

**Python Desktop Application Testing with Appium**

**Course Number:** PYTH-214  
**Duration:** 4 days

**Overview**

This in-person or online Python Desktop Application Testing with Appium training teaches attendees how to automate the testing of desktop applications using the free Appium framework.

**Prerequisites**

All attendees should already understand general testing concepts and have basic proficiency with at least one other programming language. Experience writing Automated Scripts (in any test framework) is desirable.

**Materials**

All Python Testing with Appium training attendees receive courseware covering the topics in the class.

**Software Needed on Each Student PC**

* Accelebrate will provide a remote virtual machine for each student. Attendees will need a browser and an SSH client for access.
* We strongly recommend that attendees have dual monitors or dual devices so that each attendee can do their lab work on one screen and watch the instructor’s screen in real-time on the other.

**Objectives**

* Install and set up the Appium framework
* Create variable and keyword sections in an Appium file
* Understand the basics of Appium syntax
* Write and execute an Appium test
* Find locators using the Developer Console and XPath Helper
* Understand the benefits of the Page Object Model
* Build a Test Automation Framework
* Incorporate test automation with best practices
* Apply API test automation

**Outline**

* Appium Framework Fundamentals
  + Install and Setup Appium Framework
  + The Settings Section of an Appium file
    - Importing Resources
    - Importing Existing Appium Libraries (e.g., WinAppDriver Library)
    - Suite Setup and Suite Tear Down
    - Test Setup and Test Tear Down
  + Creating a Variables section in an Appium file
  + Creating a Keywords section in an Appium file
  + Basics of Appium Syntax
    - Using existing Appium keywords
    - Importing Appium libraries
  + Creating a Test Cases section in an Appium file
    - Test Cases naming convention
    - Documenting test cases with Documentation attribute
    - Tags attribute
    - Writing a simple Appium Test
  + Executing an Appium Test
    - Using the terminal execute tests
  + Analyzing Results
    - Viewing the log file
    - Finding the root cause of test script failures
    - How to read and explain the Report File to your Project team
* Locators/Finding Elements in a WPF Desktop Application
  + Setting up a Locator file
  + How to find locators using Developer Console and XPath Helper
  + Using id’s
  + When and how to use XPath Axes for Locators
  + Dealing with elements that have the same attributes
* Page Object Model Pattern
  + What is the Page Object Model?
  + What are the benefits of the Page Object Model?
  + How to benefit from Utilities Library when using Page Object Model
* Building a Test Automation Framework
  + Working with Keywords from existing libraries
  + Creating your project’s Utilities library
  + Extending Appium with custom keywords
  + Creating Page Object files
  + Creating organized test case files
  + Generating test data
* Enhancing Test Automation with Best Practices
  + Creating Test Automation Scripts that are adaptable for many test cases
  + Enhancing your project’s utilities library
  + Reducing the number of locators you have with “polymorphic” locators
  + Making scripts more robust with proper waits
  + Using Keyword Args for Appium Functions
  + When to use exception handling
  + Generating Appium docs to help with documentation
  + GIT Lab integration
* API Testing Fundamentals
  + What is API test automation?
  + What are the benefits of API test automation?
  + When should I use API test automation vs. UI automation?
* API Test Automation
  + Setting up a simple API test in JMeter
  + Creating an API test suite
  + Using API tests to generate test data
* Conclusion