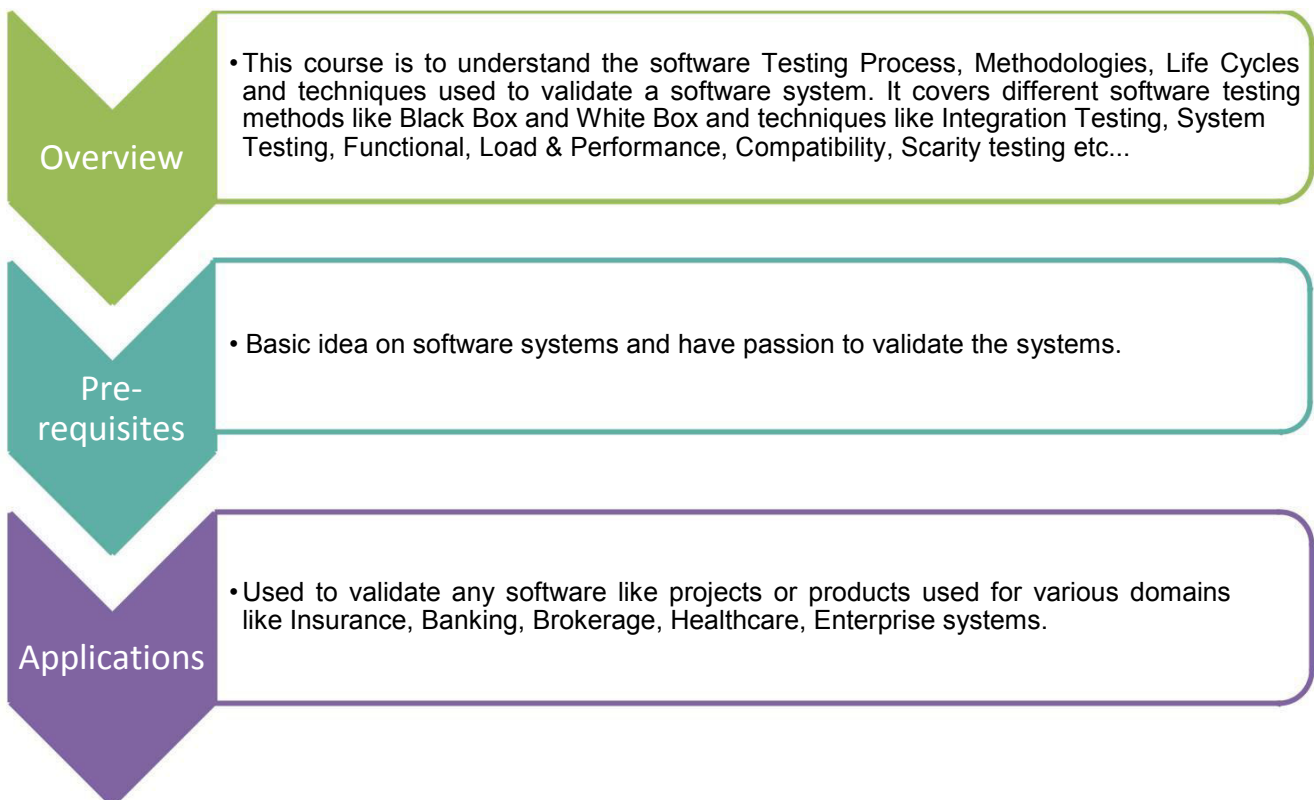


Course Brochure

TESTING TOOLS (Manual+Selenium)



COURSE CONTENTS

MANUAL TESTING

Software Testing

- ❖ Introduction to s/w Testing
- ❖ Software Development Process
- ❖ Project Vs Product
- ❖ S/W quality
- ❖ S/W Testing Methods
- ❖ Roles & Responsibilities of a TE
- ❖ Environments in Project
- ❖ Quality Management

Software Development Life Cycle (SDLC)

- ❖ SDLC Models
- ❖ Waterfall Model
- ❖ Prototype Model
- ❖ Spiral Model
- ❖ V Model
- ❖ Agile Model (Scrum)

Testing Methodologies

- ❖ White Box Testing
- ❖ Black Box Testing
- ❖ Gray Box Testing

Testing Levels in SDLC

- ❖ Review on Requirements
- ❖ Review on Design
- ❖ **Unit Testing**
 - Statements Coverage
 - Loops Coverage
 - Conditional Statements
 - Path or Branch Coverage
- ❖ **Integration Testing**
 - Big-bang Approach
 - Incremental Approach
 - Top Down Approach
 - Bottom Up Approach
 - Hybrid/Sandwich Approach

❖ **System Testing**

- Functional Testing
 - Object properties coverage
 - Error handling coverage
 - Input-domain coverage
 - Calculation coverage
 - Data base coverage
 - Links coverage
- Non Functional Testing
 - GUI Testing
 - Usability Testing
 - Performance Testing
 - Recovery Testing
 - Security Testing
 - Compatibility Testing
 - Configuration Testing
 - Comparative Testing
 - Installation Testing
 - Sanitation Testing
- ❖ **User Acceptance Testing**
 - Alpha Testing
 - Beta Testing

Testing Terminology

- ❖ Smoke Testing
- ❖ Sanity Testing
- ❖ Re-Testing
- ❖ Regression Testing
- ❖ Ad-hoc Testing
- ❖ Exploratory Testing
- ❖ Jump/Monkey Testing
- ❖ L10N Testing (Localization testing)
- ❖ I18N Testing (Internationalization testing)
- ❖ Globalization testing
- ❖ Mutation Testing
- ❖ Defect seeding/be-bugging

COURSE CONTENTS

Software Testing Life Cycle (STLC)

- ❖ Test Strategy
- ❖ Test Planning
- ❖ **Test Case Design**
 - Fundamental of TC's
 - TC Design Technique (BBT)
 - Types of TC's
 - TC Template
 - TC Reviewing
- ❖ Test Execution
- ❖ **Defect Reporting & Tracking**
 - Defect Reporting
 - Defect Life Cycle (BLC)
 - Severity, Priority
- ❖ **Test Closure**
 - Criteria for Test Closure
 - Test Summary Reports
- ❖ **Additional**
 - Introduction to VSS
 - QA & QC
 - ISO & CMM Standards
 - Testing Certifications
 - Interview Questions
 - Resume Preparation

SELENIUM

Introduction

- ❖ What is automation testing
- ❖ When to use Automation
- ❖ Advantages of Automation
- ❖ Criteria for Automation

Introduction of Selenium

- ❖ What is Selenium
- ❖ Use of Selenium
- ❖ When selenium can useful in testing
- ❖ Features of selenium
- ❖ Differences b/w selenium & QTP

Selenium Components

- ❖ Selenium IDE
- ❖ Selenium RC
- ❖ Selenium WebDriver
- ❖ Selenium Grid
- ❖ SELENDROID

Configuration of IDE & Dev Scripts

- ❖ Recording the script
- ❖ Running the script
- ❖ How to save recorded script
- ❖ Object identification
- ❖ Differences b/w testcase & Test suite
- ❖ Languages supported while recording
- ❖ Synchronization in Selenium IDE
- ❖ Testing Vs Selenium IDE
- ❖ When to use Selenium IDE
- ❖ Why companies are not using recording tools

Creating the Environment for Selenium RC

- ❖ Creating generic scripts in selenium
- ❖ Creating scripts by using functions
- ❖ Running the scripts in Eclipse
- ❖ Inheritance
- ❖ Browser commands with examples
- ❖ Interactive commands with examples
- ❖ Validation commands with examples
- ❖ How to take data from excel sheets
- ❖ Export data to excel sheets
- ❖ How to export results after completion of test execution
- ❖ How to use Eclipse
- ❖ Debugging the script
- ❖ How to handle popups & alert messages
- ❖ Recognising similar Elements
- ❖ Connecting to Database

Developing reusable scripts for any projects

- ❖ Validations
- ❖ What is validation
- ❖ What is the use of validation in Automation Testing

COURSE CONTENTS

- ❖ When to use validations in Real time
- ❖ How to use validations

Core Java Fundamentals Language Fundamentals

- ❖ Java Programming Language Keywords
- ❖ Class & Object
- ❖ Data Types
- ❖ Array Declaration

Statements

- ❖ Writing code using Loops
- ❖ Handling Exceptions
- ❖ Working with the Assertion Mechanism

Object Orientation, Overloading & Overriding, Constructors

- ❖ Benfits of Encapsulation
- ❖ Overriding & Overloading Methods

JUnit Introduction

- ❖ Proning it works
- ❖ Starting from scratch
- ❖ Understanding unit testing frameworks
- ❖ Setting up Junit
- ❖ Testing with Junit

Object Repository

- ❖ What is object repository
- ❖ How to use OR in framework
- ❖ What is the use of maintaining OR
- ❖ Types of creating OR

Additional Concepts

- ❖ How to use Xpath
- ❖ How to use DOM
- ❖ How to use Key Commands

Selenium2 / Web Driver

- ❖ Selenium2.0 Features
- ❖ The selenium server-When to use it
- ❖ Setting Up a selenium-Web Driver Project
- ❖ Migrating from selenium1
- ❖ Getting started with selenium-Web Driver
- ❖ Commands & Operation
- ❖ Web Driver-Backed Selenium-RC
- ❖ Programs on Web Driver
- ❖ Programs on Web Driver-Backed Selenium-RC

TestNG Framework

- ❖ What is TestNG
- ❖ Create TestNG.xml file
- ❖ Integrate the selenium scripts & run from TestNG
- ❖ Reporting Results & Analyze
- ❖ Run Scripts from multiple Browsers

Automation Life Cycle

- ❖ Frame work
- ❖ What is Frame work
- ❖ Types of Frameworks
- ❖ What is modular frame work
- ❖ What is DataDriven frames
- ❖ What is Keyword drioven framework
- ❖ What is hybrid framework
- ❖ Use of framework
- ❖ Explain about your framework
- ❖ How to develop a framework
- ❖ Integration of framework
- ❖ How to execute scripts from framework
- ❖ How to handle non GUI(Desktop) elements, Flex objects
- ❖ Introduction to Sikuli
- ❖ Integrating Sikuli with Selenium in eclipse
- ❖ Develop the code with sikuli and selenium
- ❖ Uploading file