# Java-Appium-Cucumber-Pcloudy

# Objective

To achieve Mobile Test Automation using BDD and CI approach

Prerequisite:

Basic knowledge of Java programming and Selenium WebDriver.

# Cucumber – Behavior Driven Development

**Section 1: Introduction to BDD**

* Understand about Behavior driven approach
* Why BDD is important for agile team
* How BDD is more useful
* Theory of Continuous Integration (CI): why is CI needed?

**Section 2: BDD Basics 🡪 (Using General Concepts)**

* Setup of Cucumber in Eclipse
* Gherkin Syntax
* Basic understanding of Keywords
* Analogy to programming constructs e.g. loops, parameters etc.
* Creating automation steps
* Creating a Feature File
* Creating Step definition and runner files
* Adding Multiple scenarios in a Feature
* Adding Parameterization
* Creating Multiple Features and Step files
* Adding List and Data tables
* Adding Background
* Executing Feature File
* Fixing sync issues and adding validations
* Generate and read report / summary

**Section 3: Reports**

* + Extent Report

# Appium – Android and IOS Automation

**Appium Introduction**

* Course Agenda
* Appium Features
* What makes Appium a future of mobile Automation
* Appium Internal Architecture

**Appium Installation on WINDOWS for Android Automation**

* Installing Android Studio
* Configuring System variables for both Android SDK
* Downloading Eclipse and Installing ADT Plugin
* New update on Installation
* Configuring ADT plugin settings in Eclipse
* Installing Appium Server and Jars
* Creating Eclipse project and Configuring Appium selenium jars

**Appium Installation on MAC for IOS Automation**

* What is Xcode? Install Xcode
* Validating IOS Simulator
* Installing Eclipse IDE for MAC
* Downloading Appium/Selenium Jars

**APPIUM first program**

* Desired Capabilities concepts
* Invoking Android Virtual Device
* First Program explaining Mobile Capabilities
* Android Driver Invocation

**Appium PCloudy Configuration**

* Architecture of PCloudy
* Setting up PCloudy Appium Driver
* Working with pCloudy capabilities
* Parallel running using PCloudy

**Native APPS Automation**

* Program on Invoking Apps
* UI Automator Tool to identify objects
* Automating app UI Using of ID, Xpath ClassNames
* Appium API's for UI interaction
* Mobile Gestures Automation
* UI Selector class in handling Advanced API's
* AndroidKeyEvents Handling
* Procedure for downloading App in Emulator(Virtual devices)
* Automation on real devices
* Invoking App with package Activity
* Example on package name and Activity Invoking apps

**Mobile Commands**

* Android adb commands
* iOS Siri Commands
* Enabling wifi
* Enabling Bluetooth
* Launching settings screen
* Launching control center

**Live Examples on Device APPS**

* Music App- Testcases to Automate
* Practice Exercise-1 (Covers Mobile Gestures)
* Practice Exercise- 1.2 (Covers Core Appium Api)
* Languages App- Testcases to Automate
* Practice Exercise 2.1-(Appium+Webdriver logic)
* Practice Exercise 2.2- (Android Key Events)
* ecommerce App-Installing app into Device
* Practice Exercise -3.1-Handling Image Banners
* Practice Exercise -3.2-Handling Scrollable Menu,Popups
* Practice Exercise -3.3-Handling checkboxes,Radiobuttons,Dynamic Texts

**Web APPS Automation**

* Chrome Browser Configuration setup in Mobile
* Automating the Chrome Mobile Browser
* UserAgent-Identifying objects in Mobile Browser
* Automating Mobile Specific Web Sites
* Exercise on Real Device-Mobile Browser Automation
* Troubleshooting the Real device to make recognize
* Testcase- Automating Udemy Mobile View Site
* Exercise 1.2 -Getting Xpaths from Mobile Browser
* Exercise-1.1 -Chrome Remote Debugging Technique
* Exercise-1.3 -Automating Udemy Site in Mobile Browser

**Practical Problems and solutions with Mobile Browsers**

* Problem - Description
* Identifying frames from Html view
* Element Hidden or Invisible-How to validate
* Writing Generic functions to Identify Frames/Windows
* Example Demonstrating Multiple Frames
* Handling Auto suggestive dropdown options
* Dynamic data loading- Exception Techniques

**Hybrid APPS Automation**

* Hybrid Apps features and ways to test them
* Views switching Mechanism
* Example on Hybrid App handling

**IOS Automation with Appium on MAC**

* IOS Testing Introduction
* IOS App Download
* Desired Capabilities for invoking IOS Apps
* IOS Driver Invocation
* Running IOS first Automation Testcase
* How to Identify objects in IOS App- Appium Inspector
* Magic of Appium Inspector on IOS Apps
* Handling IOS Controlls with Appium
* Practice Exercise on Switches
* Practice Exercise on Scrolling Cycles
* Practice Exercise on Scrolling wheels
* Handling IOS Alerts Buttons with Appium
* Practice Exercise on Alerts