Robotic Process Automation in a Day

Lab 8 – Web automation using Power Automate Desktop

90 mins
November 2020
Lab Overview

You will complete the following tasks in this lab:

- **Exercise 1 – Build a Power Automate Desktop subflow to write notes into excel**
  - Create a process with fixed value variables
  - Test and run this process

- **Exercise 2 – Web automation using Power Automate Desktop**
  - Web data scraping and writing to Excel
  - Test and run this process

Prerequisites

Please complete lab 1.1, pre-requisite task 3: Start per user plan with attended RPA trial license and lab 1.3, installation of Power Automate Desktop. To use Power Automate Desktop, a user must own either a trial or paid per user plan with attended RPA.

For the exercises, please complete Lab 3.
Exercise 1 - Build a Power Automate Desktop subflow to write notes into excel

In this exercise we will create a process in Power Automate Desktop which will write the values of variables into Microsoft Excel.

1. In Power Automate Desktop, Edit Enter an invoice flow you created by clicking ... icon and select Edit.
2. Click Subflows > to create a subflow for Enter an invoice.

3. Name it Write_notes_into_excel. Click Save.

   Note: Subflow name can’t have spaces

Add a subflow

Segmenting a flow into subflows makes it easier to manage—especially if it has a lot of actions or complexities. More info

Subflow name Write_notes_into_excel

4. Add the Launch Excel Action from the Excel folder.
5. Set **Launch Excel** to and open the following document and click on the Select File icon.
Launch Excel

Launches a new Excel instance or opens an Excel document. More info

Select parameters

Document path:

Launch Excel: and open the following document

Make instance visible:

Password:

Open as ReadOnly:

Load add-ins and macros:

Variables produced:

ExcelInstance

On error

Save Cancel

6. Save the file Contoso Invoices.xlsx that you can find inside lab data packages/Lab #8 excel file to use in Power Automate Desktop folder to the folder of your choice, then browse for it in this dialog, select it and click Open.
7. **(Optional)** - Create a **password** you would like to use. Then click **Save**.
8. Add the Get First Free Column/Row from Excel Worksheet action from the Excel folder.
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desktop UI flow
9. In the Action Properties, we will use the default settings for this action. Click **Save** to add it to the Workspace. This action will retrieve the number of the first free row and the first free column and store them into variables.

Get first free column/row from Excel worksheet

- Retrieves the first free column and/or row of the active worksheet. This is useful for adding new data into a worksheet that already has data in it. [More info]

Select parameters

- **Excel instance:** 

<table>
<thead>
<tr>
<th>Variables produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>FirstFreeColumn</td>
</tr>
<tr>
<td>FirstFreeRow</td>
</tr>
</tbody>
</table>

- **On error**

10. Add the **Write to Excel Worksheet** action from the **Excel** folder.
11. In the Action Properties, in **Value to Write**, open the **Available Variables** by clicking on the $\text{fx}$ icon, double click **InvoiceID**.
12. Enter A and in field Column, then in Row, click on the corresponding \( \text{fx} \) icon, and select \%FirstFreeRow\%.
13. Repeat the four previous steps, writing values of variables to cells as the table below. For all Columns, Row must be set to %FirstFreeRow%.

<table>
<thead>
<tr>
<th>Value to Write</th>
<th>Column</th>
<th>Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>%Account%</td>
<td>B</td>
<td>%FirstFreeRow%</td>
</tr>
<tr>
<td>%Contact%</td>
<td>C</td>
<td>%FirstFreeRow%</td>
</tr>
<tr>
<td>%Amount%</td>
<td>D</td>
<td>%FirstFreeRow%</td>
</tr>
</tbody>
</table>

14. When all the steps above have been completed, your subflow for writing notes into Excel should look like this:

15. Click the Save button and then go back to your Main flow by clicking Main.
16. Add the Run subflow action from Flow Control folder under Step 12.
17. Call Write_notes_into_excel subflow you just created. Then click Save.

18. Click on the Save button to save the flow.
19. You can now run your flow by clicking **Run**.

![Run button]

20. Check the Excel file. The following entry should have been added:

1026 | WingTip Toys | b.friday@wingtiptoy.com | $500.00

Note: You may see a different invoice ID here.
Exercise 2 - Advanced Power Automate Desktop features introduction

In this exercise the amount previously extracted from the Contoso Invoicing app will be converted into another currency and the value will be added to the Excel document.

1. Open **Microsoft Edge** (Chromium), go to **Settings** then **System** and uncheck **Continue running background apps when Microsoft Edge is closed**. Close all browser tabs and sessions before you proceed.

2. In **Power Automate Desktop**, **Edit** the flow you created by clicking ... icon and select **Edit**.

3. Click **Subflow** to create a second subflow for Enter an invoice.
4. Call your Subflow `Currency_Exchange`. Click `Save`.  
   Note: Subflow name can't have spaces

```
Edit subflow

Segmenting a flow into subflows makes it easier to manage—especially if it has a lot of actions or complexities. More info

<table>
<thead>
<tr>
<th>Subflow name</th>
<th>Currency_Exchange</th>
</tr>
</thead>
</table>

Save  | Cancel
```
5. Add the **Launch New Edge** Action from the **Web automation** folder into the workspace.

   Click **Save**.
8. Select the **Populate text Field on web page** action from the **Web form filling** subfolder.
9. **The Web Browser Instance** is already populated with the %Browser% instance.

Web browser instance: %Browser%

Click on the **UI element** and then on **Add a new UI element** to be able to capture the element.
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desktop UI flow
10. Having done this, a red rectangle appears in the browser while hovering the mouse over the elements. Move the mouse over the field containing the value, hold the Left Control on your keyboard and Left-Click to select the element.

11. Once you selected the element, you will see the value appeared in tracking session. Click Done.
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desktop UI flow
12. Set %Amount% in the Text field by clicking the icon.

13. Click Save.
14. Use the **Get details of element on web page** action in the **Web data extraction** subfolder to select the **converted value (Euro)** with the same way described above.
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desktop UI flow
15. Select **Done**.

16. Change the Variables produced from `%AttributeValue2%` to `%ConvertedAmount%` by clicking `%AttributeValue2%`. Once you’re done, click **Save**.
17. Go back Write_notes_into_excel subflow you created in exercise 1 by clicking Write_notes_into_excel.
18. Add the **Write to Excel Worksheet** action from the *Excel* folder under **Step 6**.
19. Writing values of variables to cells as the information below.

- **Value to write:** %ConvertedAmount%
- **Column:** E
- **Row:** %FirstFreeRow%
20. Click **Save**.
21. Go back to your Main flow by clicking **Main**.
22. Add the Run subflow action from Flow Control folder as Step 12 of your process. Note: this subflow should be called prior to the Write_notes_to_excel subflow call.
23. Call **Currency_Exchange** subflow you just created. Then click **Save**.

24. Click on the **Save** button to save the flow.

25. You can now run your flow by clicking **Run**.
26. After a while, an entry is added to the Excel file as in the previous exercise, with an additional cell containing the converted value:

| 1055 | Tailspin Toys | p.gupta@tailspintoys.com | $3,500.00 | 3,118.15 |

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