# Selenium WebDriver

#### **Driver creation**

new ChromeDriver();

## **Navigation**

```
driver.Navigate().GoToUrl(
   "https://translate.google.com");
driver.Navigate().Refresh();
driver.Navigate().Back();
driver.Navigate().Forward();
driver.SwitchTo().Frame(element);
```

#### Selectors

```
driver.FindElement(selector);
By.Id("source")
By.ClassName("city")
By.Name("email")
By.CssSelector("#cities")
By.TagName("header")
By.XPath("//input")
By.LinkText("Contact")
By.PartialLinkText("Contact")
```

## Select multiple elements

```
var elements =
  driver.FindElements(selector)
```

#### Select nested element

```
var nestedElement =
  houseTile.FindElement(selector);
```

### SelectElement

```
var selectElement =
  new SelectElement(element);
selectElement.SelectByText("2");
selectElement.SelectByValue("2");
selectElement.SelectByIndex(2);
```

## **Properties**

```
element.Displayed
element.Enabled
element.Selected
element.Text
element.Location
element.Size
element.TagName
element.GetAttribute("name")
```

# **Keyboard actions**

```
element.SendKeys("cat");
element.SendKeys(Keys.Enter)
```

#### Mouse actions

```
element.Click()
element.Submit()
```

#### Action combinations

```
Actions action =
   new Actions(driver);
var saveShortcut =
action.ContextClick(element)
   .KeyDown(Keys.Control)
   .SendKeys("S")
   .Build();
MoveByOffset(offsetX, offset)
MoveToElement(toElement)
MoveToElement(toElement, offsetX,
   offset)
ClickAndHold()
Release()
ContextClick()
DoubleClick()
KeyDown(key)
KeyUp(key)
SendKeys(keysToSend)
Click(onElement)
ClickAndHold(onElement)
Release(onElement)
ContextClick(onElement)
DoubleClick(onElement)
DragAndDrop(source, target)
DragAndDropToOffset(source,
   offsetX, offsetY)
KeyDown(element, key)
KeyUp(element, key)
SendKeys(element, keysToSend)
```

# **Using Java Script**

```
var element = (IWebElement) ((IJavaScriptExecutor)driver)
      .ExecuteScript("return $('.city')[0]");
```

#### Waiting

```
driver.Manage().Timeouts().SetScriptTimeout(TimeSpan.FromSeconds(10));
driver.Manage().Timeouts().SetPageLoadTimeout(TimeSpan.FromSeconds(10));
driver.Manage().Timeouts().ImplicitlyWait(TimeSpan.FromSeconds(10));
var wait = new WebDriverWait(driver, TimeSpan.FromSeconds(10));
```

#### Wait until element found

```
WebDriverWait wait = new WebDriverWait(driver, TimeSpan.FromSeconds(10));
IWebElement myDynamicElement = wait.Until<IWebElement>((d) =>
{
    return d.FindElement(By.Id("someDynamicElement"));
});
```

# Cleaning

```
driver.Manage().Cookies.DeleteAllCookies();
new RemoteLocalStorage(driver).Clear();
new RemoteSessionStorage(driver).Clear();
```

#### **TouchActions**

```
var touchAction = new TouchActions(driver);

touchAction
    .SingleTap(element)
    .DoubleTap(element)
    .Scroll(offsetX, offsetY)
    .Down(locationX, locationY)
    .Up(locationX, locationY)
    .LongPress(element)
    .Flick(element, offsetX, offsetY, speed)
    .Build();
```

## Waiting for state

```
wait.Until(
   ExpectedConditions
.ElementToBeClickable(selector));
ElementExists
ElementIsVisible
ElementSelectionStateToBe
ElementToBeClickable
ElementToBeSelected
AlertIsPresent
AlertState
FrameToBeAvailableAndSwitchToIt
InvisibilityOfElementLocated
InvisibilityOfElementWithText
PresenceOfAllElementsLocatedBy
VisibilityOfAllElementsLocatedBy
StalenessOf
TextToBePresentInFlement
TextToBePresentInElementLocated
TextToBePresentInElementValue
TitleContains
TitleIs
UrlContains
UrlMatches
UrlToBe
```

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