**1. Introduction to Window Handles**

In Selenium, when a new browser window or tab is opened, each window is assigned a unique identifier called a **window handle**. To interact with multiple windows or tabs, Selenium provides a way to switch between them using these handles.

**2. Key Methods for Window Handling**

* **getWindowHandle():**  
  This method is used to get the window handle of the current browser window.

java

String mainWindowHandle = driver.getWindowHandle();

System.out.println("Main Window Handle: " + mainWindowHandle);

* **getWindowHandles():**  
  This method returns a Set<String> of all the window handles currently open by the WebDriver.

java

Set<String> allWindowHandles = driver.getWindowHandles();

System.out.println("All Window Handles: " + allWindowHandles);

* **switchTo().window(String handle):**  
  This method allows switching between windows using their window handle.

java

driver.switchTo().window(windowHandle);

**3. Steps to Handle Multiple Windows**

1. **Open a New Window/Tab**
   * When clicking on a link or button that opens a new window or tab, WebDriver still points to the main window.
2. **Get All Window Handles**
   * After a new window is opened, get the handles of all currently opened windows.
3. **Switch to the New Window**
   * Switch to the new window by iterating over the window handles and checking for the handle that is different from the main window.
4. **Perform Operations in the New Window**
   * Once switched, interact with elements in the new window.
5. **Switch Back to the Main Window**
   * After performing actions in the new window, switch back to the original window for further operations.