

Testing Course Content

Introduction:

- What is a software?
- Where can we find the application of IT?
- What is testing?
- Why testing necessary?
- What are the objectives of testing?
- What is Quality?
- In how many ways can we test an application?
- Difference between error, defect and failure
- What is going to happen once the company gets a project?

Software Development Life Cycle (SDLC):

- Initial (or) Requirements phase
- Analysis phase
- Design phase
- Coding phase
- Testing phase
- Delivery and Maintenance phase

Where Exactly Testing Come into picture?

- Conventional Testing
- Unconventional Testing

Testing Methodology

- Black Box Testing
- White Box Testing
- Gray Box Testing

Levels of Testing

- Unit Level Testing
- Integration Level Testing
- System Level Testing
- System integration level testing
- User Acceptance Level Testing

Environments

- One Tier Architecture
- Two Tier Architecture
- Three Tier Architecture
- N- Tier Architecture

Software Development Models:

- Sequential life cycle models
- Waterfall Model
- Y-Model

Our Courses

Java Full Stack, Dotnet Full Stack, Python Full Stack, Data Science (AI & ML), Front End – Angular, Front End – React, Testing, Tools – QA, Digital Marketing, Tally, MS Office, C & DS, Java, Advanced Java, Azure Devops, UI Technologies

Iterative life cycle model

- Prototype Model
- Spiral Model
- Agile methodology

Types of Testing

- Build Verification Testing
- Regression Testing
- Re-Testing
- alpha Testing
- beta Testing
- Static Testing
- Dynamic Testing
- Installation Testing
- Compatibility Testing
- Monkey Testing
- Usability Testing
- End-To-End Testing
- Exploratory Testing
- Security Testing
- Port Testing
- Reliability Testing
- Mutation Testing
- Adhoc Testing
- Scalability testing
- Heuristic testing

Software Testing Life Cycle(STLC):

Test Planning

- Contents of Test Plan

Test Development

- Use Case Reviews
- Types of Test Cases
- Test case design
- Test design techniques
- BVA
- ECP

Test Execution

- Execution Process

Result Analysis

Reporting

- Classical Bug Reporting
- Common Repository oriented BRP
- Bug Tracking Tool Oriented BRP

Bug Tracking

- Bug Life Cycle

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Test Closure Activity

- Test summary reports

Introduction to Automation Testing

- Ways of Testing
- What is manual testing
- Drawbacks of Manual testing
- What is Automation testing
- Drawbacks of Automation testing
- What Test cases can be converted into automation ?
- What Test cases can't be convert into automation ?
- Types of Automation tools
- Difference between Selenium and QTP
- Introduction to Selenium

Components of Selenium

- Selenium IDE
- Selenium RC/1.0
- Selenium Webdriver/2.0
- Selenium Grid
- **Core Java/python Concepts**
- Introduction to Core Java
- What is oops?
- What is Class and Object?
- What is a main method
- Data Types
- Variables
- Operators
- Arrays
- Conditions (If,If-else and If-else-if)
- Looping conditions(For,Do & While loops)
- Branching Statement -Break
- OOPs concepts
- String Class
- Object class
- Collection API
- ArrayList Class
- HashTable Class
- HashSet Class
- Constructors
- Inheritance
- Polymorphism(Method overloading & Method overriding)
- Exception Handling (Errors,Throwables) with Try-Catch Block

Cross Browser Testing

- What is cross browser testing
- How to achieve cross browser testing in selenium
- How to execute test case in multiple browser

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- In parallel mode

Web Driver (Selenium 2.0)

- Web Driver Introduction
- Difference Between RC and Web driver
- Downloading web driver and configuring

Auto IT

- Installing Auto IT
- Auto IT Over view
- Why Auto IT
- Auto IT Components
- Auto IT components
- Compiling Auto IT Scripts

Operational overview of Selenium

- Web driver Introduction
- Firefox Driver
- IE Driver
- Chrome driver
- Safari driver
- Opera driver
- How to give instructions to selenium web driver
- How to give information to selenium web driver
- Internally what is happening during execution
- Working with IE driver
- Downloading IE driver server
- Configuring IE driver server
- Basic Example on IE browser
- Working with Chrome driver
- Downloading Chrome driver server
- Configuring Chrome driver server
- Basic Example on Chrome browser
- Working with Firefox Driver

Object Identification

- Installing Firebug add on in firefox
- Installing Firepath add on in firefox
- What is firebug
- What is firepath
- How to use firebug
- When to use Firebug
- What is the use of firepath in firebug
- What is Xpath
- Where we use Xpath in our scripts

Web Driver Locators

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- Locating elements by ID
- Locating elements by Class
- Locating elements by TagName
- Locating elements by Name
- Locating elements by Link Text
- Locating elements by Partial Linktext
- Locating elements by CSS selector
- Locating elements by Xpath

Working Web page elements

- Text Box
- Links
- Buttons
- Check Box
- Radio Button
- List Box
- Drop Down

Selenium webdriver API commands and operations

- Driver commands like - `driver.get("url");`
- `Driver.getTitle();`
- `Driver.close();`
- `Driver.Quit();`

Advanced Concepts

- Pop-Up handling
- Working with Keyboard
- Actions class
- Working with webtable
- Attaching files with selenium

Automation Life cycle

- Phase - I
- Test palnning
- Phase - II
- Generating Basic Script
- Phase - III
- Enhancing the Test
- Phase -IV
- Debugging the script
- Phase -V
- Executing the test
- Phase -VI
- Analyzing the Result

Log4j

- What is Log4j

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- Download and configure log4j
- Examples

Automation Framework

- What is automation framework
- Advantage of Automation Framework
- Types of Automation frame works
- Junit
- TestNG
- Modular Driven Frame work
- Data Driven Frame work
- Keyword driven frame work
- Hybrid driven frame work

TestNG Frame work

- Introduction to TestNG
- Why TestNG
- Installing TestNG into eclipse
- TestNg Features
- How to use TestNG
- TestNG Execution Report

Modular Driven FrameWork

- What is modular driven framework
- Create reusable code as methods

Data Driven framework

- What is Parameterization
- Types sof Parameterization
- Parameterization usinf Excel
- What is Apache POI
- Example of Data Driven testing
- **Keyword driven frame work**
- What is keyword driven frame work
- Overview of keyword driven framework

Maven

- what is ANT
- What is Maven
- Why Maven
- Installation of Maven
- Developing the Scripts

Selenium IDE Introduction

- Installing Selenium IDE
- Recording Script
- Running Script
- Operational overview of Recording
- Operational overview of running

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- Inserting BreakPoints
- Inserting Commands
- Inserting Wait Statements
- Saving the Script
- Analyzing the Results in Log
- Table View
- Source View

Understanding target and value

SSSIT

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