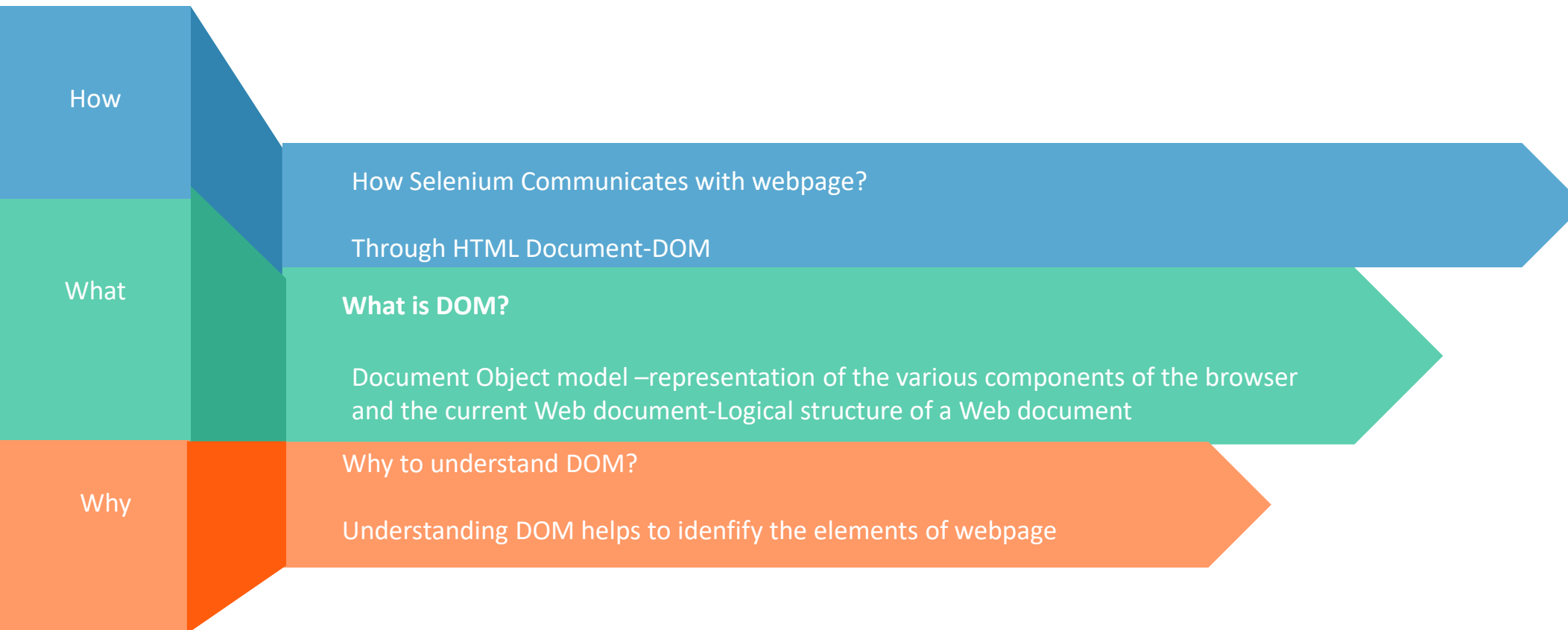


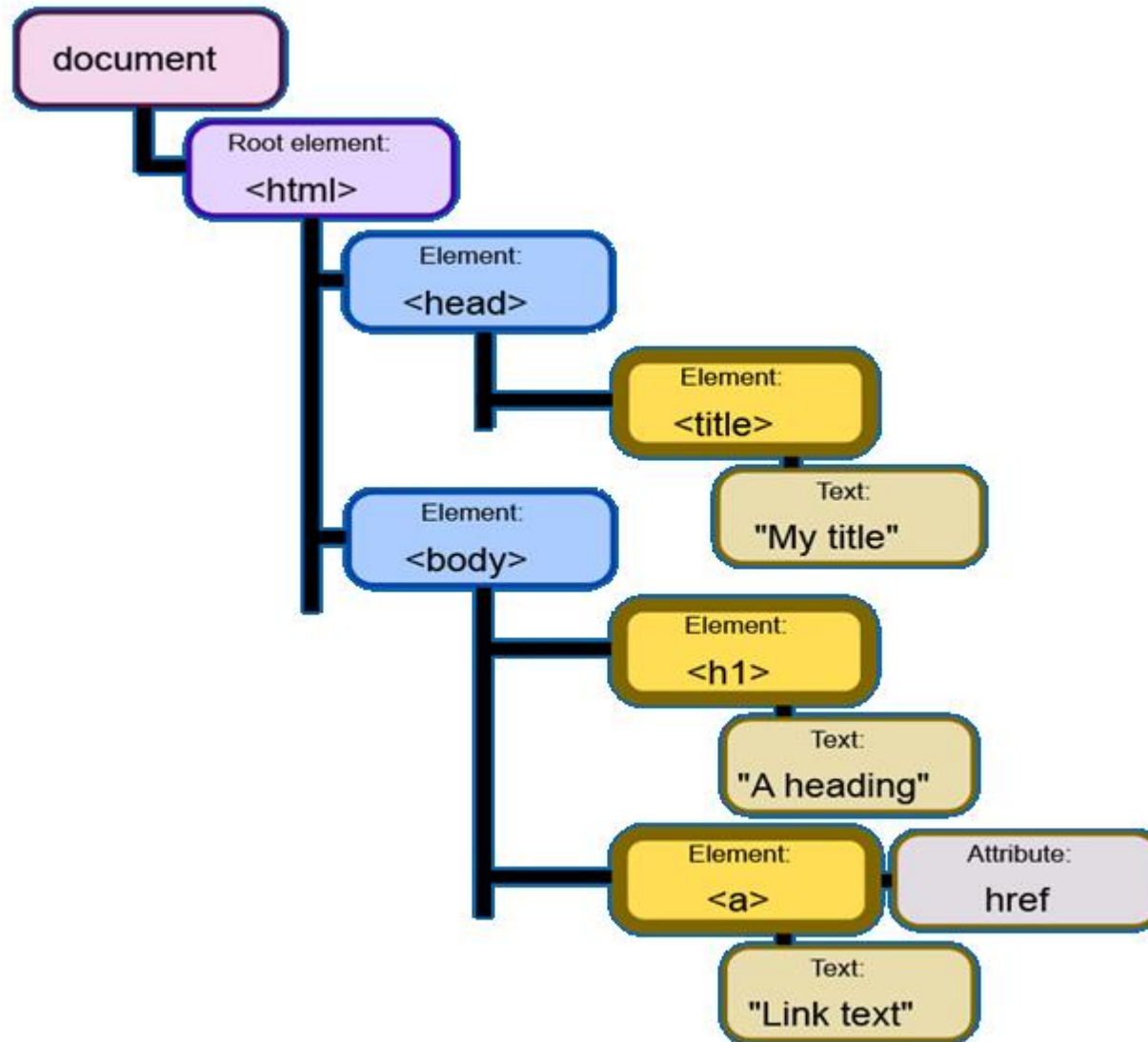
Selenium WebDriver

How
Communication happens?

The Golden Rule



HTML Structure



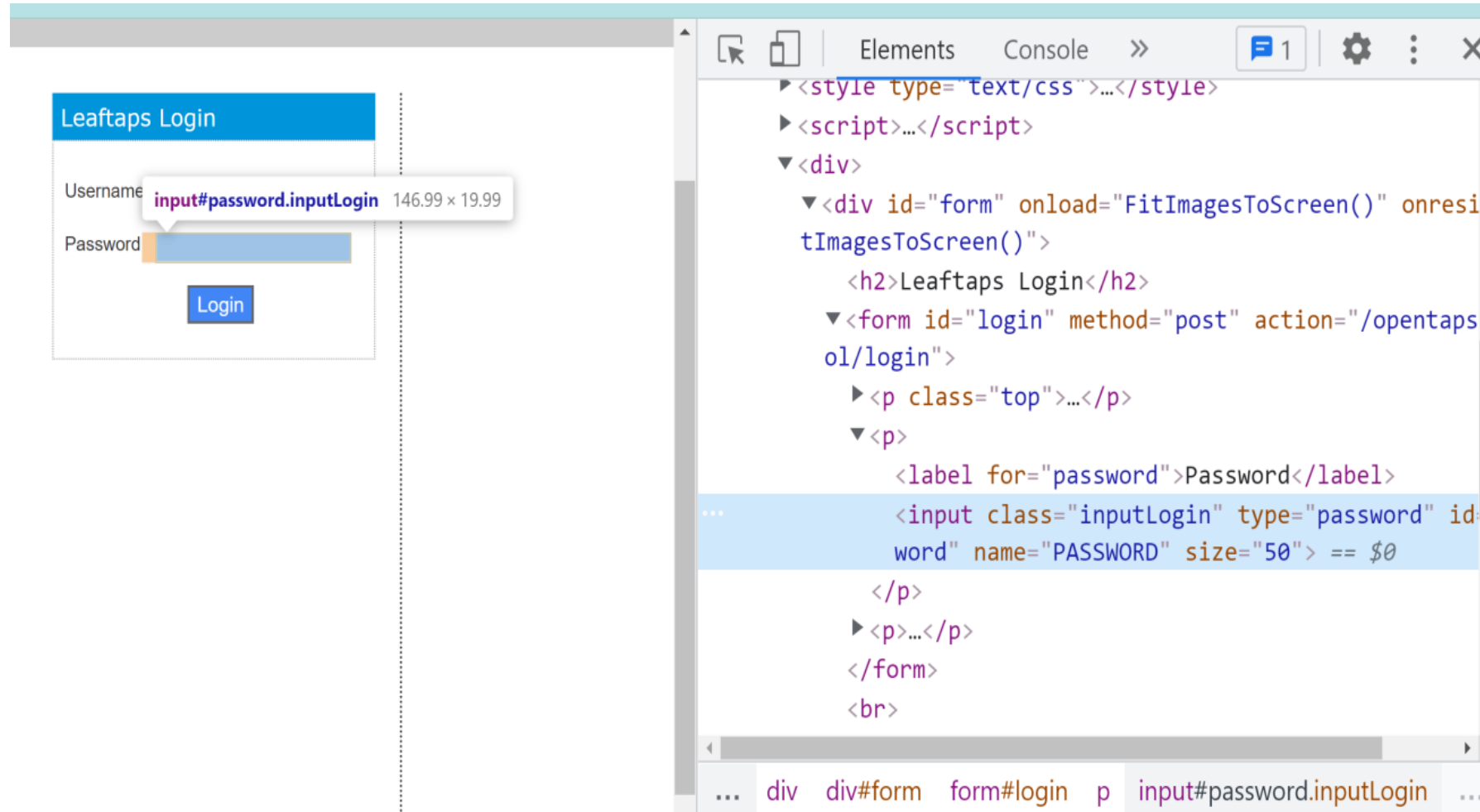
Contd..

HTML Tags

HTML tags	Description
<html>	Defines the root of the webpage
<a>	Defines a hyperlink
<button>	Defines a clickable button
<div>	Defines a section in a document
<iframe>	Defines an inline frame
	Defines an image
<input>	Defines an input control
<option>	Defines options of the dropdown list
<select>	Defines a drop-down list
	Defines a section in a document
<table>	Defines a table

Contd..

HTML Structure



The screenshot displays a web browser window with a login form titled "Leaftaps Login". The form contains a "Username" field, a "Password" field, and a "Login" button. A tooltip over the password field shows the selector `input#password.inputLogin` and dimensions `146.99 x 19.99`.

The right side of the image shows the browser's developer tools, specifically the "Elements" panel. The HTML structure is as follows:

```
<style type="text/css">...</style>
<script>...</script>
<div>
  <div id="form" onload="FitImagesToScreen()" onresiz
    tImagesToScreen(">
    <h2>Leaftaps Login</h2>
    <form id="login" method="post" action="/opentaps
      ol/login">
      <p class="top">...</p>
      <p>
        <label for="password">Password</label>
        ...
        <input class="inputLogin" type="password" id:
          word" name="PASSWORD" size="50"> == $0
      </p>
      <p>...</p>
    </form>
    <br>
```

The breadcrumb at the bottom of the developer tools indicates the path: `div > div#form > form#login > p > input#password.inputLogin`.

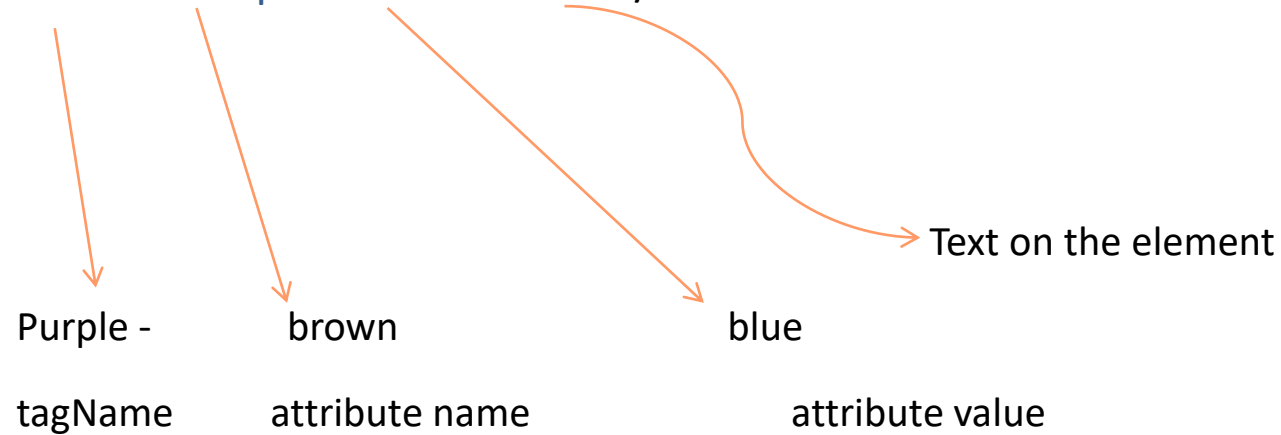
Contd..

Let's Analyze DOM

```
<form id="login" method="post" action="/opentaps/control/login">
  <p class="top">
    <label for="username">Username</label>
    <input class="inputLogin" type="text" id="username" name="USERNAME" size="50">
  </p>
  <p>
    <label for="password">Password</label>
    <input class="inputLogin" type="password" id="password" name="PASSWORD" size="50">
  </p>
  <p>
    <input class="decorativeSubmit" type="submit" value="Login">
  </p>
</form>
```

Element Description in DOM

`<label for="password" Password </label>`



`<input class="inputLogin" type="password" id="password" name="PASSWORD" size="50" <input>`



To locate Element in DOM

Locators	Find different elements on web page
id	To find the element by using id attribute of the element
name	To find the element by using name attribute of the element
className	To find the element by using Class attribute of the element
linkText	To find the element by text of the WebElement having <a>
partialLinkText	To find the element with link text with partial match
tagName	To locate the element using tag name of the target element
xpath	To find the dynamic element and traverse between various elements of the web page
cssSelector	CSS path also locates elements having no name, class or ID.

How to use Locators?

Basic Locators

- `id` → can be identified as id attribute of an element
- `name` → can be identified with name attribute
- `className` → can be identified as class attribute
- `linkText` → can be identified with text with `<a>`

xpath

- Xml path -> uniquely identify or address parts of an XML document
- > to navigate through a page's HTML structure and locate the element

Syntax: `driver.findElement(By.locator("value"));`

When to/ not to use?

Locators	When do you use?	When you cannot use?
id	Always (Most preferred)	Numbers
name	If “id” does not exist	Duplicate
className	When class is unique without white spaces	White spaces, Duplicate
linkText	If it is a link	Duplicate
tagName	For collection of objects	Duplicate
Xpath	If none of the above, works	Xpath can change
cssSelector	This is the last option you have!	CSS can change

How to communicate with webElement?

- Launch the browser
- Maximize the browser
- Locate the username (Hint :using id attribute)
- Locate the password (Hint :using id attribute)
- Locate the login (Hint :using id attribute)

Summary

- Selenium communicates with webpage using Locators
- Locators are of 8 types

Classroom Exercise (Breakout)

● Testcase_01

1. Launch <https://login.salesforce.com/>
2. Enter username as
hari.radhakrishnan@qeagle.com
3. Enter password as Leaf@1234
4. Click on Login
5. Verify the title(getTitle)