Локатори

#### **Examples**

##### **Java**

WebElement form1 = driver.findElement(By.id("login-form"));  
WebElement form2 = driver.findElement(By.tagName("form"));  
WebElement form3 = driver.findElement(By.className("login"));  
WebElement form4 = driver.findElement(By.cssSelector("form.login"));  
WebElement form5 = driver.findElement(By.cssSelector("#login-form"));  
  
WebElement field1 = driver.findElement(By.name("username"));  
WebElement field2 = driver.findElement(By.xpath("//input[@name='username']"));  
WebElement link = driver.findElement(By.linkText("Logout"));

List<WebElement> links = driver.findElements(By.tagName("a"));

### CSS Selectors

### Линкове

Спецификация CSS Selectors Level 2 -- <https://www.w3.org/TR/CSS21/>

Спецификация CSS Selectors Level 3 -- <https://www.w3.org/TR/css3-selectors/>

Пищови по CSS:  
<http://www.w3schools.com/cssref/css_selectors.asp>  
<https://www.simple-talk.com/dotnet/.net-framework/xpath,-css,-dom-and-selenium-the-rosetta-stone/>   
<https://www.smashingmagazine.com/2009/07/css-3-cheat-sheet-pdf/> (постер, последняя страница)

### XPath

Линкове

Спецификация XPath 1.0 -- <https://www.w3.org/TR/xpath/>

Шпаргалки по XPath:  
<http://scraping.pro/5-best-xpath-cheat-sheets-and-quick-references/>  
<https://www.simple-talk.com/dotnet/net-framework/xpath-css-dom-and-selenium-the-rosetta-stone/>

### Търсене на няколко елемента

#### **Exаmples**

##### **Java**

boolean isElementPresent(WebDriver driver, By locator) {  
 try {  
   driver.findElement(locator);  
    return true;  
  } catch (NoSuchElementException ex) {  
    return false;  
  }  
}

boolean areElementsPresent(WebDriver driver, By locator) {  
 return driver.findElements(locator).size() > 0;  
}

### Чакане да се появи елемента

#### **Example**

##### **Java**

// настройка на неявни очаквания  
driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);  
WebElement element = driver.findElement(By.name("q"));

// явно очакване на елемента  
import static org.openqa.selenium.support.ui.ExpectedConditions.presenceOfElementLocated;  
// ...  
WebdriverWait wait = new WebDriverWait(driver, 10/\*seconds\*/);  
WebElement element = wait.until(presenceOfElementLocated(By.name("q")));

### Търсене с помоща на JavaScript

#### **Exаmples**

##### **Java**

List<WebElement> links = (List<WebElement>) ((JavascriptExecutor) driver)  
 .executeScript("return $$('a:contains((WebDriver)')");

Получаване на атрибути на елемента

#### **Линк**

За свойства и атрибути -- <http://javascript.ru/tutorial/dom/attributes>

##### **Java**

String href = link.getAttribute("href");

### Определяне на видимостта на елемента

#### **Линк**

Правила за видимостта -- [https://w3c.github.io/webdriver/webdriver-spec.html#element-displayedness](https://w3c.github.io/webdriver/webdriver-spec.html" \l "element-displayedness)

#### **Example**

##### **Java**

if (button.isDisplayed()) {  
 button.click();  
}

### Получaване на текста на елемента

#### **Линк**

Правила -- [https://w3c.github.io/webdriver/webdriver-spec.html#get-element-text](https://w3c.github.io/webdriver/webdriver-spec.html" \l "get-element-text)

#### **Example**

##### **Java**

String txt = link.getText();

### Получаване на стилове на елемента

#### **Example**

##### **Java**

String color = link.getCssValue("color");

Клик с ляв бутон на мишка (click)

#### **Example**

##### **Java**

link.click();

### Въвеждане на текста (sendKeys)

#### **Example**

##### **Java**

import org.openqa.selenium.Keys;  
//...  
searchField.sendKeys("selenium" + Keys.ENTER);

### Изчистване на инпут поле (clear)

#### **Example**

##### **Java**

passwordField.clear();

### Advanced Interactions API

#### **Example**

##### **Java**

**import org.openqa.selenium.interactions.Actions;  
//...  
new Actions(driver)  
  
 .moveToElement(drag)  
  
 .clickAndHold()  
   
.moveToElement(drop)  
  
 .release()  
   
.perform();**

### Чакаме да се появи елемента

#### **Example**

##### **Java**

**import static org.openqa.selenium.support.ui.ExpectedConditions.presenceOfElementLocated;  
// ...  
WebDriverWait wait = new WebDriverWait(driver, 10/\*seconds\*/);  
WebElement element = wait.until(presenceOfElementLocated(By.name("q")));  
WebElement element2 = wait.until((WebDriver d) -> d.findElement(By.name("q")));**

### Изчакване да изчезне елемента

#### **Example**

##### **Java**

**import static org.openqa.selenium.support.ui.ExpectedConditions.stalenessOf;  
// ...  
WebDriverWait wait = new WebDriverWait(driver, 10/\*seconds\*/);  
driver.navigate().refresh();  
wait.until(stalenessOf(element));**

### Изчакване на видимостта на елемента

#### **Example**

##### **Java**

**import static org.openqa.selenium.support.ui.ExpectedConditions.visibilityOf;  
// ...  
WebDriverWait wait = new WebDriverWait(driver, 10/\*seconds\*/);  
wait.until(visibilityOf(element));**

**Java --**[**http://seleniumhq.github.io/selenium/docs/api/java/org/openqa/selenium/support/ui/ExpectedConditions.html**](http://seleniumhq.github.io/selenium/docs/api/java/org/openqa/selenium/support/ui/ExpectedConditions.html)

## **Прозорци, фреймове и диалози**

### Alert

#### **Example**

##### **Java**

**Alert alert = driver.switchTo().alert();  
String alertText = alert.getText();  
alert.accept();  
// или alert.dismiss();**

### Window

#### **Example**

##### **Java**

**String mainWindow = driver.getWindowHandle();  
Set<String> oldWindows = driver.getWindowHandles();  
link.click(); // отваря нов прозорец  
  
String newWindow = wait.until(thereIsWindowOtherThan(oldWindows));  
driver.switchTo().window(newWindow);  
// ...  
driver.close();  
driver.switchTo().window(mainWindow);**

### Frames

#### **Example**

##### **Java**

**driver.switchTo().frame(driver.findElement(By.tagName("iframe")));  
driver.switchTo().defaultContent();**

### Размер и положение на прозореца

#### **Example**

##### **Java**

**WebDriver.Window window = driver.manage().window();  
window.maximize();  
window.setSize(new Dimension(800, 600));**

## **Протоколиране на действия в Selenium**

### EventFiringWebDriver: Java

#### **Пример**

public static class MyListener extends AbstractWebDriverEventListener {  
 @Override  
 public void beforeFindBy(By by, WebElement element, WebDriver driver) {  
 System.out.println(by);  
 }  
  
 @Override  
 public void afterFindBy(By by, WebElement element, WebDriver driver) {  
 System.out.println(by + " found");  
 }  
  
 @Override  
 public void onException(Throwable throwable, WebDriver driver) {  
 System.out.println(throwable);  
 }  
}

driver = new EventFiringWebDriver(new ChromeDriver());

### Скриншот

#### **Пример**

File tempFile = ((TakesScreenshot) driver).getScreenshotAs(OutputType.FILE);  
try {  
 Files.copy(tempFile, new File("screen.png"));  
} catch (IOException e) {  
 e.printStackTrace();  
}

### Достъп към логовете на Браузъра

#### **Пример**

for (LogEntry l : driver.manage().logs().get("browser").getAll()) {  
 System.out.println(l);  
}