

**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