

Automating OneNote Desktop Application using Test Complete Tool

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Abstract:- The subsequent research paper presents an outline regarding the Test Complete automation tool. The main purpose of this research paper is to understand automating desktop applications namely OneNote using Test Complete by writing code using JavaScript programming language.

Keywords:- Test Complete, OneNote, JavaScript.

I. INTRODUCTION

Nowadays, in this cut-throat market use of automation tool play a crucial role because of time saving, less manual tasks, cost-effective and easy to manage. Test Complete is a comprehensive automated testing tool developed by Smart Bear Software. It provides a robust platform for functional and regression testing of software applications across various platforms, including web, desktop, and mobile. Test Complete supports a wide range of technologies like Web technologies (HTML5, JavaScript, AJAX), Desktop applications (.NET, Java, WPF, Win Forms), Mobile applications (Android, iOS) and Web services (SOAP, REST). Overall, Test Complete is a powerful versatile automated testing tool that offers a comprehensive set of features for testing software applications across different platforms and technologies. Microsoft OneNote is a digital note-taking application developed by Microsoft as part of the Microsoft Office suite. It is a versatile note-taking application that offers a wide range of features for organizing, capturing, and sharing information across different devices and platforms.

OneNote allows users to organize notes into notebooks, sections, and pages, providing a hierarchical structure for managing information. Users can create rich-text notes with various formatting options such as text styles, colors, font sizes, and highlighting. It also supports embedding images, audio recordings, videos, files, links, tables, and drawings. OneNote is available on multiple platforms including Windows, macOS, iOS, Android, and web browsers, providing seamless synchronization of notes across devices. OneNote automatically syncs notes to Microsoft's cloud service, OneDrive, allowing users to access and edit their notes from any device with an internet connection. Users can share notebooks with others, allowing for real-time collaboration on notes. OneNote supports co-authoring, allowing multiple users to edit the same note simultaneously. OneNote includes a tagging feature that

allows users to tag specific content within their notes for easy organization and retrieval. Tags can be customized and used to categorize notes based on priority, status, or topic. OneNote provides powerful search capabilities, allowing users to quickly find specific notes or content within their notebooks. OneNote integrates with other Microsoft Office applications such as Outlook, Word, Excel, and PowerPoint, enabling seamless transfer of content between applications. OneNote supports digital ink, allowing users to write or draw directly on touch-enabled devices using a stylus or their fingers. Handwritten notes can be converted to text for easier reading and searching. OneNote offers a variety of pre-designed templates for common note-taking scenarios such as meeting notes, project plans, to-do lists, and more. OneNote includes accessibility features such as keyboard shortcuts, screen reader support, and text-to-speech functionality to cater to users with disabilities.

JavaScript is a high-level, interpreted programming language primarily used for creating interactive and dynamic web content. Developed in the mid-1990s by Brendan Eich at Netscape Communications Corporation, JavaScript has since become one of the most popular and widely used programming languages in the world. JavaScript's versatility, ease of use, and extensive ecosystem of libraries and frameworks make it a powerful tool for a wide range of web development tasks, from simple client-side scripting to complex full-stack applications.

II. ARCHITECTURE

In this paper, we automate OneNote desktop application using Test Complete tool by writing code in JavaScript. Object Spy feature in Test Complete is used to identify the controls in the application. JSON file is used to store the recognition strings to identify the controls in OneNote. Log files are used to save detailed logs in Test Complete. Tested app feature in Test Complete is used to add application which needs to be automate. In execution plan of Test Complete, we can organize the testcases which needs to be executed. We have used hybrid framework, where Data Driven is from JSON file and Functional Driven is from function of testcase. Execution Plan folder has testcases added which user can select and execute individually or together as a project suite. Automation starts from the testcases selected in order one after the other. JSON file is used to identify the object. Run project will start the execution of the testcases with the steps written in

testcase function. With the help of JSON file, the objects are identified. Results are updated in Test Complete logs.

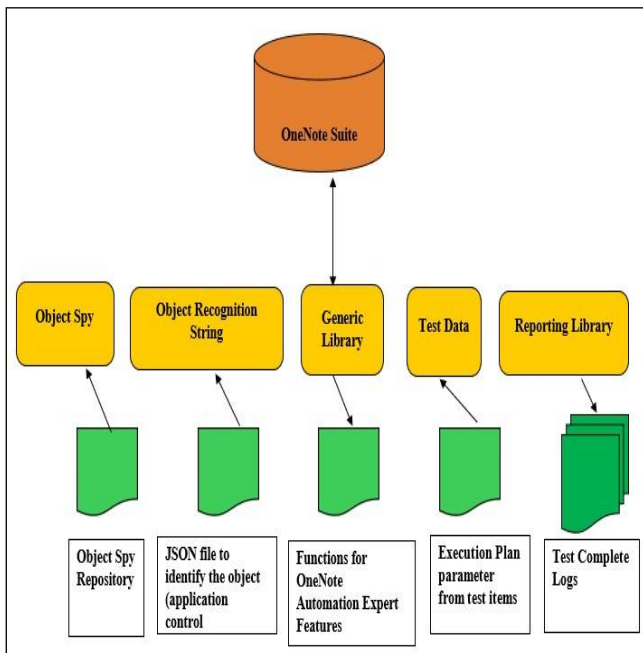


Fig. 1 Overview of the Framework

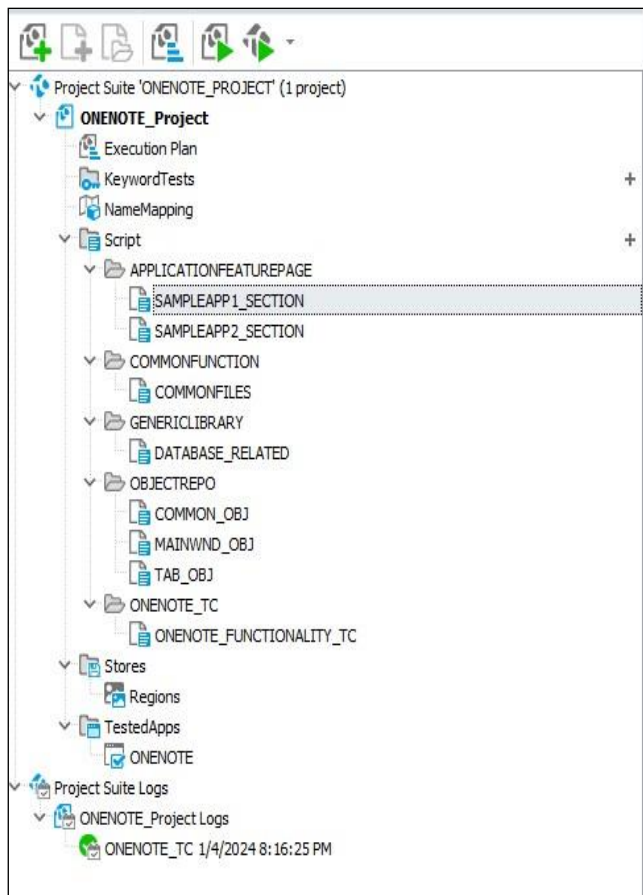


Fig. 2 Framework Folder Structure

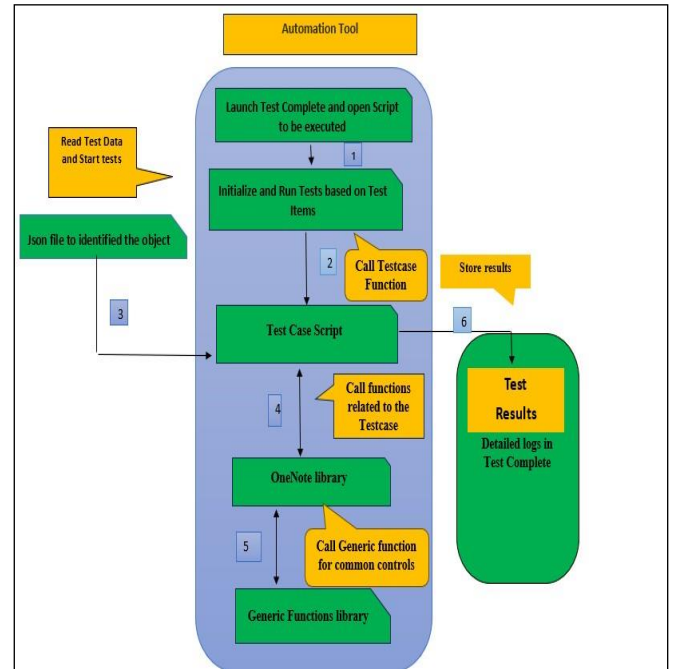


Fig. 3 Execution Flow of Project

III. RESULTS AND DISCUSSION

The Test Complete log summary tab shows the testcase results with the following details like total testcases run, number of testcases passed, number of testcases failed, number of testcases with warnings and execution duration.

The Test Complete Log tab shows the testcase results with the following details like test steps and each test step status.

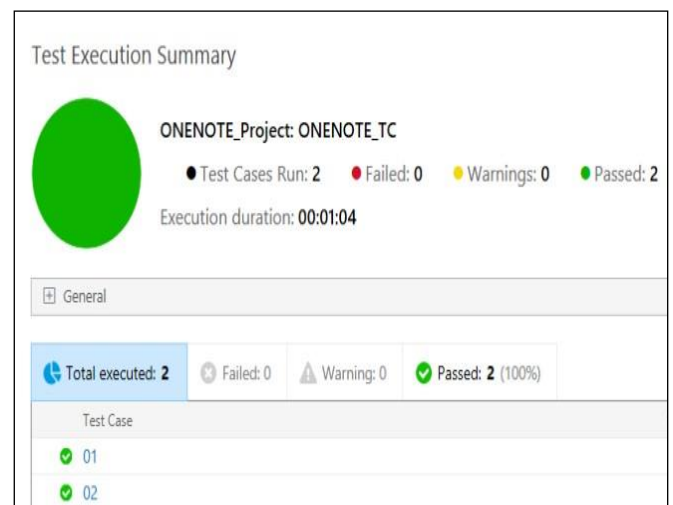


Fig. 4 Result Summary

Test Log				
<input checked="" type="checkbox"/> Error <input checked="" type="checkbox"/> Warning <input checked="" type="checkbox"/> Message <input checked="" type="checkbox"/> Event <input checked="" type="checkbox"/> Checkpoint				
Type	Message	Time	Priority	Has Picture
...	The application "C:\Program Files (x86)\Microsoft Office\root\Office16\ONENOTE.EXE" started.	20:16:37	Normal	
...	Onenote application is present and it is opened	20:16:49	Normal	
🖱️	The window was clicked with the left mouse button.	20:16:51	Normal	
...	Sample Application is present and clicked	20:16:51	Normal	
...	Excel file is present	20:16:52	Normal	
...	Word document is present	20:16:52	Normal	
...	JSON file is present	20:16:52	Normal	
...	PDF file is present	20:16:52	Normal	
🖱️	The 'File_Attachments - OneNote' window was closed.	20:16:53	Normal	

Fig. 5 Log files1

Test Log				
<input checked="" type="checkbox"/> Error <input checked="" type="checkbox"/> Warning <input checked="" type="checkbox"/> Message <input checked="" type="checkbox"/> Event <input checked="" type="checkbox"/> Checkpoint				
Type	Message	Time	Priority	Has Picture
...	The application "C:\Program Files (x86)\Microsoft Office\root\Office16\ONENOTE.EXE" started.	20:17:03	Normal	
...	Onenote application is present and it is opened	20:17:15	Normal	
🖱️	The window was clicked with the left mouse button.	20:17:17	Normal	
...	Sample Application2 is present and clicked	20:17:17	Normal	
...	Wednesday, January 3, 2024 2:06 PM	20:17:18	Normal	
🖱️	The 'Sample_File - OneNote' window was closed.	20:17:29	Normal	

Fig. 6 Log files2

IV. CONCLUSION

In this paper we initially discussed about testcomplete desktop application like OneNote and programming like Javascript. Then we have explored the framework used, architecture and project flow and their implementation. Finally we discussed about the result.

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