

# Manual Testing

**Course Duration: 30 Hours**

## Module 1: Introduction Of Software Testing

- What is software?
- What is software testing?
- Why software has bug?
- Why is testing necessary?
- Quality
- Difference between manual and automation testing
- Error, Bug, Failure
- Product Vs Project

## Module 3: Types of Testing

- Static testing and dynamic testing
- Difference between Verification and Validation
- White box and black box testing and gray box testing

## Module 5: Types of System Testing

- Functional testing
- Non functional testing

## Module 7: Non Functional Testing Types

- Security testing
- Performance testing
- Stress testing
- Load testing
- Recovery testing
- Configuration testing
- Compatibility testing
- Installation testing
- Parallel testing
- Inter-system testing
- Spike testing
- Localization and Globalization

## Module 9: Test Management

- STLC (Software testing life cycle)
- Test Planning
- Use case, Test scenario, Test case
- Test Environment and Execution
- Test closure
- RTM
- Cyclomatic complexity
- Software testing matrix
- Testing activities
- Test management process
- Incident Management Process
- Principles of software testing

## Module 2: Software Testing Concepts

- SDLD (Software development life cycle)
- Process Models
  - Waterfall model
  - Spiral model
  - Prototype model
  - V model
  - Agile Model

## Module 4: Levels of Testing

- Unit testing
  - Integration testing
  - System testing
  - UAT testing

## Module 6: Other Types of Testing

- Exploratory testing
- Adhoc testing
- End to end testing
- Scalability testing

## Module 8: Defect

- Defect/Bug
- Causes for Defect
- Defect Report
- Contents in defect report
- Defect Attributes
- Defect classification (Severity and priority)
- Defect life cycle
- Advantages of defect tracking

## Module 10: Manual Testing Project

- JIRA tool



# Core Java Programming

**Course Duration: 25 Hours**

## Module 1: OOP's Concept

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

## Module 3: Classes and Methods

- Creating classes and methods in java
- Method Overloading
- Constructor
- Constructor Overloading
- This keyword
- Static keyword

## Module 5: Packages and Interfaces

- Packages Introduction
- Using Builtin packages of Java
- Creating Custom Packages in Java
- Access Specifiers
  - Public
  - Private
  - Default
  - Protected
- Interfaces
- Multiple Inheritance using Interfaces

## Module 7: Input, Output, File Handling

- Using Input Stream Reader
- Using scanner class
- Methods of Scanner Class
  - nextBoolean()
  - nextByte()
  - nextDouble()
  - nextFloat()
  - nextInt()
- Reading and Writing the files

## Module 2: Overview of Java

- History of Java
- Feature of Java
- Operator in Java
- Conditional Construct
- Looping Construct

## Module 4: Inheritance

- Single
- Multilevel
- Hierarchical
- Multiple
- Hybrid
- Overriding the methods
- Abstract classes

## Module 6: Exception Handling

- Checked Exception
- Unchecked Exception
- Error
- Try, Catch
- Throw, throws
- Finally

## Module 8: Collection API's

- Java Collection API
- Types of Collection API
- Array List, Linked list
- Tree Set, Hash Set
- Vectors
- Hash map, Stack, queues.
- Various operations on collections
- Custom class collections



# Automation Testing

**Course Duration: 40 Hours**

## Module 1: Introduction

- Difference between manual and automation testing
- Introduction of selenium
- Advantages and disadvantages
- Components of selenium

## Module 2: Installation

- Eclipse
- Introduction to selenium WebDriver
- Setting up eclipse

## Module 3: Selenium WebDriver

- Create WebDriver script
- Get commands
- Navigate commands
- Element visibility commands
- Locators
- Headless testing
- Datadriven testing
- Webtable
- Drop down
- Browser Windows
- Authentication popups
- Frames
- Action class
- Broken links
- Screenshot
- Download files
- Robot class
- Cookies
- Scrolling webpage
- JavaScript executor
- How to automate date picker
- How to use hash map in automation
- Database testing

## Module 4: Framework and Tools

- POM and log4j
- Assertions
- Batch testing
- Listeners and extent reports
- Git and Github introduction
- Exceptions in selenium
- Maven
- Framework
- Test NG
- Project

