Automation Engineer Level 1

Exercise 1f

Run Excel Macros

Objective

By the end of this exercise, you will be able to demonstrate how to use the Excel Engine 3.0 Standard Module - **TBox Run Excel Macro** to run the macros embedded inside a workbook using Tricentis Tosca.

Why is this Important?

The Excel workbooks often contain macros which needs to be executed to obtain a certain outcome.

Project Perspective

Excel Macros are widely used in many applications and using Tosca you can automate running macros in Excel.

Instructions

1. Download the Excel file – **Excel_Macro.xlsm** from the downloads section and move it to **C:\Tosca_Projects** and open the Excel file

2. Log in to Tosca Commander and navigate to the path **AE1 Exercises>>TestCases>>Excel Engine** and create a new **TestCase** in this folder and name it as **Execute Excel macro**

3. Within this TestCase, create three **TestStepFolders** – 'Precondition', 'Process' and 'Postcondition'

4. Add the Standard Module **TBox Open Excel Workbook** into the folder **Precondition** and rename it as **Open Excel workbook**

5. Input **Values** as shared in the table below:

TestStep Value	Value	ActionMode
Workbook Name	Excel_Macro	Input
Path	C:\Tosca_Projects\ Excel_Macro.xlsm	Input

6. Add the Standard Module **TBox Define Excel Range** into the folder **Precondition** and rename it as **Define Excel range**

7. Input **Values** as shared in the table below:

TestStep Value	Value	ActionMode
Workbook Name	Excel_Macro	Input
Worksheet Name	Calculate	Input
Range Name	CalculationRange	Input
Start Cell	A1	Input
End Cell	F10	Input

8. Add the Standard Module **TBox Run Excel Macro** into the folder **Process** and rename it as **Run Excel Macro for calculation**

9. Input **Values** as shared in the table below:

TestStep Value	Value	ActionMode
Workbook Name	Excel_Macro	Input
Macro Name	Mathematical_Operations	Input
Timeout	20000	Input

10. Add the Standard Module **TBox Excel Range Manipulation** into the folder **Process** and rename it as **Verify calculation result in Excel**

11. Input **Values** as shared in the table below:

TestStep Value	Value	ActionMode
Range Name	CalculationRange	Input
Data Table		Select
Enter values in Result column to verify data		
Result		Select
$1	8	Verify
$2	4	Verify
$3	16	Verify
$4	2	Verify

12. Add the Standard Module **TBox Close Excel Workbook** into the folder **Postcondition** and rename it as **Close Excel workbook**

13. Input **Values** as shared in the table below:

TestStep Value	Value	ActionMode
Workbook Name	Excel_Macro	Input
Path	C:\Tosca_Projects	Input
Save	True	Input

14. Close the Excel file – **Excel_Macro.xlsm** in your local system to proceed

15. Mark the TestCase **Completed** and run the TestCase **Create new Excel and write data** in **Scratchbook**

Expected outcome

The TestCase would execute the macro inside the Excel and the result generated in the Excel file would be verified successfully.

Hints

1. The macro used in the Excel workbook performs mathematical calculations such as Addition, Subtraction, Multiplication, and Division. Initially, the result column is empty, but executing the macro fills it

2. In the TBox Run Excel Macro Standard Modules, the time out defines how long Excel macros can run for