In this chapter we learn:

**What are we going to learn in the next few chapters?**

Finding an element by ID (driver.findElement(By.id("firstname"))

Finding an element by Name (driver.findElement(By.name("firstname"))

Finding an element by className (driver.findElement(By.className("beautifultextbox"))

Finding an element by Link Text (driver.findElement(By.linkText("google the top search engine"))

Finding an element by Partial Link Text (driver.findElement(By.partialLinkText("google"))

Finding an element by xpath

Finding an element by CSSSelector

Finding elements when the ID, Name, attributes have spaces

* Find an element by id – works
* Finding an element by name – works
* Finding an element by Class Name – Produces error
* Finding element by xpath – works
* Finding element by CSS Selector - works

Locating an element by ID:

IF the element has id associated with it, we can find the element by

driver.findElement(By.id(“id value”))

driver is the ChromeDriver or FirefoxDriver or InternetExplorerDriver object we create.

findElement() is a method which is used to locate an element. It takes an argument which is a By object and its locator method.

findElement(By.locator()) is the whole thing that is used to identify an element.

Locator can be id, name, className etc.

Once an element is located then we do operations on those elements like entering some text if it is a text box or textarea or click operations if it is a link or a button.

If the operation is entering some text, then we use sendKeys() method to enter text.

If the operation is a click, then we use click() method to enter text.

driver.findElement(By.id("firstname")).sendKeys("Subbu");

Locating an element by Name:

driver.findElement(By.name("firstname")).sendKeys("Subbu");

Locating an element by ClassName:

driver.findElement(By.className("beautifultextbox")).sendKeys("subbu");

Locating an element by linkText:

driver.findElement(By.linkText("google the top search engine")).click();

Locating an element by Partial Link Text:

driver.findElement(By.partialLinkText("google")).click();

Locating an element by xpath:

driver.findElement(By.xpath("//input[@color='red']")).sendKeys("Subbu");

Locating an element by CssSelector:

driver.findElement(By.*cssSelector*("input[color='red']")).sendKeys("Subbu");

If we have space in id, name etc., all these methods work except By.className. By.className with an error.

**Example:**

**package** Selenium;

**import** org.openqa.selenium.By;

**import** org.openqa.selenium.WebDriver;

**import** org.openqa.selenium.firefox.FirefoxDriver;

**public** **class** FirstProgram {

**public** **static** **void** main(String[] args) **throws** InterruptedException {

System.*setProperty*("webdriver.gecko.driver", "C:\\BrowserDrivers\\geckodriver.exe");

WebDriver driver = **new** FirefoxDriver();

//Opening an URL

driver.get("file:///D:/Selenium%20Course/Java/index.html");

Thread.*sleep*(2000);

//Finding element by id

//driver.findElement(By.id("firstname")).sendKeys("Subbu");

//Finding Element by name

//driver.findElement(By.name("firstname")).sendKeys("Subbu");

//Finding Element by Class Name

//driver.findElement(By.className("beautifultextbox")).sendKeys("subbu");

//Finding Element by Link Text

//driver.findElement(By.linkText("google the top search engine")).click();

//Finding Element by Partial Link Text

//driver.findElement(By.partialLinkText("google")).click();

//Finding Element by xpath

//driver.findElement(By.xpath("//input[@color='red']")).sendKeys("Subbu");

//names, ids, class names and attribute names with spaces

//Finding element by id

//driver.findElement(By.id("first name")).sendKeys("Subbu");

//Finding Element by name

//driver.findElement(By.name("first name")).sendKeys("Subbu");

//Finding Element by Class Name - This will produce an error

//driver.findElement(By.className("beautiful text box")).sendKeys("subbu");

//Finding Element by xpath

//driver.findElement(By.xpath("//input[@id='first name']")).sendKeys("subbu");

//Finding element by CSS Selector

//driver.findElement(By.cssSelector("input[id='first name']")).sendKeys("Subbu");

Thread.*sleep*(3000);

//Closing Browser

driver.close();

}

}