Automation Testing

Screenshots and Browser Profile

A Day in the Life of an Automation Test Engineer

Joel, an Automation Test Engineer, wants to automate web applications.

As an Automation Test Engineer, when he executes the test cases daily, he must take screenshots of the execution, failed scenarios, etc. It helps in easy debugging.

To know about it, let us go through this lesson.

Learning Objectives

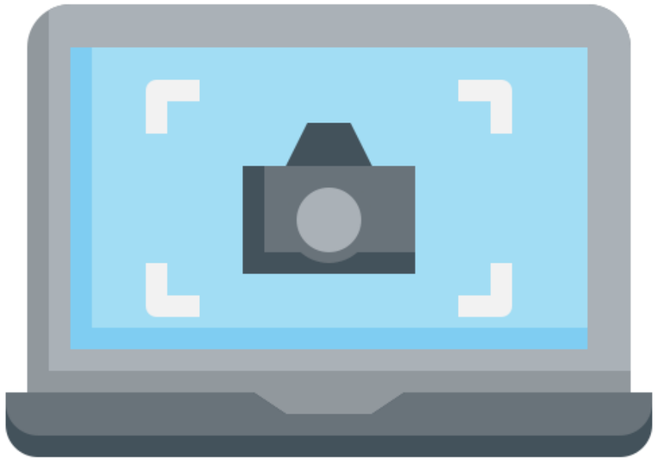
By the end of this lesson, you will be able to:

- Describe Selenium Screenshots
- Apply the radio button and checkbox WebElements
- Apply dropdown and multiple dropdown selectors

Take Screenshots

Selenium Screenshots

Selenium provides ways to capture the screenshot at the time of execution. It can help us in debugging the scripts easily and could avoid the need to rerun the text.

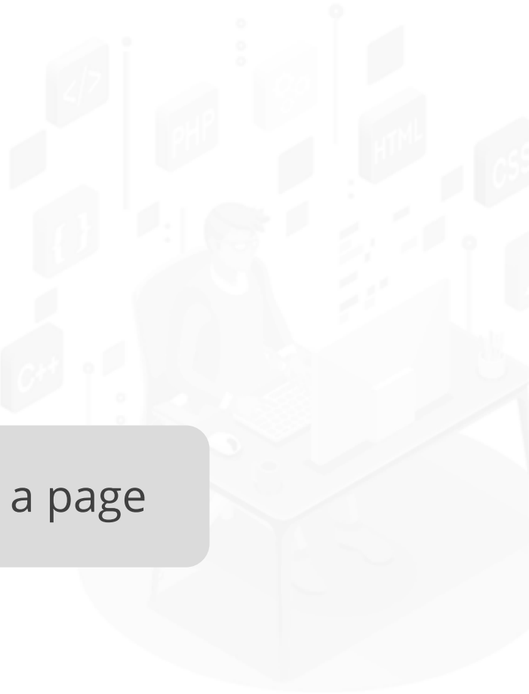


One of the primary purposes of automation testing is to reduce manual effort.

Selenium Screenshots

The scenarios where screenshot is required:

- When an assertion fails
- When application issues occur
- When web elements cannot be identified or available on a page



How to Take a Screenshot?

Taking a screenshot in Selenium is a three-step process:

1

Copy file to desired location

FileUtils.moveFile(tmpFile, imgFile);

2

Convert web driver object to TakeScreenshot

TakesScreenshot scrShot =((TakesScreenshot)webdriver);

3

Call getScreenshotAs() method to create image file

File tmpFile = scrShot.getScreenshotAs(OutputType.FILE);

How to Take a Screenshot?

A sample code to take a screenshot and save it in the desired location, with desired name and extension:

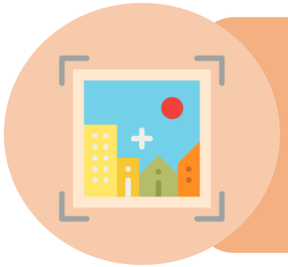
```
@Test
Run | Debug
public void testScreenshotExample() throws Exception {
    WebDriver driver;

    System.setProperty("webdriver.chrome.driver", "C:\\chromedriver.exe");

    driver = new ChromeDriver();
    // goto url
    driver.get("http://url");
    // Call take screenshot function

    this.takeSnapShot(driver, "c://test.png");
}

public static void takeSnapShot(WebDriver webdriver, String fileWithPath) throws Exception {
    // Convert web driver object to TakeScreenshot
    TakesScreenshot scrShot = ((TakesScreenshot) webdriver);

    // Call getScreenshotAs method to create image file
    File SrcFile = scrShot.getScreenshotAs(OutputType.FILE);

    // Move image file to new destination
    File DestFile = new File(fileWithPath);

    // Copy file at destination
    FileUtils.copyFile(SrcFile, DestFile);
}
```

Screenshot of Particular Element

Using the getScreenshotAs() method on the web element, we can achieve the following:

Locate the web element:

```
WebElement logo = driver.findElement(By.xpath("//*[@id=\"app\"]/header/a/img"));
```



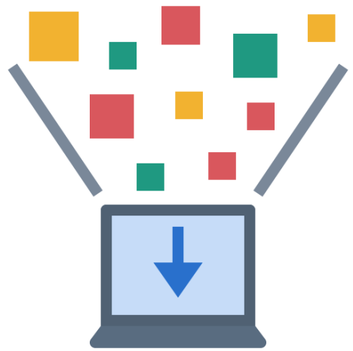
Capture screenshot with getScreenshotAs() of the WebElement class:

```
File f = logo.getScreenshotAs(OutputType.FILE);
FileUtils.copyFile(f, new File("C:\\projectScreenshots\\logoScreeshot.png"));
```

Change the Browser Profile-Firefox

Browser Profile - Firefox Profile

Firefox (Browser) profile is the collection of settings, customization, add-ons, and other personalization settings that can be done on the Firefox Browser.



Firefox profile is just like different users using Firefox. Firefox saves personal information such as bookmarks, passwords, and user preferences which can be edited, deleted or created using the program manager.

Location of Profile Folder in the Disk

The location of profile is as follows:

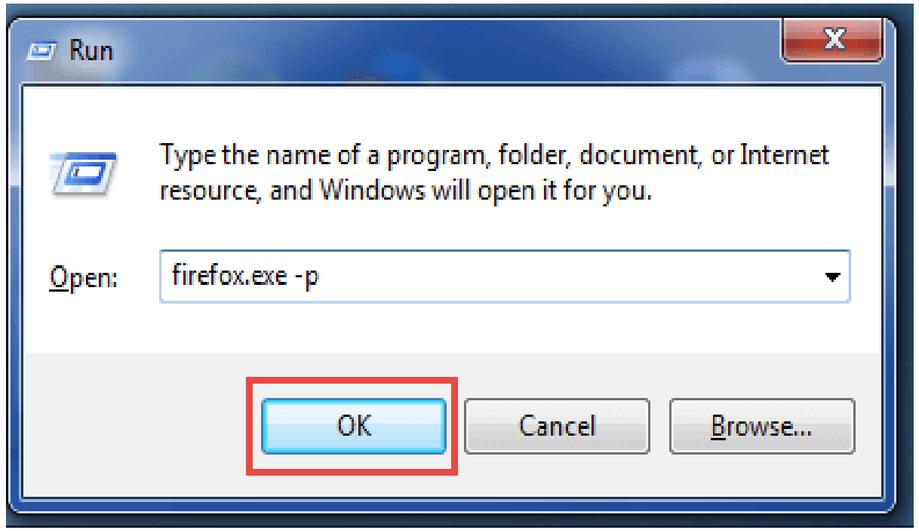
- For Windows -- /AppData/MozillaFirefoxProfile_name.default
- For Linux -- /.mozilla/firefox/profile_name.default/
- For Mac OS X -- ~/Library/ApplicationSupport/Firefox/Profiles/profile_name.default/

Location of Profile Folder in the Disk

To run a successful Selenium test, a Firefox profile should be:

- Easy to load
- Proxy settings, if required
- Other user-specific settings based on automation needs

How to Create a Firefox Profile?

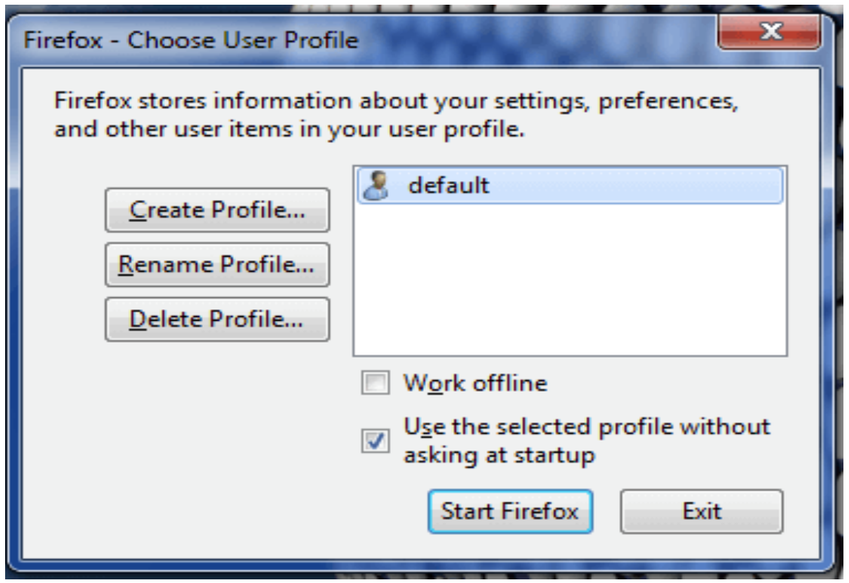


Let's see it step-by-step on how to create a Firefox profile:

Step 1) Close the Firefox browser if open.

Step 2) Open Run (Windows key + R) and type firefox.exe –p.

How to Create a Firefox Profile?

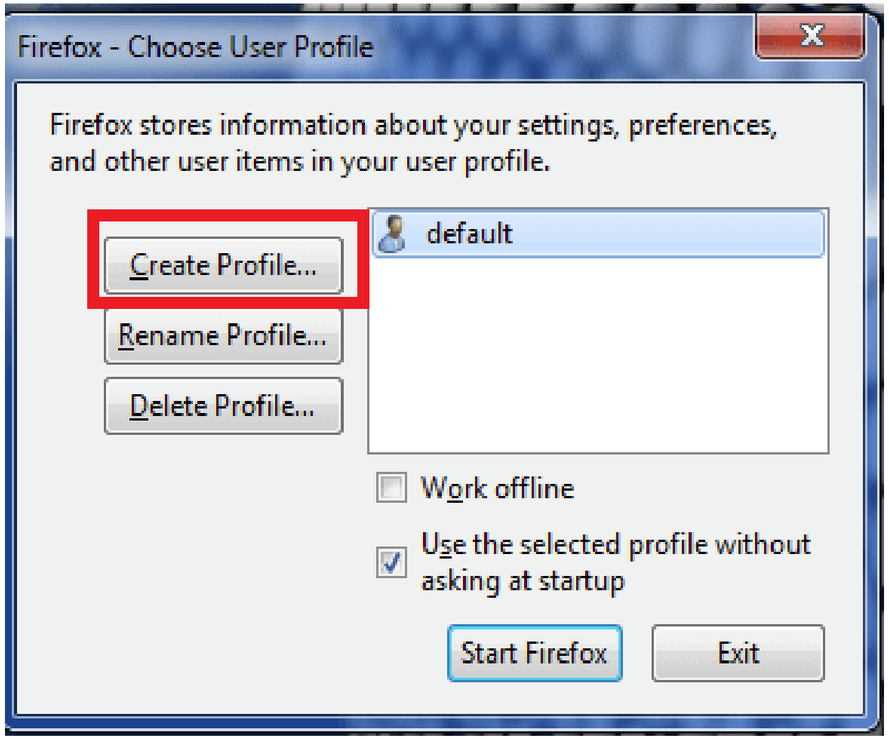


Note: If it doesn't open, you can try using the full path enclosed in quotes.

- On 32 bit- Windows: "C:Program >> Files >> Mozilla Firefox.exe" –p
- On 64 bit : Windows: "C:Program Files(x86) >> Mozilla Firefox.exe" –p

Step 3) Choose a user profile. Now, the dialogue box will open named Firefox.

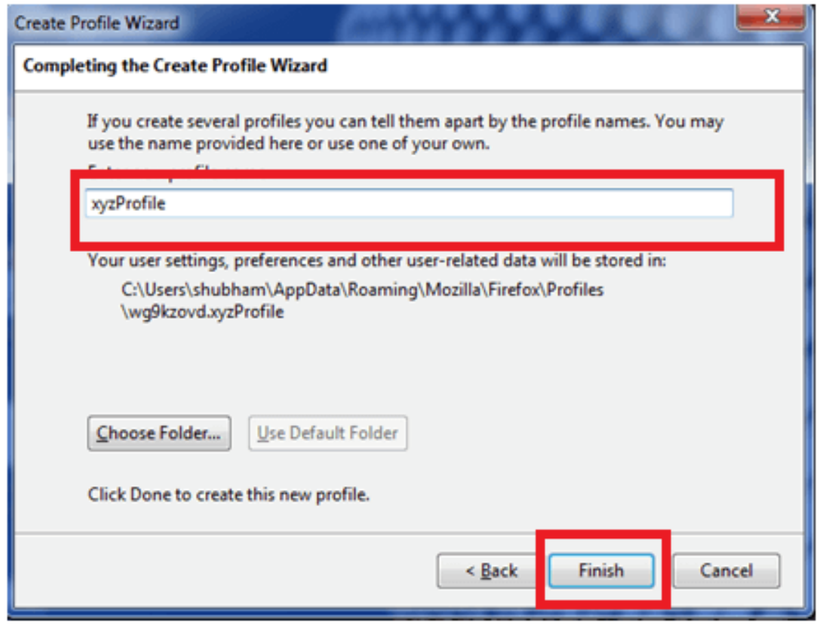
How to Create a Firefox Profile?



Step 4) Create Profile

Now, select the option Create Profile from the window, and a wizard will open. Click on next.

How to Create a Firefox Profile?



Step 5) Give a profile name.
Now, the profile is ready. Select your profile and open Firefox. Notice that the new Firefox window will not show any of its Bookmarks and Favorite icons.

Note: The last selected profile will load automatically at the next Firefox launch. You will need to restart the profile manager if you wish to change the profiles.

Selenium Code for the Profile

To access the newly created Firefox profile in the Selenium WebDriver software test, we need to use the webdrivers inbuilt class ‘profilesIni’, and its method getProfile, as shown below:

- **This is a code to implement a profile, which can be embedded in the Selenium code:**

  Profilesini profile = new ProfilesIni();

- **This will create an object for the Firefox profile:**

  FirefoxProfile myprofile = profile.getProfile(”my-first-profile");

- **This will Initialize the Firefox driver:**

  WebDriver driver = new FirefoxDriver(myprofile)

Key Takeaways

- Screenshots are required to debug failed test cases after the execution of a regression suite.
- Selenium provides a TakesScreenshot interface and getScreenshot() method to take screenshots.
- Firefox and most other browser providers provide the browser profile to customize the browser experience for Selenium testing.

Thank You