

## TESTING TOOLS with PROJECT

**Module 1 : Software Engineering Foundation Program**

**Module 2 : Test Design**

**Module 3 : Testing Environment**

**Module 4 : Test Execution (Project Testing)**

**Module 5 : Selenium**

**Module 6 : Mobile Apps Testing**

### **Module 1: Software Engineering Foundation Program (IT Industry Overview)**

Introduction to Software Testing

SDLC Phases and Deliverables

SDLC Models (Waterfall, Spiral, Prototype, RAD, Iterative and incremental and Agile)

Software Engineering

Software Process

SEI CMMI Levels (1- Performed, 2- Managed, 3-Defined, 4-QuantitativelyManaged, 5-Optimizing)

Software configuration management-VSS/ TFS

SQA AND SQC

Verification and Validation

Testing Roles and Responsibilities

Testing terminology

### **Module 2: Test Design**

Project Management Plan

Requirement Specification

Requirement Change Management Testing Life Cycle

Test Plan Preparation by Students

Test Scenarios Identification by Students

Test Cases Preparation by Students using Techniques (ECP and BVA)

Guidelines for Web Testing

Lab Checklist

### **Module 3: Testing Environment**

- Project/Product and Types of projects
- MVC Architectures
- About technologies
- Environment for Web Applications
- Web and Application Servers
- Architecture of project

### **Module 4: Test Execution**

- Build From Development to Testing
- Build Release note
- Test Case Execution
- Defect Management-Bugzilla / Track+
- Severity and Levels
- Priority and Levels
- Status Reports
- Defect in Real Time Application
- Defect Life Cycle
- Retesting
- Regression Testing
- Project Build Workflow
- Testing Strategy
- Testing Process
- Requirements Traceability Matrix
- Database Testing using Toad
- Test Closure
- Exit Criteria for Testing
- Build summary Report
- Test coverage
- Introduction to User Scenarios
- Outlook Configuration and Navigation

## Module 5 : SELENIUM

### SELENIUM

#### Introduction

- What is automation Testing?
- What we need to automate?
- What is selenium?

#### Different flavors of selenium

- IDE, Selenium-RC, Grid and Web Driver

#### Selenium IDE

- Selenium Overview
- Selenium IDE Introduction
- Installing Selenium IDE
- Recording Simple Test
- Running Simple Test
- Debugging Test
- Creating Selenium Test Suites
- Quick Tour of Selenium IDE - Simple Features
- Handling AJAX applications
- Selenium Commands

#### Locators

- Tools to identify elements/objects
- Firebug and IE Developer tools
- Google chrome Developer tools
- Locating elements by ID
- Finding elements by name, Link text, Xpath and CSS
- Selenium Test Runner
- Regular Expressions
- Creating selenium Test Suites
- Some Special IDE Commands
- Create Selenium IDE Script without Recording

#### Selenium Remote Control

- Download & Installing Selenium RC
- Running Selenium Scripts from cmd using Selenium RC
- Report generation for Selenium script

#### Testing Frame Work

- How to install TestNG plug in Eclipse
- TestNG Sample scripts and creating selenium script
- Creating Test suites & Report using Testing

#### Java Basics

- Installing Java and Eclipse
- Data Types Variables
- Conditional and Loops Statements
- Class and objects in Java
- Constructors, Inheritance & Interface
- Working With The Assertion
- Creating Packages
- Concept of JAR Files
- Log4j API and Usage in Selenium
- JDBC Concepts

#### Selenium RC Using Eclipse

- Set Up Selenium RC in Eclipse Using JUnit
- Start & Stop Selenium RC from Eclipse
- Converting Selenium IDE tests to Java
- Running Selenium Script with Eclipse & JUnit
- Writing Selenium tests using JUnit Framework
- Report Using ANT Build & JUnit

#### Sample Programs in RC for:

- Text box, Link, Button, Checkbox, Radio Button, Drop Down Box and Capture Screen shot, Page scroll down,
- Handel Alerts
- How to Read values from excel Sheet
- Create JUnit suite, Reports and Tool tip

#### Selenium Web- Driver

- Down load & Configure Web Driver Jars in Eclipse
- Architecture of Selenium Web Driver
- Drivers for Fire Fox, IE, I phone , Android .etc

#### Sample Programs in Web Driver

## **Module 6 : Mobile Apps Testing**

**Mobile App Testing Process**

**Mobile Platforms (Android, iOS, Windows Phone and Blackberry)**

**Installation of Third Party App in Android, iOS and Windows Phone**

**Mobile app Testing**

### **After Course**

- 1. Resume Preparation**
- 2. Guidance to apply jobs**
- 3. Written Test**
- 4. Mock Interviews**
- 5. Placement Assistance till you find a Job**