SOFTWARE TESTING

Manual Testing Duration – 30 days

Class time – 9am↓

Manual Testing	Automation Testing	
Why Testing is Required?	Functionality Testing	Test Management
1. Quality Concepts	Tools	Tools
2. Software Development Models	↓	↓
3. Testing Approaches		
4. Testing Techniques		Quality Center
5. Software Testing Life Cycles		
6. Test Case Design	Selenium	
7. Defect Tracking		
8. Test Management		
9. CMM Levels(KPA)		

UNIX - Two Classes for Introduction

Database – Five Classes for DDL, DML Statements (**Oracle SQL Server**)

SELENIUM

OVERVIEW

This course provides a comprehensive understanding of using **Selenium** as an automated functional testing tool. This training course will help you understand and work comfortably with Selenium. By the end of training you would be able to:

- Understand How Selenium Works
- Create Selenium Test Scripts in IDE, RC and WebDriver
- Write effective Test cases in Java
- Use frameworks with Selenium – JUnit, TesNG

Each day of the course is followed by hands-on assignments to make sure that you are learning what is being taught in class.

List of Topics

- **Selenium Basics**
  - What is automation testing?
  - Introduction to Selenium
  - Selenium Variants
  - Supported Platforms (Browsers, Programming Languages, Operating Systems)
  - How Selenium Works?
  - Comparison between Selenium and QTP
- **Selenium IDE**
  - Introduction
  - Setting up Selenium IDE
  - IDE in detail – Features and Components
  - Test Suites
  - Record and Playback in IDE
  - Editing Scripts in Selenium IDE
  - Running a Test Script
  - Selenium Commands
  - Adding Verification Points
  - Script Examples
  - Advanced IDE – Java Script, UI Elements, and User-Extensions.

- **Common Selenium Commands in Detail**
  - Open and Click Commands
  - Verification Commands
  - Locator Elements
  - Wait Commands
  - Storing Variables and Store Commands
  - Examples
- **Selenium Remote Control (RC)**
  - Description and How Selenium RC works
  - Selenium RC Installation
  - Selenium RC Server
  - Choosing RC Programming Language
  - Exporting IDE test to RC script
  - RC Architecture
  - Writing a Test Script in RC
- **Java Concepts for Selenium**
  - Overview of Object Oriented Concepts
  - Classes, Objects, and methods
  - Constructors
  - Data Types, Access Modifiers
  - Interfaces, Inheritance, Static Methods
  - Looping and Conditions
  - Exception Handling
  - Collection Library – List, Hash Map, Hash Table
  - Reading Excel/CSV files in core java
  - Database Validation
- **Frameworks with Selenium – Junit, TestNG**
  - Supported Automation Frameworks
  - Setting up Eclipse
  - JUnit Vs TestNG
  - Executing Selenium Scripts using JUnit and Test NG
  - Sequential and Parallel Execution

- ➢ Storing Results
- **Selenium 2.0 (Web Driver)**
  - ➢ Why Webdriver?
  - ➢ How Webdriver works?
  - ➢ Difference between Selenium RC and Webdriver
  - ➢ Setting up webdriver
  - ➢ Creating scripts using Webdriver
  - ➢ Playing with UI objects using Webdriver
  - ➢ Cross browser testing using Webdriver
  - ➢ Advanced WebDriver – Multiple browsers, Browser profiles, Screenshots etc.
  - ➢ Using Page Objects in WebDriver
- **Page Objects**
- **Advanced:**
  - ➢ Exception Handling in Selenium
  - ➢ Using Property files in Selenium
  - ➢ Establish Database connections and execute SQL queries
  - ➢ Data Driven testing using Selenium
- **Setting up Selenium Grid as collection of RC servers**
- **Automation Frameworks**
  - ➢ Modular Framework
  - ➢ Keyword Driven Framework
  - ➢ Hybrid Framework