WebElement Hierarchy
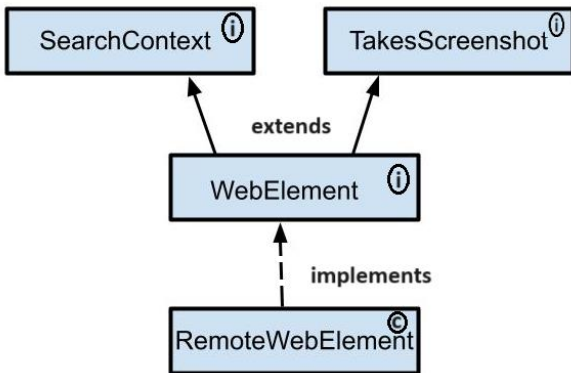

RemoteWebElement is a class present in Selenium. RemoteWebElement class is the fully implemented class of the WebElement interface.

This class is giving implementations for all the abstract methods of SearchContext, TakesScreenshot and WebElement interface.

Takesscreenshot

* To take screenshot we should use getScreenshotAs() of TakesScreenshot interface in selenium.

When should we take Screenshot?

➤ Whenever there is a defect it is a best practice to add the screenshot in the defect report.

➤ Whenever any automation script fails then we take a screenshot.

➤We can take the screenshot of:

1. Web Element
2. Web Page

➤ To get the screenshot of web element we should call getScreenshotAs() on web element object.

➤To get the page screenshot we should cast the WebDriver to TakesScreenshot type and call getScreenshotAs() method.

➤ Whenever we call getScreenShotAs() we must provide the OutPutType type as input to it.

➤ The OutputType can be:

FILE

BASE64

BYTE

Note:

➤ It is a good practice to store the screenshot inside a folder called Screenshots/ ErrorShots.

➤ It is also the best practice to include the timestamp for the file name.

To get the time stamp we should use LocalDateTime.now() of Java.

```
LocalDateTime systemDate=LocalDateTime.now();

String ScreenShotDate= systemDate.toString().replace(":", "-").replace("-","_");
```

➤ The return type of the getScreenshotAs() method will be changed based on the OutputType argument passed to the getScreenshotAs() method.

➤ Output type is an interface of selenium which is having 3 constants: FILE, BASE64, BYTE.

1. Return type of getscreenshotAs() will be File for OutputType.FILE

2. Return type of getscreenshotAs() will be String for OutputType.BASE64

3. Return type of getscreenshotAs() will be byte[] for OutputType.BYTE

Normally we take screenshot type as file.

➤ getScreenshotAs() will take the screenshot and store it in a temporary directory and this screenshot will be deleted after the program ends.

So we should move the file to a different location before the program ends.

➤ To move the file to a different location we use copy() from FileHandler class present in org.openqa.selenium.io package.

Ex:

FileHandler.copy(t, d);

➤ Usage on Web Element:

WebElement element =driver.findElement(By.xpath("//input[@id='small-searchterms']"));

File t=element.getScreenshotAs(OutputType.FILE);

File d= new File("./Screenshots/"+ScreenShotDate+".png");

➤ Usage on Web Page:

TakesScreenshot ts=(Takes Screenshot)driver;

File t=ts.getScreenshotAs(OutputType.FILE);

File d=new File("./Screenshots/"+ScreenShotDate+".png");