

SOFTWARE TESTING (MANUAL TESTING + SELENIUM)

GO FROM ZERO TO HERO

Duration: 3 Months | Online Training

**Learn Cutting edge methods
& Technologies**

Advance your career in
Software Testing with our
expert trainer's guidance



3000+
Learners



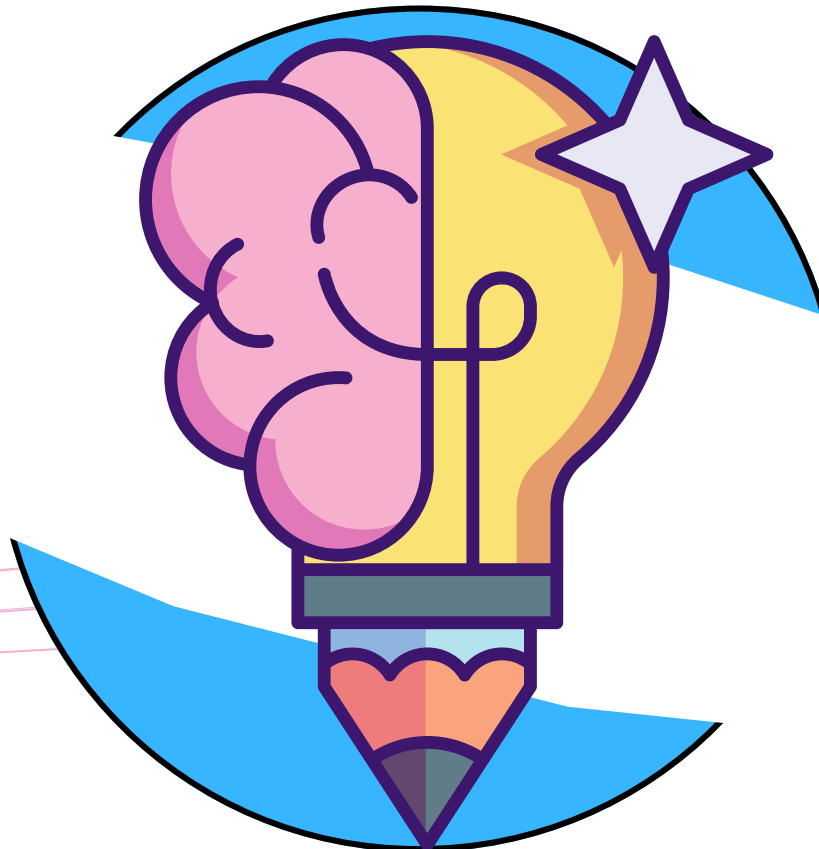
1500+
Placed



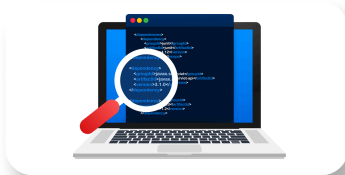
50%
Salary hike

Why CloudUpskill for Software Testing Course

- ✓ Structured, Industry vetted Curriculum
- ✓ Live Classes with Expert Trainers
- ✓ E-Learning & Recorded Classes
- ✓ 1:1 Mentorship & Mock Interviews
- ✓ Placement Assistance
- ✓ Tab Learning Facility



Skills Covered



Software Testing Concepts



Manual Testing



Agile Methodology



Jenkins



Cucumber for Testing



JAVA



TEST NG for Testing



Database Testing



Selenium Web Driver



JIRA



GITHUB



Selenium Live Projects

About Manual Testing:

A manual testing course trains individuals in the process of verifying and validating software by manually executing test cases without the aid of automated tools

Who can join Manual Testing?

- Fresh Graduates (Any Stream)
- Career Switchers
- Non-Coders Who Want to Work in IT
- Students Preparing for IT Careers

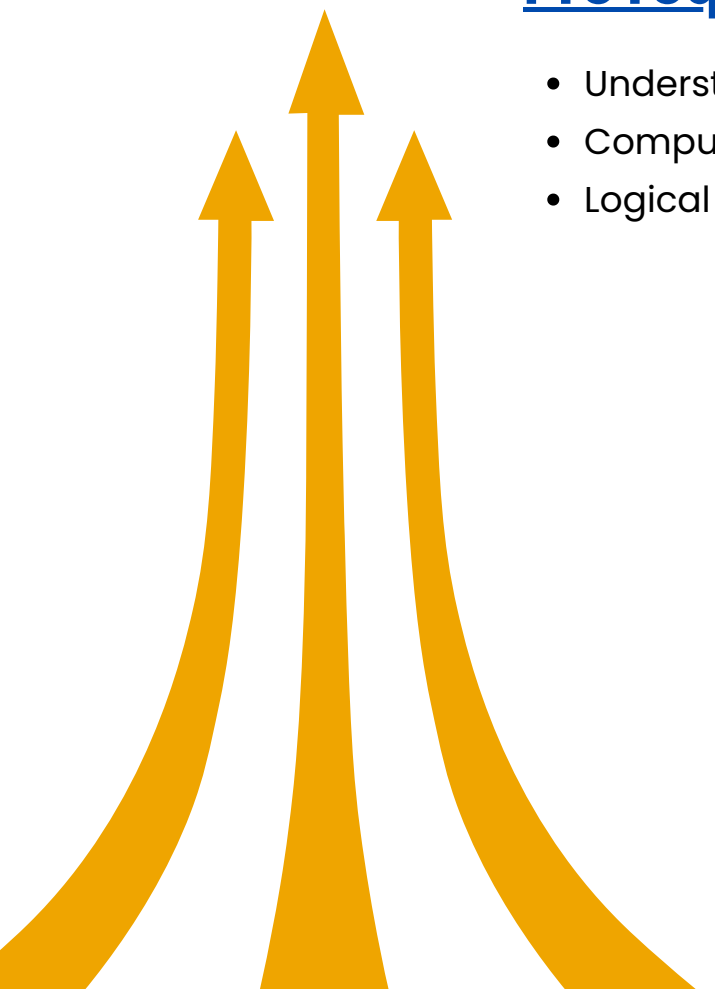
Pre requisites:

- Understanding of Software Concepts
- Computer Basics
- Logical and Analytical Thinking

“

***Testing is the
silent hero of
great software***

”



Course Curriculum

Software Testing Overview

- Introduction to Software Testing
- Why Testing is Necessary
- What is Manual Testing?
- What is Automation Testing?
- Error/Defect / Failure?
- Why Software has defects?
- Cost of fixing defects?
- Verification & Validation
- Quality Assurance & Quality Control
- Role of a Tester?

Software Development Life Cycle (SDLC)

- SDLC Phases
- SDLC Models
- Waterfall Model
- V Model
- Agile Model

Software Testing Methodologies

- Static Testing
- Dynamic Testing

Static Testing Techniques

- What is Static Testing?
- Reviews
- Different Types of Reviews
- Walkthroughs

White Box Testing

- What is White Box Testing?
- Unit Testing
- Integration Testing
- Why White Box Testing is important?

Black Box Testing

- What is Black Box Testing?
- Why BBT is Necessary?
- System Testing
- User Acceptance Testing (UAT)
 - Alpha Testing
 - Beta Testing

Smoke Testing & Sanity Testing

Functional Testing

- Formal Testing
- Ad-hoc Testing
- Re-Testing
- Regression Testing
- Difference between Re-Testing & Regression
- Testing
- System Integration Testing
- End-to-End Testing
- Exploratory Testing
- Monkey Testing

Non-Functional Testing

- UI Testing
- Usability Testing
- Security Testing
- Compatibility Testing
- Load Testing
- Performance Testing
- Globalization Testing
- Localization Testing
- Recovery Testing

Course Curriculum

Software Testing Life Cycle (STLC) with Project

- What is STLC?
- STLC Phases

Test Planning

- Test Strategy
- Test Plan

Test Analysis

- Analyzing Functional Requirements SRS/FRS

Test Design

- Preparing Test Scenarios
- Preparing Test Cases
- Test Case Design Techniques
- ECP & BVA
- Test Data
- RTM

Test Execution

- Executing Test cases
- Defect Report Template

Defect /Bug Life Cycle

Defect Management

- What is defect?
- Defect Reporting Process
- Defect Severity & Defect Priority
- Defect Status

Test Closure

- Test Summary Reports
- Status Reports (Daily and Weekly)

Agile & Scrum

- What is Agile Testing?
- Scrum Introduction
- Getting Agile with Scrum
- Characteristics of Scrum
- Scrum Approach
- Scrum team

Scrum Project

- Defining Goals
- Scrum Planning
- Define the Product Roadmap
- Release Planning
- Sprint Planning
- Product backlog
- Concept of Epics
- Writing Epics – Examples
- Concept of User Stories
- Writing User Stories- Examples
- Defining Tasks
- Starting Sprint
- Monitoring Sprint status
- Completing Sprint
- The Daily Scrum Meeting
- Sprint Review Meeting
- Sprint Retrospection

Course Curriculum

Test Management & Defect Management Tools

JIRA

- JIRA Introduction
- How to Install JIRA
- JIRA Features
- Creating Scrum Project in JIRA
- Adding Users to our JIRA Account
- JIRA Issue types
- Workflow for a Project
- Creating Product backlog in JIRA
- Creating EPICS in JIRA
- Creating User Stories in JIRA
- Starting Sprint
- Writing Test Cases in JIRA
- Executing Test Cases from JIRA
- Adding Bugs to the JIRA Project
- Attaching screenshots of defects in JIRA

SQL for Database Testing

- What is Database Testing?
- Why DB Testing is Necessary?
- SQL Overview
- SQL CREATE Database
- SQL CREATE Table
- SQL SELECT Query
- SQL WHERE Clause
- SQL SELECT DISTINCT
- SQL GROUP BY
- SQL HAVING
- SQL ORDER BY Keyword
- SQL LIKE Operator
- SQL IN Operator
- SQL BETWEEN Operator
- SQL AND & OR Operators
- SQL Aggregate Functions
- SQL INSERT
- SQL UPDATE
- SQL DELETE
- SQL TRUNCATE
- SQL ALTER
- SQL DROP
- SQL JOINS
- SQL SUB QUERIES

About Selenium:

Selenium is widely used to automate the testing of web applications. As an open-source tool, it helps companies reduce project maintenance costs, leading to a growing demand for Selenium testers

Who can join Manual Testing?

- Fresh Graduates (Any Stream)
- Manual Testers Looking to Upskill
- Professionals Switching Careers
- Developers Interested in Testing

Pre requisites:

- Basic Programming Knowledge
- Understanding of HTML & Web Elements
- Basic Software Testing Knowledge
- Computer Fundamentals



Course Curriculum

JAVA Essentials for Selenium

Java programming basics

- Why Java for Selenium
- Installing Java
- Installing Eclipse
- Creating Java Project
- First Java program
- Concept of class file
- Datatypes in Java
- String class and functions
- Conditional Statements
- Loops
- Arrays
- Operators
- What are Functions?
- Function Input Parameters
- Function Return Types

Object Oriented Programming in JAVA

- Local Variables
- Global Variables
- Static and Non-Static Variables
- Static and Non-Static Functions
- Creating Objects in Java
- Meaning of static
- Why main method static?
- Overloading and Overriding Functions
- Access Modifiers – Public/Private/Default/Protected
- Constructors
- Interface
- Usage of Objects in Selenium
- Inheritance
- Usage of Inheritance in Selenium
- Creating Packages
- Accessing Classes across Packages

Exception Handling

- Exception handling with try catch block
- Different Types of Exceptions
- Need of exception handling in Selenium framework

Automating Excel file Operations

- Creating/Opening Text Files
- Reading/ Writing Text Files

Course Curriculum

Selenium Introduction

- What is Selenium?
- Selenium Components
- Introduction to WebDriver
- Installing Selenium WebDriver
- Architecture of Selenium Webdriver
- Creating your First Script in Webdriver

Launching AUT and Inspecting properties of Elements

- Launching AUT in Firefox
- Launching AUT in Internet Explorer
- Launching AUT in Chrome
- Launching AUT in Safari
- Inspecting properties of Elements on different Browsers

Finding elements using Locators

Creating Customize XPath/CSS Selectors

- What is XPath
- When to Use XPath
- Absolute XPath/Relative XPath
- Specifying conditions with XPath
- CSS Selectors

Automating WebElements Operations

- Browser
- TextBox
- ListBox
- Links
- Check Box
- Radio Button
- HTML Tables
- Calendars

Automating Keyboard and Mouse Events

- Action Class
- KeyBoard Events
- Drag & Drop Actions
- Mouse Hover Action
- RightClick, Double Click

Handling Alerts

- accept()
- dismiss()
- getText()

Handling Frames

- What is iFrame?
- Locating Frames
- Handling Frames

Handling multiple Windows

- getWindowHandle()
- getWindowHandles()
- Switching between windows
- Handling elements present in different windows

Synchronization

- sleep()
- ImplicitWait
- WebDriverWait
- FluentWait
- PageLoadTimeout

Course Curriculum

Automation Frameworks

TestNG

- Advantages of TestNG over JUnit
- Why do we need TestNG in Selenium?
- Installing TestNG in Eclipse
- Creating a New TestNG Test File
- TestNG annotations
- TestNG assertions
- Running the TestNG Test
- Checking reports created by TestNG
- Creating multiple Tests
- Prioritizing Tests
- Parameterizing Tests with @dataProvider
- TestNGdataProvider with Excel
- Creating and Running Test Suites with TestNG.xml
- Sequential Test Execution with TestNG
- Parallel Test Execution with TestNG

Maven

- What is Maven and Why Maven?
- Installing/Configuring Maven
- Creating Maven Project
- Importing Maven Project into Eclipse
- What is POM.xml?
- Adding Dependencies to POM.xml

Cucumber Framework

- Overview of BDD and Cucumber
- How to install and setup Cucumber with Eclipse
- Overview of Gherkin keywords
- How to create Feature file
- How to generate Step Definition file
- How to integrate Cucumber with Selenium WebDriver
- JUnit Test Runner Class
- Data Driven Testing in Cucumber
- Configure Cucumber with Maven and Jenkins
- How generate Reports in Cucumber

Course Curriculum

Selenium Live Project

Project: Stock Accounting

- KT on ERP Domain
- Automation Testing Process
- Decide which test cases need to be automated & not automated
- Test Automation Framework Setup

Data Driven Testing

- Configure Apache POI jar files & TestNG in Eclipse
- Preparing Test Data.
- Preparing Data Driven Test using @data Provider
- Executing Data Driven Tests
- Analysing Test Results

Page Object Model

- Creating TestBase class
- Creating Page Classes
- Defining Elements in Page Class
- Defining Functions
- Creating TestCase Classes
- Executing POM TestCases

BDD Cucumber framework Project implementation

- Project Setup and Dependencies
- Project Structure
- Writing Feature Files
- Implementing Step Definitions
- Configuring the Test Runner
- Executing Tests and Generating
- Reports

Selenium GRID

- What is Selenium Grid?
- When to Use Selenium Grid?
- What is a Hub and Node?
- How to Install and Use Grid 2.0?
- Designing Test Scripts That Can Run on the Grid
- Using the DesiredCapabilities Object
- Using the RemoteWebDriver Object
- Running a Sample Test Case on the Grid
- Sequential and Parallel Test Execution
- Running Tests on different Operating Systems
- Running Tests on different Browsers

GitHub

- Create GitHub Account
- Configure Git & GitHub with Eclipse
- GitHub Commands

Jenkins

- Installing/Configuring Jenkins
- Scheduling Test Execution in Jenkins
- Auto mail configuration in Jenkins
- What is continuous integration?
- Continuous integration with JENKINS

About Us

Cloud Upskill is a career-focused training initiative designed to help students, working professionals, and tech enthusiasts gain in-demand cloud skills and transition into high-paying roles in the cloud ecosystem.

Cloud Upskill courses are designed to enhance your skills which helps to advance your career.

Our courses are taught by experts and include round the clock support. Our exceptional career services assist students launch their careers in their ideal positions, and these courses help students become more employable.

Contact Us

Questions, doubts & feedback – we're here for it all

Have questions? We're just a message away. Whether you're looking for course details, need assistance with enrollment, or want to discuss partnership opportunities, we're happy to help.

Our dedicated team of admissions counselors is here to help guide you through the process.

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