Software Testing Training   5 Month

Software Testing Theory

- Testing Terminology
- What is Testing?
- Who does Testing?
- When to Start Testing?
- When to Stop Testing?
- Software Development Life Cycle (SDLC)
- Software Test Life Cycle (STLC)
- Understanding of QA, QC and Testing
- Principles of Testing

Documentation

- Test Plan
- Test Scenario
- Test Case
- Traceability Matrix
- Test Case Design Techniques
- Estimations

Testing Level

- Functional Testing
- Unit Testing
- Integration Testing
- System Testing
- Regression Testing
- Acceptance Testing
- Non-Functional Testing

- Usability Testing
- Security Testing
- Portability Testing

Testing Methodology & Approach

- Waterfall
- Prototype
- Spiral
- Incremental (Agile methodology and Scrum Framework)
- V-Model Verification vs. validation
- Advantages and Disadvantages of each software development life cycle
- Difference between Functional and Non-functional testing

Defect Life Cycle

- Bug Life cycle
- How to Prepare a Bug template?
- Bug Tracking tool

Manual Testing

- Software Testing Introduction
- SDLC life cycle
- Software Testing Methodologies
- Test Case Design Techniques
- Levels of Testing
- Software Testing Life Cycle
- QA & QC & Testing
- Agile methodology

Database Testing

- MySQL
- Intro to SQL
- What is normalization & its types?
- Basic queries (create, insert, update, delete)
- SQL joins(1NF, 2NF, 3NF, BCNF)
- SQL built-in methods, having, group by, distinct

Web Basics

- HTML
- HTML elements, HTML tags,
- HTML tag attributes
- HTML Forms (Input elements & attributes)
- CSS
- What are CSS & ways to use?
- What is property & value?
- What is class & id?

Introduction to JAVA

- Java Installation
- Variables
- Re-initialization
- Post-Increment, Post Decrement
- Pre-Increment, Pre-Decrement
- Decision making statements
- IF-ELSE
- Switch-case
- OOPS Concepts (Object Oriented Programming System)
- Various Syntax in SQL
- SQL — Data Types
- SQL – Operators

- What is an Operator in SQL?
- SQL Arithmetic Operators .
- SQL Comparison Operators
- Arithmetic Operators – Examples
- JAVA
- Object Class
- String Class
- Arrays
- Boxing & Unboxing
- Wrapper class
- Collection framework & wild cards
- Exception Handling
- File Handling
- Multithreading

Loops

- For loop
- While loop
- Do while loop
- Enhanced for loop
- Methods
- Method Overloading
- Constructor
- Constructor Overloading

Automation Testing Overview

- Introduction to Automation
- What is automation testing
- Advantages of Automation Testing
- How to learn any automation tool
- Types of Automation tools

Introduction to Selenium

- What is Selenium
- Use of Selenium
- Features of selenium
- Difference between Selenium & QTP

Selenium Components

- Selenium IDE
- Selenium Core
- Selenium RC
- Selenium Grid
- Selenium 4.13 – Web Driver

Selenium IDE

- Selenium IDE Introduction
- Downloading and Installing Selenium IDE
- Recording and Running a Simple Test
- Selenium IDE – Features
- Installing Useful Tools for Writing Tests
- Selenium Concepts
- Selenium Commands
- Verifying Page Elements – Assertions and Verifications
- Wait Commands
- Object Identification
- Element Locators
- Regular Expression patterns
- Selenium Test Runner
- Using Regular Expressions in Selenium IDE
- Creating Selenium Test Suites
- How to run the recorded script against other browsers
- Why companies are not using recording tools

- Limitations of Selenium IDE

How to Use TestNG & JUnit in Selenium.

- Introduction to TestNG
- Setting up TestNG
- Working with TestNG
- Advantages of TestNG over Junit
- Exploring TestNG Features
- How to Use TestNG Annotations
- Data Driven Testing TestNG
- TestNG Execution Report
- TestNG Results output folder walk-through
- TestNG Reporting features

Automation Framework.

- What is Framework
- Types of Frameworks
- What is modular framework
- What is Data Driven framework
- What is Keyword driven framework
- What is Hybrid framework
- Use of Framework
- How to develop the framework
- Integration of the framework
- How to execute the scripts from framework

Selenium 4.13 Web Driver

- Introduction to selenium 4.13
- Advantages of web driver
- Web Driver v/s RC
- Architecture of Web Driver and RC

- Web Driver IDE
- Installation / Configuring Eclipse for Web Driver
- Identifying the elements in Web Driver Using Id, Name, Xpath ,Dom and CSS
- Working with Different drivers like HtmlUnit driver, Firefox Driver etc...
- Creating the generic scripts in Web Driver
- Creating the scripts by using functions
- Web Driver Client Libraries
- Web Driver commands with examples
- Working with excel sheets using Web Driver
- Web Driver with TestNG / Junit

Projects (4 Live project)

- 2 Manual Live Project
- 2 Automation Live Project

Interview Preparation.

- Globalization Vs Localization Testing
- Test Plan V/s Test Strategy
- Retesting Vs Regression Testing
- Test Scenario Vs Test Condition
- Interview Questions
- Presentations
- Resume building
- Placement activities