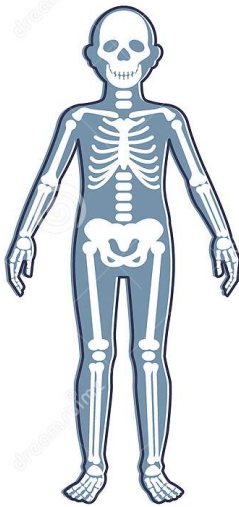


EU Fast Track Selenium Day 1

▼ Webpage Introduction



HTML



HTML + CSS



HTML + CSS + JavaScript

 dreamstime.com

ID 233593998 © VectorMine

Hyper Text Markup Language

- HTML is not a programming language, it's a markup language.
- Programming languages have logics, markup languages have tags to define elements.
 - Other markup languages: KML, MathML, SGML
- HTML uses tags to describe and structure the pages

```

<html>
  <head>
    <title>How to Do Something</title>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
  </head>
  <body>
    <p>Do the following:

    <ol>
      <li>snf
    </ol>

  </body>
</html>

```

Cascading Style Sheets

- Styles the HTML page
- Only can work with HTML
- Make your page looks like the way you want

```

h1 {
  font-family: courier, courier-new, serif;
  font-size: 20pt;
  color: blue;
  border-bottom: 2px solid blue;
}
p {
  font-family: arial, verdana, sans-serif;
  font-size: 12pt;
  color: #6B6BD7;
}
.red_txt {
  color: red;
}

```

Java Script

- Is a scripting language
- Responsible for the HTML page “do something”

```

23  function initialize() {
24
25  }
26
27  function gameLoop() {
28      update();
29      draw();
30  }
31
32  function update() {
33
34  }
35
36  function draw() {
37
38  }
39
40  app.oncheckpoint = function (args)...;
48
49  document.addEventListener("DOMContentLoaded", initialize, false);
50  app.start();
51  })();

```

▼ HTML

Tags

- Tags are containers
- Defines specific sections of that page
- Starts with <> and ends with </>
- Some samples:

```
<p> Paragraph Tag </p>
```

```
<h2> Heading Tag </h2>
```

```
<b> Bold Tag </b>
```

```
<i> Italic Tag </i>
```

```
<u> Underline Tag</u>
```

HTML - OneCompiler - Write, run and share HTML code online

Write, Run & Share HTML code online using OneCompiler's HTML online Code editor for free. It's one of the robust, feature-rich online Code editor for HTML language, running on the latest version HTML5. Getting started with the OneCompiler's HTML compiler is simple and pretty fast.

<https://onecompiler.com/html>

Types of tags:

- Paired tags

```
<div> some content </div>
<a> some link </a>
```

- Unpaired tags

```
<br>
<img>
```

Some tags

```
<html> root element of every web app </html>
<head> defines the head section of an HTML document </head>
<body> define the body section of an HTML document </body>
<h1> Biggest Title </h1>
....
....
defines headings for an HTML document from level 1 to level 6
1 is the biggest, 6 is the smallest header
...
<h6> Smallest Title </h6>
```

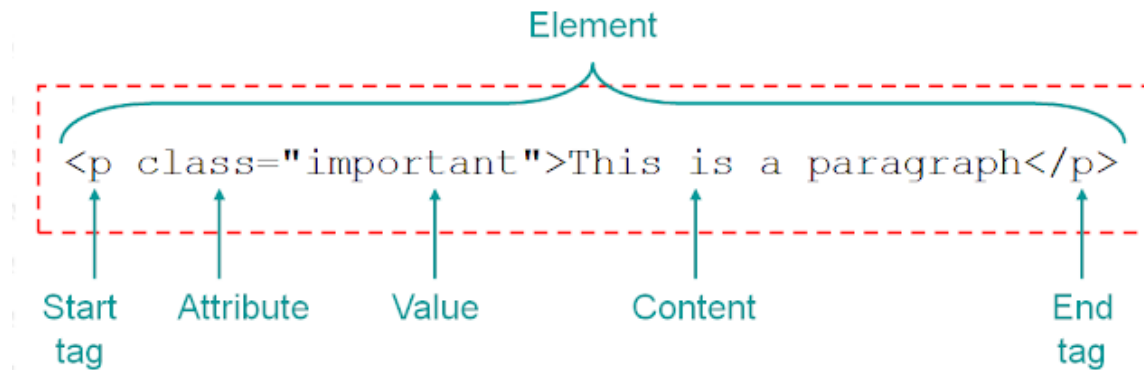
What the Viewer Sees	What the Search Engine Sees
Header 1 Header 2 Header 3 Header 4 Header 5 Header 6	<code><h1>Header 1</h1></code> <code><h2>Header 2</h2></code> <code><h3>Header 3</h3></code> <code><h4>Header 4</h4></code> <code><h5>Header 5</h5></code> <code><h6>Header 6</h6></code>

```

<p> create a paragraph </p>
<br> break line
<hr> used to apply break between paragraph-level elements
<strong> define important text (make characters bold) </strong>
<em> make characters italic </em>
<u> make characters underline </u>
<ol> ordered list (gives order automatically)</ol>
<ul> unordered list </ul>
<li> represent items in list </li>
<!-- comment line -->
<img src = " put image source here" >
<a> creates a hyperlink or link </a>
<table> present data in table form </table>
<td> defines table data in cell </td>
<th> defines table head cell </th>
<tr> defines table row </tr>
<div> a section of html page </div>
<span> usef for styling and grouping inline </span>
<form> define an form </form>
<input put text information here >
<textarea put textarea information here>
<select> create a dropdown list </select>

```

Attributes



▼ Selenium

Selenium

- A browser automating tool
- Open source
- Used for any purpose through controls browsers, but mostly for testing

Pros

Cons

- Free
- Multi browser
- Multi platform & language
- Mobile testing
- Parallel testing
- Require programming knowledge
- No built-in report
- Only for web based apps

Methods

```
//get("url") -- open the link in browser
driver.get("www.google.com")

// getTitle -- returns the page title as String
driver.getTitle();

// getCurrentUrl -- returns the url as String
driver.getCurrentUrl();

// windows maximize
driver.manage().window().maximize();

// close driver
driver.close();

// close all windows and terminate driver
driver.quit();

//navigate through pages
driver.navigate().back();
driver.navigate().forward();
driver.navigate().refresh();
driver.navigate().to(); // url can be provided
```

▼ Locators

- Help us to get our web elements
- There are 8 types of locators:
 - id — id is always unique
 - name

- className
- tagName
- linkText — only works for links, <a> tags
- partialLinkText — only works for links, <a> tags
- CSS
- xpath

examples:

`http://practice.cybertekschool.com/`

1. id

```
<div id="flash-messages" class="large-12 columns"></div>
driver.findElement(By.id("flash-messages"));
```
2. name

```
<meta name="viewport" content="width=device-width">
driver.findElement(By.name("viewport"));
```
3. className

```
<span class="h1">Test Automation Practice</span>
driver.findElement(By.className("h1"));
```
4. tagName

```
<h1 class="h1"><span class="h1">Test Automation Practice</span></h1>
driver.findElement(By.tagName("h1"));
```
5. linkText

```
<a class="nav-link" href="/">Home</a>
driver.findElement(By.linkText("Home"));
```
6. partialLinkText

```
<a target="_blank" href="https://cydeo.com/">CYDEO</a>
driver.findElement(By.partialLinkText("DEO"));
```

CSS

7. css
 - we can use any attribute beside id, class etc.
 - we have two types of syntax

```
// http://practice.cybertekschool.com/inputs
1) tagName[attribute='value'](we can use any attribute)
  <div class="example">
  div[class="example"]
  [class="example"] ( we may not provide tag name)

2) tagName#idValue or tagName.classValue(we can use only id or class)
  - # used for id attribute
  - . used for class attribute
  <div class="example">
  div.example
  <div id="content" class="large-12 columns">
  div#content

- if we have space in class attribute value, we have to replace the space with .
  <div class="mosaic-hero mosaic-hero--white">
  div.mosaic-hero.mosaic-hero--white

  <a href="javascript:;" class="btn theme-colour" >Gotcha, I agree!</a>
  a.btn.theme-colour

- if the web element doesn't have unique attribute, we can move from parent to child
  ( we only can move parent --> child, we can't do reverse in css locator)
  http://practice.cybertekschool.com/forgot_password
  <div class="example">
  <h2>Forgot Password</h2>
  div.example > h2

- if we want to locate sub-child, we can use space to locate
  http://practice.cybertekschool.com/forgot_password
  <div class="example">
  <h2>Forgot Password</h2>
  <h4 class="subheader"></h4>
  div.example h4

- if we want to locate specific element in a list, we can use :nth-of-type
  http://practice.cybertekschool.com/dropdown
  <select id="state">
  <option value="" selected="selected">Select a State</option>
  <option value="AL">Alabama</option>
  <option value="AK">Alaska</option>
  <option value="AZ">Arizona</option>
  <option value="AR">Arkansas</option>
  <option value="CA">California</option>
  <option value="CO">Colorado</option>
  <option value="CT">Connecticut</option>

  select#state option:nth-of-type(4)
  select#state option:nth-child(4)
  will locate Arizona(index is not starting from 0 here)

- Dynamic web elements
  contains --> *      tagName[attribute* = 'value']
  starts-with --> ^   tagName[attribute^ = 'value']
  ends-with --> $     tagName[attribute$ = 'value']
```