An ISO 9001 :2015 Certified

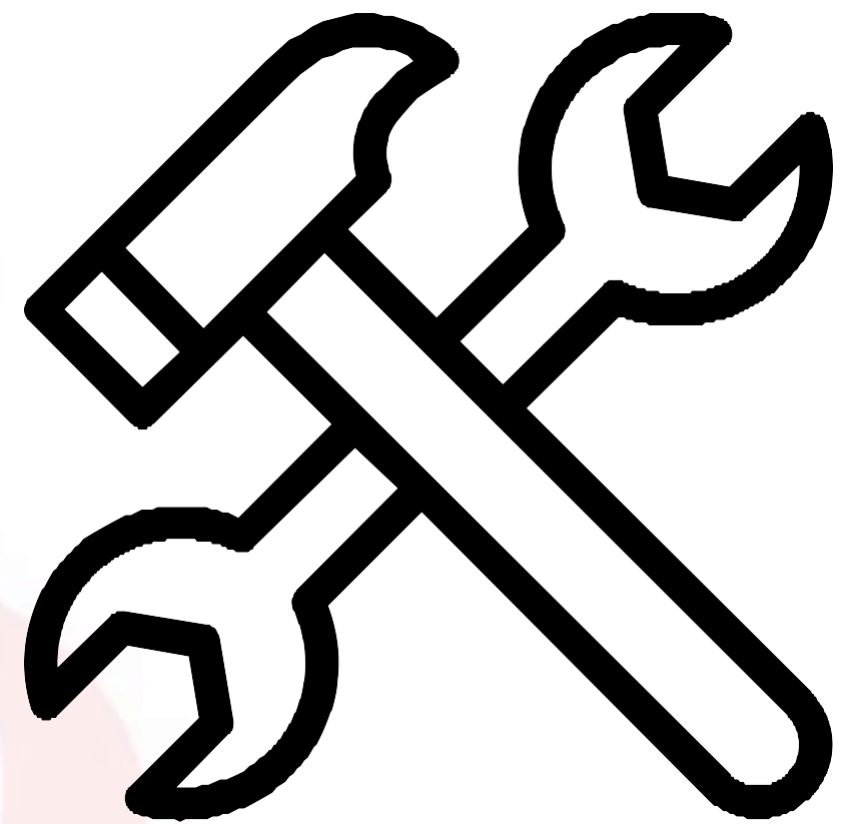**AiNS** ™

COMPUTER INSTITUTE

TESTING

Advance in Automation Testing (Selenium WebDriver)

Overview

- Introduction
- Advantages of selenium
- Disadvantages of Selenium

Selenium IDE

- Creating Selenium IDE Tests
- Script Debugging
- Inserting Verification Points
- Pattern Matching
- Selenium User Extensions
- Different Browser Execution

ENVIRONMENT SETUP

- Download and Install Java
- Download and Configure Eclipse
- Configure FireBug and FirePath
- Configure Selenium RC
- Configure Selenium WebDriver

SELENIUM RC

- What is Selenium RC?

- Selenium RC Architecture
- RC – Scripting

SELENESE COMMANDS
- Actions
- Accessors
- Assertions

WEBDRIVER
- Architecture
- Selenium RC Vs WebDriver
- Scripting using WebDriver
- Most Used Commands

LOCATORS
- What are locators
- Types of locators
- Locators Usage

Waits
- What are waits
- different types of waits
  - Implicit
  - Explicit

INTERACTIONS
- User Interactions
- Text Box Interaction
- Radio Button Interaction
- Check Box Interaction
- Dropdown Interaction
- Synchronization
- Drag & Drop
- Keyboard Actions
- Mouse Actions
- Multi Select Action
- Find All Links

TEST DESIGN TECHNIQUES

- Page Object Model
- POM Flow Diagram
- Driven using Excel
- Parameterization
- Log4j Logging
- Exception Handling
- Multi Browser Testing
- Capture Screenshots
- Capturing Videos
- Pop-up handling
- Dynamic Xpath and CSS
- Alert and Window Handling
- BDD(Framework)
- POM(Framework)

TESTNG

- What is TestNG?
- Installing TestNG for Eclipse
- Annotations in TestNG
-TestNG-Eclipse Setup
- First Test in TestNG

SELENIUM GRID

- Architecture
- Working with Grid
- Configuring the Hub
- Configuring the Nodes
- Develop the Script and Prepare the XML File
- Test Execution
- Result Analysis

Jenkins

Introducing Continuous Integration and Jenkins

- Agile Development
- Continuous Integration
- History of Jenkins
- State of the Jenkins community

Installing and Running Jenkins

- Running Jenkins from the jar file
- Installing Jenkins in a servlet container
- Setup Security
- Email and Version Control
- Master/slave configurations

A Jenkins Job

- Creating a job
- Configure a job
- Run a job manually
- Run a job when source code is checked into version control
- Run a job on a regular schedule

Advanced Jenkins

- Monitoring External jobs
- Distributed builds
- File fingerprint tracking
- Using Jenkins for non-Java projects
- Matrix projects
- Splitting a big job into smaller jobs

Jenkins Plugins

- Change reporting
- Code coverage
- Static Analysis
- Performance reporting

- Style checking

GIT

Introduction

- What is a Version Control System (VCS)?

- Distributed vs Non-distributed VCS

- What is Git and where did it come from?

- Alternatives to Git

- Cloud-based solutions (Github, Gitlab, BitBucket etc)

Installation and Configuration

- Obtaining Git

- Installing Git

- Common configuration options

- GUI tools

Key Terminology

- Clone

- Working Tree

- Checkout

- Staging area

- Add

- Commit

- Push

- Pull

- Stash

Git - Local Repository Actions

- Creating a repository (git init)

- Checking status (git status)

- Adding files to a repository (git add)

- Committing files (git commit)

- Removing staged files (git reset)

- Removing committed files (git rm)
- Checking logs (git log)

Git - Remote Repository Actions

- Creating a remote repository (git init)
- Cloning repositories (git clone)
- Updating the remote repository from the local (git push)
- Updating the local repository from the remote (git pull)

Tagging in Git

- What are Git Tags?
- Listing tags
- Lightweight tags
- Displaying tag details (tag show)
- Annotated tags
- Checking out tags
- Pushing tags
- Pulling tags

Branching in Git

- What is a branch
- Listing branches
- Create new branch
- Checkout branch
- Pushing branches
- Pulling branches

Merging in Git

- Fetching Changes (git fetch)
- Rebasing (git rebase)
- Git Pull

Git Workflows

- Different ways of using Git
- Centralized
- Feature Branch
- Gitflow Workflow
- Forking Workflow

Git - Stashing Changes

- What is Stashing?
- Using Stash
- Creating a branch from a Stash

Advanced Repository Actions

- Removing untracked files (git clean)
- Remove staged changes (git reset)
- Revert a commit (git revert)
- Checkout a previous commit (git checkout)

Advanced Branching and Merging

- Deleting a Branch
- Fast forward merge
- Three-way merge
- Resolving merge conflicts
- Cherry-Picking (git cherry-pick)

Advanced Git Configuration

- Aliases
- Submodules
- Patches
- Hooks

Other knowledge and activity

- Special Hand written notes and question papers

- Knowledge on STLC (Software Testing Life Cycle)

- Different domain scenarios to design Test Scripts

- Design Test scripts, Test Executions, Test poof's creations and reports creations sending (to client or stockholder) guidelines

- How to Support and Maintance of application(guidelines)

- Knowledge about industrial/Project standards and Guideline

- Mini Project working Experience (Test scripts, Test Proofs and Reports creation)

- Mini Project Creation and deploying it on Jenkins with GIT

- Different meetings in STLC (Software Testing Life Cycle)

- knowledge on Different reports creation and shared with clients (with standard, guidelines followed in multinational companies)