# 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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Created to support our Selenium 2 WebDriver Training Courses

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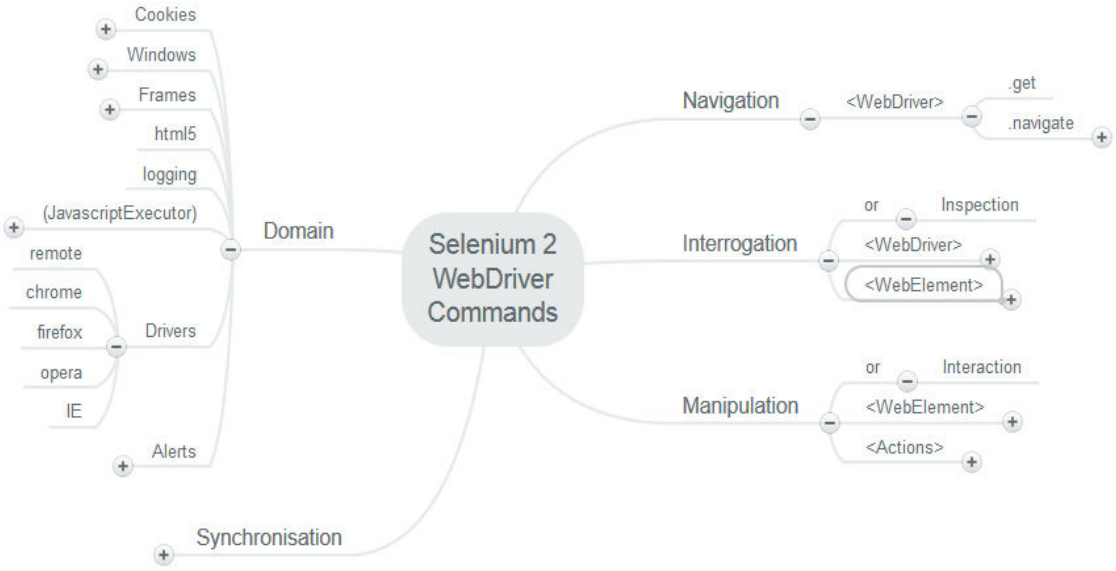
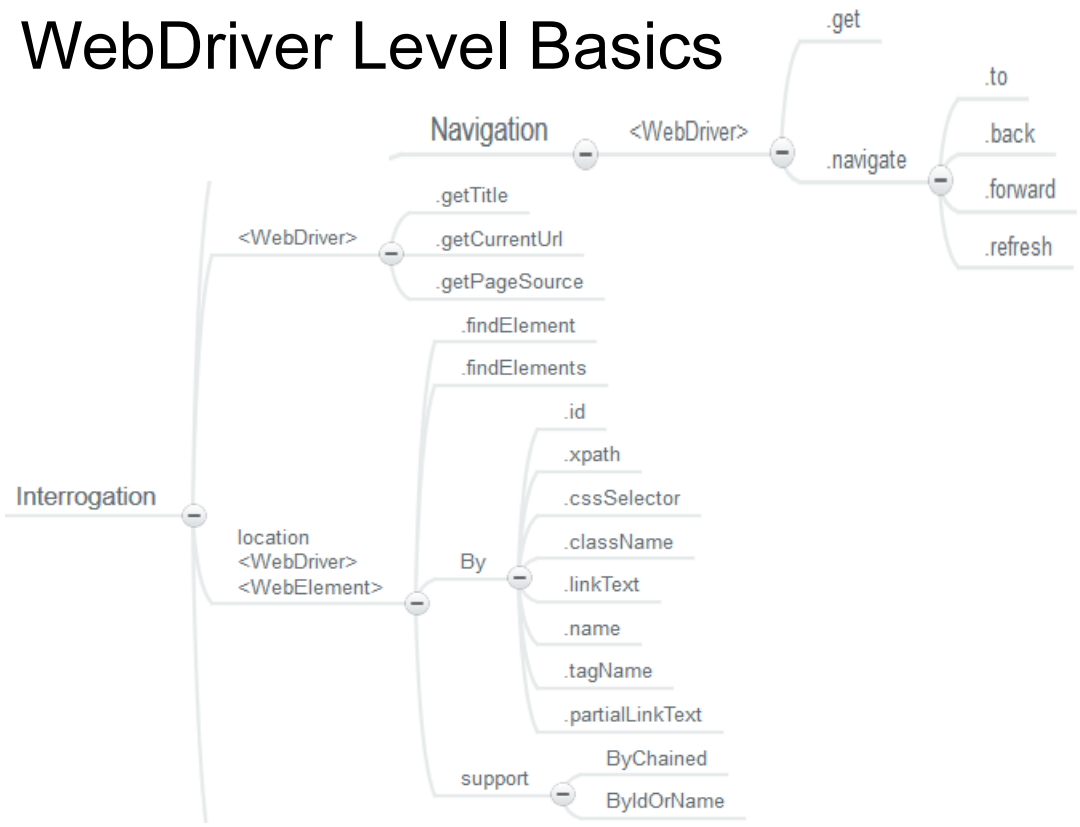
# API Overview



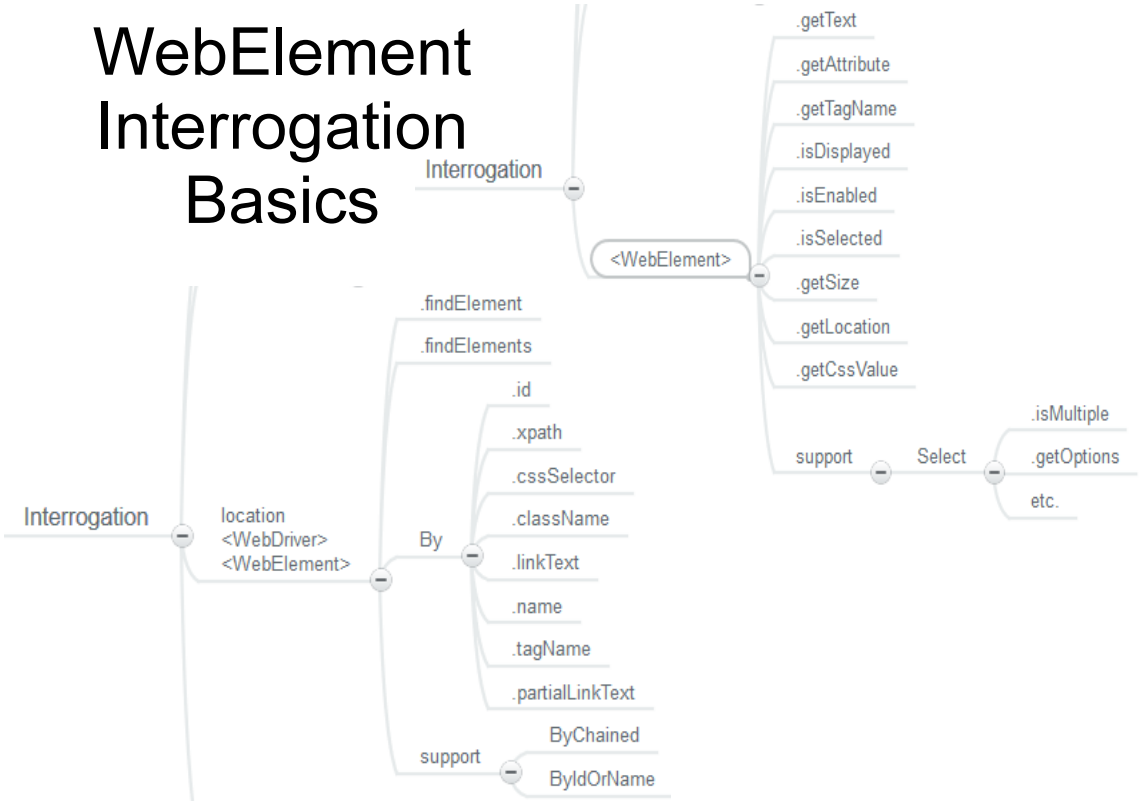

http://www.mindmeister.com/280141421/selenium-2-webdriver-commands

# WebDriver Level Basics



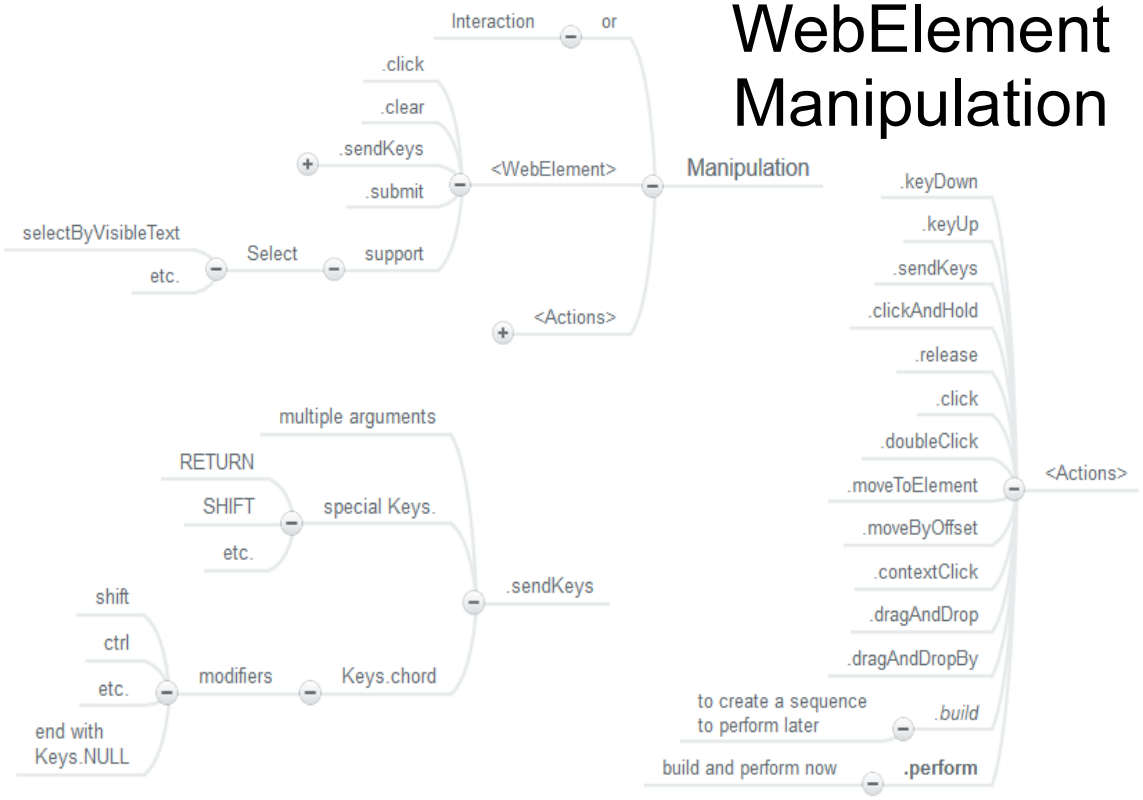

http://www.mindmeister.com/280141421/selenium-2-webdriver-commands

# WebElement Interrogation Basics



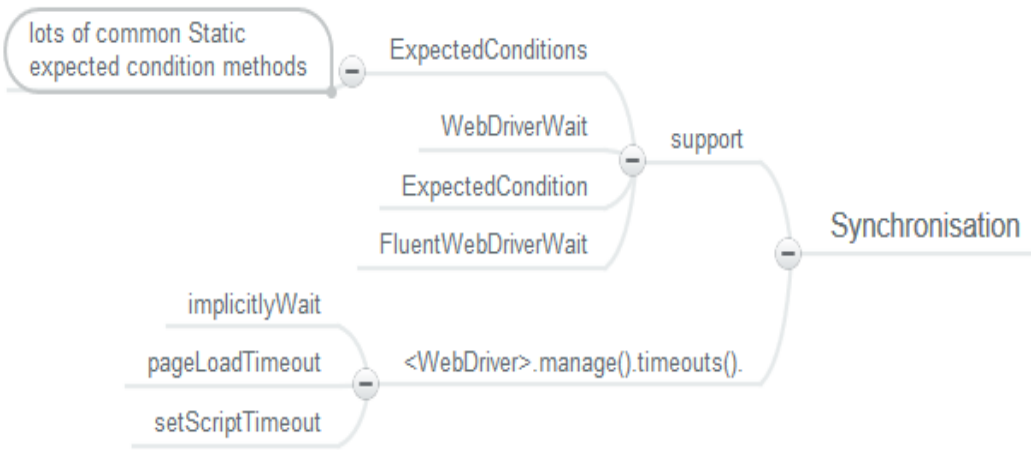

http://www.mindmeister.com/280141421/selenium-2-webdriver-commands

# WebElement Manipulation

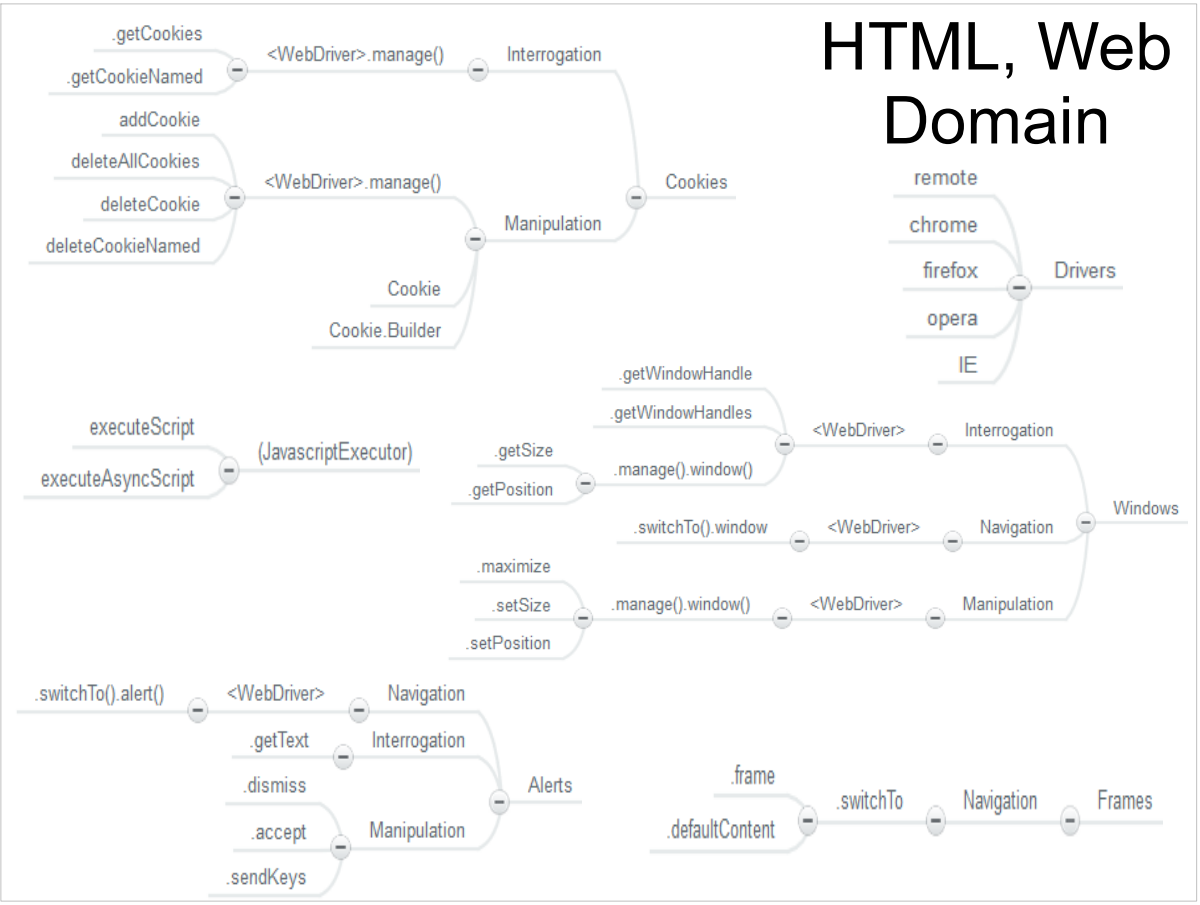



http://www.mindmeister.com/280141421/selenium-2-webdriver-commands

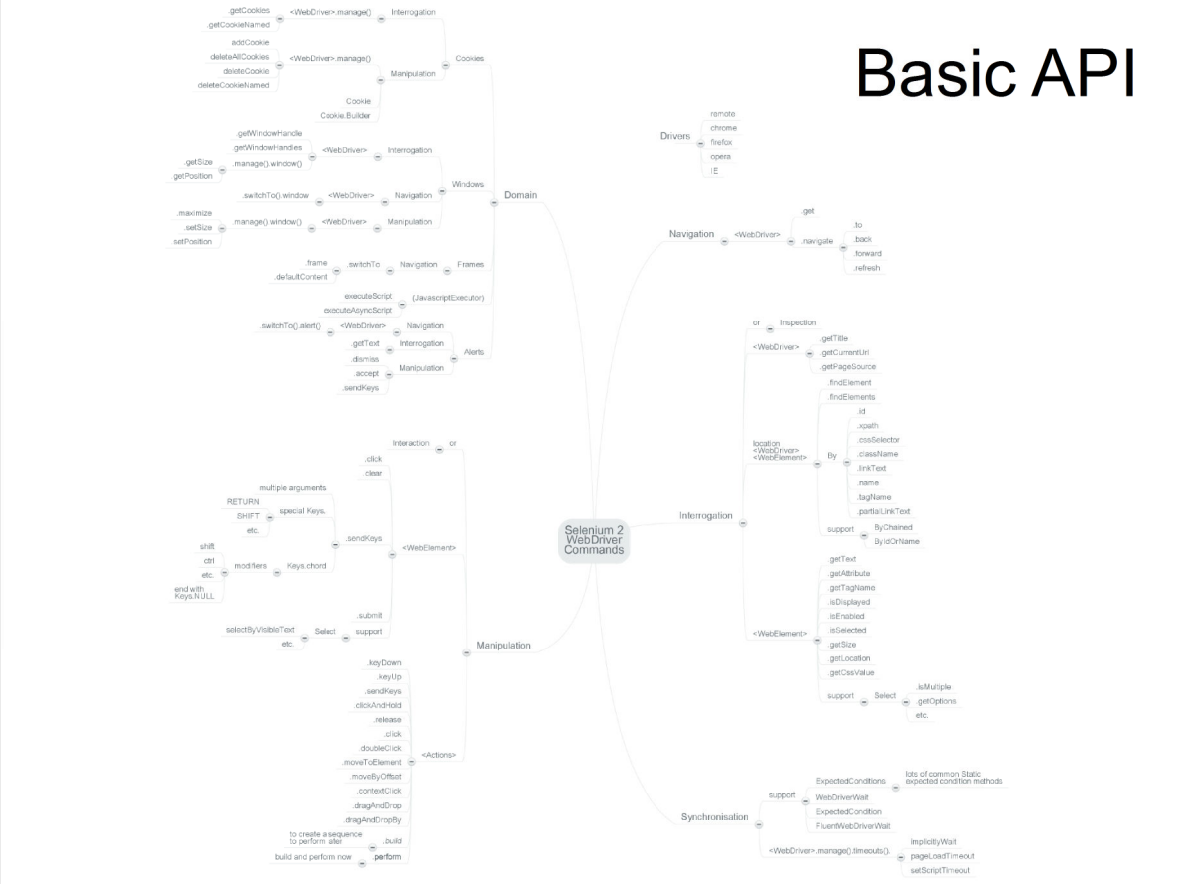
# Synchronisation



# HTML, Web Domain

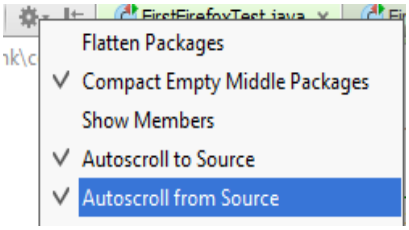



# Basic API



# 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 + Ctnrl + 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 + "']") );
      }
   };
}
```

# SlowLoadableCompnent

- 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

http://code.google.com/p/hamcrest/wiki/Tutorial#A_tour_of_common_matchers

# 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] |

| 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

XPath References

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

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

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## Blogs and Web Sites

- SeleniumSimplified.com
- EvilTester.com
- Testing Papers and Tools
  - CompendiumDev.co.uk

Twitter: @eviltester

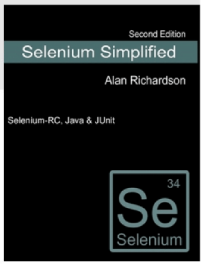
## Online Training Courses

- Technical Web Testing 101
  - Unow.be/at/udemy101
- Intro to Selenium
  - Unow.be/at/udemystart
- Selenium 2 WebDriver API
  - Unow.be/at/udemyapi

## Videos

youtube.com/user/EviltesterVideos

## Books

**Selenium Simplified**

Unow.be/rc/selsimp