

SDET Course Syllabus

We Offer End-to-End Testing solutions with Industry Standards

Software Testing



MANUAL TESTING

1. INTRODUCTION OF SOFTWARE TESTING

- What is software?
- Introduction to software testing
- Importance of software testing
- What is project and product?
- What is Quality?
- Process of initiation of a project.
- Best Practices in Testing Skills for Testing
- Difference between Verification & Validation

2. SOFTWARE APPLICATION DEVELOPMENT

- Introduction of Software Process Phases in SDLC
- Waterfall Model
- V-shaped Model
- Spiral Model
- Agile Model

3. LEVELS OF TESTING

- Unit Testing
- Integration Testing
- Acceptance Testing

4. TESTING METHODOLOGIES

- Black Box Testing
- White Box Testing

5. TESTING PROCESS

- Test Planning
- Test Analysis
- Test Design

6. FUNCTIONAL TEST DESIGN PROCESS

- Introduction To Test Design
- Inputs For Test Design Activity Test scenarios
- Test Cases
- Test Case Management
- Best Practices Of Test Cases Test Data
- Black Box Test Technique
- Requirement Traceability Matrix(RTM)

7. TEST EXECUTION

- Test Execution Cycle
- Entry Criteria For Test Execution
- Smoke /Sanity Testing
- Test Execution
- Retesting And Regression Testing

7. DEFECT MANAGEMENT

- Defect /Bug
- Causes For Defect
- Defect Reporting
- Defect Attributes
- Severity And Priority
- Defect Life Cycle

DATABASE TESTING

- What is a Database?
- What is Database Testing?
- Why is Database Testing Important?
- Differences between User-Interface Testing and Data Testing
- Database Testing Process
- Database Testing Components
- How Automation can Help in Database Testing?

API TESTING USING POSTMAN

- How to Download and Install Postman on Windows?
- Sending Your First Request via Postman
- How to Create Collections in Postman
- Sending API Requests
- GET, POST,PUT,PATCH & DELETE Requests
- Environment
- Variables
- Scripts
- Other options in postman

AUTOMATION TESTING

JAVA INTRODUCTON & SETUP

- Installation of Java
- Environment Variable setup
- Installation of Eclipse IDE & IntelliJ
- How to create new java project
- How to create a new java class
- Executing the first java class

DATA TYPES & VARIABLES

- Primitive and Non-Primitive Data types
- Types of Variable (Local, Instance and Static Variables)
- What is an Array?
- Type of Arrays
- Working with Single Dimensional and Multi-Dimensional Arrays

OPERATORS

- Athematic operator
- Relational operator
- Logical operator
- Assignment operator
- Increment operator
- Decrement operator

ACCESS MODIFIERS

- public
- private
- default
- protected

CONDITIONAL STATEMENTS

- If
- if else
- else if
- Nested if
- Switch
- Ternary Operator statement

LOOP STATEMENTS

- For Loop
- For Each
- While Loop
- Do While ..Loop

STRING FUNCTIONS

- String functions & related programs.

CONSTRUCTOR

- What is Constructor?
- Types of Constructors

OOPS CONCEPTS

- Object
- Class
- Inheritance
- Polymorphism
- Encapsulation
- Abstraction

EXCEPTION HANDLING

- What are exceptions and errors?
- Compile time Exception
- Runtime Exception
- Exception Handle with try , catch and finally blocks
- Exception Handle with throw and throws

COLLECTIONS

- Arrays vs Collections
- List, Set, Map interfaces

SELENIUM INTRODUCTION

- What is Selenium? Introduction to Selenium Automation Testing
- What is Selenium WebDriver? Difference with RC

SELENIUM SETUP

- How to Download & Install Selenium WebDriver

SELENIUM CORE CONCEPTS

- First Selenium WebDriver Script: JAVA Code Example
- CSS Selector in Selenium
- Locators in Selenium
- XPath in Selenium WebDriver: Complete Tutorial
- Navigation Methods
- Find Element and FindElements in Selenium WebDriver
- Implicit, Explicit & Fluent wait
- Selenium Form WebElement: TextBox, Submit Button, sendkeys (), click()
- How to Select Checkbox and Radio Button in Selenium WebDriver
- How to Click on Image in Selenium WebDriver
- How to Select Value from Dropdown using Selenium WebDriver
- Mouse Click & Keyboard Event: Action Class in Selenium WebDriver
- How to Drag and Drop in Selenium WebDriver
- Alert & Popup Window Handling in Selenium WebDriver
- Double click and Right Click
- How to handle the frame
- How to Handle Web Table in Selenium WebDriver
- Handling Dynamic Web Tables Using Selenium WebDriver
- Desired Capabilities in Selenium WebDriver
- Chrome options & headless mode
- How to Verify Tooltip using Selenium WebDriver
- Handling multiple windows
- How to Take Screenshot in Selenium WebDriver
- Cross Browser Testing using Selenium WebDriver
- JavaScriptExecutor in Selenium WebDriver

TESTNG

- TestNG Introduction
- Annotations order in TestNG
- TestNG Groups: Include, Exclude
- TestNG @Test Priority in Selenium
- Parallel Execution in Selenium: Session Handling & TestNG Dependency
- How to Run Multiple Test Suites in Selenium
- TestNG Listeners in Selenium: ITestListener & ITestResult Example
- How to Execute Failed Test Cases in TestNG: Selenium WebDriver
- Parameterization & Data provider
- Read & Write Data from Excel File in Selenium WebDriver: POI

POM/PF MODEL

- Page Object Model (POM) & Page Factory: Selenium WebDriver

CUCUMBER BDD

- Cucumber Introduction
- What is Gherkin
- What is Cucumber Feature File & Step Definition?
- Cucumber Runner Class & its options

FRAMEWORKS

- Selenium TestNG POM with Java framework
- Selenium TestNG Cucumber BDD framework

GIT

- What is Git & Git Importance?
- How to create a repository
- How to create a branch
- How to push the code to branch
- How to create pull request for review
- How to merge the code to main branch