WebDriver (java) | IWebDriver (C#)

driver = New ChromeDriver();	driver.get(String)	Not Available
- openqa.selenium.Chrome;*(JAVA)*	driver.close()	driver.Close()
- *OpenQA.Selenium.Chrome;(C#)*	driver.quite()	driver.Quite()
driver = New FirefoxDriver();	driver.getCurrentUrl()	driver.Url { get, set }
- openqa.selenium.Firefox; *(JAVA)*	driver.getTitle()	driver.Title { get }
	driver.getPageSource()	driver.PageSource { get }
- *OpenQA.Selenium.Firefox;(C#)*	driver.getWindowHandle()	driver.CurrentWindowHandle; { get }
driver = New InternetExploreDriver();	driver.getWindowHandles()	driver.WindowHandles; { get }
- openqa.selenium.Ie; *(JAVA)*	driver.findElement(By)	driver.FindElement(By)
- *OpenQA.Selenium.ie;(C#)*	driver.findelements(By)	driver.Findelements(By)
	driver.manage()	driver.Manage()
	driver.navigate()	driver.Navigate()
	driver.switchTo()	driver.SwitchTo()

Navigate (Java) | INavigate (c#)

Java	navigate.to(String)	Navigate GoToUrl(String)
navigate = driver.navigate();	navigate.to(URL)	Navigate GoToUrl(URI)
- openqa.selenium.WebDriver.Navigation;	navigate.back();	Navigate Back();
C#	navigate.forward();	Navigate Forward();
Navigate = driver.Navigate();	navigate.refresh();	Navigate Refresh();
- OpenQA.Selenium.IWebDriver.INavigation;		

Options (Java) | IOptions (C#)

Java	manage.getCookieNamed(String)	manage.Cookies.GetCookieNamed(String)
manage = driver.manage();		
- openqa.selenium.Web Driver.Manage;	manage.getCookies()	manage.Cookies.AllCookies { get }
C#	manage.addCookie(Cookie)	manage.Cookies.AddCookie(Cookie)
manage = driver.Manage();	manage.deleteCookie(Cookie)	manage.Cookies.DeleteCookie(Cookie)
- OpenQA.Selenium.IWebDriver.IManage;	manage.deleteAllCookies()	manage.Cookies.DeleteAllCookies()
	manage.deleteCookieNamed(String)	manage.Cookies.DeleteCookieNamed(String)
	manage.timeout()	manage.TimeOut()
	manage.window()	manage.Window { get }
	manage.ime()	Not Available
	manage.log()	manage.Log { get }

TargetLocator (Java) | ITagetLocator (C#)

Java
switchTo = driver.switchTo();
- openqa.selenium.WebDriver.SwitchTo;
C#
switchTo = driver.SwitchTo();
- OpenQA.Selenium.IWebDriver.ISwitchTo;
	switchTo.activeElement()	switchTo.ActiveElement()

	switchTo.alert()	switchTo.Alert()
	switchTo.frame(int)	switchTo.Frame(int)
	switchTo.frame(String)	switchTo.Frame(String)
	switchTo.frame(WebElement)	switchTo.Frame(WebElement)
	switchTo.window(String)	switchTo.Window(String)
		switchTo.parentFrame()

WebElement (Java) | IWebElement (C#)

Java
webElement =
driver.findElement(By);
- openqa.selenium.WebElement;
C#
webElement = driver.FindELement (By);
- OpenQA.Selenium.IWebElement;
	webElement.clear();	webElement.Clear();

	webElement.click();	webElement.Click();
	webElement.sendkeys(charSequence)	webElement.Sendkeys(String)
	webElement.submit()	webElement.Submit()
	webElement.getText()	webElement.Text { get }
	webElement.getAttribute()	webElement.GetAttribute()
	webElement.getCssValue()	webElement.GetCssValue()
	webElement.getLocation()	webElement.Location { get }
	webElement.getTagName()	webElement.TagName { get }
	webElement.getSize()	webElement.Size() { get }
	webElement.getRect()	**Not Available**
	webElement.getScreenshotAs(OutputType<x>)	**Not Available**
	webElement.isDisplayed()	webElement.Displayed { get }
	webElement.isEnabled()	webElement.Enabled { get }
	webElement.isSelected()	webElement.Selected { get }
	webElement.findElement(By)	webElement.FindElement(By)
	webElement.findElements(By)	webElement.FndElements(By)
	---	webElement.GetProperty(String)

Timeouts (Java) | ITimeouts (C#)

Java timeouts = driver.manage().timeouts(); - openqa.selenium.WebDriver.Timeouts; C# timeouts = driver.manage().timeouts(); - OpenQA.Selenium.IWebDriver.ITimeouts;	timeouts.implicityWait(long, TimeUnit)	timeouts.ImplicityWait {get,set}
	timeouts.pageLoadTimeout(long, TimeUnit)	timeouts.PageLoad {get,Set}
	timeouts.setScriptTimeout(long, TimeUnit)	**Not Available**
	Not Available	timeouts.Asynchronous JavaScript

Window (Java) | IWindow (C#)

Java window = driver.manage().window(); - openqa.selenium.WebDriver.Window; C# window = driver.manage().window(); - OpenQA.Selenium.IWebDriver.IWindow;	window.Timeouts.fullscreen()	window.Fullscreen()
	window.getPosition()	window.Position {get, set}
	window.setPosition()	
	window.getSize()	window.Size {get, set}
	window.setSize()	
	window.maximize()	window.Maximize()
	Not Available	window.Minimize()

Alert (Java) | IAlert (C#)

Java
alert = driver.manage().alert();
- openqa.selenium.WebDriver.Alert;
 	
C#
alert = driver.manage().timeouts();
- OpenQA.Selenium.IWebDriver.IAlert;
	alert.accpet();	alert.Accpet();

	alert.dismiss();	alert.Dismiss();
	alert.getText();	alert.Text; - {get}
	alert.sendKeys(String);	alert.SendKeys(String);
	Not Available	alert.SetAuthenticationCredentials(String, String)

Point (Java) | IPoint (C#)

Java point = driver.findElement(By).getlocation(); - openqa.selenium.WebDriver.Point; C# point = driver.findElement(By).getlocation(); - OpenQA.Selenium.IWebDriver.Point;	point.getx()	point..X {get,set}
	point.gety()	point.Y {get,Set}
	point.move(int, int)	**Not Available**
	point.moveBy(int, int)	**Not Available**
	Not Available	point.isEmpty{get} ::::

Action (Java) | IAction (C#)

Java Actions action = new Actions(driver) - openqa.selenium.Interactions.Actions; C#	action.click()	action.Click()
	action.click(webElement)	action.Click(WebElement)
	action.clickAndHold()	action.ClickAndHold()
	action.clickAndHold(WebElement)	action.ClickAndHold(WebElement)
	action.contextClick()	action.ContextClick()
	action.contextClick(WebElement)	action.ContextClick(WebElement)
	action.doubleClick()	action.DoubleClick()

Action (Java) | IAction (C#)

Actions action = new Actions(driver) - OpenQA.Selenium.Interactions.Actions;	action.doubleClick(WebElement)	action.DoubleClick(WebElement)
	action.dragAndDrop(WebElement, WebElement)	action.DragAndDrop(WebElement, WebElement)
	action.dragAndDrop(WebElement, int,int)	action.DragAndDropToOffset(WebElement,int,int)
	action.keyDown(Charsequnces)	action.KeyDown(String)
	action.keyDown(webElement, charsequnces)	action.KeyDown(webElement, String)
	action.keyUp(charSequence)	action.KeyUp(String)
	action.keyUp(WebElement, charSequunces)	action.KeyUp(WebElement, String)
	action.moveByOffset(int, int)	action.MoveByOffset(int, int)
	action.moveToElement(WebElement)	action.MoveToElement(WebElement)
	action.moveToElement(WebElement,int,int)	action.MoveToElement(WebElement,int,int)
	action.pause(duration)	**Not Available**
	action.pause(long)	**Not Available**
	action.perform()	action.Perform()
	action.release()	action.Release()
	action.release(WebElement)	action.Release(WebElement)
	action.sendkeys(charSequence)	action.Sendkeys(String)
	action.sendkeys(WebElement,charSequence)	action.Sendkeys(WebElement,charSequence)
	action.tick(action)	**Not Available**
	action.tick(interaction)	**Not Available**

TargetLocator / DIMENSION

TargetLocator	driver.switchTo().frame
TargetLocator	driver.switchTo().Window
TargetLocator	driver.switchTo().activeElement
DIMENSION	driver.findElement(By).getSize

Selenium - Java / C# Version

Above details originated from given Selenium version	Selenium Java – 3.141.59	Selenium C# - 3.141.0

Selenium Release Notes: (2.53 TO 3.141)

1) **V2.53 - Final Release in 2.XX**
   a. NoSuchSessionException – Introduce – This exception will occur when try to access browser after browser.quit().
   b. Fixs in Member leak
   c. Updated Expected Condition
   d. Firefox support only **v46 and below.**

2) **V 3.0.0 – B1 | B2 | B3 | B4 | Final**
   a. Java 8+
   b. RC API Separated (only available for leg-rc package)
   c. Firefox support be removed from core legacy, need to use GeckoDriver for Firefox support from **v47.0.1 or earlier**
   d. Firefox profile passed to both legacy FirefoxDriver and GeckoDriver.
   e. MS -> IE Driver provide service for V9 (or) above.
   f. MS -> Support for Edge via Edge Driver
   g. Mac -> support for Safari via safari driver (as part of safari 10)
   h. SessionNotFoundExecption is removed (Deprecated) favour of NoSuchSessionException
   i. Stability fix in grid

3) **V 3.0.1**
   a. Include ElementScrollBehaviour enum in the release.
   b. Update in HtmlUnit (Dependency) / Grid (new session)
   c. Firefox driver clean up for fie system.

4) **V 3.1.0**
   a. Update Wait and fluent Wait for java 8, require to update guava-v21.0
   b. Selenium server - introduce new '-version' server.
   c. WebElement.getText will return text from shadow DOM.
   d. ChromeDriver support 'new connection' interface.

5) **V 3.3.0**
   a. Support for GeckoDriver 0.15.0

6) **V 3.3.1**
   a. Support for GeckoDriver 0.15.0 notably, exception returned from remote end unwrapped properly.

7) **V 3.4.0**
   a. GeckoDriver 0.16.0 Strongly recommended.
   b. Better support for W3C endpoints.
   c. requriedCapabilities removed use desiredCapabilities instead.

8) **V 3.5.0**
   a. New standalone server and grid node feature for "pass through" Mode.
   b. Guava 21+ and lambda being used in expected condition.
   c. Better handling for getText() for shadow DOM.

9) **V3.6.0**
   a. Added Interactive interface to EventFiringDriver
   b. Now Option Class extend 'MutableCapabilities
   c. Add option to start firefox and chrome in headless mode.

10) **V 3.7.0**
   a. Minimise the disk space when starting new remote connection.
   b. Safari driver
      i. Moving some safari config option from safariOption to the safariDriverservice.
   c. Better error message for htmlrunner.
   d. Migrated from using 'DesiredCapablities' to either 'mutableCapabilities' or (perfectly) 'immutableCapabilities'

11) **V 3.141.59 (Latest – Dec-2018)**
   a. Restored Remote Host support
   b. Fix in help servlet.

Calculation :

   Version 3 release mostly covered.
   ▪ The changes in geckoDriver / SafariDriver support.
   ▪ Java 8 / Guava /Shadow Dom / W3C compatibilities
   ▪ Selenium Standalone server / Grid Issue Fixes

Version Details for drivers, Test Framework , BDD Framework (As of Dec'18)

ChromeDriver Support

Chrome Driver	Chrome Browser
V 2.45	V70 - V72
V 2.44	V69 – V71
V 2.23	V69 – V71
V 2.42	V68 – V70
V 2.41	V67 – V69
V 2.40	V66 – V68
V 2.39	V66 – V68
V 2.38	V65 – V67
V 2.37	V64 – V66
V 2.36	V63 – V65
V 2.35	V62 – V64
V 2.34	V61 – V63
V 2.33	V60 – V62
V 2.32	V61 – V62+
V 2.31	V 58+
V 2.30	V58 – V60
V 2.29	V 57+
V 2.28	V 57+
V 2.25	V 54+
V 2.21	V 51+
V2.19	V 44+
V2.15	V 42+

FirefoxDriver Support

Gecko Driver	Firefox Browser	Selenium
V 0.23.0	V 57+	3.11 or earlier
V 0.22.0	V 57+	
V 0.21.0	V 57+	
V 0.20.1	V 55+	3.5 or earlier
V 0.20.0	V 55+	
V 0.19.1	V 55+	
V 0.19.0	V 55+	
V 0.19.0	V 53+	3.4 or earlier
V 0.17.0	V 52+	
Selenium 2.53 support – Firefox V46		

EdgeDriver Support

Edge Driver	Edge Browser
V 6.17134	V 17.17134
V 5.16299	V 16.16299
V 4.15063	V 15.15063
V 3.14393	V 14.14393
V 2.10586	V 13.10586
V 1.10240	V 12.10240

IEDriver Support

IE Driver	IE Browser
V 3.6.0 +	IE 7,8,9,10, 11
Selenium not support with IE 6	

Safari Driver Support

Safari Driver	Safari Browser
Safari driver installed by default when install safari	Safari 10+
Selenium V 2.48 Support- Safari 7,8,9	

JUnit

Junit
V 5 (5.3.2 –Nov'18 to 5.0 – Jul'16)
V4 (4.12 – Dec 2014 to 4.0 – Feb'2006)
V3 – (3.8 – May 2007 to 3.0)

TestNG

TestNG
V 7 (7.0 Beta – Sep 18)
V 6 (6.14.3 – Apr 2018 TO 6.0 –Mar-2011) – 6.9
V5 (5.14.10 – Feb 2010 TO 5.0 Jul-2010)
V4 (4.7 – Jul 2010 TO 4.4 – Jul 2010)

C # - .Net – Visual studio Version

C#	.Net Framework	Visual Studio
V 1.0	.Net 1.0/1.1	V 2002
V 2.0	.Net 2.0	V 2005
V 3.0	.Net 3.0/3.5	V 2008
V4.0	.Net 4.0	V 2010
V 5.0	.Net 4.5	V 2012 /V 2013
V 6.0	.Net 4.6	V 2013 /V 2015
V 7.0	.Net Core	V 2017

Specflow – TechTalk Specflow Team

Visual Studio	Specflow
V 2010	1.9.2
V 2012	1.9.2
V 2013	2.7
V 2015	2.7
V 2017	2.7

Nunit

Nunit	Support
V 3.11.0	.Net 2.0+ & .Net Core & .Net Std 1.6+ | NuGet 2.12 +
V 3.10.0/ V 2.10.1	.Net 2.0+ & .Net Core & .Net Std 1.6+ | NuGet 2.12 +
V 3.9.0 to V 3.0.0	Window 8 | .Net 2.0+ & .Net Core
V 2.6.7 to V 2.6.1	.Net 2.0+

Rest Assured

Version	Details
V3 .2	V3.2.0 - Oct 2018
V 3.1	V3.1.1 - Aug 2018
	V3.1.0 – Apr 2018
V3.0	V3.0.7 – Feb 2018
	V3.0.0 – Jun 2016
V2.0	V2.9.0 – Mar 2016
	V2.0.0 – Nov 2013
V 1.0	V1.9.0 – Nov 2013
	V 1.0.0 – Dec 2010

**Developed by 'com.jayway.restassured' till V2.9
**' Developed by io.rest-assured' from V3

Cucumber Java (io.cucumber)

Version	Details
V4.x	V4.0.0 TO 4 .2.0 - Oct 2018
V3.X	V3.0.1 to 3.0.2 – May 2018
V2.X	V2.4.0 – Mar 2018
	V2.0.0 – Aug 2017

Migration from Junit 4 to Junit 5

- Annotations reside in the org.junit.jupiter.api package.

- Assertions reside in org.junit.jupiter.api.Assertions

- @Before and @After no longer exist; use @BeforeEach and @AfterEach instead.

- @BeforeClass and @AfterClass no longer exist; use @BeforeAll and @AfterAll instead.

- @Ignore no longer exists: use @Disabled or one of the other built-in execution conditions instead

- @Category no longer exists; use @Tag instead.

- @RunWith no longer exists; superseded by @ExtendWith.

- @Rule and @ClassRule no longer exist; superseded by @ExtendWith and @RegisterExtension

JUNIT 5