



Course Brochure

TESTING TOOLS

Overview

- This course is to understand the software Testing Process, Methodologies, Life Cycles and techniques used to validate a software system. It covers different software testing methods like Black Box and White Box and techniques like Integration Testing, System Testing, Functional, Load & Performance, Compatibility, Scarity testing etc...

Pre-requisites

- Basic idea on software systems and have passion to validate the systems.

Applications

- Used to validate any software like projects or products used for various domains like Insurance, Banking, Brokerage, Healthcare, Enterprise systems.

COURSE CONTENTS

SOFTWARE TESTING TOOLS

&

QUALITY CONCEPTS

- ❖ Introduction to Software Testing
- ❖ Quality Assurance & Quality Control (Verification & Validation)
- ❖ Software Development Life Cycle, SDLC Models
 - Waterfall Model
 - Incremental Model
 - V-Model
 - SCRUM/AGILE Model
- ❖ Software Testing Life Cycle(STLC)
 - Test Planning, Test Strategy
 - Test Design/Test Development
 - Test Execution
 - Defect Tracking
 - Reporting
- ❖ Methods of Testing(Black Box, White Box, Grey Box)
- ❖ Static Testing (Reviews, Inspections, Audit, Walk through)
- ❖ Software Environments(Stand-Alone, Client/Server, Web Environment, Distributed Environment)
- ❖ Black Box Testing Techniques(BVA, ECP, State Transition, Error Guessing)
- ❖ White Box Testing (Basic Path, Cyclomatic Complexity, Condition, Branch, Loop Testing)
- ❖ Testing Techniques
- ❖ Test Execution & Result Analysis
- ❖ Defect Tracking
 - Defect Life Cycle
 - Defect Tracking System
 - Categorizing the defects
 - Severity & Priority
- ❖ Test closure Activity
- ❖ User Acceptance Testing (UAT)
- ❖ Quality standards (ISO CMM, CMMI, Six Sigma)

TEST MANAGEMENT WITH HP - QUALITY CENTER

- ❖ Introduction to Test Management
- ❖ Working with site Administrator
 - Create domain
 - Create project
 - Create users
 - Assign user to project
- ❖ Working with quality center
 - Creating Requirements
 - Test Plan
 - Test Cases Preparation
 - Test Execution
 - Defects
 - Integration with QTP, Load Runner
 - Reports, Graphs, Documents

PERFORMANCE TEST AUTOMATION WITH LOAD RUNNER

- ❖ Introduction to performance testing
- ❖ Load, Performance & Stress testing
- ❖ Load Test Process(Manual & automation Load Testing)
- ❖ Overview of Load Runner & Components
- ❖ Creating V-user scripts
- ❖ Creating scenarios
- ❖ Execute the scenarios
- ❖ Analyze the results
- ❖ Publishing reports

COURSE CONTENTS

QTP

INTRODUCTION TO AUTOMATION TESTING

- ❖ Understanding what is Automation Testing and Need of Automation
- ❖ Introducing different areas of automation
- ❖ Difference between manual testing and Automation testing
- ❖ Prerequisites for QTP
- ❖ Introduction to QTP tool and discussion on various version of QTP

TESTING PROCESS OF QTP

- ❖ Understanding the Test Process of QTP
- ❖ Discussion on the various components of QTP window like test pane, Test details pane, Active screen, Data table, Information and missing Resources window
- ❖ Discussion on the keyword view and Expert view
- ❖ Understanding different toolbars and window themes (MS office 2000, XP, Office 2003, MS.Net 2005)

IMPLEMENTING GUI AND BITMAP REGRESSION TEST

- ❖ Understanding the Add-in manager
- ❖ Working with Automation Record and Run setting
- ❖ Working with File settings
- ❖ Working with Tools options

CREATING TEST SCENARIOS/COMPONENTS

- ❖ Creating a basic script
- ❖ Understand diff recording modes of QTP (Normal, Analog, Low-Lever)
- ❖ Understanding Test Object, Run Object, Pre Learning and Auto Learning
- ❖ Understanding how QTP identifies the objects (Mandatory, Assistive properties & Ordinal Identifier)
- ❖ Working with Object Repository (Shared and Per-Action)

- ❖ Working with Object Repository Manager
- ❖ Associating Objects Repositories to Actions of QTP
- ❖ Working with Object SPY
- ❖ Understanding the basic structure of QTP script on different technologies like (VB, .Net, Java/J2EE, Web and Standard windows)

CHECKPOINTS AND OUTPUT VALUES

- ❖ Understanding the need of checkpoints in Automation
- ❖ Working on various checkpoints available in QTP
- ❖ Understanding the need of output values in Automation
- ❖ Working on various output values available in QTP
- ❖ Understanding the Environment Variables/Global Variables
- ❖ Working on both inbuilt and Userdefined Variables

ACTIONS IN QTP

- ❖ Introduction to Actions in QTP, advantages of Actions.
- ❖ Creating New actions, Split actions
- ❖ Working on reusability of Actions with call to existing and call to copy options

FUNCTIONS, PROCEDURES AND CLASSES (LIBRARY FILES)

- ❖ Understanding the need of reusability while Automation Testing
- ❖ Creating Local and Global functions in QTP
- ❖ Working with Library Files of QTP
- ❖ Creating user defined classes, methods and objects in QTP
- ❖ Understanding how a function returns the value in QTP

COURSE CONTENTS

PARAMETERIZATION / DATA DRIVEN TEST

- ❖ Introduction to parameterization
- ❖ Creating a Parameterized script(Data Driven Test)
- ❖ Working on different methods of Data Table object
- ❖ Working on different way of parameterizing an object in QTP
- ❖ Importing data from .xls, .txt files, CSV files & Database files

FILE OPERATIONS IN QTP

- ❖ Working with file system object
- ❖ Reading from, Writing to external files like Text files, Excel files
- ❖ Working with XMLUTIL Object
- ❖ Performing various operations on XML files using QTP

ADVANCED OPTIONS

- ❖ Descriptive programming & Description object, Static & dynamic desc programming
- ❖ Working with regular expressions
- ❖ Exception Handling/Recovery scenario Manager
- ❖ Smart Identifications, Configuration of object Identificaton
- ❖ Database connection using ADODB objects
- ❖ VB Scripting language

WORKSHOP ON PROJECT AUTOMATION

FRAME WORK FOR THE QTP(KEYWORK, HYBRID ETC.)

INTEGRATION WITH QC & WINRUNNER

DISCUSSION ON RESUME PREPARATION FAQ'S AND TIPS AND GUIDLINES BY AN AUTOMATION LEAD

GUIDANCE FOR HP QTP & QC CERTIFICATION