**Date:20/10/2020**

**Practical no 8**

**AIM:** Write and test a program to count the number of check boxes on the page checked and unchecked count.

**Theory :**

**Xpath**

XPath stands for XML Path Language. It uses a non-XML syntax to provide a flexible

way of addressing (pointing to) different parts of an XML document. It can also be used

to test addressed nodes within a document to determine whether they match a pattern or not.

XPath is mainly used in XSLT, but can also be used as a much more powerful way of

navigating through the DOM of any XML-like language document using XPathExpression, such

as HTML and SVG, instead of relying on the Document.getElementById() or

ParentNode.querySelectorAll() methods, the Node.childNodes properties, and other

DOM Core features.

XPath uses a path notation (as in URLs) for navigating through the hierarchical

structure of an XML document. It uses a non-XML syntax so that it can be used in

URIs and XML attribute values.

**Xpath Syntax**

XPath contains the path of the element situated at the web page. Standard syntax for

creating XPath is.

Xpath = //tagname[@attribute =0 value0 ]

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| --- | --- |
| Literal | Description |
| // : | Select current node. |
| Tagname: | Tagname of the particular node. |
| @: | Select attribute. |
| Attribute: | Attribute name of the node |
| Value: | Value of the attribute. |

**Types of Xpath**

There are two types of xpath:

**1. Absolute xpath** : It is the direct way to find the element, but the disadvantage of the absolute XPath is

that if there are any changes made in the path of the element then that XPath gets failed. The key

characteristic of XPath is that it begins with the single forward slash(/) ,which means you can select the

element from the root node.

**Example:** /html/body/div[2]/div[1]/div/h4[1]/b/html[1]/body[1]/div[2]/div[1]/div[1]/h4[1]/b[1]

**2. Relative xpath :** Relative Xpath starts from the middle of HTML DOM structure. It starts with double

forward slash (//). It can search elements anywhere on the webpage, means no need to write a long xpath

and you can start from the middle of HTML DOM structure. Relative Xpath is always preferred as it is not

a complete path from the root element. Below is the example of a relative XPath expression of the same

element shown in the below screen. This is the common format used to find element through a relative

XPath.

**Example**: //div[@class =0 featured − boxcloumnsize1 0 ]//h4[1]//b[1]

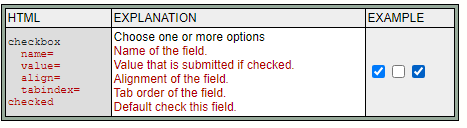
**Code:**

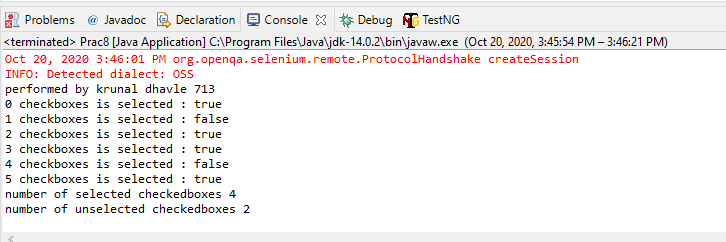
**Part A**

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| --- |
| **import** java.util.List;  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.WebElement;  **import** org.openqa.selenium.chrome.ChromeDriver;  **public** **class** Prac8 {  **static** String *driverPath*="E:\\tycs\\stqa prac\\prac2\\chromedriver\_win32\\chromedriver.exe";  **public** **static** **void** main(String[] args) **throws** InterruptedException {  System.*setProperty*("webdriver.chrome.driver", *driverPath*);  WebDriver driver= **new** ChromeDriver();  //driver.get("http://www.ironspider.ca/forms/checkradio.htm");  driver.get("http://www.echoecho.com/htmlforms09.htm");  //driver.get("file:///E:/tycs/stqa%20prac/prac8/radio.html");  List<WebElement> checkboxes = driver.findElements(By.*xpath*("//input[@type = 'checkbox']"));  **for**(**int** i = 0 ; i<checkboxes.size() ; i=i+1)  {  checkboxes.get(i).click();  }  System.***out***.println("performed by krunal dhavle 713");  **int** checkedCount = 0 , uncheckedCount =0;  **for**(**int** i =0 ; i < checkboxes.size() ; i++)  {  System.***out***.println(i + " " + "checkboxes is selected : "+checkboxes.get(i).isSelected());  **if**(checkboxes.get(i).isSelected())  checkedCount++;  **else**  uncheckedCount++;  }  Thread.*sleep*(5000);  System.***out***.println("number of selected checkedboxes " + checkedCount);  System.***out***.println("number of unselected checkedboxes " + uncheckedCount);  driver.close();  }  } |

**Output:-**

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**Part -2**

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| **import** java.util.List;  **import** org.openqa.selenium.By;  **import** org.openqa.selenium.WebDriver;  **import** org.openqa.selenium.WebElement;  **import** org.openqa.selenium.chrome.ChromeDriver;  **public** **class** Prac8 {  **static** String *driverPath*="E:\\tycs\\stqa prac\\prac2\\chromedriver\_win32\\chromedriver.exe";  **public** **static** **void** main(String[] args) **throws** InterruptedException {  System.*setProperty*("webdriver.chrome.driver", *driverPath*);  WebDriver driver= **new** ChromeDriver();  driver.get("file:///E:/tycs/stqa%20prac/prac8/radio.html");  List<WebElement> checkboxes = driver.findElements(By.*xpath*("//input[@type = 'checkbox']"));  **for**(**int** i = 0 ; i<checkboxes.size() ; i=i+2)  {  checkboxes.get(i).click();  }  System.***out***.println("performed by krunal dhavle 713");  **int** checkedCount = 0 , uncheckedCount =0;  **for**(**int** i =0 ; i < checkboxes.size() ; i++)  {  System.***out***.println(i + " " + "checkboxes is selected : "+checkboxes.get(i).isSelected());  **if**(checkboxes.get(i).isSelected())  checkedCount++;  **else**  uncheckedCount++;  }  Thread.*sleep*(5000);  System.***out***.println("number of selected checkedboxes " + checkedCount);  System.***out***.println("number of unselected checkedboxes " + uncheckedCount);  driver.close();  }  } |

**Output:-**

