

# WebDriver API Cheat Sheets

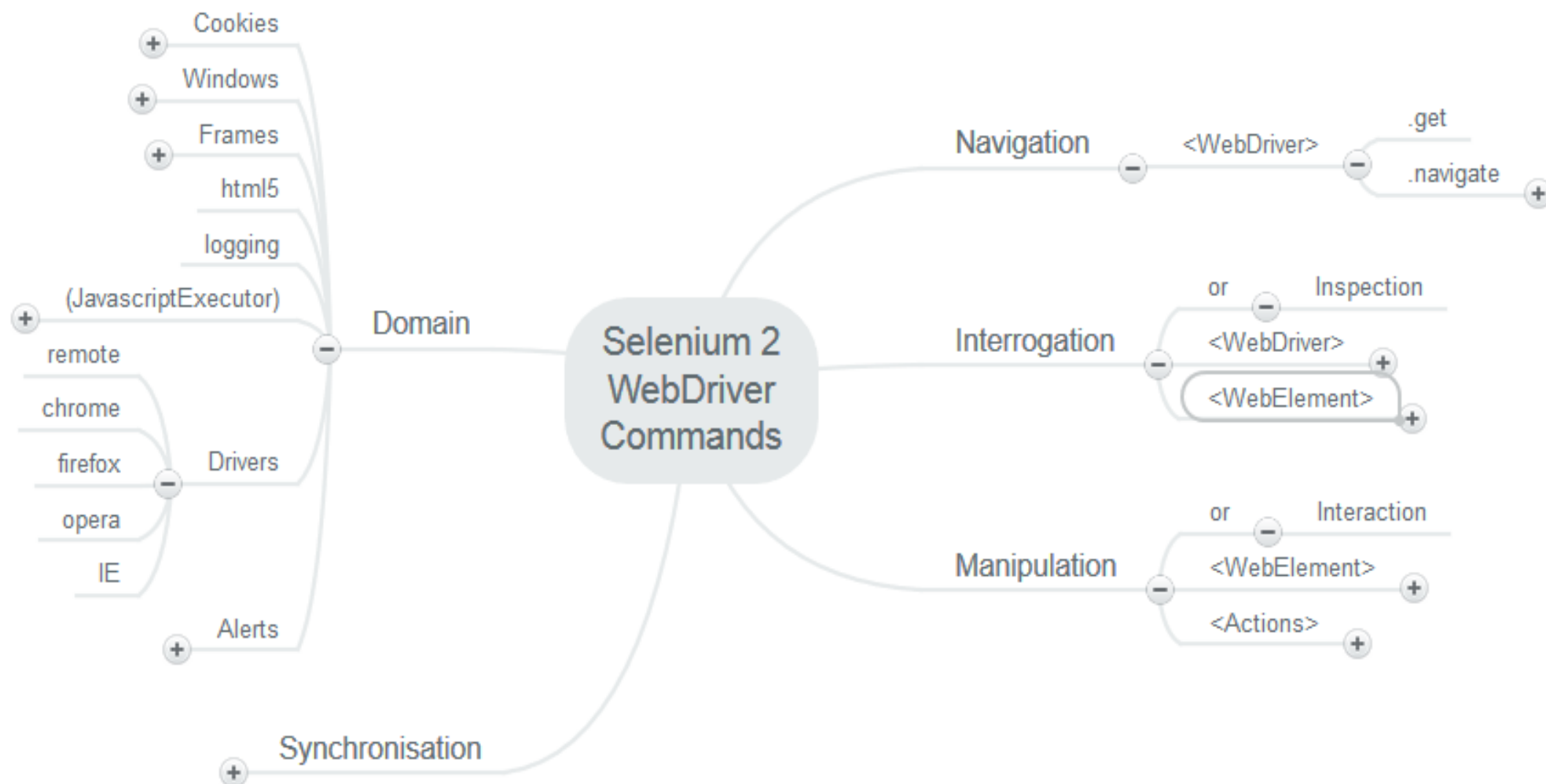
- A short set of Summary Cheat Sheets for Hands On Working With WebDriver
- Contents:
  - Basic API commands
  - Hamcrest matchers & Junit
  - IntelliJ Tips
  - CSS & Xpath Selectors
  - Contact Details

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Compendium Developments

@eviltester

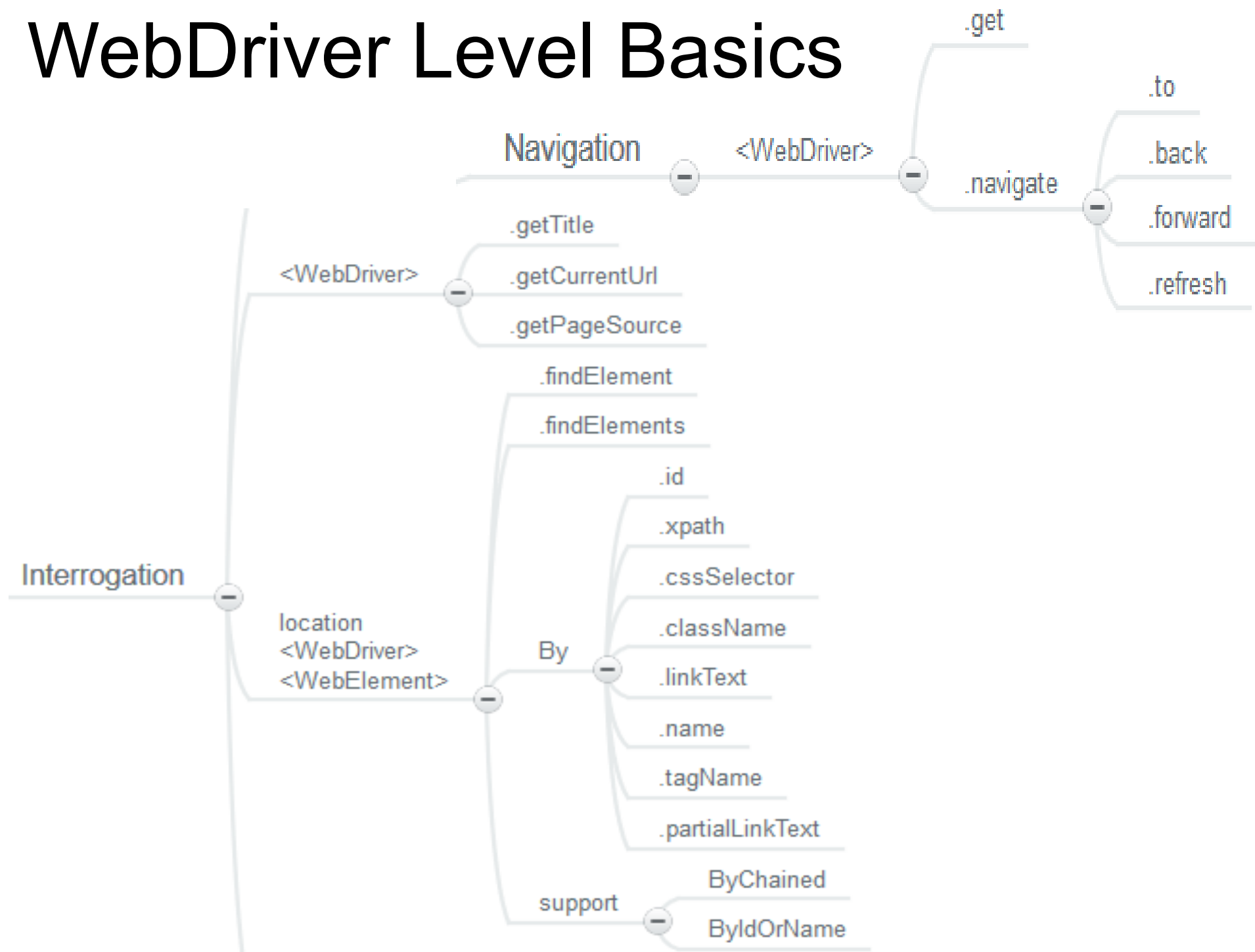
Created to support our Selenium  
2 WebDriver Training Courses

# API Overview

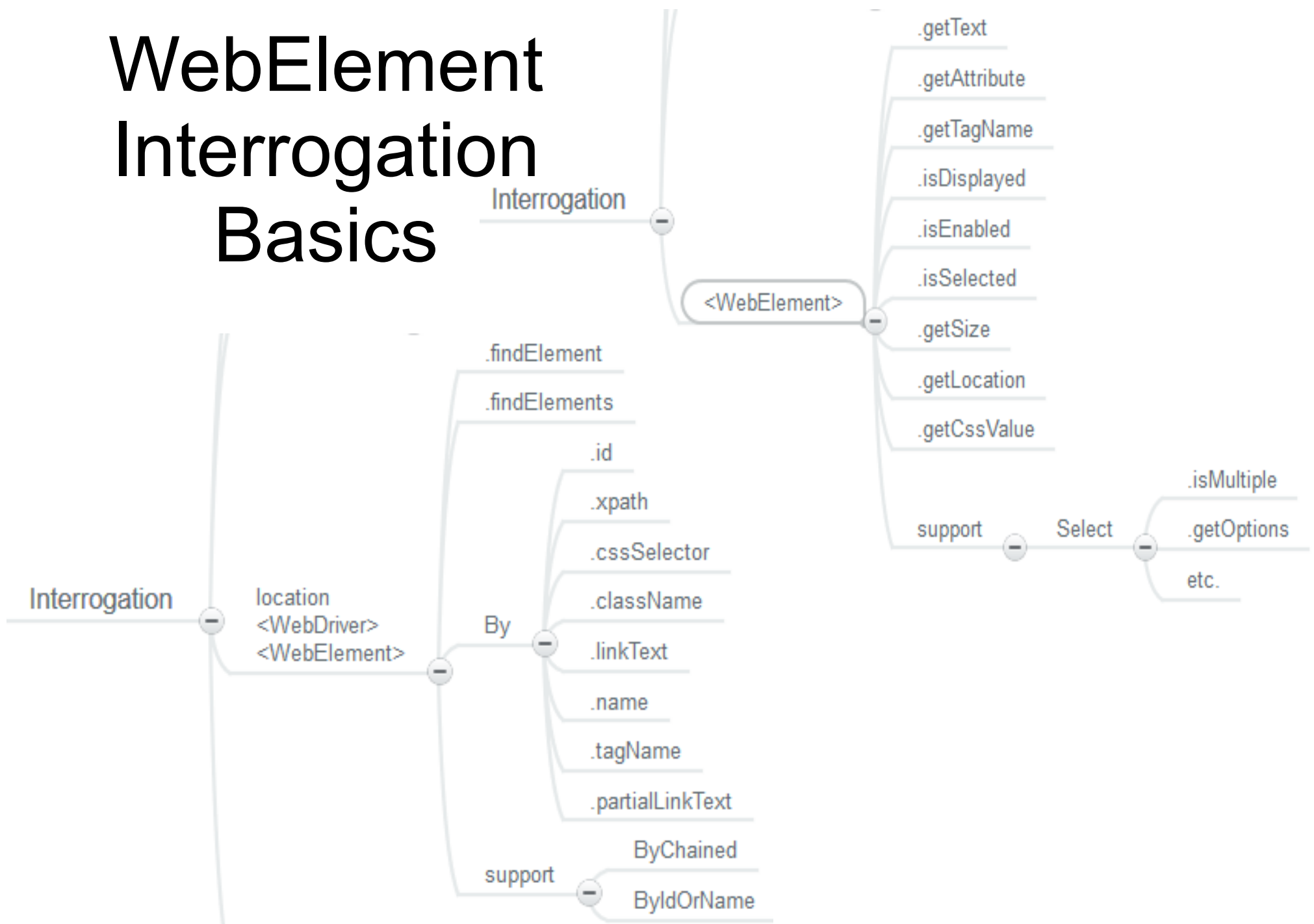


<http://www.mindmeister.com/280141421/selenium-2-webdriver-commands>

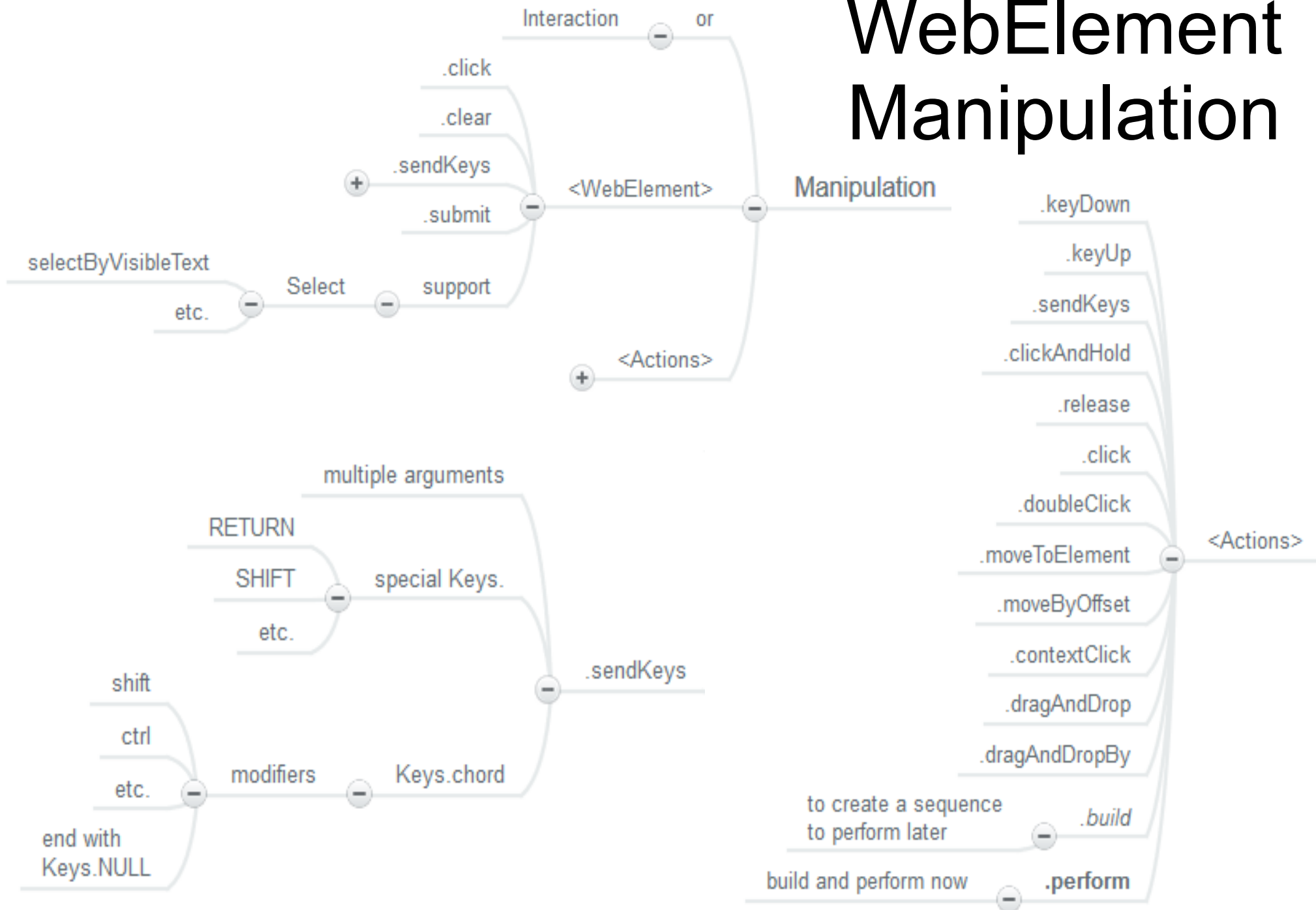
# WebDriver Level Basics



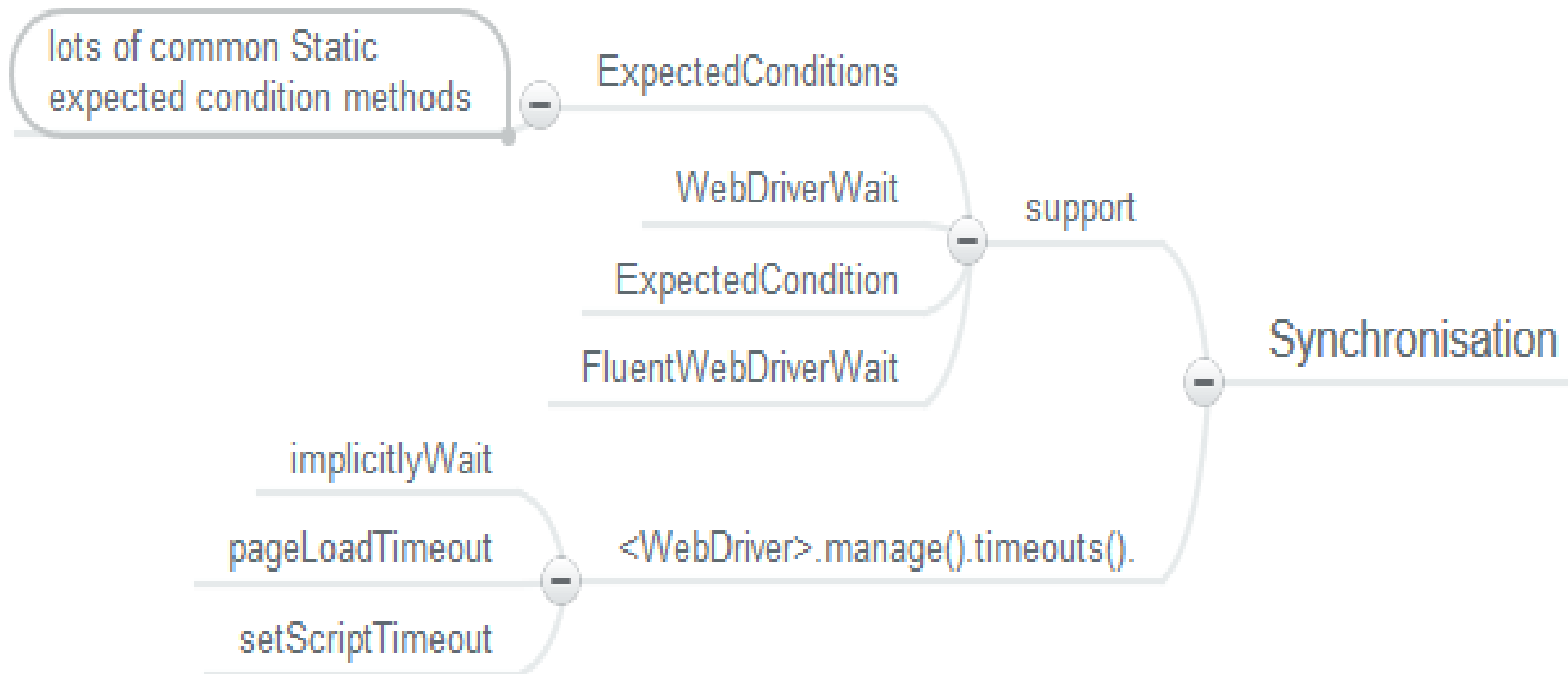
# WebElement Interrogation Basics



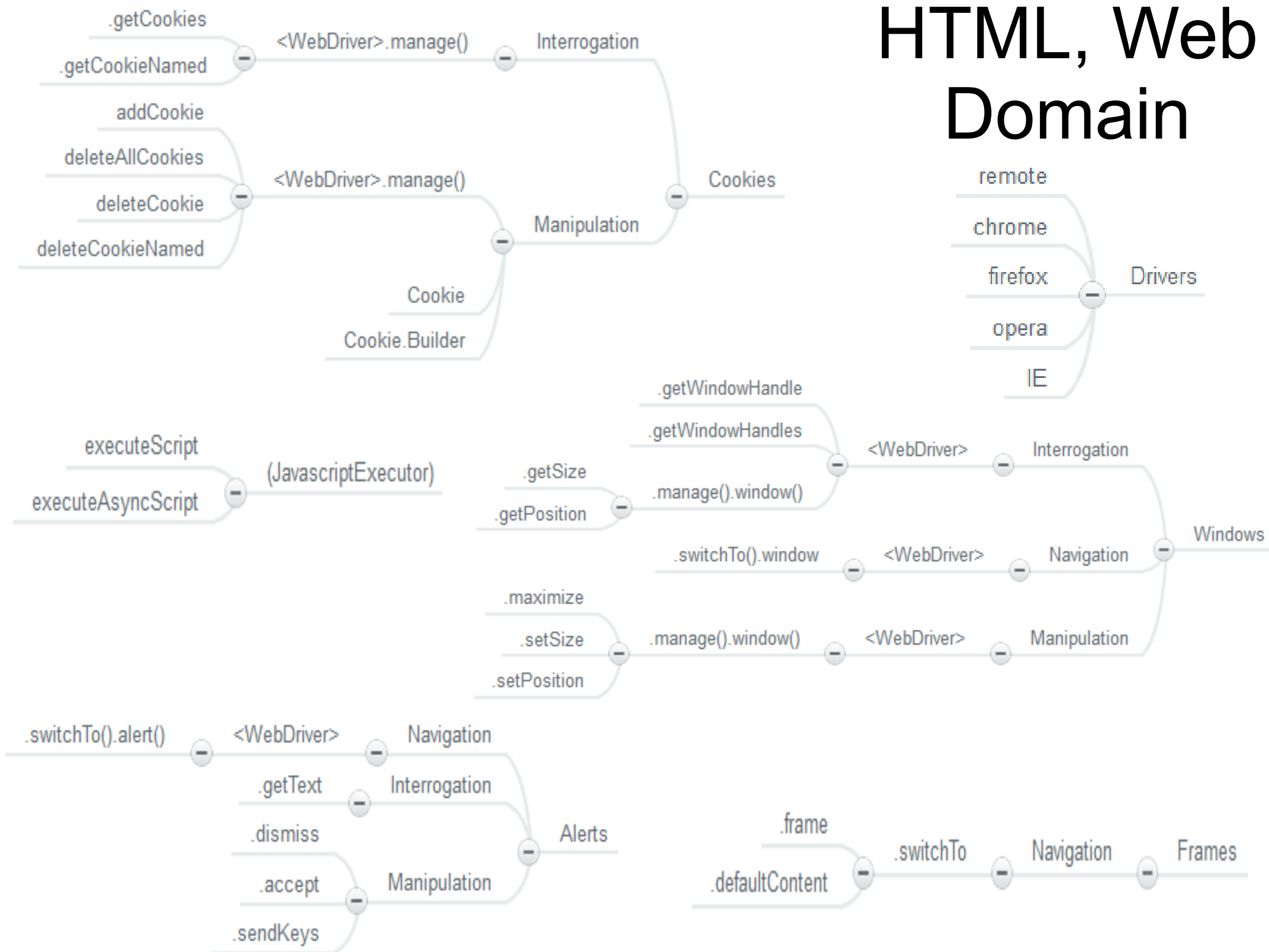
# WebElement Manipulation



# Synchronisation



# HTML, Web Domain



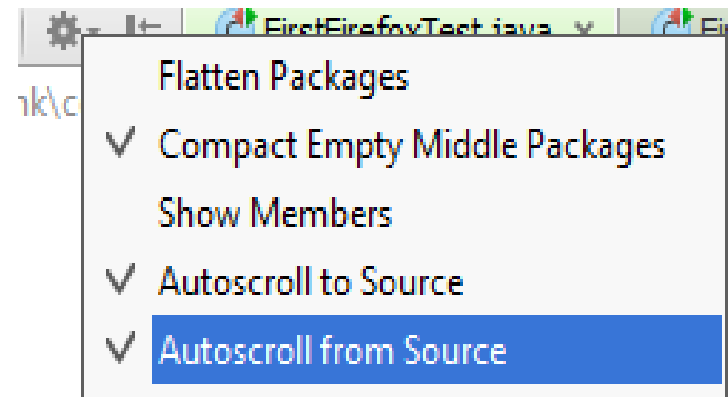
# Basic API





# IntelliJ Tips

- Use Code Completion
- ctrl+Q for Documentation of Commands
- ctrl+click to view the method code
- Switch on AutoScroll
- Find Symbol
  - Shift + Cntrl + Alt + N
- Find Class
  - Cntrl + N
- Find File
  - Shift + Cntrl + N



# Synchronisation WebDriverWait

- ExpectedConditions static methods

```
new WebDriverWait(driver,10).until(  
    ExpectedConditions.titleIs("HTML Form Elements"));
```

- Custom ExpectedCondition

```
new WebDriverWait(driver,10).until(  
    optionWithValueDisplayed(By.id("combo2"), "Java") );
```

```
private ExpectedCondition<WebElement> optionWithValueDisplayed(  
    final String value) {  
  
    return new ExpectedCondition<WebElement>() {  
  
        @Override  
        public WebElement apply(WebDriver webDriver) {  
            return webDriver.findElement(  
                By.cssSelector("option[value='" + value + "']") );  
        }  
    };  
}
```

# SlowLoadableComponent

- Public interface

- get()

- loads and waits for component to be available

- `extends SlowLoadableComponent<PageObjectClassName>`

- Call super constructor in constructor

- ```
public PageObjectClassName(WebDriver driver) {  
    super(new SystemClock(), 10);  
    this.driver = driver;  
}
```

- Implement load and isLoaded

- isLoaded throws a new Error if not loaded
  - I often leave the 'load' part empty if I navigate to the page

# Hamcrest Matchers & JUnit

e.g. `assertThat(driver.getTitle(), is(not("bob")));`

- `is`
- `not`
- *Number*
  - `greaterThan`,
  - `greaterThanOrEqualTo`,
  - `lessThan`,
  - `lessThanOrEqualTo` - test ordering
- *Text*
  - `equalToIgnoringCase`
  - `equalToIgnoringWhiteSpace`
  - `containsString`,
  - `endsWith`,
  - `startsWith`

- `@Test`
- `@Before`, `@After` (method level)
- `@BeforeClass`, `@AfterClass` (static)

- *Collections*
  - `hasEntry`,
  - `hasKey`,
  - `hasValue` - test a map contains an entry, key or value
  - `hasItem`,
  - `hasItems` - test a collection contains elements
  - `hasItemInArray` - test an array contains an element
- `notNullValue`,
- `nullValue` - test for null

# Selectors

## XPATH Selectors

// - match anywhere

/ - match from root

//\* - any element

//tag

//\*[@attribute]

//\*[@attribute="value"]

//tag[@attribute="value"]

//tag1/tag2 (child)

//tag1//tag2 (any descendant)

//tag1/.../... (.. to go up)

//\*[.='element text']

**[@at1="a" and @at2="b"]**

and, or, =, !=, <, >, >=, <=

## Functions

contains(@a,"alu")

starts-with(@a,"v")

ends-with(@a,"e")

## Indexing

//tag[1]

## XPath References

- <http://www.w3schools.com/xpath/>
- <http://www.simple-talk.com/dotnet/.net-framework/xpath,-css,-dom-and-selenium-the-rosetta-stone/>

## CSS Selectors

\* - any

#id

.class

tag

[attribute]

[attribute="value"]

tag[attribute="value"]

tag[attr1='val1'][attr2='val2']

tag[att1='val1'], orThisTag

**= (' or ")**

\*="anywhere in value"

^="start of value"

\$="end of value"

~="spaceSeperatedValue"

## Paths

A > B (child)

A B (any descendant)

A + B (A's B sibling)

tag:first-child

## CSS References

- <http://reference.sitepoint.com/css/selectorref>
- <http://net.tutsplus.com/tutorials/html-css-techniques/the-30-css-selectors-you-must-memorize/>
- <http://www.quirksmode.org/css/contents.html>
- [http://www.w3schools.com/cssref/css\\_selectors.asp](http://www.w3schools.com/cssref/css_selectors.asp)

**Alan Richardson** is an Independent Test Consultant based in the UK. He offers training and consultancy in Selenium WebDriver, exploratory and technical web testing.

- [uk.linkedin.com/in/eviltester](http://uk.linkedin.com/in/eviltester)

Contact Alan for training and consultancy tailored to your needs:  
[alan@compendiumdev.co.uk](mailto:alan@compendiumdev.co.uk)

## Blogs and Web Sites

- [SeleniumSimplified.com](http://SeleniumSimplified.com)
- [EvilTester.com](http://EvilTester.com)
- Testing Papers and Tools
  - [CompendiumDev.co.uk](http://CompendiumDev.co.uk)

Twitter: @eviltester



## Online Training Courses

- Technical Web Testing 101
  - [Unow.be/at/udemy101](http://Unow.be/at/udemy101)
- Intro to Selenium
  - [Unow.be/at/udemystart](http://Unow.be/at/udemystart)
- Selenium 2 WebDriver API
  - [Unow.be/at/udemyapi](http://Unow.be/at/udemyapi)

## Videos

[youtube.com/user/EviltesterVideos](http://youtube.com/user/EviltesterVideos)

## Books

### **Selenium Simplified**

[Unow.be/rc/selsimp](http://Unow.be/rc/selsimp)

