Session 1.2

AN INDUCTION
INTO THE
WORLD OF TESTING

AN INITIATIVE BY

UNICAL ACADEMY

Learning Objectives

At the end of this training, participants will be able to get an idea on –

1. Selenium Test Environment set-up that covers installation of Java, IDE and Selenium executables including Test frameworks' executables
2. Various Types of Testing – and when do we use Automated testing?
3. Basics of SDLC – types of projects, technologies, and various architectures
4. Essential concepts of Java and Object-oriented programming for Test automation
5. Accessing different web elements of a web page using Java in Selenium
6. Overview of Testing frameworks with specific focus on TestNG
7. Data-driven Testing using Microsoft Excel and Apache POI
8. Basics of Test Reporting and reports through Extent Reports
9. The Integrated Approach in 'big testing' projects - Marven, Jenkins, Git, and Apache POI

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Advantages for the students

Placement Benefit - Students who add this competence to their skill set get additional advantage during selection for internships and final placements.

Techstrom Certified – Certification from Techstrom is well accepted and respected by its clients.

Accelerated Learning- The concepts covered in this training, helps the students to learn more efficiently and effectively during on job assignments

Skills for a life time- Imbibing testing and quality concepts enables a person to look at problem as an opportunity for improvement. The gained skills enable student to handle issues in a structured, process oriented way beyond the job assignments.

'Run Rules' of the training

- Be here for all sessions, and be on time
- Minimize disruptions (cell phones and unwanted breaks/talks)
- Ask Questions
  - Questions during sessions are welcome - only caveat is answers may have to be limited due to schedule
  - Instructors will be available through emails for individual questions
- Maintain an environment of mutual respect
- Have fun!

High-level Overview

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Part 4: Hands-on Sessions (100 h)

- Use cases and traceability
- Test data and scenarios
- Day to day work
- Defect prevention, RCA and other value add aspects

Part 3: Automated Testing (50 h)

- Selenium Overview
- Web Driver, Locators, Elements, and more
- Automation and Runs

Part 2: Concepts of Testing (30 h)

- Types of Testing
- Common Testing Tools
- Manual Testing – Test cases, Data, Scenarios etc.
- Case-studies and Scenarios

Part 1: The Basics (20 hours)

- Organization& its working
- SDLC & STLC Overview
- Basics of OOPS, Database Java essentials for Testing
- Overview on few Testing roles Job Descriptions

Let's go!!!

Section wise Details

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BASICS

- What is an Organization and how an IT Project starts and gets executed in an Organization?
- What are the various types of Projects, Technologies, and Architectures?
- SDLC and STLC Life Cycles
- Environment Setup and prerequisites (setup as well as the knowledge) to be a successful Tester – particularly in automation

TESTING CONCEPTS

- Projects and Project phases
- Critical project documents in typical 'SDLC' project
- Walkthrough of the applications that we use for testing during this training
- Test cases and Test data preparation (Manual Testing)
- Standard checklists and templates for Testing
- Hands-on Exercises

JAVA & OOPs

- Basics – language, compile, link, and build
- Variables and data types
- Concepts of Object oriented
- Operators & Control flow
- Exceptions and Debugging
- Basic SQL and RDBS
- JDBC, API and External Data concepts
- Projects - packages and build
- Hands-on Exercises

SELENIUM

- Selenium WebDriver
- DOM & Locator Techniques
- Tools to identify Objects
- Xpath and CSS Selectors
- Basics of Events and Alerts
- Data-driven Testing
- Testing Frameworks – TestING focused
- Extent Reports - capturing, formatting, and logging.

OTHER TOOL

- Git - Version Controlling and Importance
- Marven Projects and Dependencies Management
- Workflow Automation using Jenkins
- Behavior driven Development