

TECHGENX

Automation Testing + Selenium + CoreJava + Docker+ Jenkins+ AWS+ Github Course

Appium(With Extra Payout)

Please Note: All below course content will be covered in practical scenarios and regular assignments will be shared. All sessions will be recorded and shared with student for future reference (free of cost). Along with below course.

Skill-Set : Core Java with Practical Programs.

➤ **Core Java.**

- ✓ Java.
- ✓ Compiling JAVA program, Byte Code (Class file), JVM.
- ✓ Comments and Statement.
- ✓ Identifier (Name of Class or Method).
- ✓ Naming Conventions.
- ✓ Package, Class, methods, constructors.
- ✓ Data Types.
- ✓ Type Conversions.
- ✓ String Class .
- ✓ Java Project.
- ✓ Class.
- ✓ Package (Collection of class file and subpackages).
- ✓ Constructor, Method and Variables.
- ✓ Method and fields are class members.
- ✓ Object.
- ✓ Instance Variable. Static Variable.
- ✓ Instance Method , Static Method.
- ✓ Abstract Method.
- ✓ Concrete Method.
- ✓ Abstract Class.
- ✓ Concrete Class.
- ✓ OOPS concepts.
- ✓ Polymorphism.
- ✓ Overloading.
- ✓ Overriding.
- ✓ Inheritance.
- ✓ Is-A relationship between super class and sub class.
- ✓ Interface.
- ✓ Types of Inheritance.
- ✓ Access Modifiers.
- ✓ Exception Handling.
- ✓ Throws and Throw.
- ✓ Final, Finally and Finalize.
- ✓ Break and Continue.

- ✓ Loops (While ,For ,Do-While ,For-Each)
- ✓ Conditions(If, If-Else, Switch).
- ✓ Array in Java.
- ✓ Collection API in Java.
- ✓ This keyword.

➤ **File Handling in Java.**

- ✓ What is file handling.
- ✓ Package use for File Handling.
- ✓ File Reader.
- ✓ File Writer.
- ✓ BufferedReader.
- ✓ Practical Programs.

➤ **String in Java.**

- ✓ String
- ✓ StringBuffer
- ✓ StringBuilder.
- ✓ String is immutable.
- ✓ Mutable VS Immutable.
- ✓ Difference Between StringBuffer and String Builder.
- ✓ String Functions (concat , substring , toUpperCase , toLowerCase , length , IndexOf ,lastIndexOf, valueOf, trim,split, equals, equalsWithIgnoreCase, substr, Replace).



➤ **Complete Course at a glance**

- ✓ Selenium IDE.
- ✓ Selenium RC.
- ✓ Selenium GRID.
- ✓ Eclipse.
- ✓ Core JAVA.
- ✓ JUnit and TESTNG.
- ✓ WebDriver.
- ✓ FireBug and FirePath.
- ✓ EGIT.
- ✓ POM.
- ✓ Property File.
- ✓ Ajax and Multi window Handling.
- ✓ Apache POI and JXL.
- ✓ Data Driven Testing.
- ✓ Appium
- ✓ ADK(Android Development Kit)
- ✓ ADB(Android Debug Bridge).

➤ **Selenium Basics**

- ✓ Selenium.
- ✓ Advantage of Selenium.
- ✓ Disadvantages of Selenium.
- ✓ Parts of Selenium (IDE, RC ,Grid and WebDriver).
- ✓ Architecture of RC and WebDriver.
- ✓ Advantages of WebDriver.
- ✓ Selenium IDE.
- ✓ Selenium RC.
- ✓ Selenium GRID.
- ✓ Installation of Selenium IDE.
- ✓ Installation of Selenium RC.
- ✓ Installation of Selenium GRID.
- ✓ How to start Selenium Server(Command, Bat File).
- ✓ Different parameters passed while starting server.

➤ **Selenium IDE.**

- ✓ Selenium Table/Source (Command, Target, Value).
- ✓ Selenium IDE Toolbar.
- ✓ Menubar (File,Edit, Action,Tools, Help).
- ✓ Selenium Bottom tools.

➤ **Element Locator, Firebug, Firepath, Running test case using Eclipse, Regular Expression, ANT.**

- ✓ What is Firebug.
- ✓ What is FirePath.
- ✓ Element Locator.
- ✓ Different types of element locator (Id, Name, CSS, Xpath, CSS ,LinkText ,Partial Link Text).
- ✓ Move Selenium test case to Eclipse.
- ✓ Remove Errors.
- ✓ Execute using JUnit.
- ✓ Move Selenium test suite and test case to JUnit.
- ✓ Remove Errors.
- ✓ Execute using JUnit.

➤ **Selenium WebDriver.**

- ✓ Test case execution using WebDriver.
- ✓ Executing test script on Firefox, Chrome, IE.
- ✓ Use of FireFox Profile.
- ✓ Taking Screenshots.
- ✓ Taking screenshot on Test case failure.
- ✓ Use of ITestListener.
- ✓ Use of Desired Capabilities class.
- ✓ Multiple Window Handling.
- ✓ Check Box and Radio button Handling.
- ✓ Hard Assertion.
- ✓ Soft Assertion.
- ✓ Run in Debug Mode.

➤ **Working with Eclipse.**

- ✓ Eclipse.
- ✓ Workspace.
- ✓ Welcome Screen.
- ✓ WorkBench.
- ✓ Editor Setting,
- ✓ Open any Pane.
- ✓ Perspective.
- ✓ New Project.
- ✓ Java Project.
- ✓ Src.
- ✓ Package.
- ✓ Class.
- ✓ For Setters and For Getters.
- ✓ Build Path.

➤ **Working with Junit.**

- ✓ JUnit (tool for unit testing).
- ✓ Annotations in JUnit.
- ✓ Different Annotation in JUnit.
- ✓ Difference Between JUnit 3 and JUnit 4.

➤ **Working with TestNG.**

- ✓ TestNG.
- ✓ Installing TestNG and Bundle with Eclipse.
- ✓ TestNG Annotations.
- ✓ Sequence of TestNG Annotations.
- ✓ Executing test scripts in order using TestNG.
- ✓ Grouping of Test Scripts in TestNG.
- ✓ Difference between JUnit and TestNG.
- ✓ TestNG Reporting.
- ✓ ReportNG.
- ✓ Use of DataProvider Annotation.

➤ **Frameworks.**

- **Keyword Driven Framework with Live Examples**
- **Data Driven Framework with Live Examples**
- **BDD Framework with Cucumber and Gherkin**
 - **Scenario**
 - **Features**
 - **Gherkin**
 - **Test Case Parameterization**

➤ **Docker:**

- ✓ What is Docker?
- ✓ Installation Steps
- ✓ Windows ,Mac and Linux Installer
- ✓ Troubleshooting with Docker
- ✓ Docker Terminologies
- ✓ Useful Docker commands
- ✓ Pulling an Docker image
- ✓ Image Name Format
- ✓ Creating a container
- ✓ Basic Linux commands
- ✓ Port Mapping
- ✓ Docker Stop Command
- ✓ Volume mapping
- ✓ Docker Network
- ✓ Creating own Docker image
- ✓ Passing Environment variable to Docker container
- ✓ Pushing an image to Docker Hub
- ✓ Docker compose
- ✓ Running test inside Docker container

➤ **Docker + Maven:**

- ✓ What is Maven
- ✓ Maven CL
- ✓ Maven plugins
- ✓ Maven Package
- ✓ Running test using Jar file
- ✓ Creating image
- ✓ Creating dockerfile with dependencies
- ✓ Building docker image with maven
- ✓ Running test by container
- ✓ Architecture of Docker compose files
- ✓ Docker compose run with healthcheck script
- ✓ Docker compose file for multiple test suites
- ✓ Zelenium – Docker components.

➤ **Jenkins:**

- ✓ Introduction
- ✓ CI/CD
- ✓ Installing Jenkins via Docker
- ✓ Plugins
- ✓ Master vs Slave concept
- ✓ Agent connection
- ✓ Launch agent without Master
- ✓ Adding Docker with Jenkins
- ✓ Jenkinsfile
- ✓ Git vs GitHub
- ✓ Creating Github account
- ✓ Jenkins job with Docker

- ✓ Creating Jenkins job for Docker image
- ✓ Run test suite

➤ **AWS**

- ✓ AWS terminologies
- ✓ AWS Spot Instance Advisor
- ✓ AWS Create Account
- ✓ AWS-Jenkins requirement
- ✓ AWS – Create VPC and subnets
- ✓ AWS- creating AMI
- ✓ AWS- creating users for Jenkins
- ✓ AWS- EC2 plugin install
- ✓ AWS- Adding credentials in Jenkins
- ✓ AWS-Spot fleet configuration in Jenkins
- ✓ AWS- Running our test and auto scaling
- ✓ AWS- Copy AM to other regions
- ✓ AWS- Cleaning up resources