



HP-UFTv12.50 & HP-ALMv12.50



1. Overview of “Automation Testing”

- Introduction to Automation Testing Tool-UFT
- Automation Tool (UFT) Architecture
- Environment supported by UFT
- Test Automation Process and Methodology
- POC in Test Automation (Proof of Concept)
- UFT Performance Improvement Tips
- How to identify the Test Case for Automation
- Object Identification Issue with UFT
- Best Practice to implement Automation Process in Software Industry

2. Automation Basics

- Object
- Properties
- Method
- Introduction to Web Objects
- Introduction to Expert & Keyword View
- Record & Play
- Recording Mode (Normal | Analog | Low Level)
- Running Mode (Fast | Normal | Debug | Maintenance | Update Mode)
- Introduction to all UFT Tabs & Short Cut Keys

3. Object Repository

- Local Object Repository
- Shared Object Repository
- Object Repository Manager
- Merging Object Repository
- Compare Object Repository
- Associate different Repositories with Test
- Associating Object Repositories with an Action

4. Object Spy

- Test Object Properties & Methods
- GetROProperty & GetTOProperty
- Run Time Object Properties & Methods

5. VB Script Basics

- VB Script Data Types & Variables and Constants
- Programming Loops & Array (Static Array & Dynamic Array)
- VB Script Built-In Functions
- VB Script User Defined Functions, Procedures & Subroutines
- VB Script Objects
- VB Script Statements
- VB Script Fundamentals & Features

6. Parameterization

- Data Table
- Xls file using DataTable.Import
- Excel Object Model
- Environment Variables
- Random Number Generator
- Global Dictionary Objects

7. UFT Checkpoint

- UFT inbuilt Checkpoint
 - ✓ Standard Checkpoints
 - ✓ Text Checkpoints
 - ✓ Text Area Checkpoints
 - ✓ Bitmap Checkpoints
 - ✓ Database Checkpoints
 - ✓ Accessibility Checkpoints
 - ✓ Xml Checkpoints (Application Area)
 - ✓ Xml Checkpoints (Resource File)
- Custom Checkpoints

8. Function Libraries used in UFT

- vbs File
- qfl File
- txt File
- Associate Function Library : Using **AOM** (Automation Object Model)
- Associate Function Library : Using **ExecuteFile** Method
- Associate Function Library : Using **LoadFunctionLibrary** Method
- Associate Function Library : Using 'File > Settings > Resources > Associate Function Library' option from the Menu bar

9. Objects Identification Mechanism by UFT

10. Tune UFT to work with AUT (Application under Test)

11. Actions

- Create New Action
- Call to Existing Action
- Call to Copy Action
- Associate Action with Test on Run Time using LoadAndRunAction
- Split Action

12. Object Model

- Test Object Model (TOM)
- Automation Object Model (AOM)
- Component Object Model (COM)
- Document Object Model (DOM)

13. Advanced Concepts about Synchronization

- Exist
- Wait
- Sync
- WaitProperty
- Object.ReadyState

14. UFT Settings

- Action Level Setting
- Test Level Setting
- UFT Level Setting

15. Recovery Scenario & Error Handling

- UFT inbuilt Recovery Scenario Wizard
- If...Else loop
- Error Object
- On Error Resume Next

16. UFT & ALM Connectivity

17. FSO (File System Object)

- Working with files and folders
- Create, Open, Append and Delete

18. UFT Advance Topics

- Reporter Event
- Relative Path
- Open Application using UFT
- Close Application using UFT

➤ **Descriptive Programming**

- Using Real Objects Run Time Property (attribute/<propertyname>)
- Static DP
- Dynamic DP
- Hybrid DP

➤ **Smart Identification Mechanism**

➤ **Debugging of UFT Script**

- Watch.
- Variable.
- Command.

➤ **Overview of Test Setting & Options Dialog Box**

➤ **Introduction to Reserved Objects provided by UFT to make the script more generic**

➤ **Advance Concept about Regular Expression**

➤ **Handling of “Dynamic Objects”.**

- Using Object Identification Setting.
- Descriptive Programming (DP) using “Run Time”/ “Test Object” Properties.
- Using Recovery Scenario Wizard

➤ **Concept of “Virtual Object”**

- Using OR Approach.

- Using DP Approach.
- **Database Connectivity**
 - Create Dynamic Database Connection.
 - Working with Excel as Database (ADODB connection with Excel).
- **Component Object Model (COM)**
 - Implementation of 'Excel Object Model'.
 - Implementation of 'Outlook Object Model'.
 - Implementation of 'Word Object Model'.
 - .INI Files
- **File System Object - FSO**
 - Working with Text Files
 - Working with Folders
 - Working with Drives
 - Create low level results using file system object
- **Difference between Test Object & Real Object**
- **Windows Shell Scripting using WSH**
 - Send Keyboard Input to Application.
 - Update Windows Registry.
 - Methods: Run & AppActivate etc.
- **Some UFT Advance Concepts**
 - Mercury.DeviceReplay” for “Keyboard” and “Mouse” oriented operations.
 - Relative Path.
 - Path Finder.
 - Advantage of Register User Function.
 - Custom Replay Solutions.
 - Web Replay Type.
 - Image Comparison.
 - RegisterUserFunction
- **Customization of UFT Results.**
 - Using Reporter Event
 - Embed Html in UFT Test Result

- **Functional Automation Test Feasible Analysis**
- **Design & Development Automation Test Catalogue**
- **Import UFT setting on run time using Configuration file**
- **Some Advanced Technique to Identify the Objects like:**
 - Get Text Location.
 - Get Visible Text
 - Convert Browser into Window.
- **Working with Windows Registry.**
 - Updating Web Objects property in Registry for DP.
 - Register COM Objects with UFT.
 - Handling Utility Objects through Registry.
- Code Review and Optimization Techniques used in UFT
- Extern Object to access the Win32 windows library functions
- Custom Web Event Recording Configuration
- How to Handle Third Party controls
- **Windows Management and Instrument (WMI)**
 - Win32 Process.
 - Win32 TimeZone.
 - Win32 Processor.
- **Document Object Model (DOM)**
 - Advantage of DOM.
 - Working with the Real (Html) Object.
 - Convert “Test Objects” into “Run Time Objects” and “Run Time Objects” into “Test Objects” as per the application requirements.
 - Identify the 'Objects' with the help of 'ANCHOR'.
 - Elimination of Virtual Objects by use of DOM.
 - Comparison with of Html Object with UFT Test Object.



- Attributes of DOM Objects.
 - Customization of Test Script by using DOM.
 - Methods of DOM Objects.
 - Working with Extremely Complex Hierarchy.
- **DLL Files**
- Design DLL Files.
 - Register DLL Files.
 - Access DLL Files through UFT.
- **Implementation of Dot Net Factory**
- **Mapping "Custom Test Object" Class to "Pre-Defined UFT Test Object" Class**
- **Test Automation Framework**
- Keyword Driven Framework
 - Data Driven Framework
 - Hybrid Driven Framework

ALM (Application Life Cycle Management)

- Integration of UFT & Quality Center
- Integrate Test Automation Framework with ALM
- Save Automation Test with ALM
- Run Automation Test with ALM
- Save Results with ALM



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