
ATTACK
DEFENSE
by PentesterAcademy

Name	Selenium: Automation with Browser Plugin
URL	https://attackdefense.com/challengedetails?cid=2342
Type	DevOps Basics: Testing

Important Note: This document illustrates all the important steps required to complete this lab. This is by no means a comprehensive step-by-step solution for this exercise. This is only provided as a reference to various commands needed to complete this exercise and for your further research on this topic. Also, note that the IP addresses and domain names might be different in your lab.

Challenge Description

Selenium is an open-source web application testing framework for automating functional tests.

Selenium IDE is an IDE (Integrated Development Environment) for Selenium tests. It is implemented as a Firefox/Chrome extension that allows a user to record, edit, and debug tests.

Selenium IDE extension is installed in the Firefox browser of the lab Kali (kali-gui) machine.

A WordPress (wordpress) instance is also present in the lab. The credentials provided below can be used to log in to the WordPress portal:

Username	Password
admin	@mY_W0rdPr3SS_p@ssw0rd@102938

Objective: Automate the following activities using the Selenium IDE.

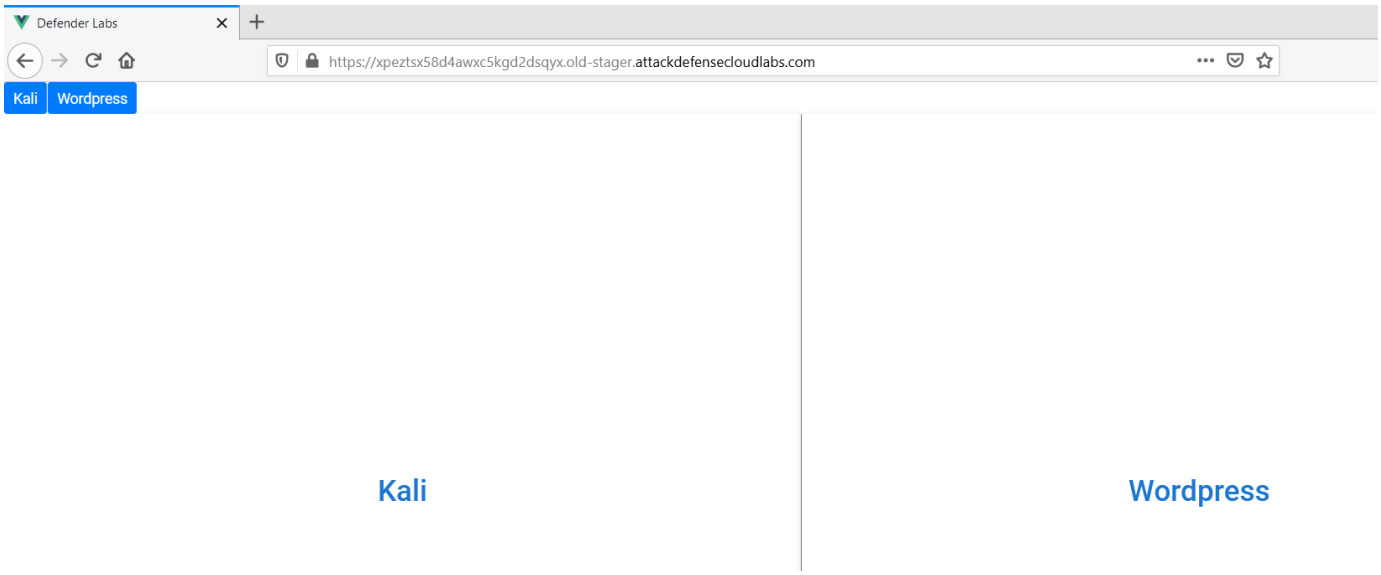
1. Login into WordPress portal as admin.
2. Add a new admin user to WordPress.
3. Publish a new post from the new admin user (created in the previous task)

Instructions:

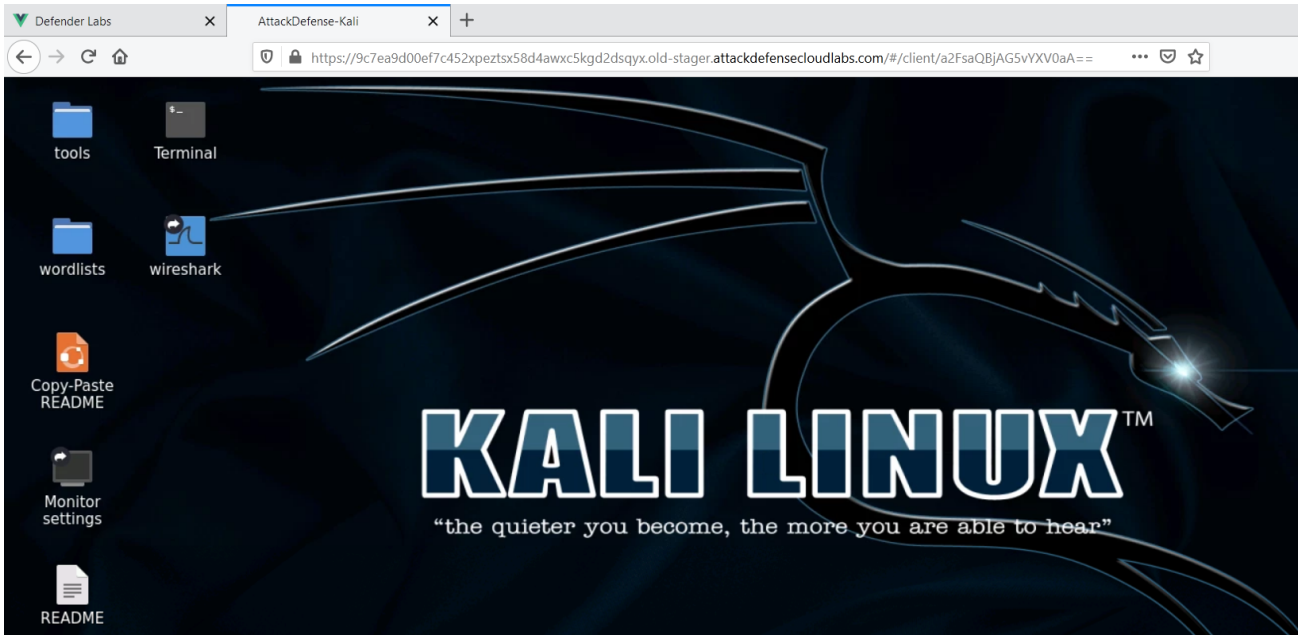
- The WordPress instance can be accessed on "wordpress"
- The selenium IDE test solution project is kept on the Desktop of the Kali machine (/root/Desktop/selenium-test.side)

Lab Setup

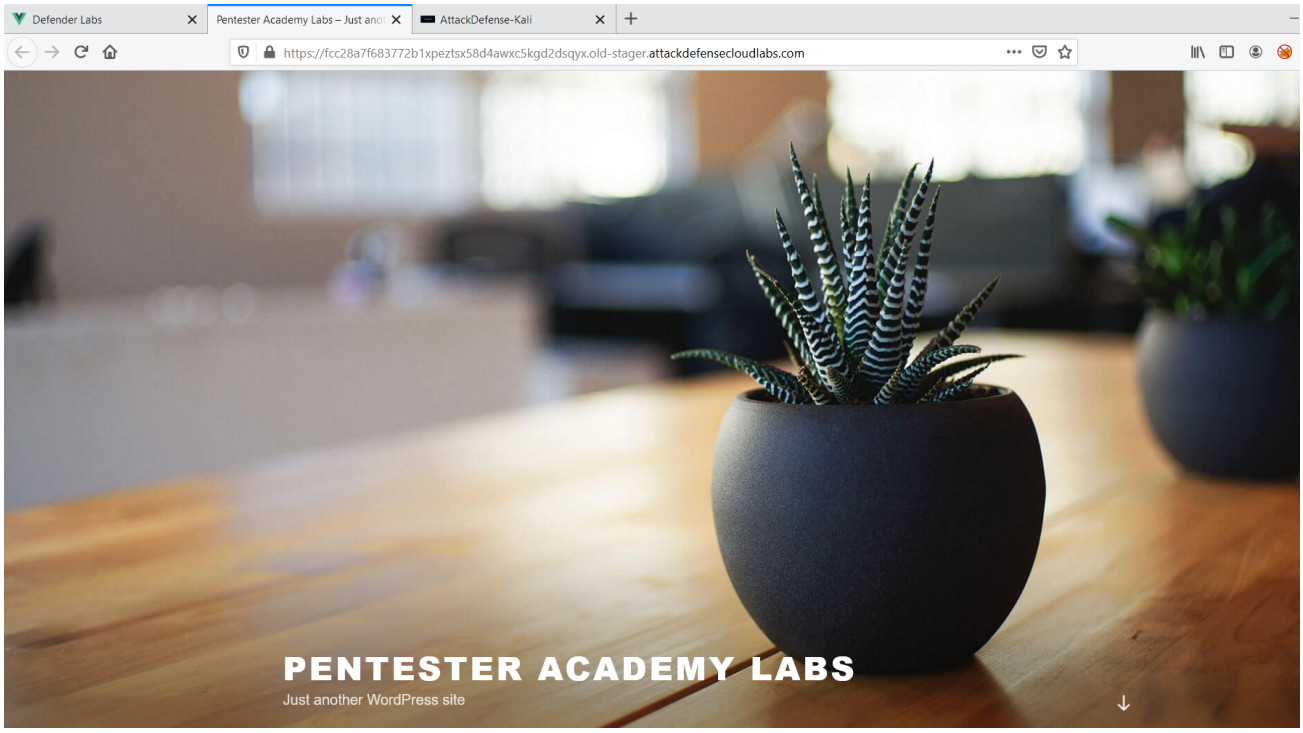
On starting the lab, the following interface will be accessible to the user.



On choosing (clicking the text in the center) left panel, **a Kali GUI instance** will open in a new tab.

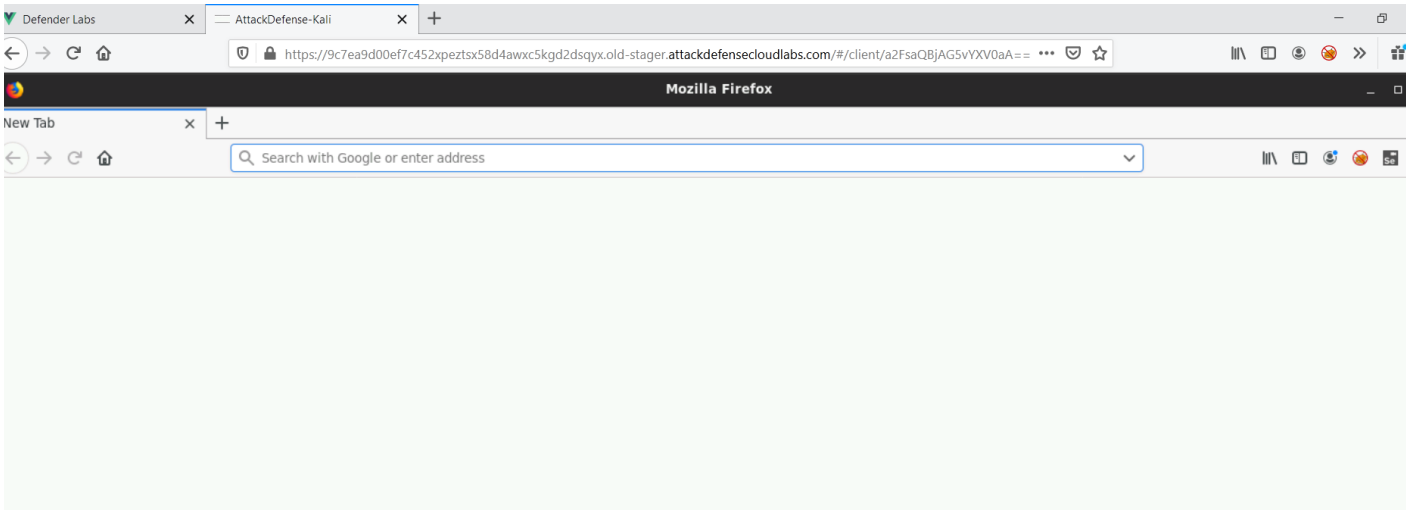


Similarly on selecting the right panel, a web UI of **WordPress** will open in a new tab.



Solution

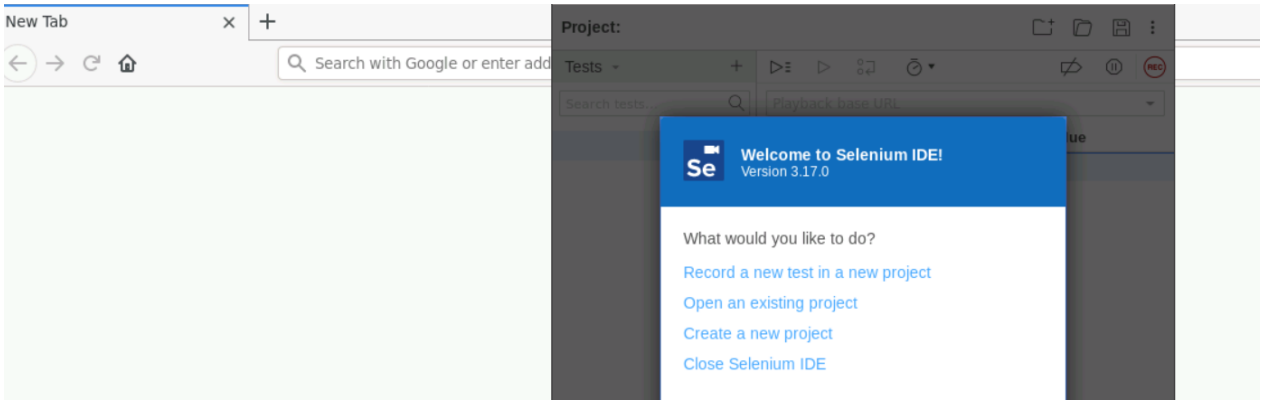
Step 1: Open firefox in the Kali GUI instance.



The Firefox has Selenium IDE installed as an extension. By using the extension a user can perform automated tests on the web application.

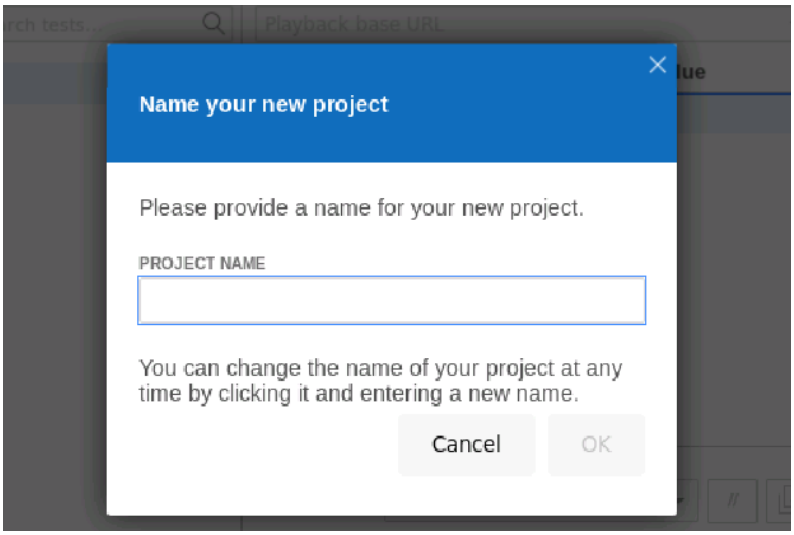
We will takes first task i.e. Login into WordPress portal as admin and learn how to create the test case using selenium IDE.

Step 2: Click on the Selenium IDE located at the top right bar.

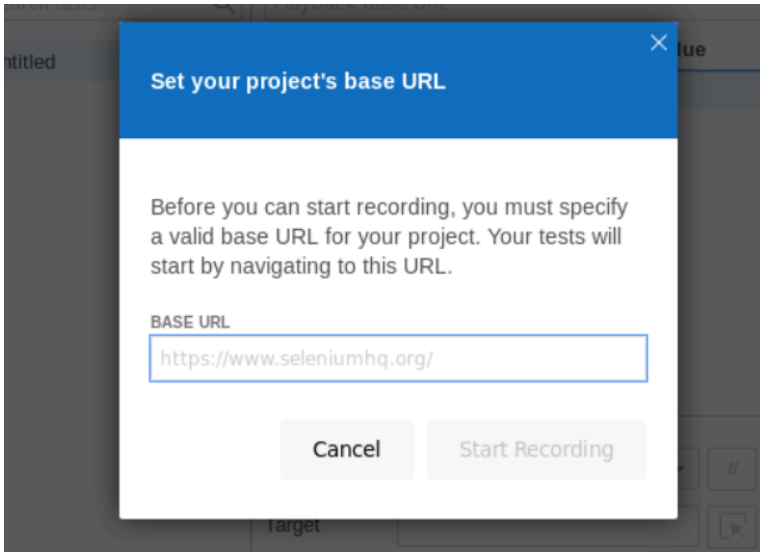


The extension will start and ask the user to select an existing project or to create a new one.

Step 3: Select the “Record a new test in a new project” option

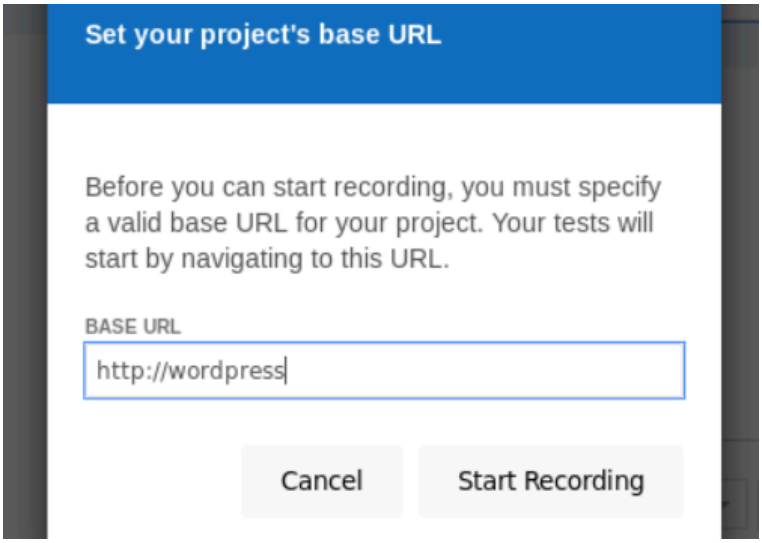


Enter a project name

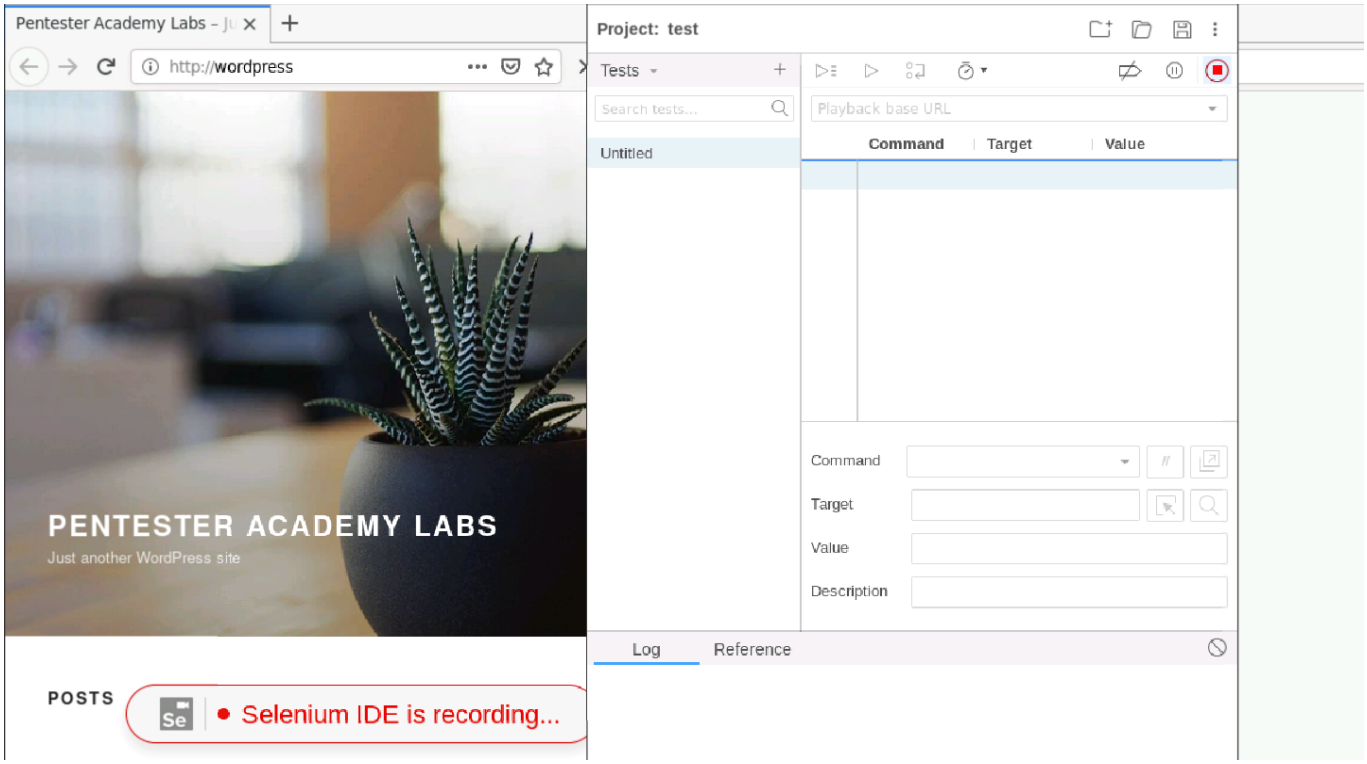


Enter the target URL in the Base URL field

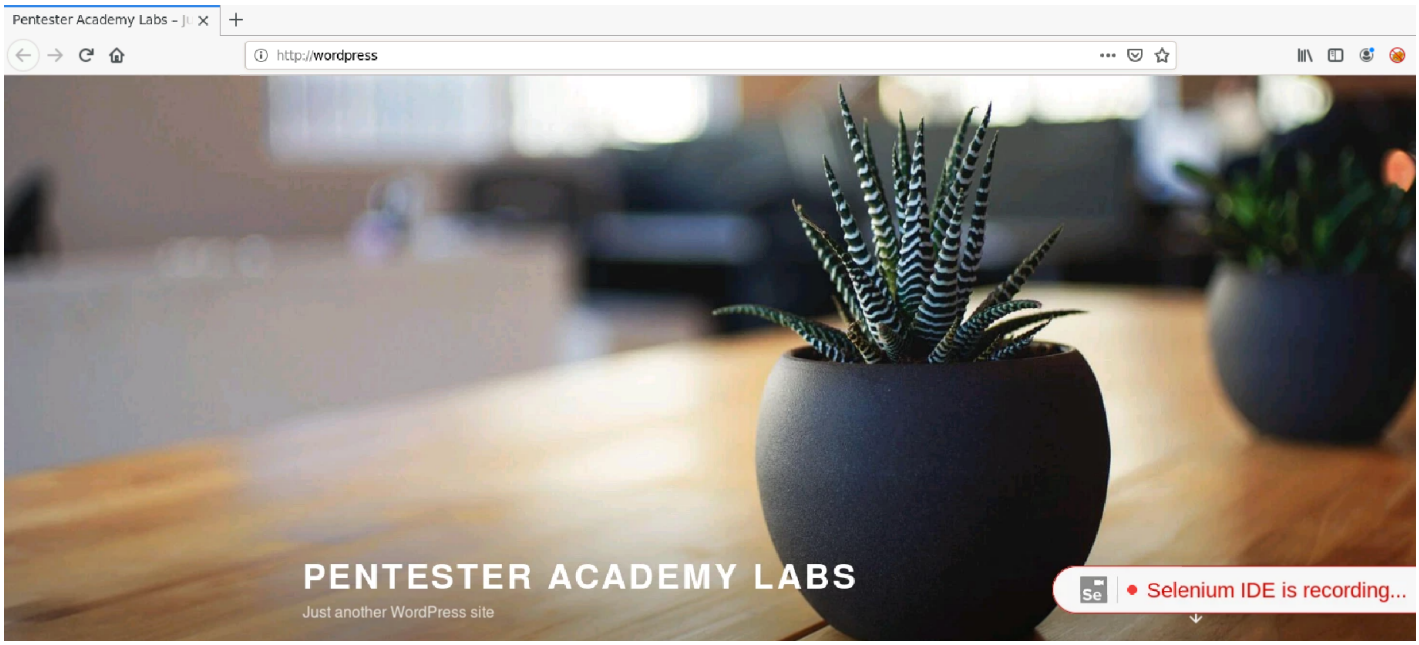
URL: http://wordpress/



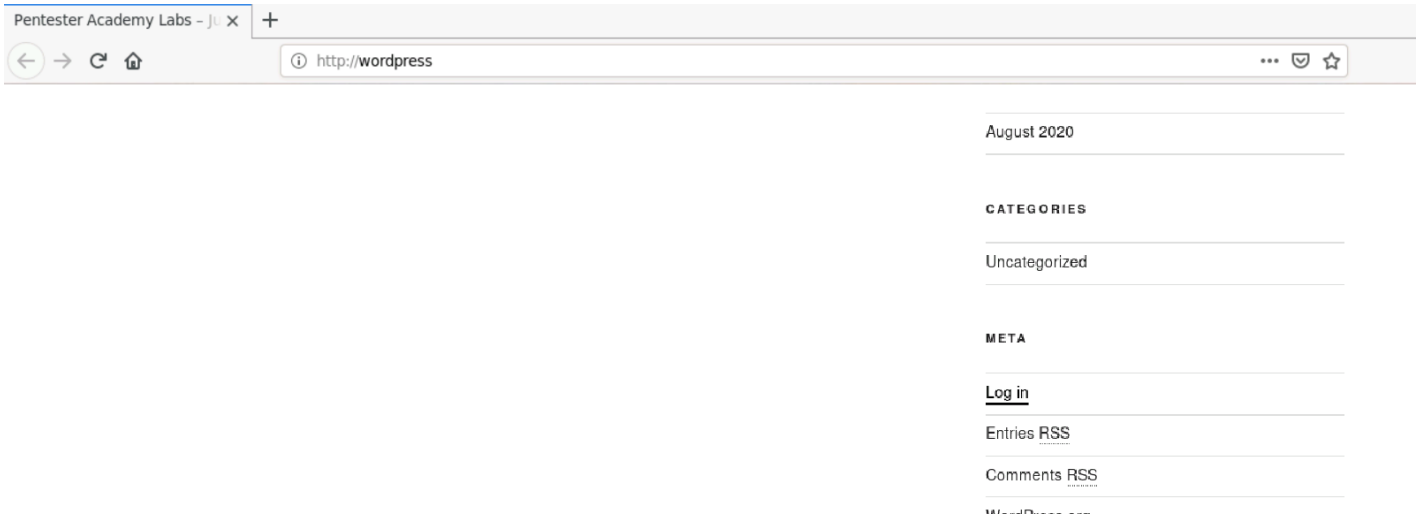
Click on Start Recording



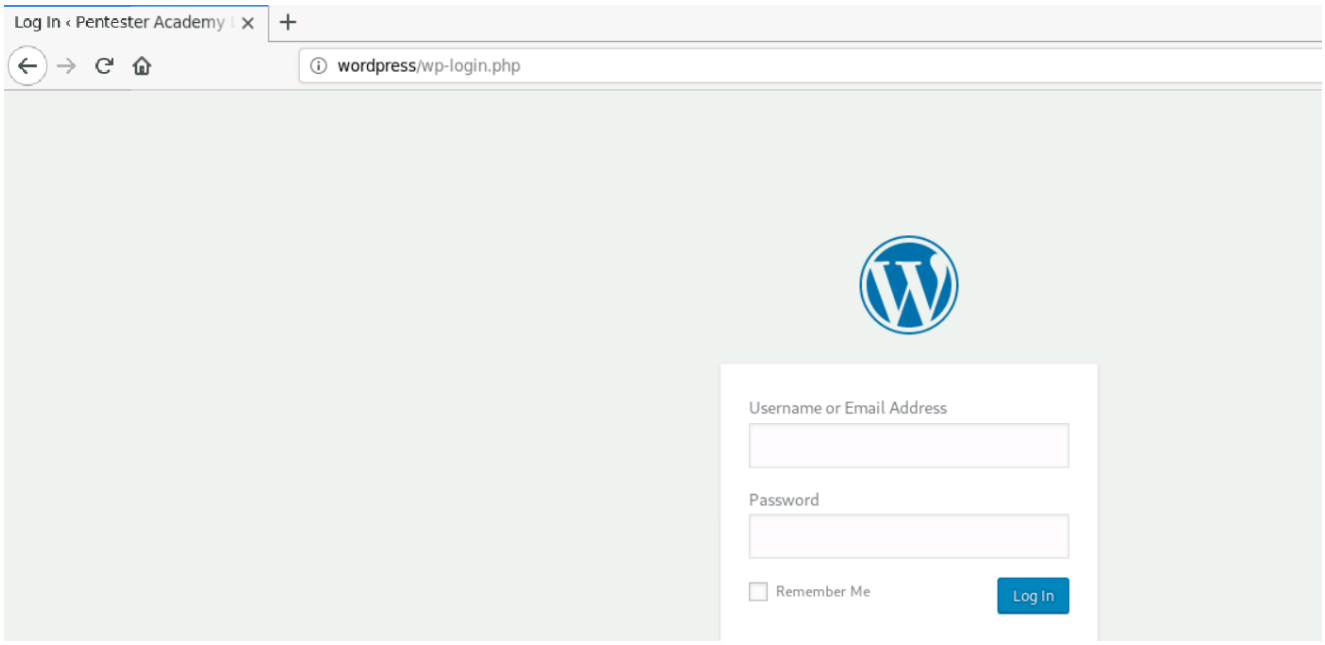
Step 4: Minimize the IDE bar and maximize the recording window



Scroll down to see more option



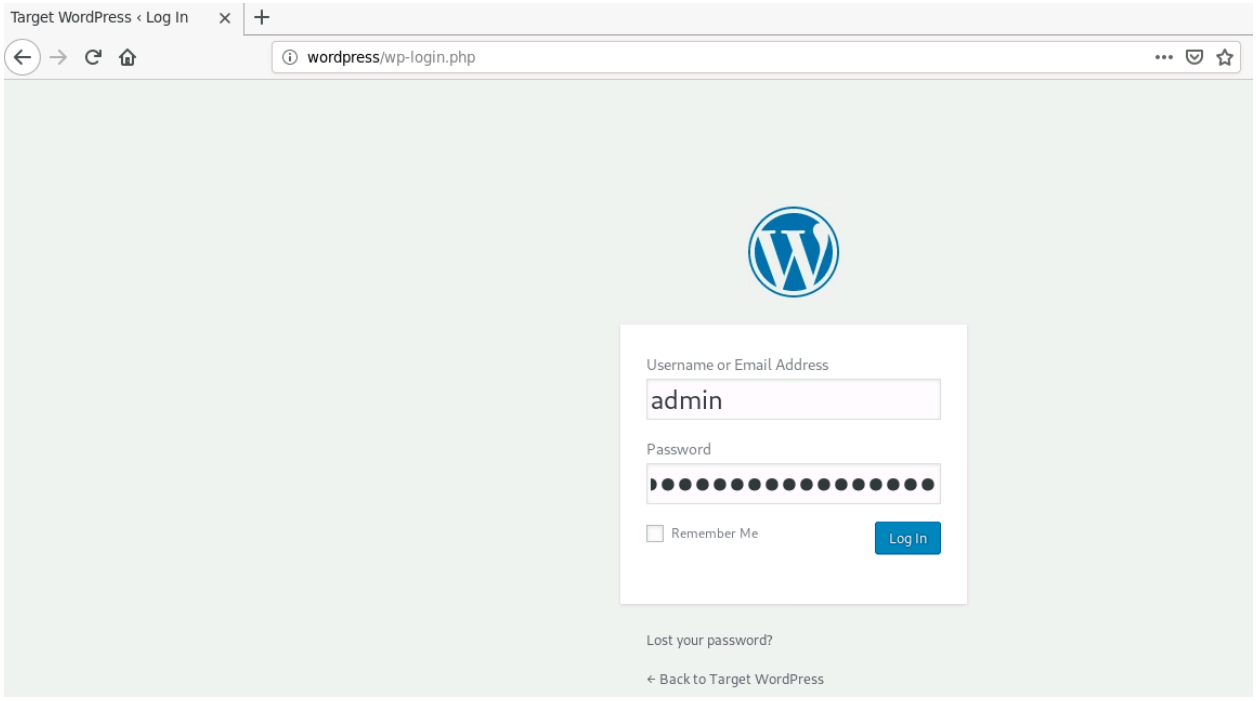
Step 5: Click on the Login button



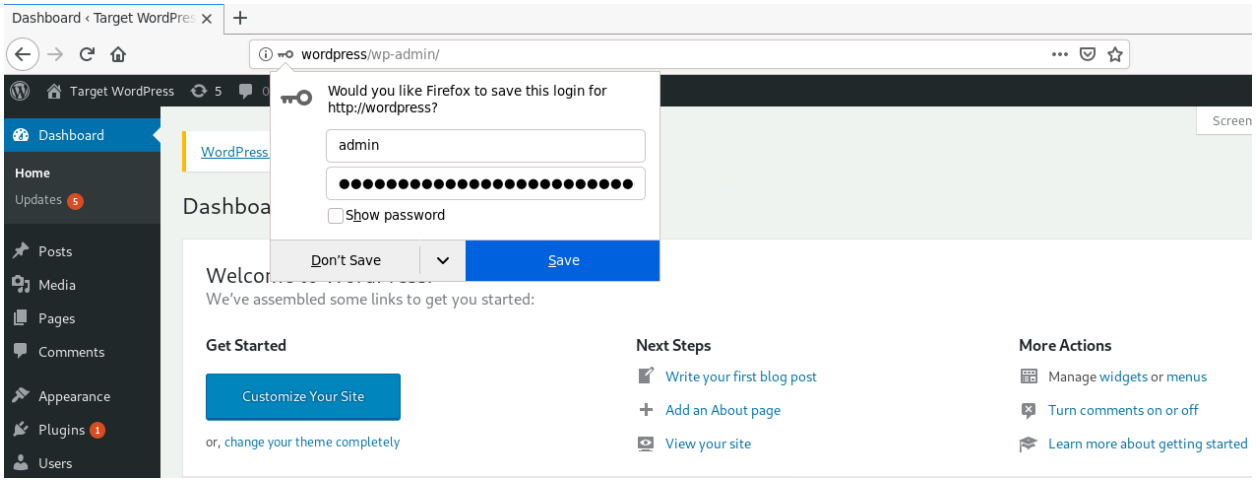
Step 6: Enter the login credentials which have been provided in the challenge description

Credentials:

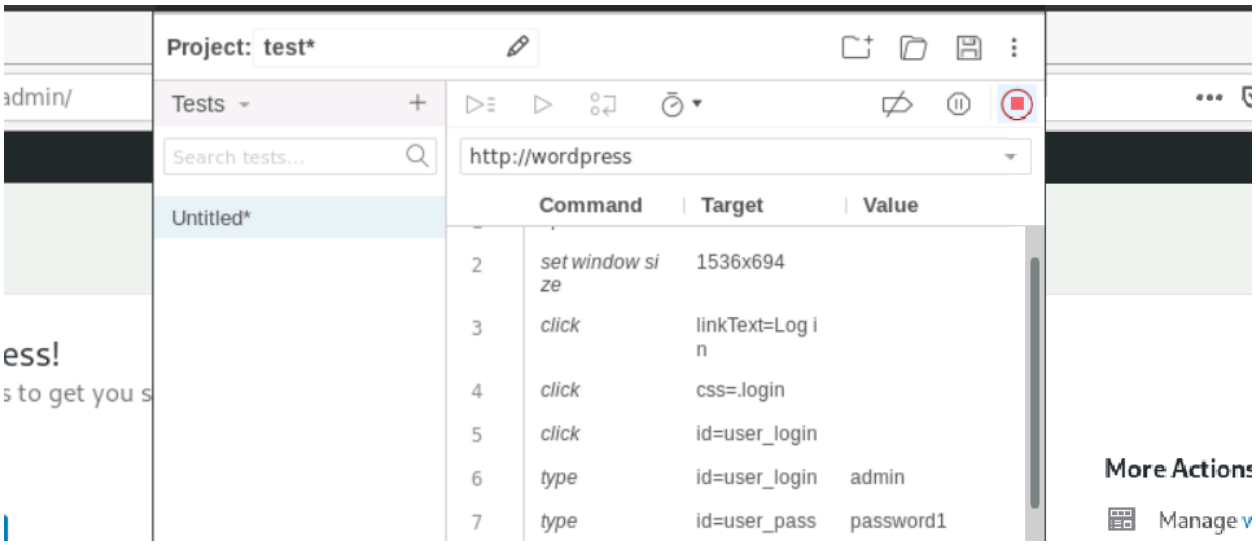
- **Username:** admin
- **Password:** @mY_W0rdPr3SS_p@ssw0rd@102938



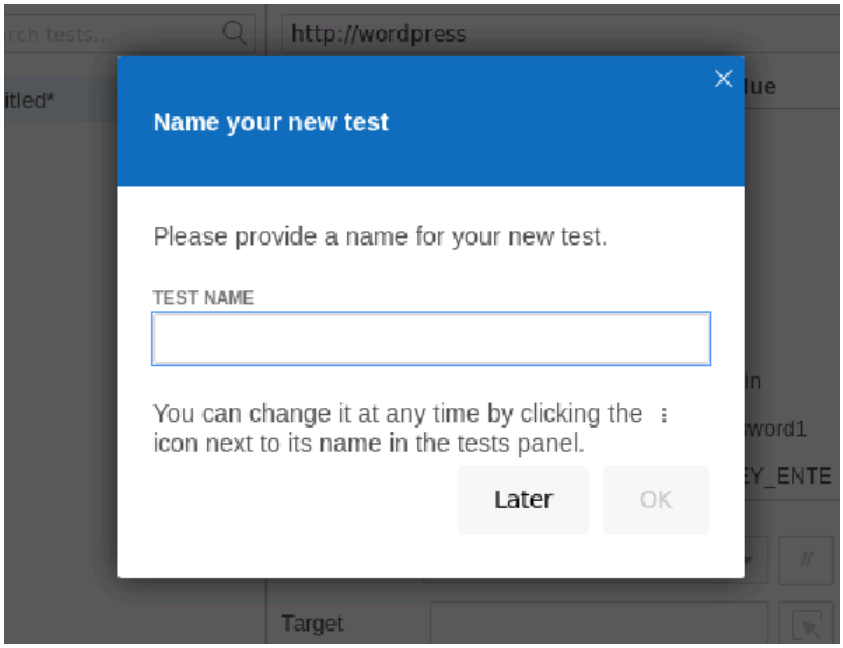
Press enter to login.



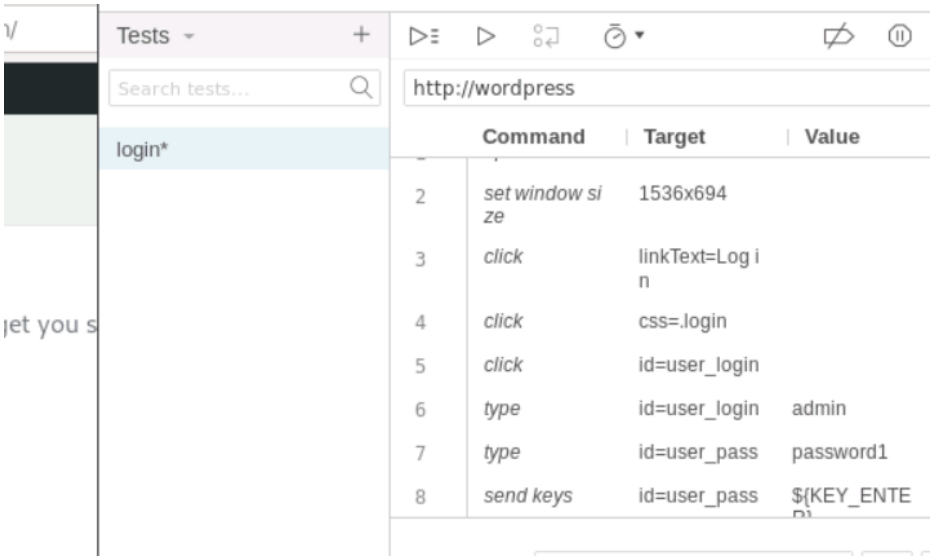
Login succeeded. Click on the 'selenium IDE' plugin icon located at the top right bar of the page.



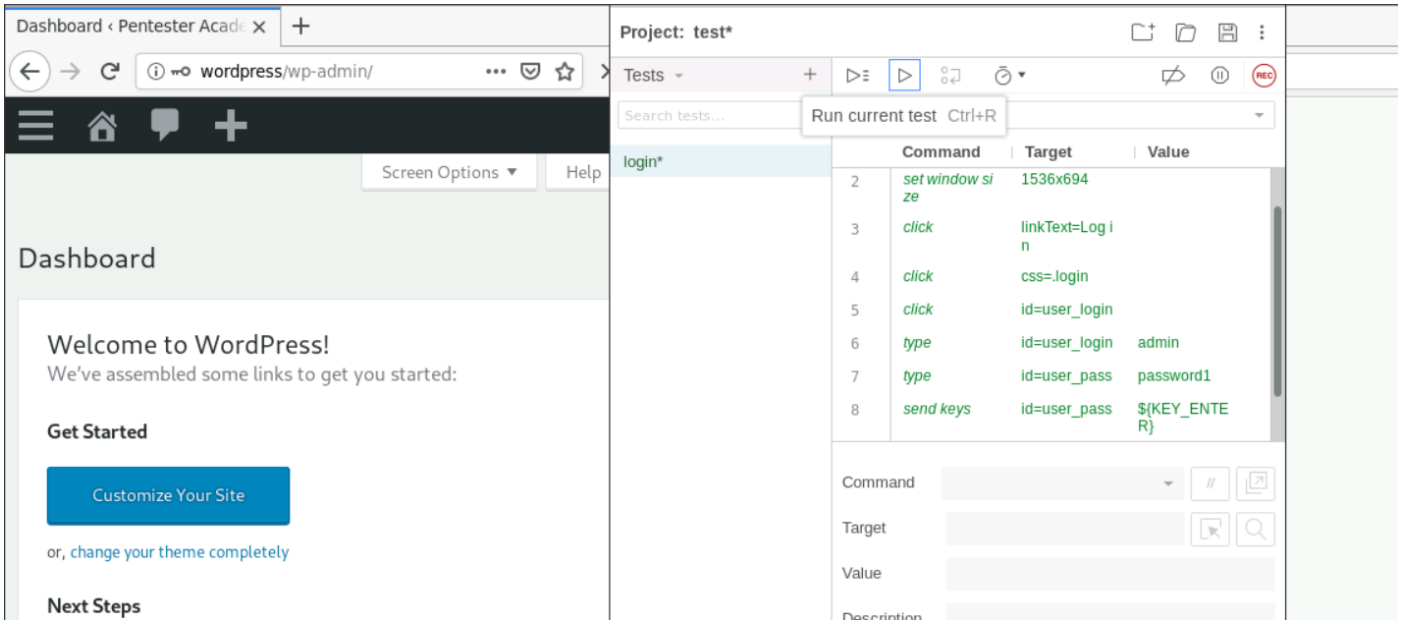
Click on the Stop button to stop the recording



Enter any name to save the test.



Step 5: Logout of the WordPress and click on the “Run Current test” button.



The test was successful and this is how one can create tests using Selenium IDE. The same methodology can be used to create other tests. We have also provided the solution test file in the Kali machine.

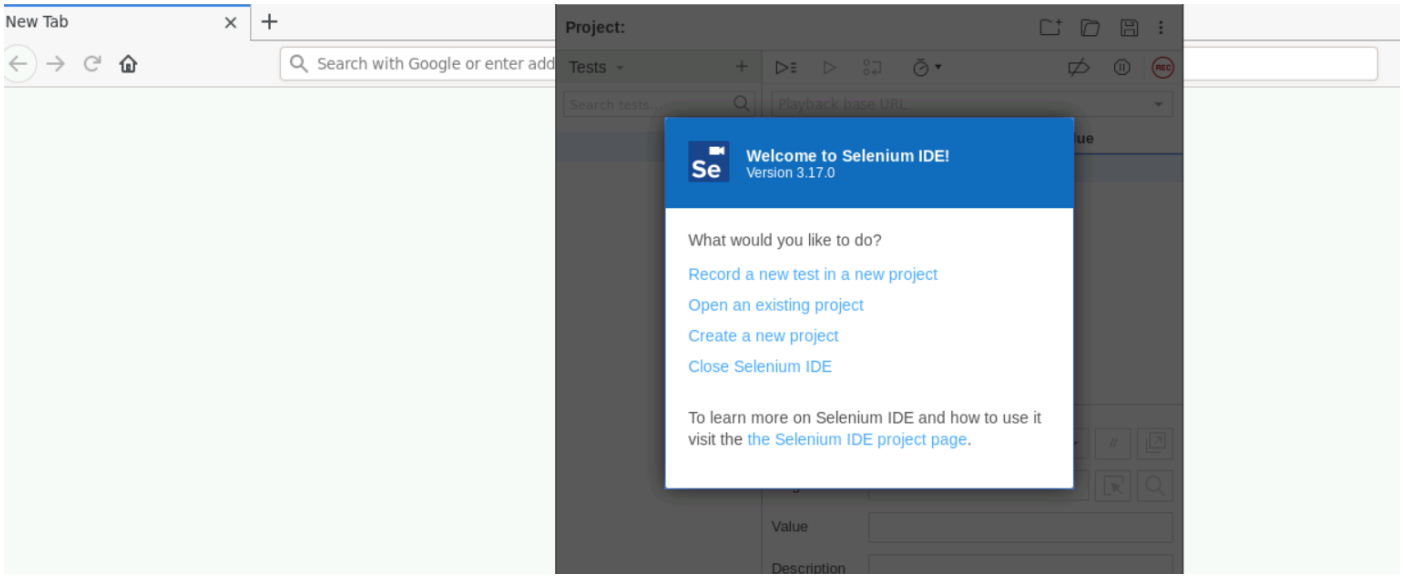
Step 6: Logout and close the Selenium IDE

Logout from the application and click on the “Leave Page” option, This will close the firefox and selenium IDE.

Loading Stored tests

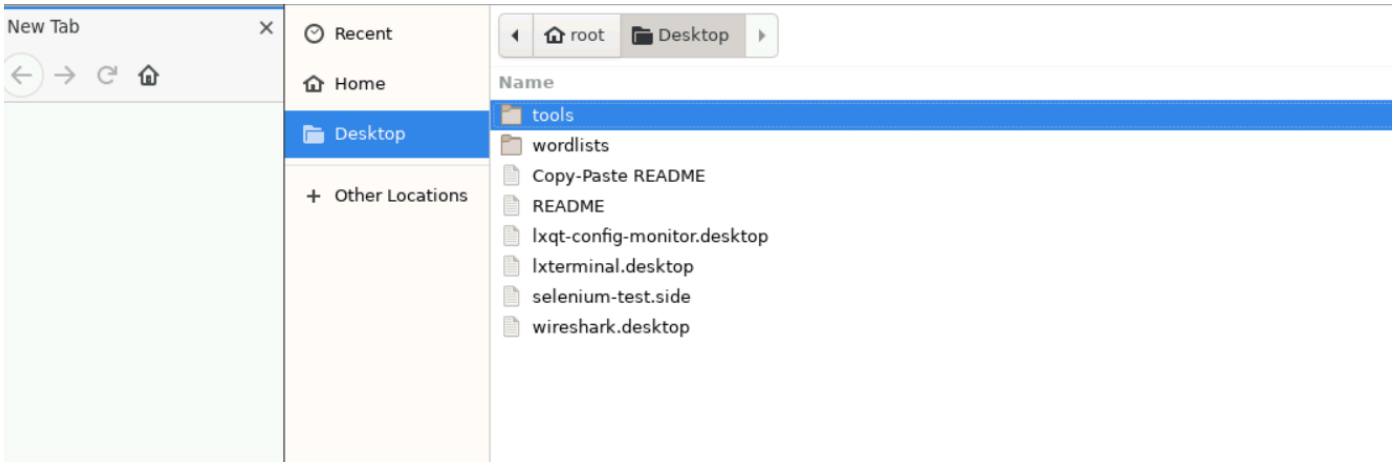
We have already recorded all three test cases. These test cases are stored on the Desktop of the Kali machine.

Step 7: Click on the Selenium IDE located at the top right bar.



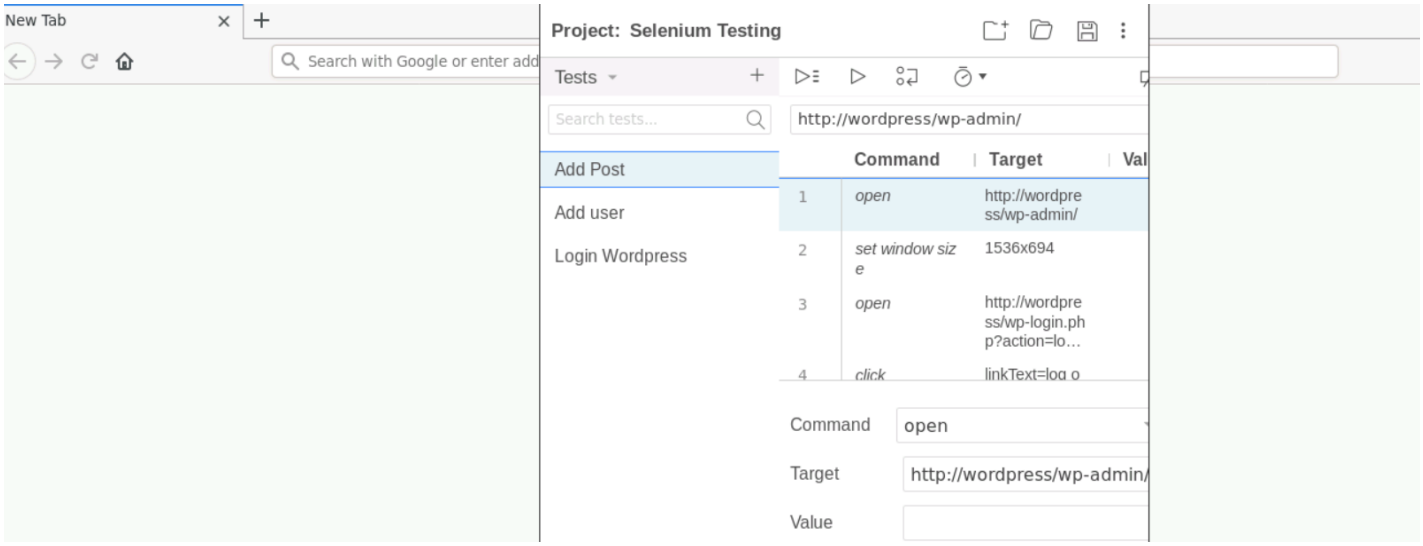
The extension will start and ask the user to select an existing project or to create a new one.

Step 8: Select the “Open an existing project” option.



By clicking on the option, The extension will open a window to select the project which contains the testing code.

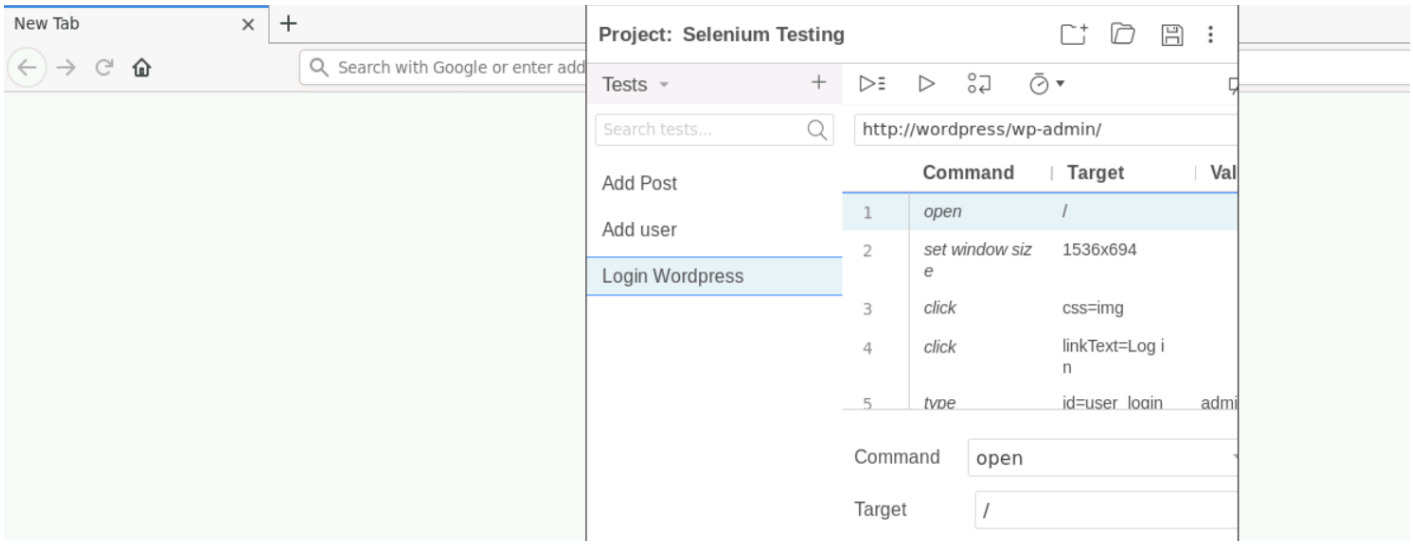
Step 9: Choose the “selenium-test.side” file. The selenium-test.side is the project file which is required by the IDE because it contains the code of the tests which has to be performed on the target.



There are 3 available test cases which can be used to test the WordPress application.

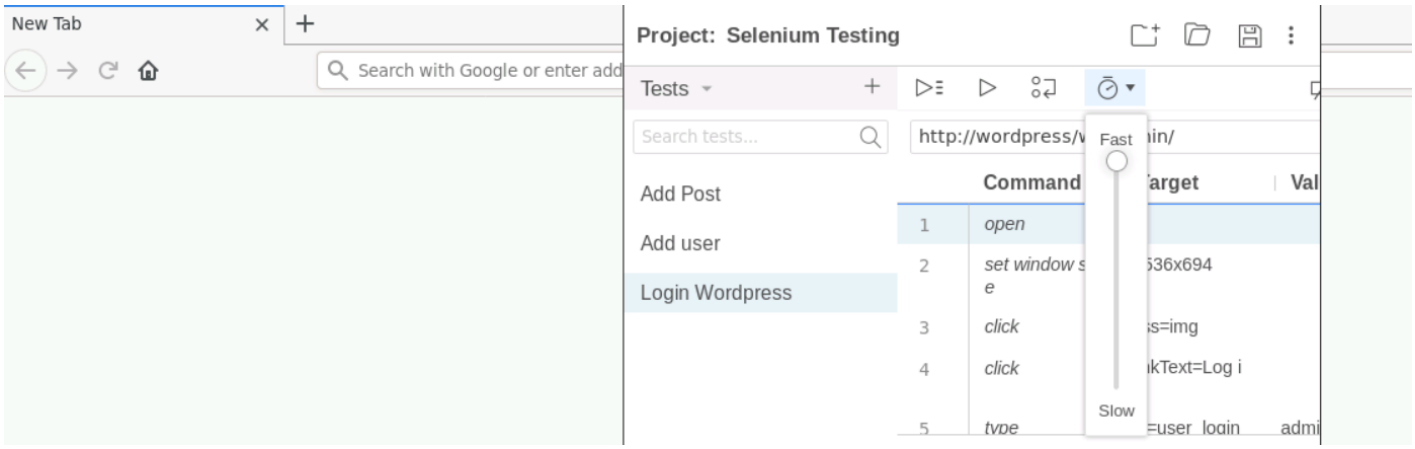
Test Case 1 : Login into WordPress portal as admin (Test name: Login Wordpress)

Step A: Select the “Login Wordpress” test case.

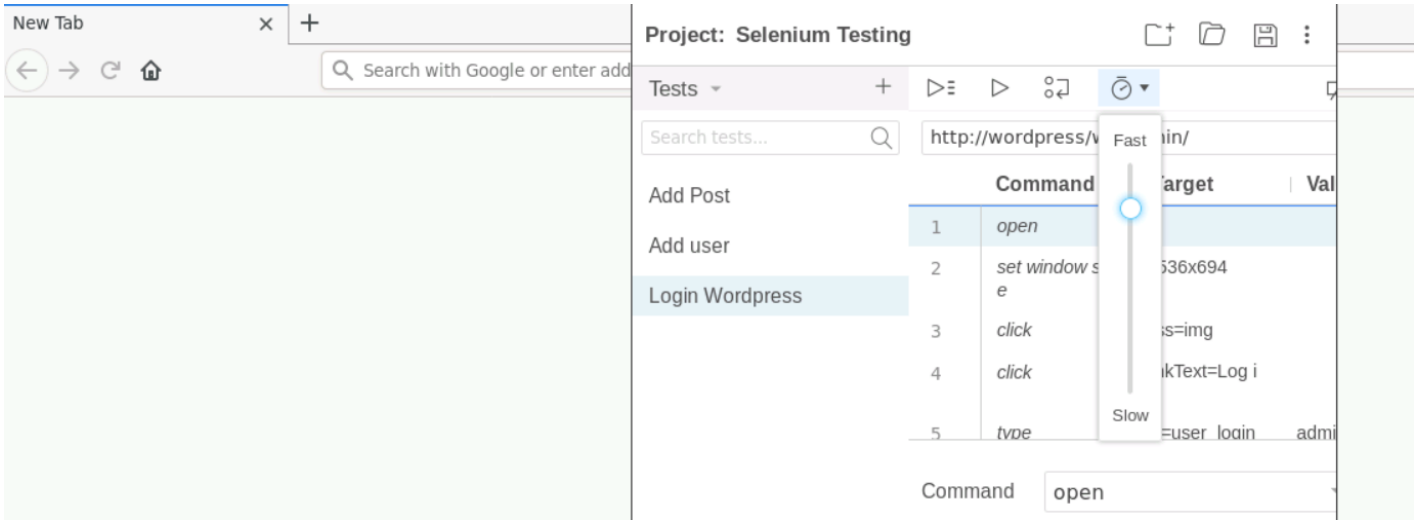


The test code is in the form of step numbers.

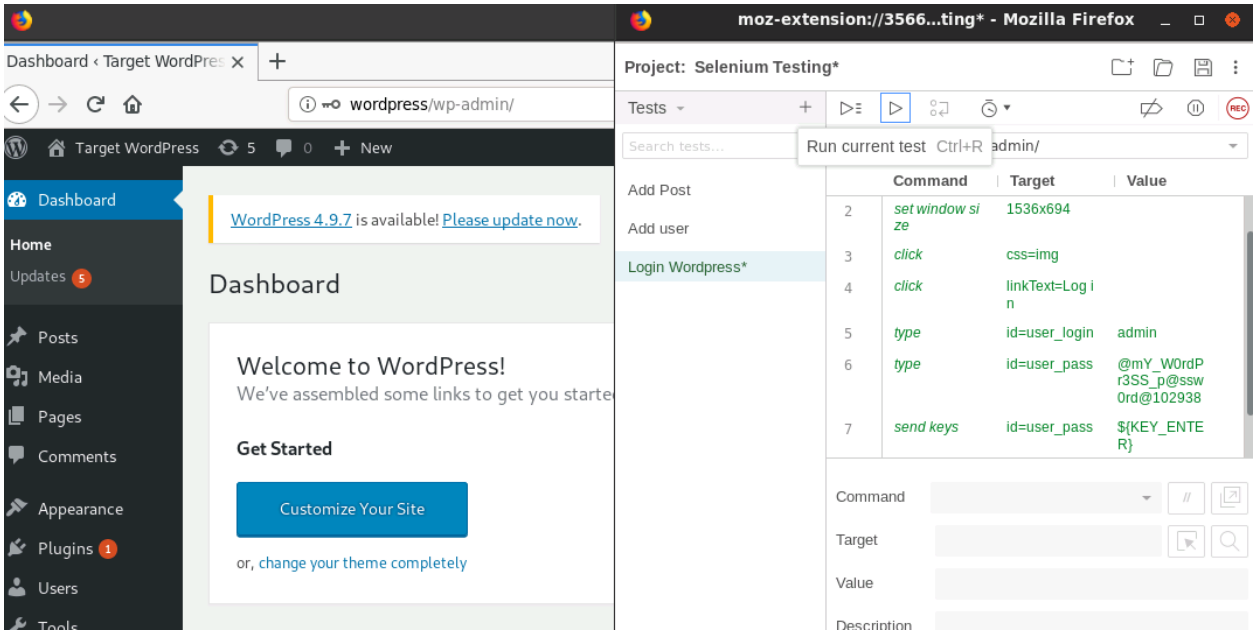
Step B: Adjust the Speed of the tests to check the results thoroughly. Click on the Stopwatch icon.



Reduce the Timer to see the test at normal speed.



Step C: Click on the “Run current test” button located above the URL bar.

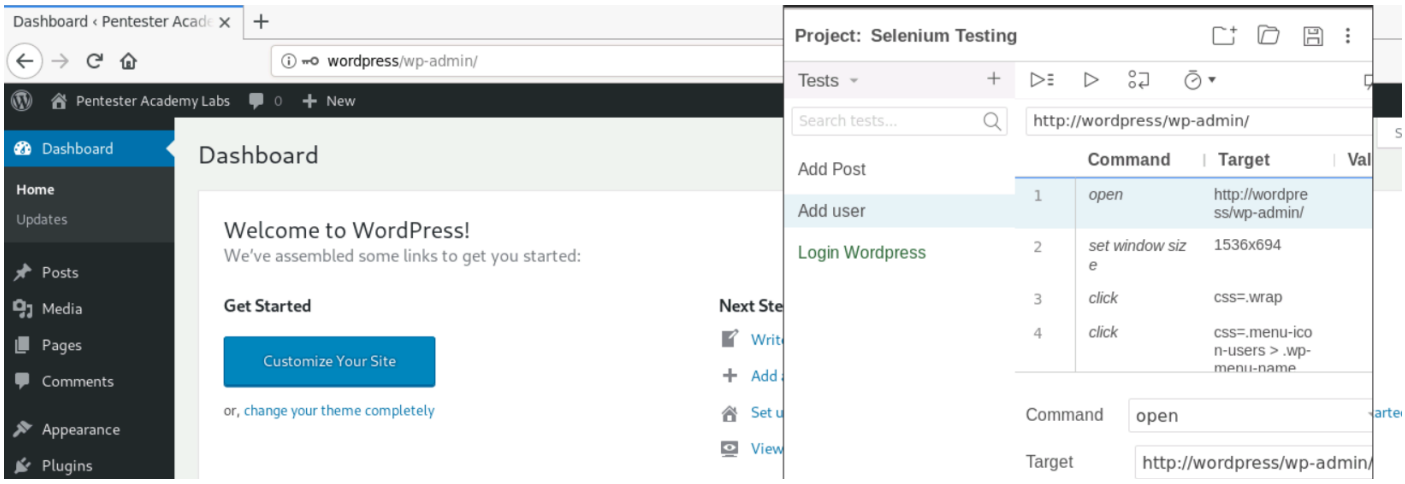


The test was successful as the web application was logged in successfully as user admin.

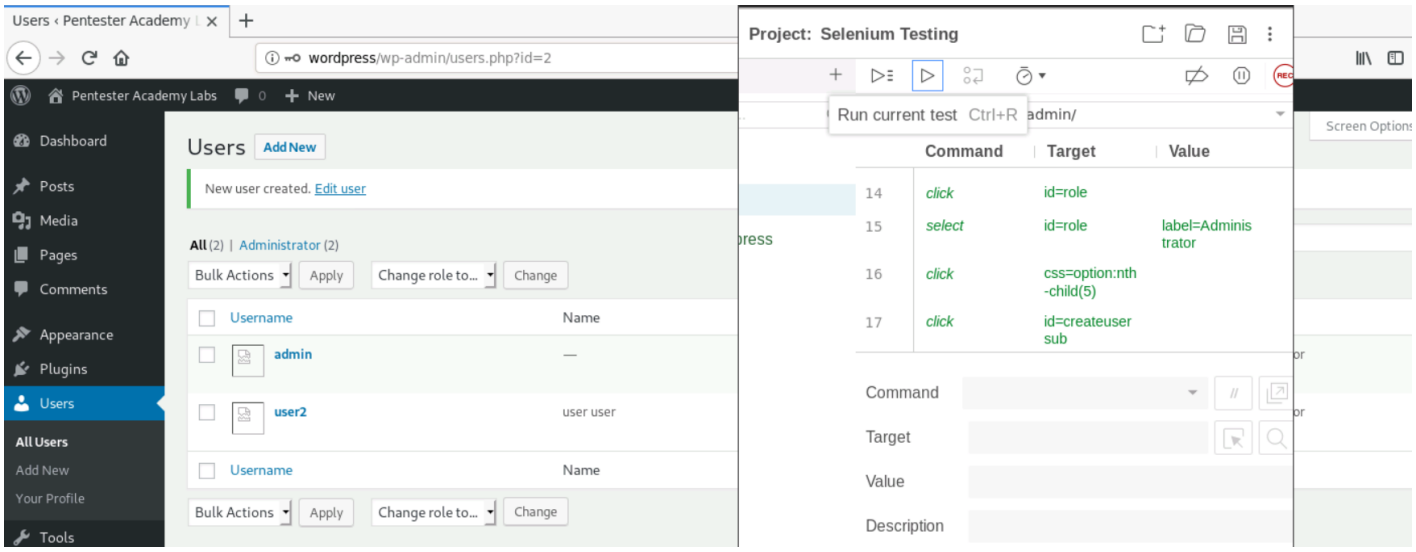
Note: Please also notice that the user can see this test running in the browser window.

Test Case 2: Add a new admin user to WordPress (Test name: Add User)

Step A: Click on the “Add User” test case. This test case will create an admin user in the wordpress website.



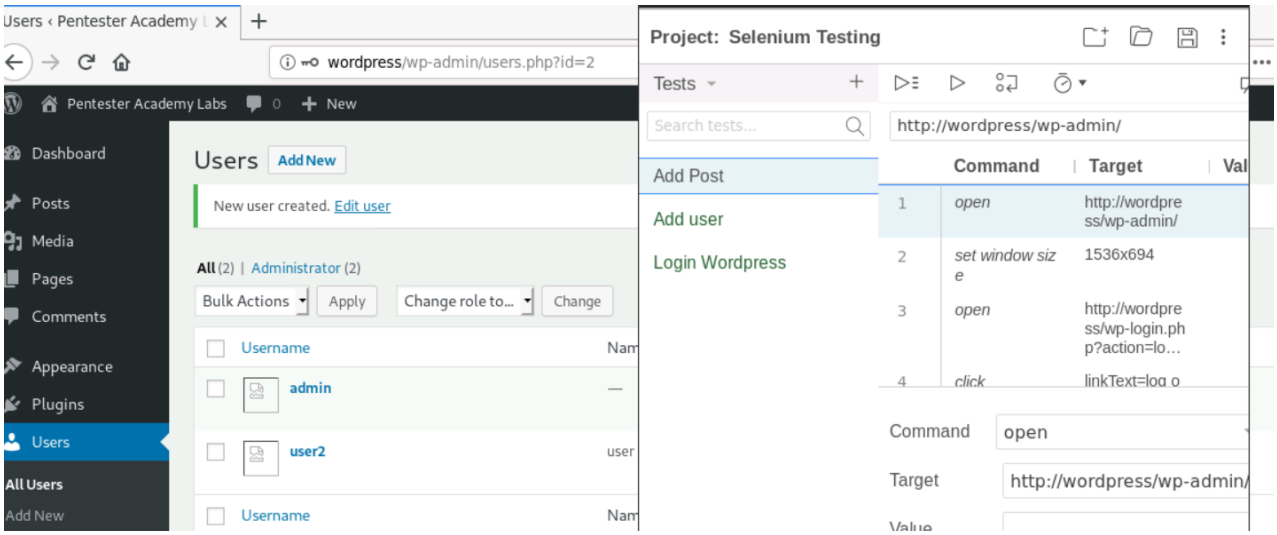
Step B: Click on the “Run current test” button located above the URL bar.



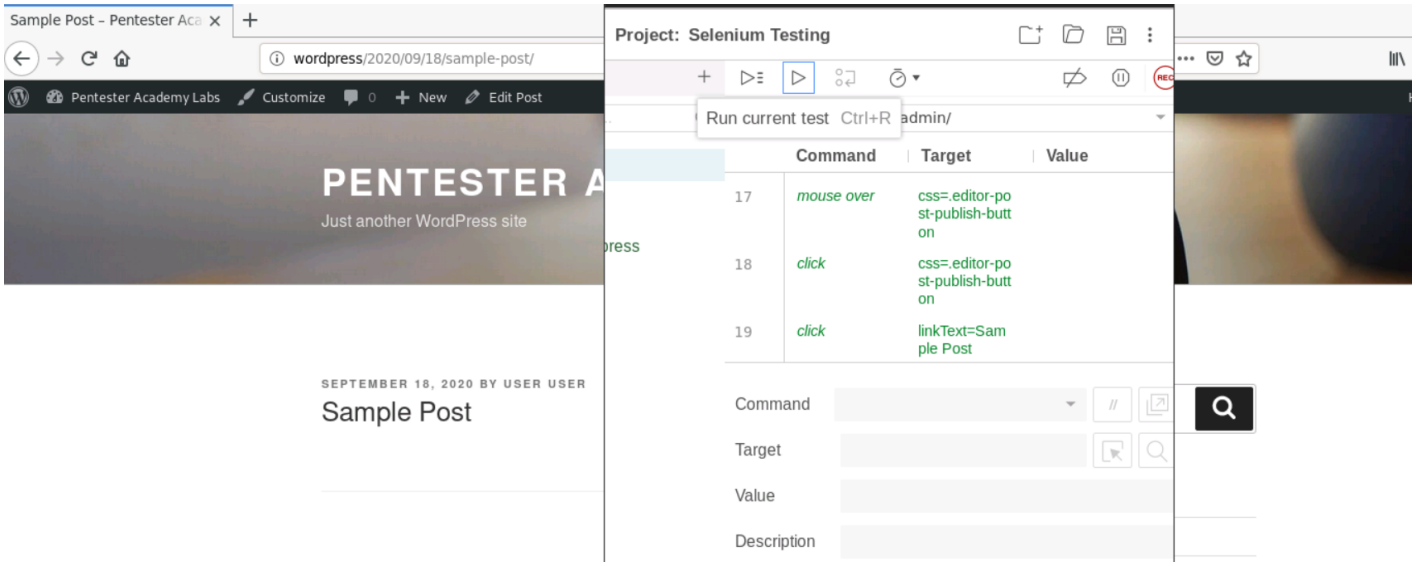
The Test case has successfully created an admin user “user2” with password “password1”.

Test Case 3: Publish a new post from the new admin user (Test name: Add Post)

Step A: Click on the “Add Post” test case. This test case will first log out the admin user and log in as user2 followed by creating a post with Sample Post as the title.



Step B: Click on the “Run current test” button located above the URL bar.



The post has been successfully created by the user2 account.

Learnings

Perform Selenium Tests on the web application using the Selenium IDE.