**Code to Launch Mozilla and IE Drivers:**

System.setProperty(“webdriver.gecko.driver”, “Gecko driver location);  
driver = new FirefoxDriver();  
  
System.setProperty(“webdriver.ie.driver”, “Location of IEDriver.exe”)  
driver = new InternetExplorerDriver();

**Difference between findElement and findElements:**findElement method is used to access a single web element on a page. It returns the first matching element. It throws a NoSuchElementException exception when it fails to find If the element.  
  
findElements method returns the list of all matching elements. The findElement method throws a NoSuchElementException exception when the element is not available on the page. Whereas, the findElements method returns an empty list when the element is not available or doesn’t exist on the page. It doesn’t throw NoSuchElementException.

**MouseHOver on the WebElement:**

WebDriverWait wait = new WebDriverWait(driver, 10);

WebElement jazz = driver.findElement(By.xpath("//div[contains(text(),'Jazz')]"));

Actions a = new Actions(driver);

a.moveToElement(driver.findElement(By.xpath("//div[contains(text(),'Music')]"))).build().perform();

wait.until(ExpectedConditions.elementToBeClickable(jazz));

a.moveToElement(jazz).build().perform();

driver.findElement(By.xpath("//div[contains(text(),'Big Band')]")).click();

**DoubleClick on the WebElement:**

WebElement ele = driver.findElement(By.cssSelector("html>body>div"));

JavascriptExecutor js = ((JavascriptExecutor)driver);

js.executeScript("arguments[0].scrollIntoView();", ele);

a.doubleClick(ele).build().perform();;

**RightClick on the WebElement:**

Actions a = new Actions(driver);

a.contextClick(driver.findElement(By.xpath("//span[contains(text(),'rightclickme')]"))).build().perform();

**How to handle multiple windows:**String mainWindow=driver.getWindowHandle();

// It returns no. of windows opened by WebDriver and will return Set of Strings

Set<String> set =driver.getWindowHandles();

// Using Iterator to iterate with in windows

Iterator<String> itr= set.iterator();

while(itr.hasNext()){

String childWindow=itr.next();

// Compare whether the main windows is not equal to child window. If not equal, we will close.

if(!mainWindow.equals(childWindow)){

driver.switchTo().window(childWindow);

System.out.println(driver.switchTo().window(childWindow).getTitle());

driver.close();

}

}

// This is to switch to the main window

driver.switchTo().window(mainWindow);

}

**Drop-down Code:**  
  
Select s = new Select(driver.findElement(By.xpath("//select[@name='country']")));

List<WebElement> drop = s.getOptions();

for(WebElement d:drop){

if(d.getText().equalsIgnoreCase("INDIA")){

d.click();

}

}

**How to write dynamic xpath for a WebTable:**

<https://www.guru99.com/selenium-webtable.html>

**Javascript Executors:**

1. To Enter the data:  
     
   JavascriptExecutor js = ((JavascriptExecutor)driver)  
   js.executescript(“arguments[0].value=’datatosend’;”,webelemnt);
2. How to get Text from the Alert using JS:  
     
   String text = String (js.executeScript(“return arguments[0].innerHTML;”,webelement))
3. How to Verfiy whether Image is present in or not:  
     
   (Boolean) js.executeScript("return arguments[0].complete && typeof arguments[0].naturalWidth != \"undefined\" && arguments[0].naturalWidth > 0", image);
4. How to click element using the js  
     
   js.executeScript(“arguments[0].click()”, webelement);
5. How to scrolldown using the JS.  
     
   js. executeScript("arguments[0].scrollIntoView();", webelement)