replace('</td','')

value1=value1.replace('</th','')

list0.append(value1)

duration=list0[-1]

self.duration=duration

print "duration",duration

self.timeformat()

print "duration",duration

#file.write("duration&&")

#file.write(duration)

#file.write("\n")

#file.write("autodate&&")

#file.write(autodate)

#file.write("\n")

#file.write("builddate&&")

#file.write(builddate)

#file.write("\n")

self.stage1date=autodate

list3=AutomationCompletionReport.readlines()

for value in list3:

if "Tests run" in value:

print "value is", value

totaltestcountlist=value.split(",")

totaltestcountlist2=totaltestcountlist[0].split(":")

totaltestcount=int(totaltestcountlist2[1])

print "total test count is",totaltestcount

if totaltestcount > 0 :

self.stage1executionstatus="Completed"

else:

self.stag1result=0

self.stage1testlink="No link"

self.stage1executionstatus="NA"

self.stage1date="NA"

self.executiontime="NA"

self.automationtotalcount=0

self.finalcount=0

#self.rpmdate="NA"

def htmlgenerater(self):

component="<td>"+self.component+"</td>"

env="<td>"+self.env+"</td>"

a1="<td>"+self.displayname+"</td>"

flag=0

print "stage0",self.cloverlink

if self.cloverlink:

if float(self.unittestres) > 50:

b1='<td bgcolor="#99FF33">'

else:

b1='<td bgcolor="#F08080">'

print "Self.clover result is",type(self.cloverresult)

if float(self.cloverresult) > 50:

c1='<td bgcolor="#99FF33">'

print "clover result if is",self.cloverresult

else:

c1='<td bgcolor="#F08080">'

print "clover result in else is",self.cloverresult

if self.stag1result > 80:

d1='<td bgcolor="#99FF33">'

else:

d1='<td bgcolor="#F08080">'

if self.hh > 0:

e1='<td bgcolor="#F08080">'

elif self.hh == 0:

if self.mm < 30:

e1='<td bgcolor="#99FF33">'

else:

e1='<td bgcolor="#F08080">'

else:

e1='<td bgcolor="#F08080">'

else:

b1='<td>'

c1='<td>'

d1='<td>'

e1='<td>'

flag=1

c1=c1+"<center>"+"<a href=" + '"' + str(self.cloverlink) + '">'+ str(self.cloverresult)+"</center>"+"</td>"

b1=b1+"<center>"+"<a href=" + '"' + str(self.unittestlink) + '">'+ str(self.unittestres)+"</center>"+"</td>"

d1=d1+"<center>"+"<a href=" + '"' + str(self.stage1automationlink) + '">'+ str(self.stag1result)+"</center>"+"</td>"

h1="<td>"+"TBA"+"</td>"

stage1compl="<td>"+"<center>"+self.stage1executionstatus+"</center>"+"</td>"

e1=e1+str(self.executiontime)+"</td>"

f1="<td>"+str(self.stage1date)+"</td>"

his="<td>"+"<center>"+str(self.finalcount)+"<center>"+"</td>"

k1="<td>"+"<center>"+str(self.unittotalcount)+"</center>"+"</td>"

l1="<td>"+"<center>"+str(self.automationtotalcount)+"</center>"+"</td>"

if flag==0:

file1.write("<tr>")

#file1.write(component)

#file1.write("\n")

file1.write(a1)

file1.write("\n")

file1.write(k1)

file1.write("\n")

file1.write(b1)

file1.write("\n")

file1.write(c1)

file1.write("\n")

file1.write(l1)

file1.write("\n")

file1.write(d1)

file1.write("\n")

file1.write(stage1compl)

file1.write("\n")

file1.write(e1)

file1.write("\n")

file1.write(f1)

file1.write("\n")

file1.write(his)

file1.write("\n")

file1.write(env)

file1.write("\n")

file1.write("</tr>\n")

else:

print "in the different color loop"

file1.write('<tr BGCOLOR="yellow">')

#file1.write(component)

#file1.write("\n")

file1.write(a1)

file1.write("\n")

file1.write(k1)

file1.write("\n")

file1.write(b1)

file1.write("\n")

file1.write(c1)

file1.write("\n")

file1.write(l1)

file1.write("\n")

file1.write(d1)

file1.write("\n")

file1.write(stage1compl)

file1.write("\n")

file1.write(e1)

file1.write("\n")

file1.write(f1)

file1.write("\n")

file1.write(his)

file1.write("\n")

file1.write(env)

file1.write("\n")

file1.write("</tr>\n")

with open("C:\SIMBU\AutoInstaller\joblist.txt") as f:

#with open("joblist.txt") as f:

for line in f:

linelist=line.split("::")

linelist[0]=jobDetails(linelist[3],linelist[2],linelist[1],linelist[4],linelist[5],linelist[6])

objectslist.append(linelist[0])

for service in objectslist:

try:

service.DataRetriver()

except:

continue

file.close()

PreHtml()

typeflag=0

for service in objectslist:

if typeflag==0:

componenttype=service.component

details= "<h5>" + componenttype + " - COMPONENTS " + "</h5>"

file1.write(details)

file1.write("\n")

PreHtmlfortable()

typeflag=1

if componenttype == service.component:pass

else:

componenttype=service.component

file1.write("</table>")

file1.write("<br>")

details= "<h5>" + componenttype + " - COMPONENTS " + "</h5>"

file1.write(details)

file1.write("\n")

PreHtmlfortable()

service.htmlgenerater()

htmlclose()

sendmail()

#htmlgenerater(totaljobs)

#sendmail()

# Introduction ELK

Linux should be installed and it should be up and running

Steps to Bring up the ELK:

1. Download the Elasticsearch,Logstash and Kiban from the below link and you will get a 3 ZIP folders/tar(http://www.elasticsearch.org/overview/elkdownloads/).

2. Place it in a folder and extract it

3. Start the Elasticserarch by executing the elastic search srcipt

nohup /opt/image/elasticsearch-1.4.4/bin/elasticsearch &

4. Go to the logstash bin folder and create a configuration file (ex:logstash.config) with details of input,output,filter and codecs.

sample config file content:

input {

lumberjack {

port => 6782

ssl\_certificate => "/opt/image/logstash-1.4.2/bin/lumberjack.crt"

ssl\_key => "/opt/image/logstash-1.4.2/bin/lumberjack.key"

type => "lumberjack"

}

}

output {

elasticsearch { host => localhost }

stdout { codec => json }

}

How to generate the SSL certificate required for Logstash configuration:

In the above panel you have a seen ssl\_certificate and please use the below procedure to generate the key and certificate

1. Create a file notsec.cfr (or any other name) containing output like:

[req]

distinguished\_name = req\_distinguished\_name

x509\_extensions = v3\_req

prompt = no

[req\_distinguished\_name|req\_distinguished\_name]

C = TG

ST = Togo

L = Lome

O = Private company

CN = \*

[v3\_req|v3\_req]

subjectKeyIdentifier = hash

authorityKeyIdentifier = keyid,issuer

basicConstraints = CA:TRUE

subjectAltName = @alt\_names

[alt\_names|alt\_names]

IP.1 = <server ip address>

2. If you connect via host names, you can remove the IP SAN's, otherwise add your logstash server IP address.

openssl req -x509 -batch -nodes -newkey rsa:2048 -keyout notsecure.key -out notsecure.crt -config notsec.cnf -days 1825

Refer the link having the information for why we have to generate the certificate in this way (http://serverfault.com/questions/633681/logstash-forwarder-is-throwing-ssl-errors)

3. Run the logstash agent using the below command

logstash -f logstash.conf

4. Open config/kibana.yml in an editor and Set the elasticsearch\_url to point at your Elasticsearch instance.

5. Run the kibana using below command

./kibana

LogStash-Forwarder configuration:

Logstash forwarder is the component that will collect the log file and ships the same to centralized ELK server for further processing. Below is the setups required for

1. Install the logstash forwarder in the machine where you want to collect the logs

2. Download the certificate generated in the above section and place it in any folder

3. Create a configuration file and start the logstash forwarder using

/opt/logstash-forwarder/bin/logstash-forwarder -config logforwarder.config

Sample config file:

{

"network": {

"servers": \[ "10.78.217.237:6782" \],

"ssl ca": "/opt/logstash-forwarder/bin/lumberjack.crt",

"timeout": 15

},

"files": \[

{

"paths": \[

"",

"/opt/PeachEcmg/PeachFe/logs/\*.log"

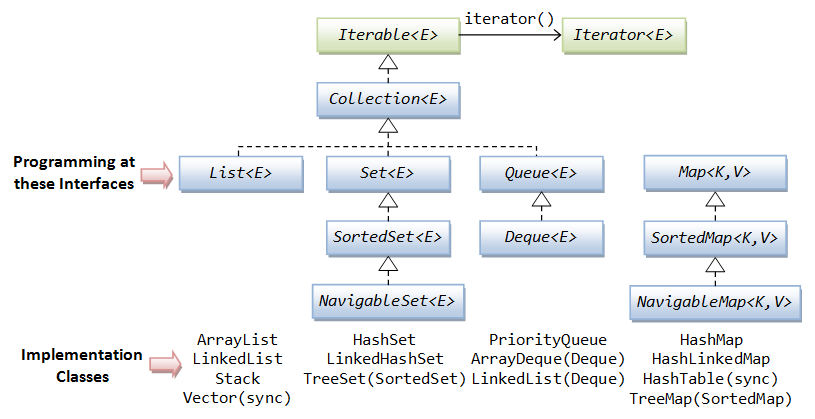
\],

"fields": { "type": "java" }

}

\]

}



http://toolsqa.com/selenium-webdriver/page-object-pattern-model-page-factory/

 Satish.Kumar M180105

Suvitha0504