Microsoft

Robotic Process Automation in a Day

Lab 9 – Web automation using Power Automate Desktop

90 mins

April 2021

Lab Overview

You will complete the following tasks in this lab:

- **Exercise 1 – Build a Power Automate Desktop subflow to write notes into Microsoft 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 Microsoft Excel.
    - Test and run this process.

Prerequisites

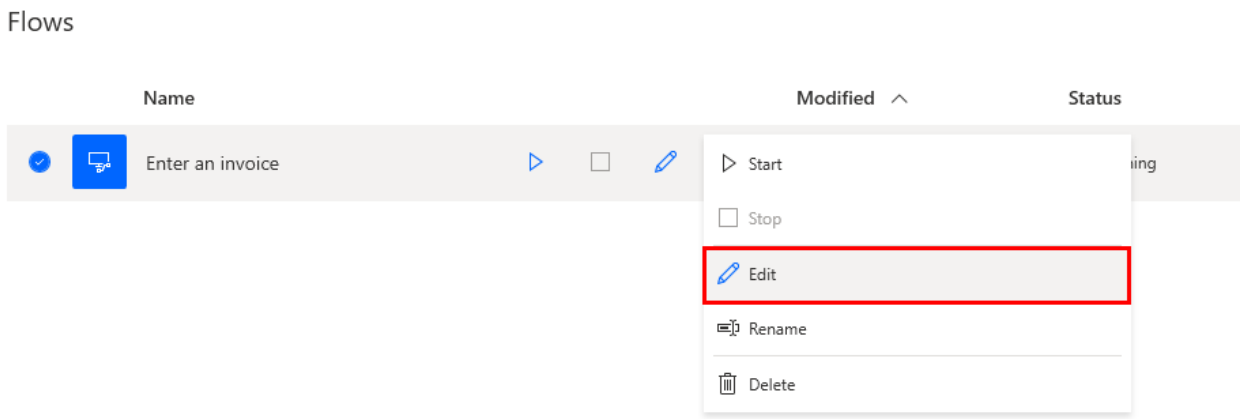
Please complete **lab 1.1, pre-requisite task 3: Start per user plan with attended RPA trial license** and **lab 1.3, installation of Power Automate Desktop**. To use Power Automate Desktop, a user must own either a **trial** or **paid** per user plan with attended RPA.

For the exercises, please complete **Lab 3**.

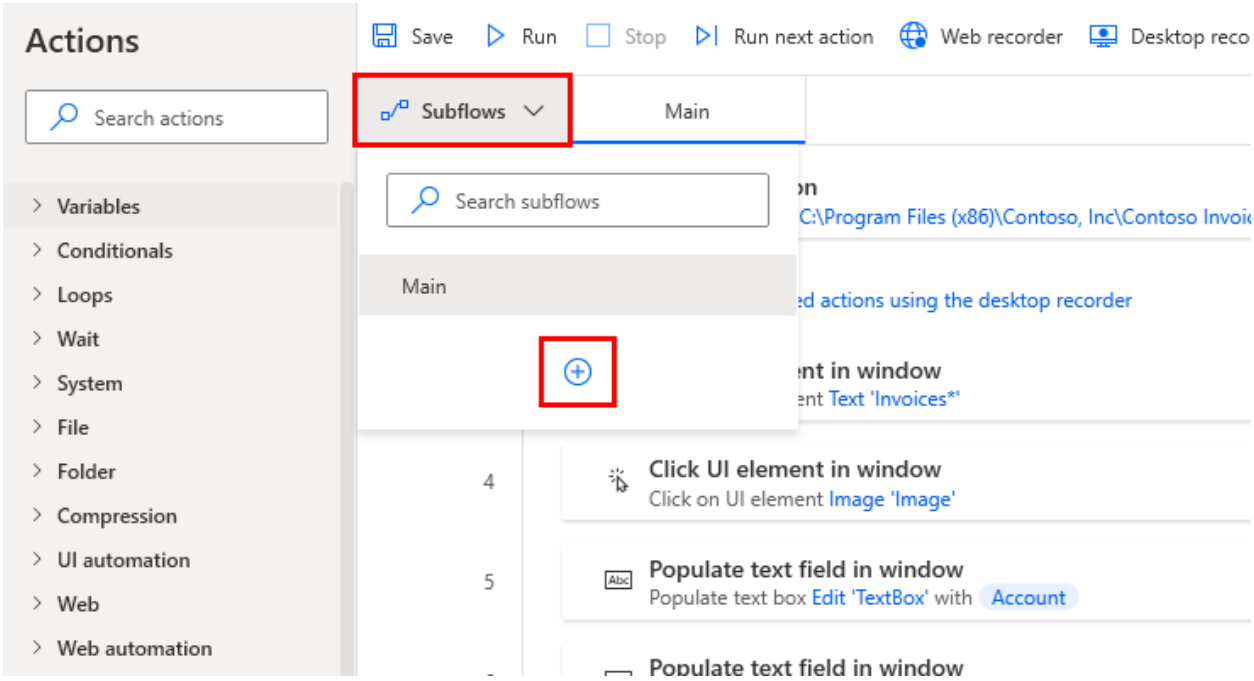
Exercise 1 - Build a Power Automate Desktop subflow to write notes into Microsoft Excel

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**.

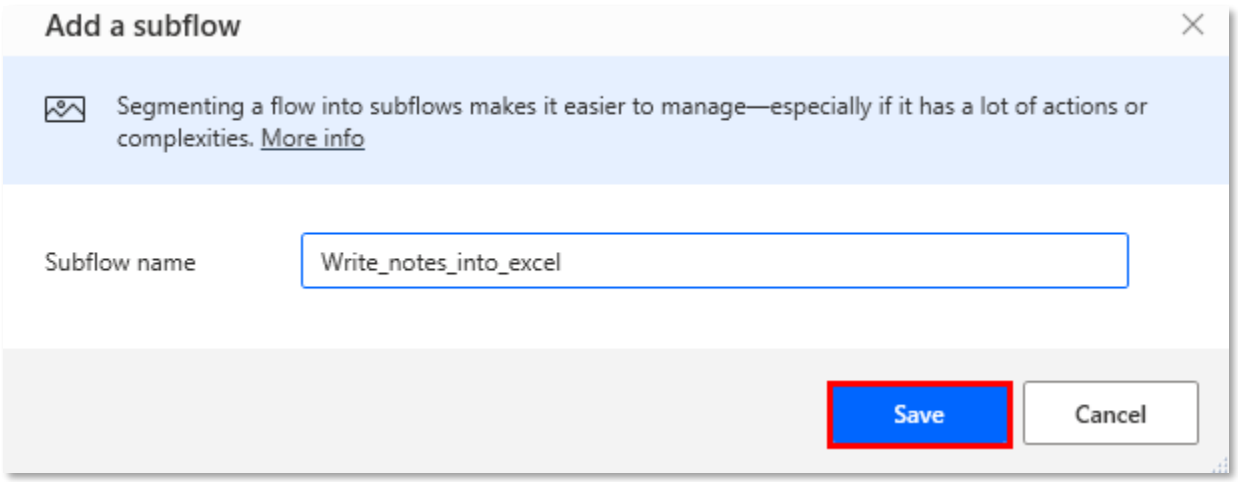


2. Click **Subflows** >  to create a subflow for Enter an invoice.

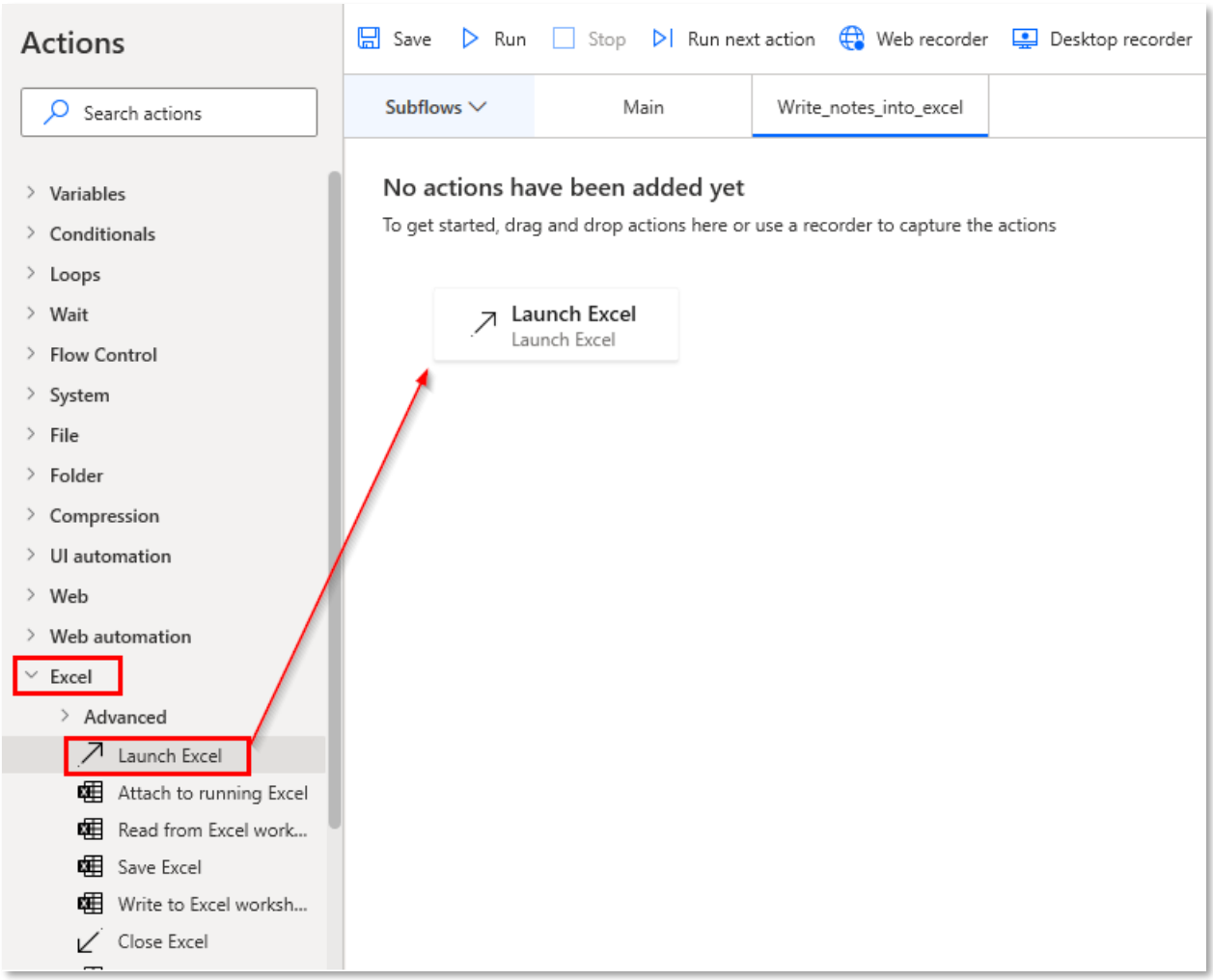


3. Name it **Write_notes_into_excel**. Click **Save**.

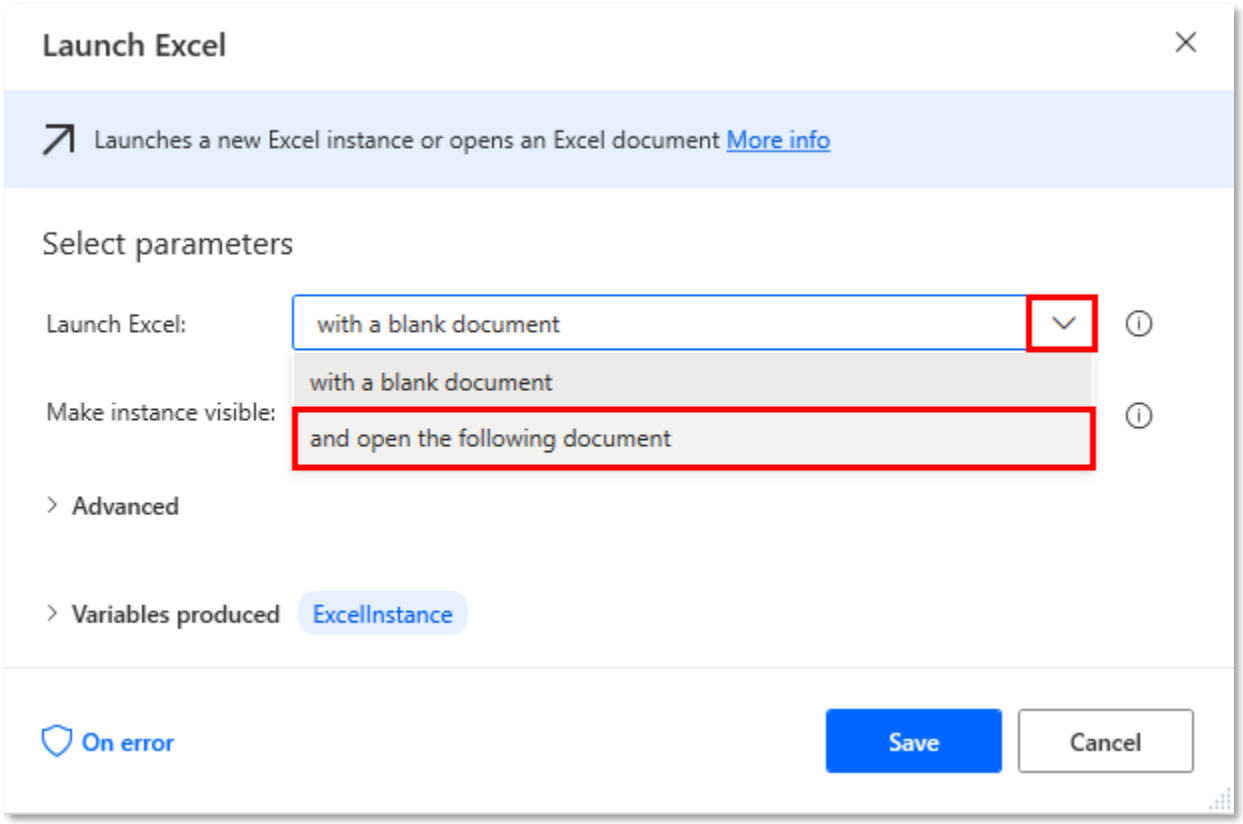
   Note: Subflow name can't have spaces

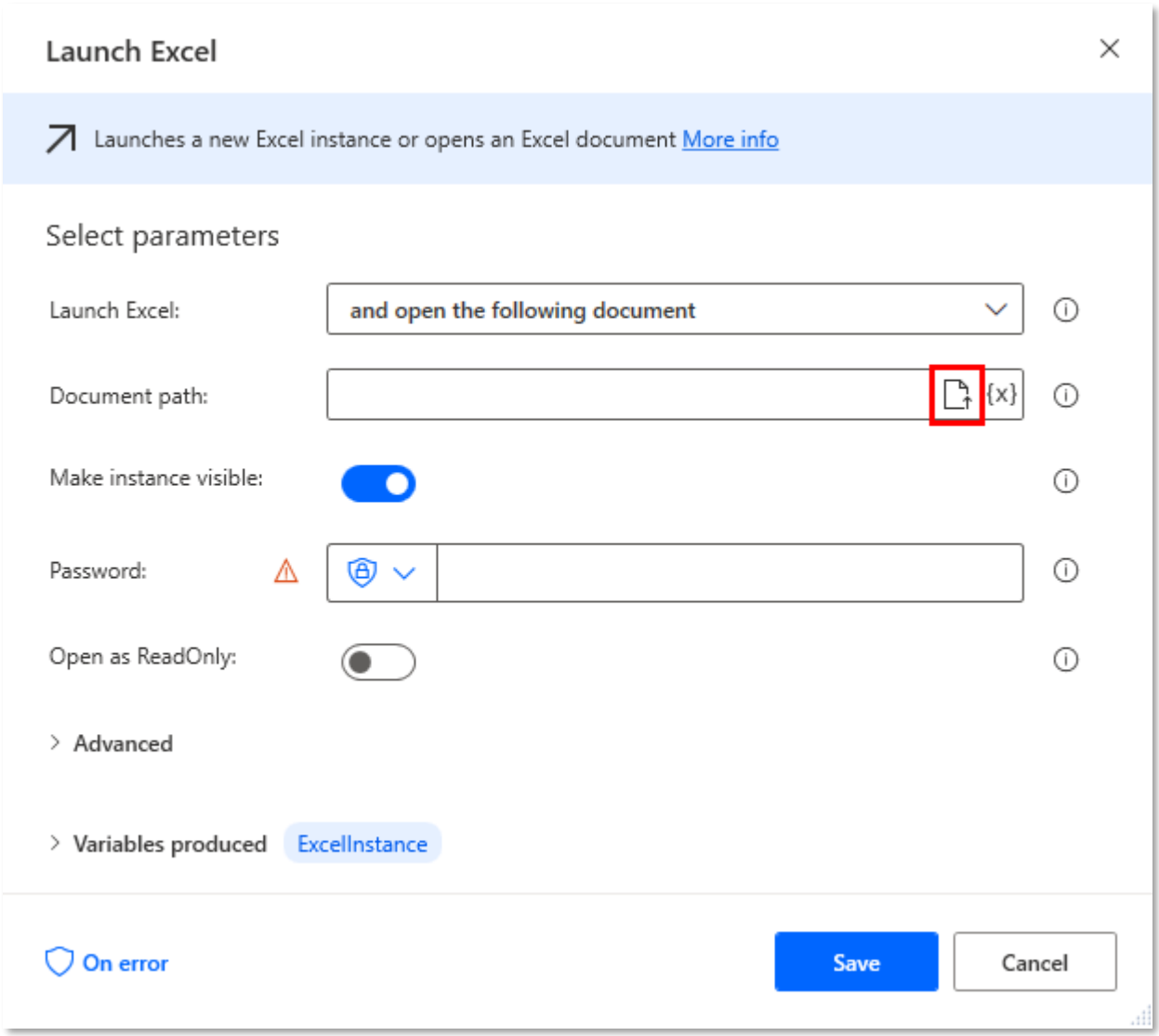


4. Add the **Launch Excel Action** from the **Excel** folder.

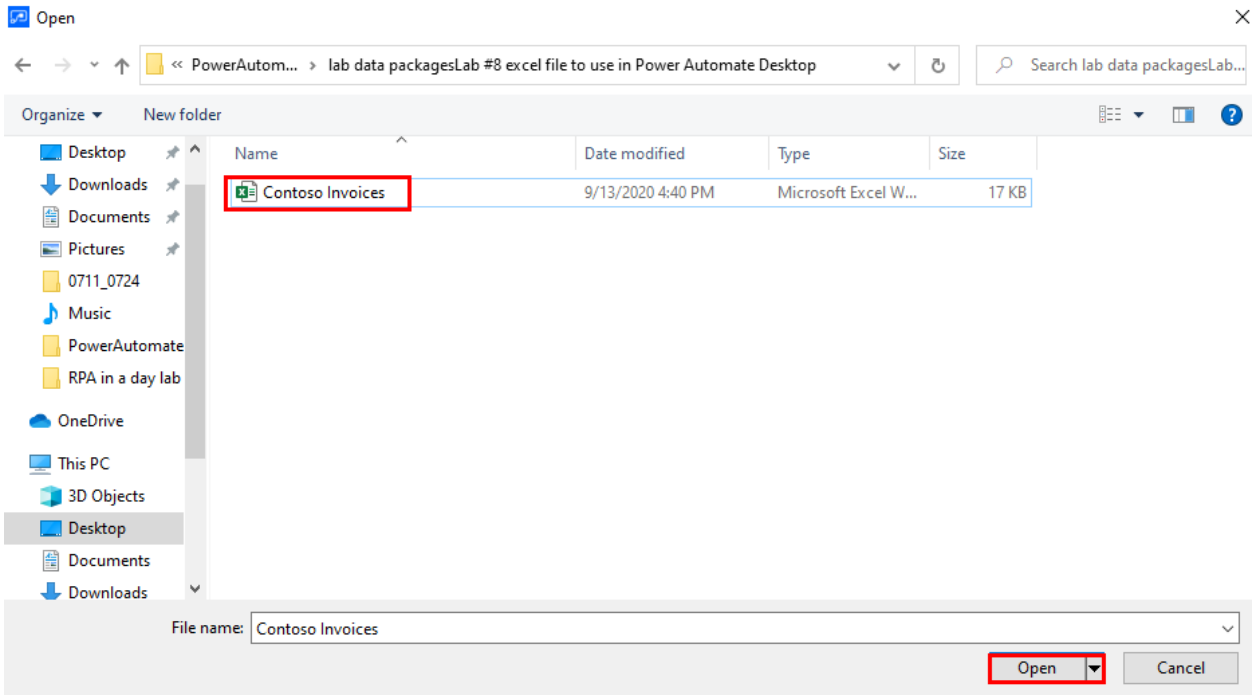


5. Set **Launch Excel** to **and open the following document** and click on the **Select File** icon.

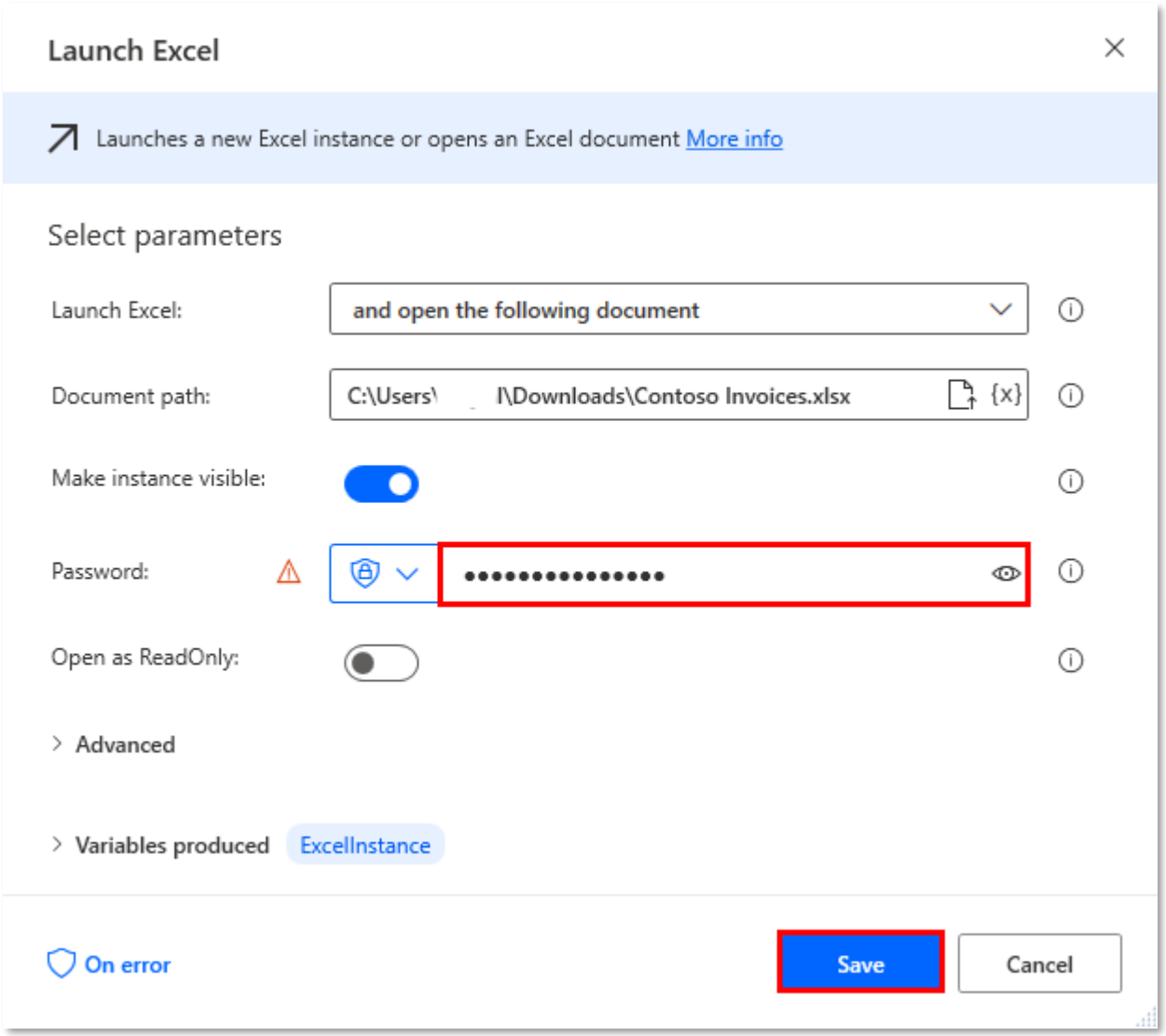



Launch Excel
Launches a new Excel instance or opens an Excel document More info
Select parameters
Launch Excel:
and open the following document
Document path:
{x}
Make instance visible:
Password:
Open as ReadOnly:
Advanced
Variables produced
ExcelInstance
On error
Save
Cancel

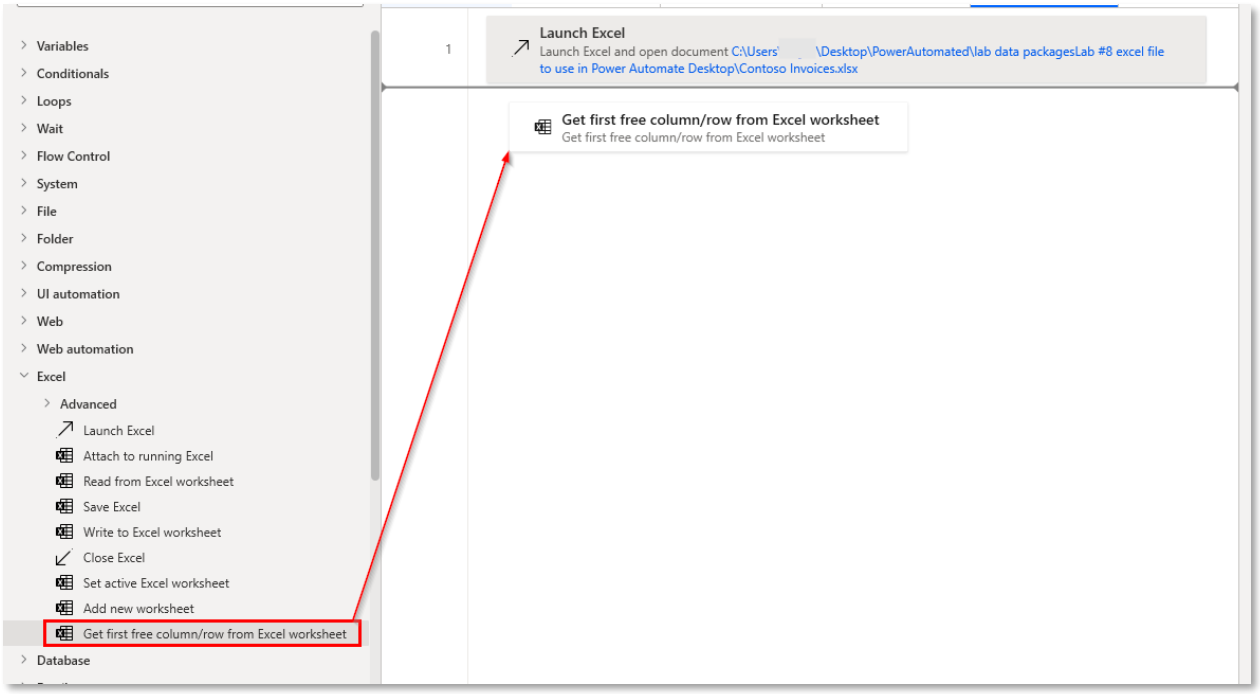
6. Save the file **Contoso Invoices.xlsx** that you can find inside **lab data packages/Lab #9 excel file to use in Power Automate Desktop** folder to the folder of your choice, then browse for it in this dialog, select it and click **Open**.



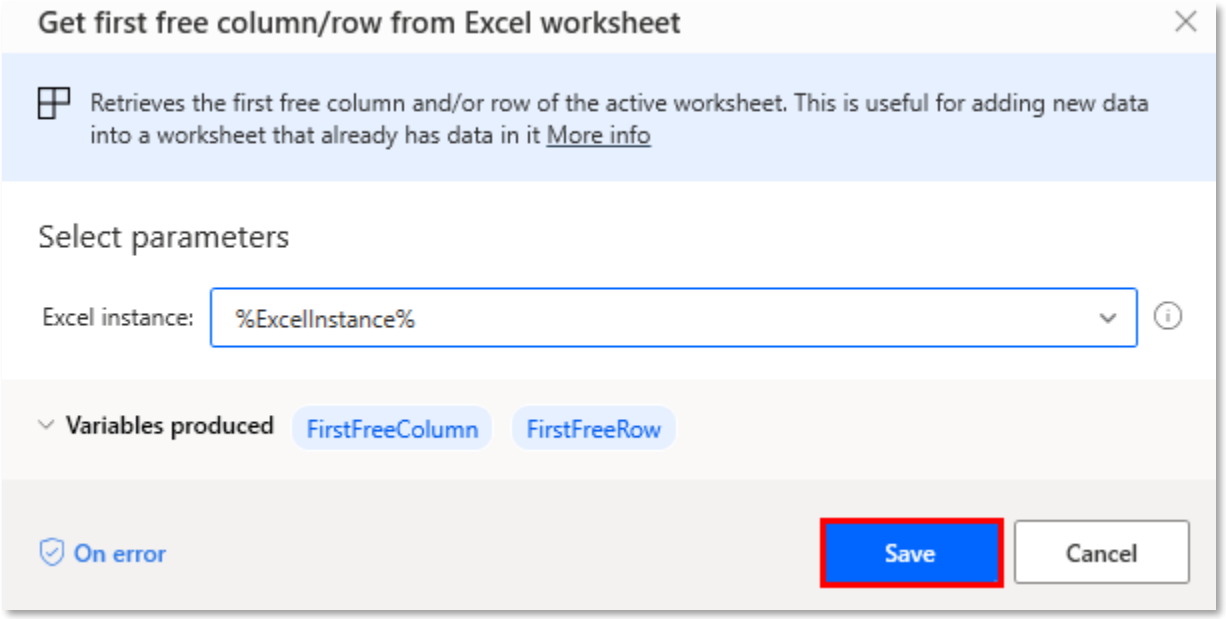
7. **Information Only** – Our spreadsheet does not contain a password. However, if our spreadsheet did, we could provide a **password** in this field. Then click **Save**.



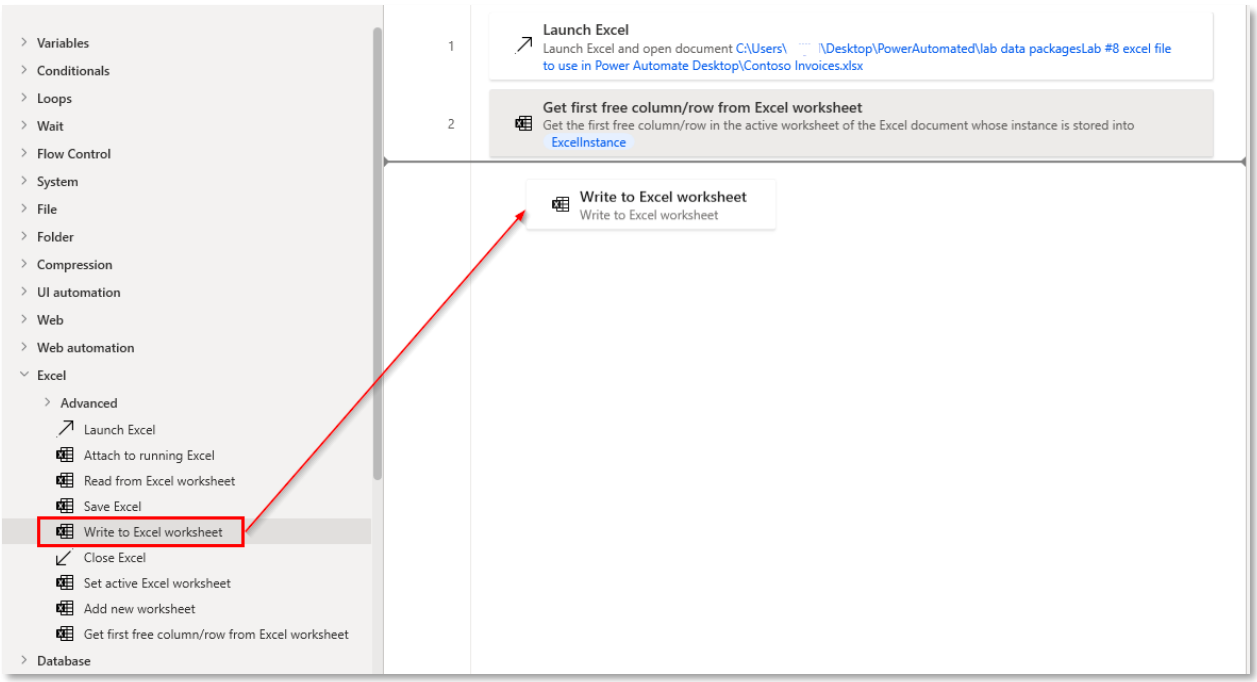
8. Add the **Get First Free Column/Row from Excel Worksheet** action from the **Excel** folder.



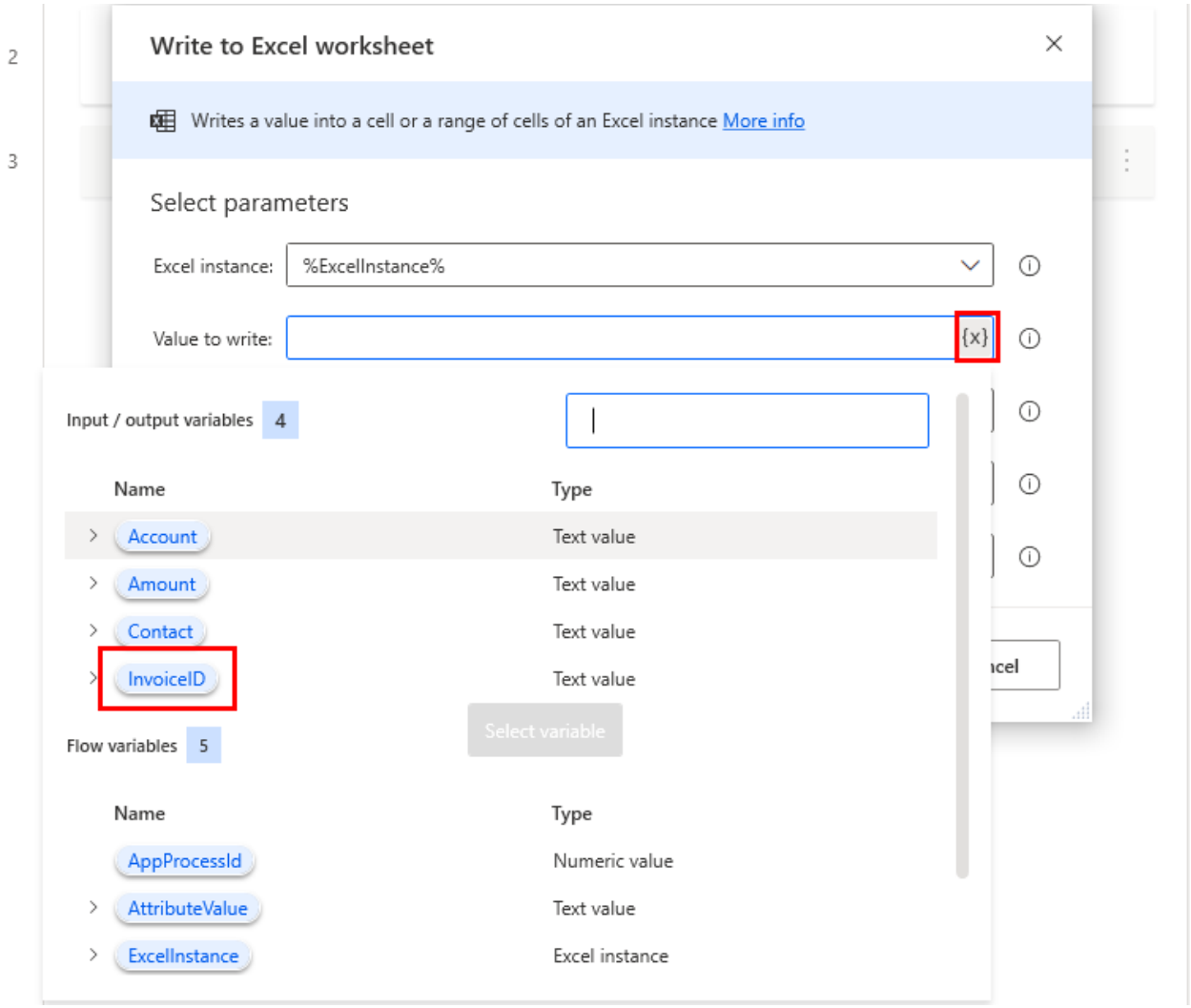
9. In the Action Properties, we will use the default settings for this action. Click **Save** to add it to the design surface. This action will retrieve the number of the first free row and the first free column and store them into variables.



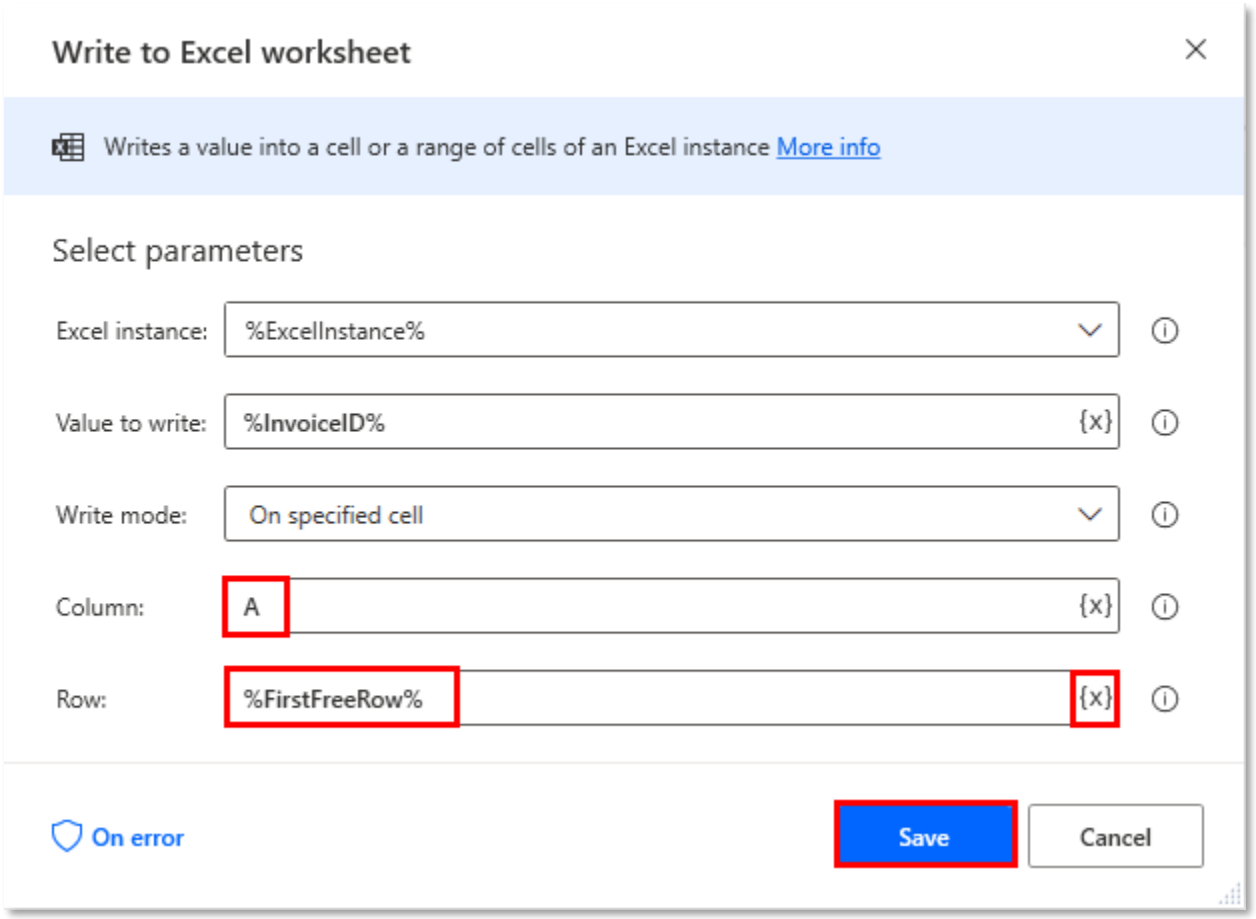
10. Add the **Write to Excel Worksheet** action from the **Excel** folder.



11. In the Action Properties, in **Value to write**, open the **Available Variables** by clicking on the {x} icon, double click **InvoiceID**.



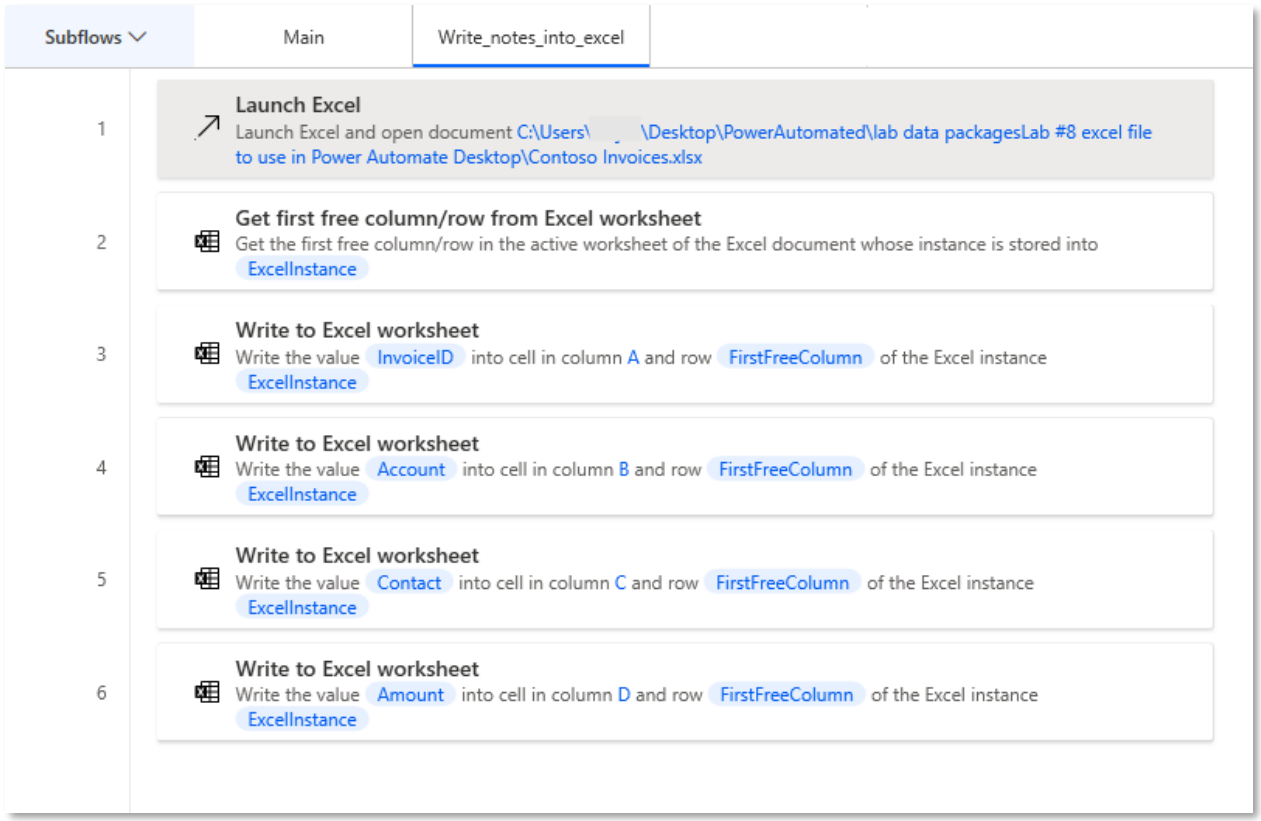
12. Enter **A** and in field **Column**, then in **Row**, click on the corresponding {x} icon, and select **%FirstFreeRow%**. Click **Save**



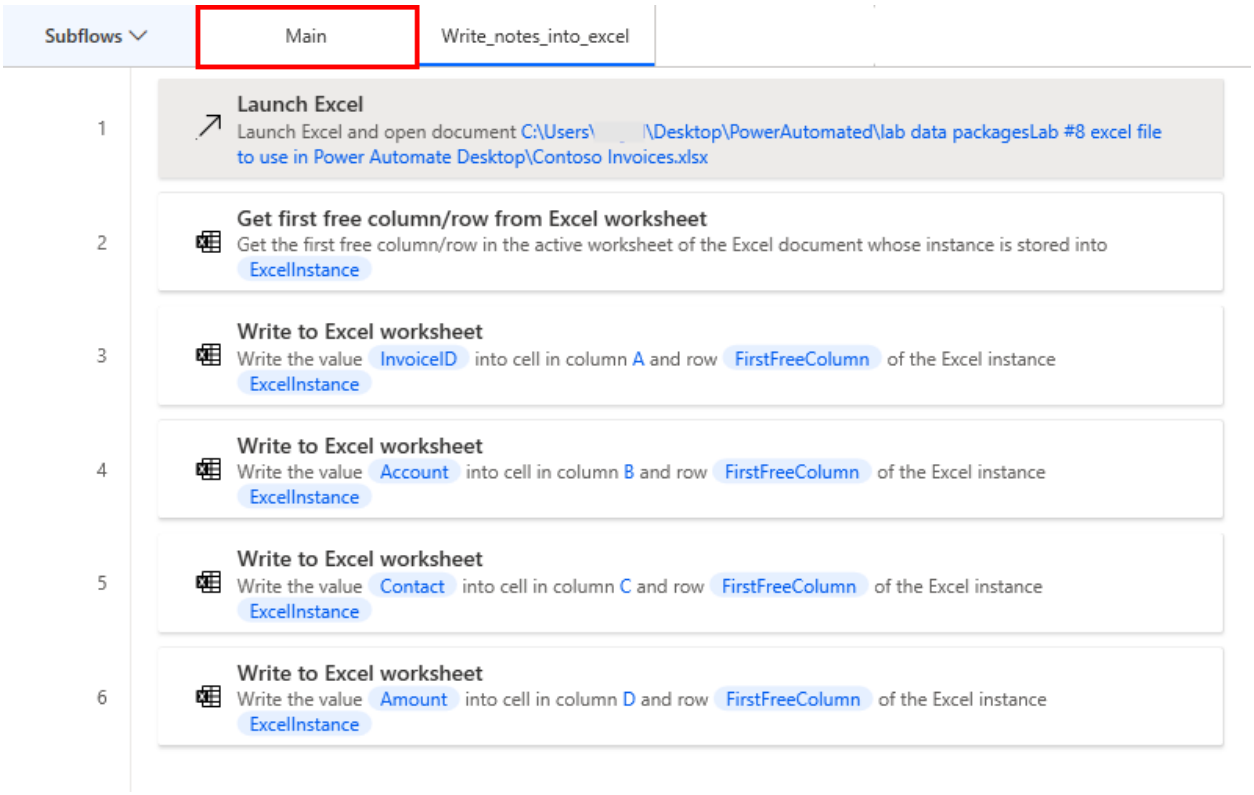
13. Repeat the three previous steps, writing values of variables to cells as the table below. For all Columns, Row must be set to **%FirstFreeRow%**.

Value to Write	Column	Row
%Account%	B	%FirstFreeRow%
%Contact%	C	%FirstFreeRow%
%Amount%	D	%FirstFreeRow%

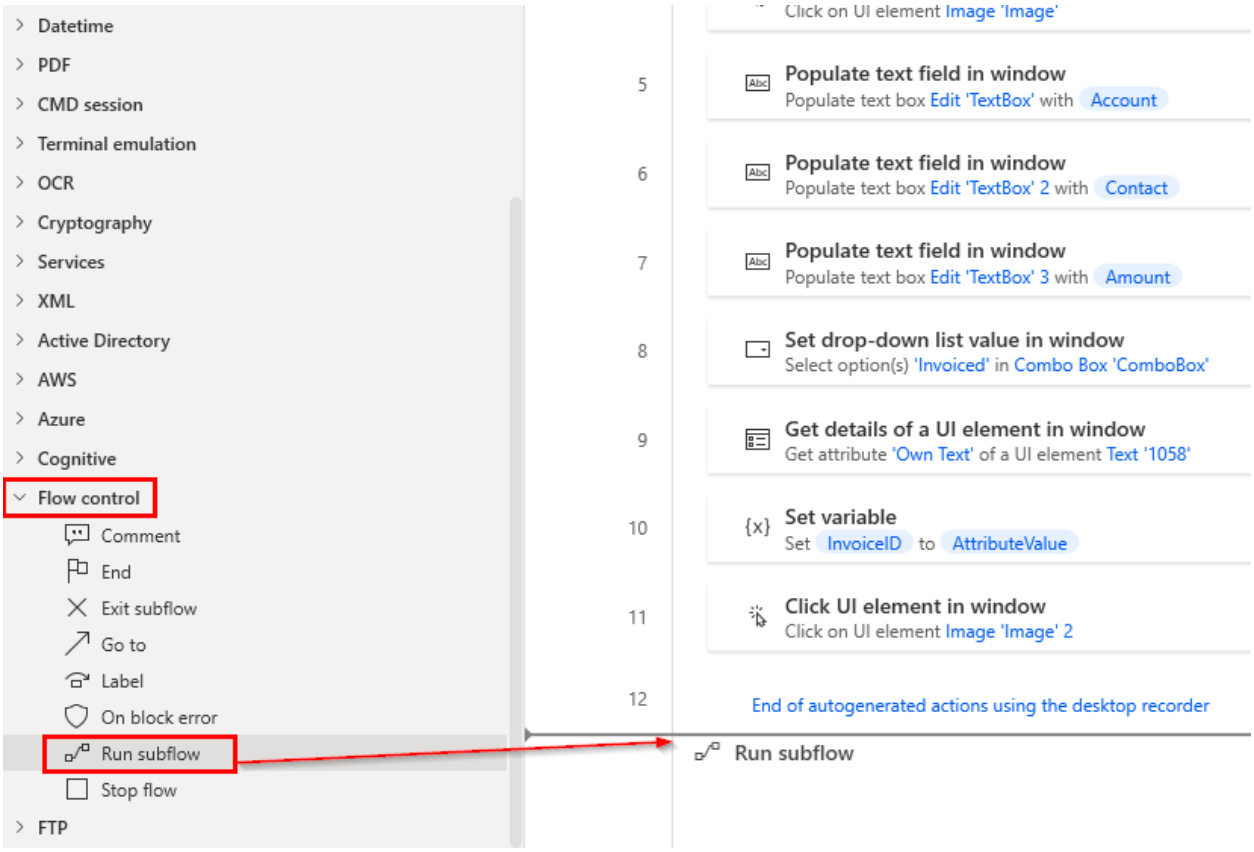
14. When all the steps above have been completed, your subflow for writing notes into Excel should look like this:



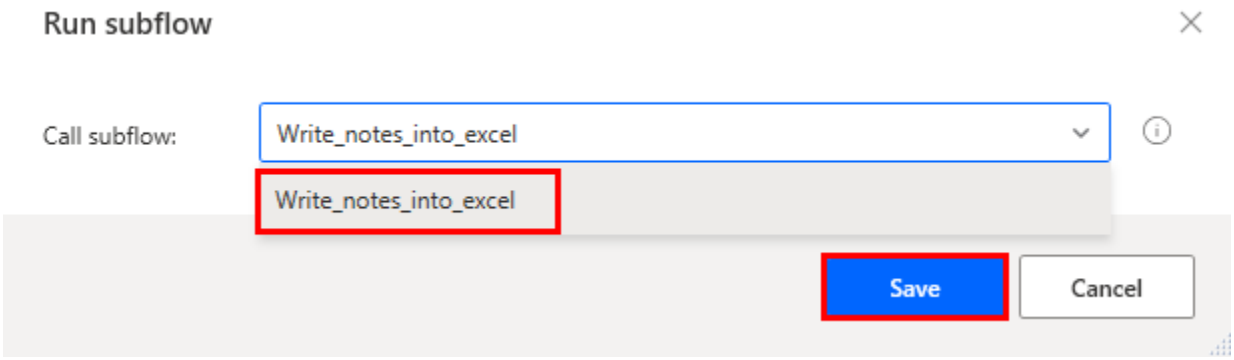
15. Click the **Save** button and then go back to your Main flow by clicking **Main**.



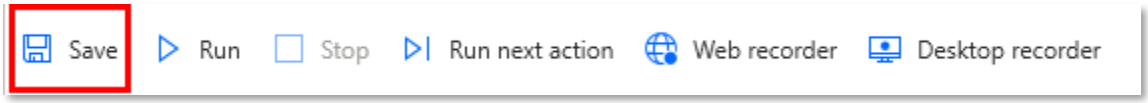
16. Add the **Run subflow** action from **Flow Control** folder under **Step 12**.



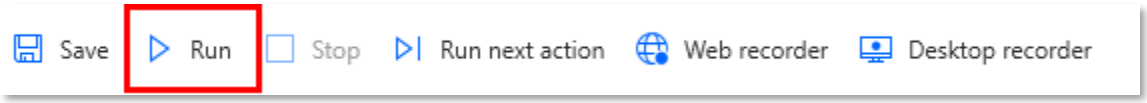
17. Call **Write_notes_into_excel** subflow you just created. Then click **Save**.



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



19. You can now run your flow by clicking **Run**.



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

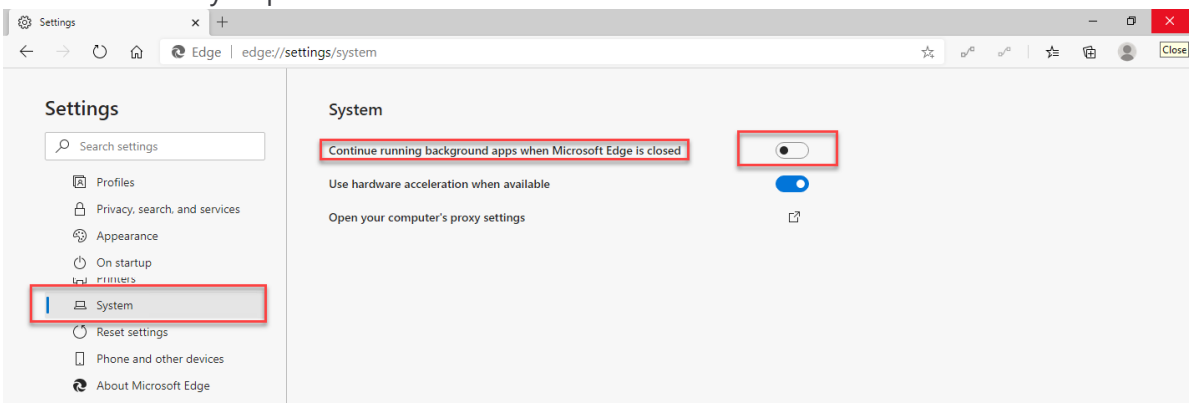
1026	WingTip Toys	b.friday@wingtiptoys.com	$500.00

Note: You may see a different invoice ID here.

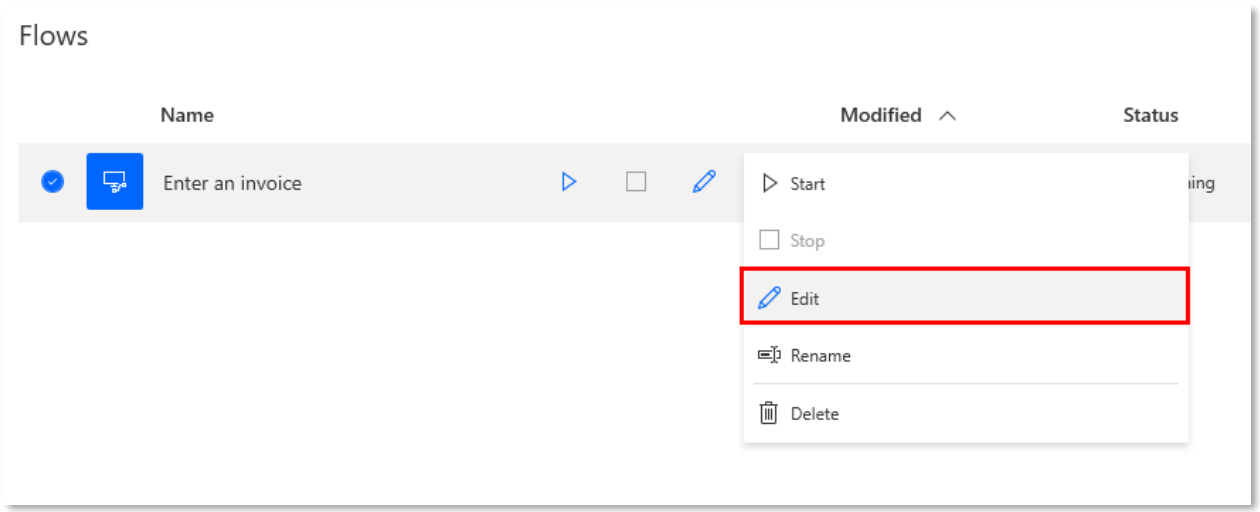
Exercise 2 - Advanced Power Automate Desktop features introduction

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.

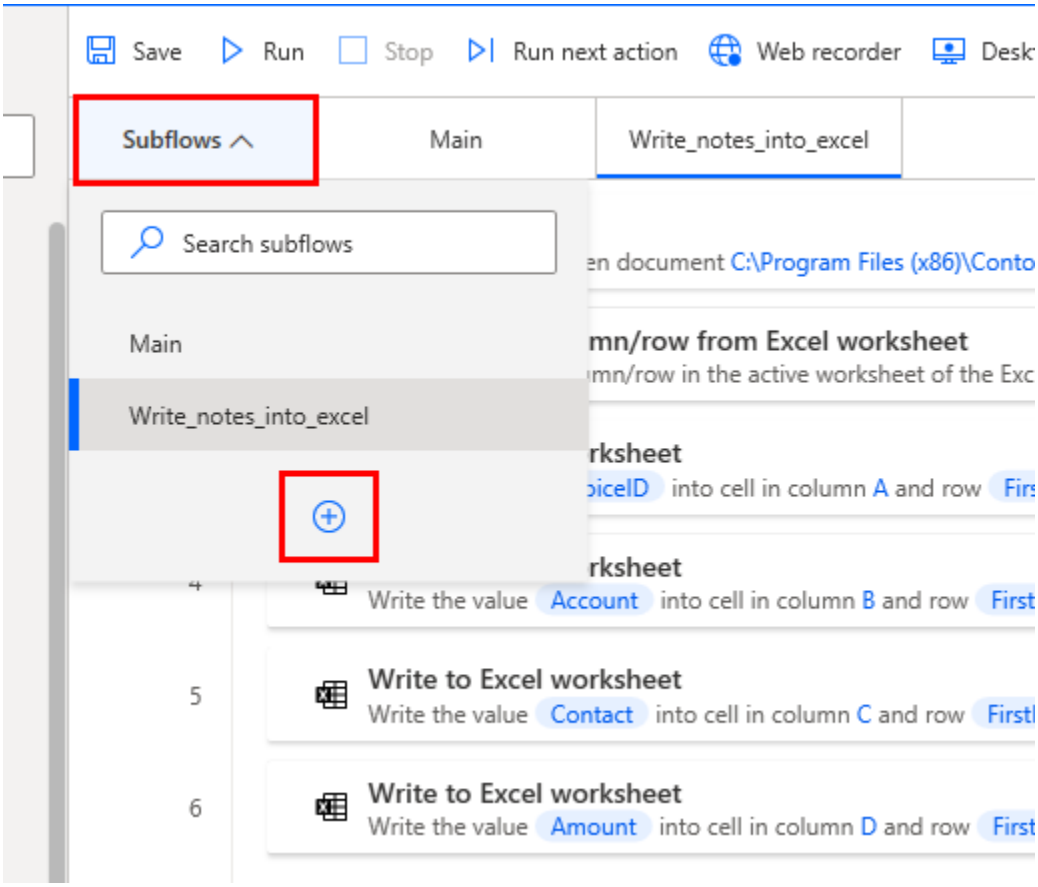
1. Open **Microsoft Edge** (Chromium)**,** go to **Settings** then **System** and uncheck **Continue running background apps when Microsoft Edge is closed.** Close all browser tabs and sessions before you proceed.



2. In **Power Automate Desktop**, Edit **Enter an invoice** flow you created by clicking **…** icon and select **Edit**.

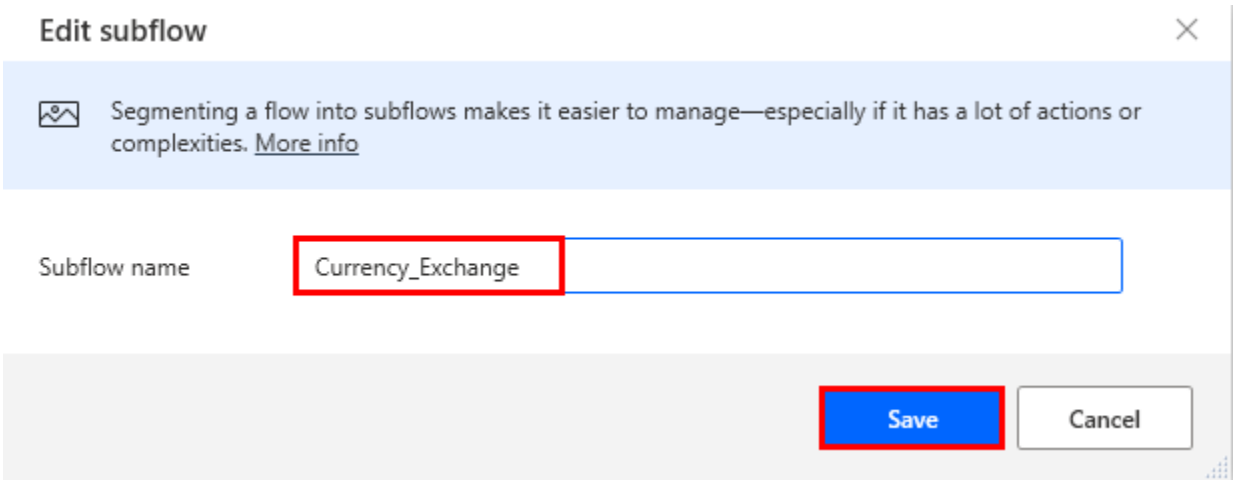


3. Click **Subflow** >  to create a the second subflow for Enter an invoice.

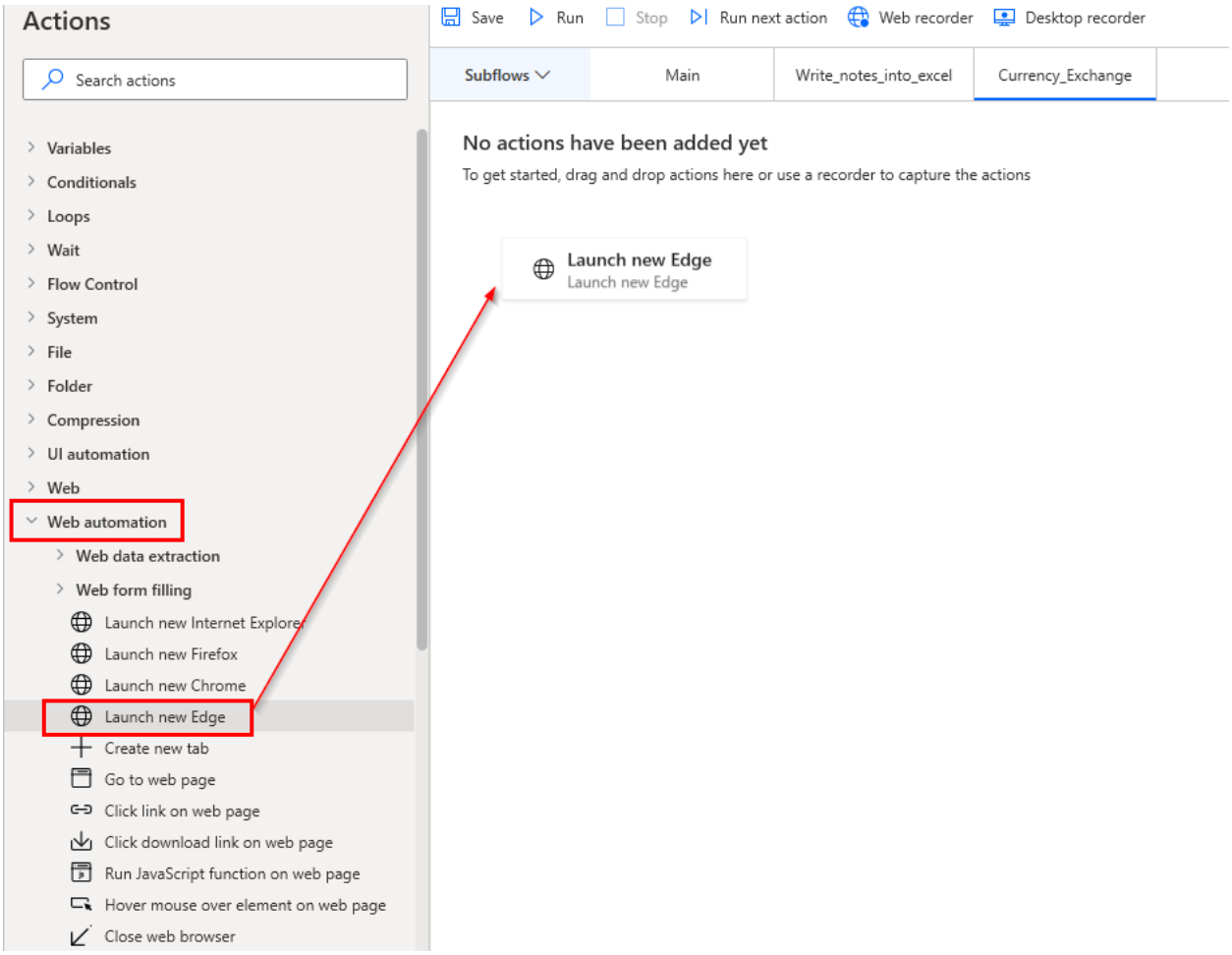


4. Call your Subflow **Currency_Exchange**. Click **Save**.

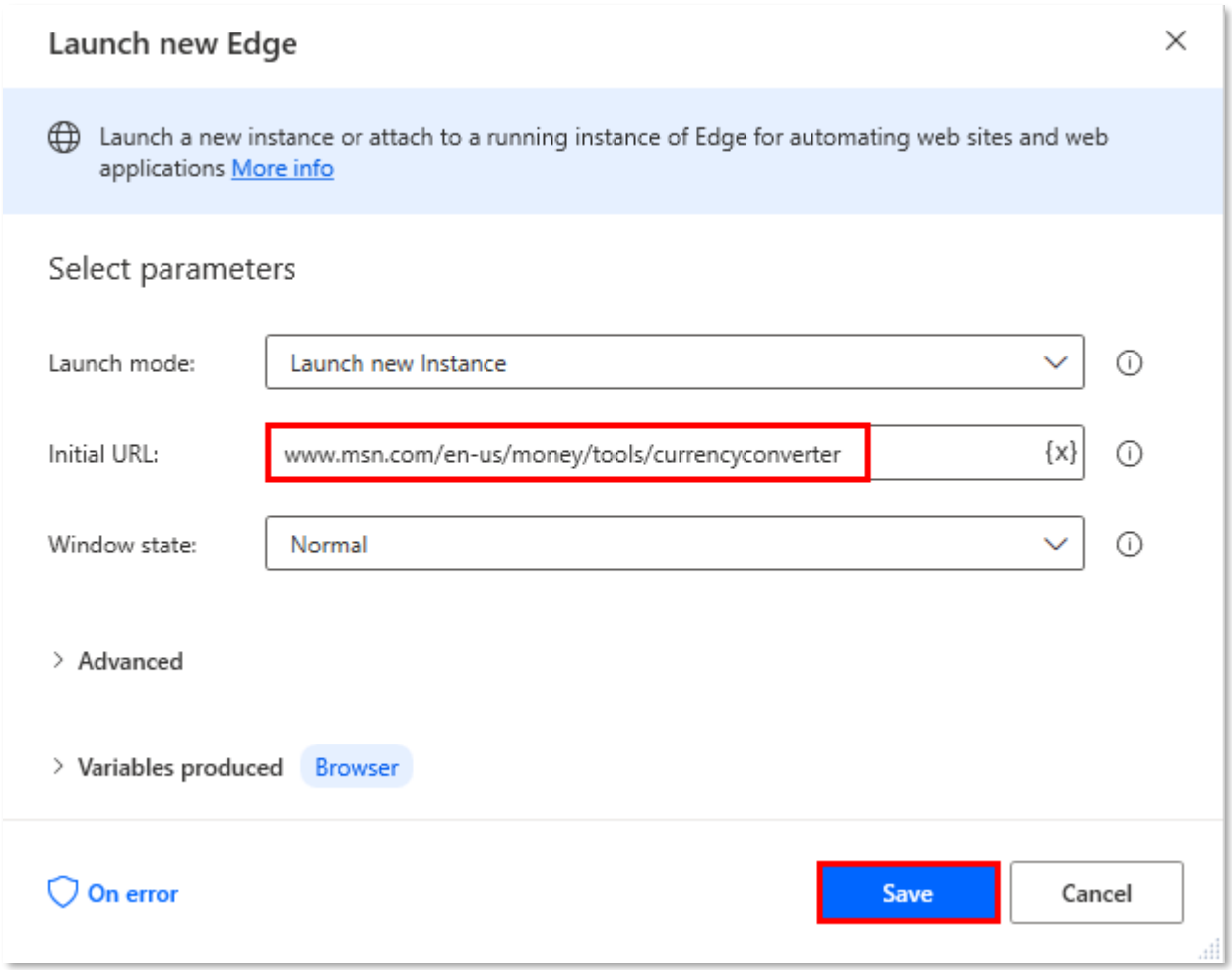
Note: Subflow name can't have spaces



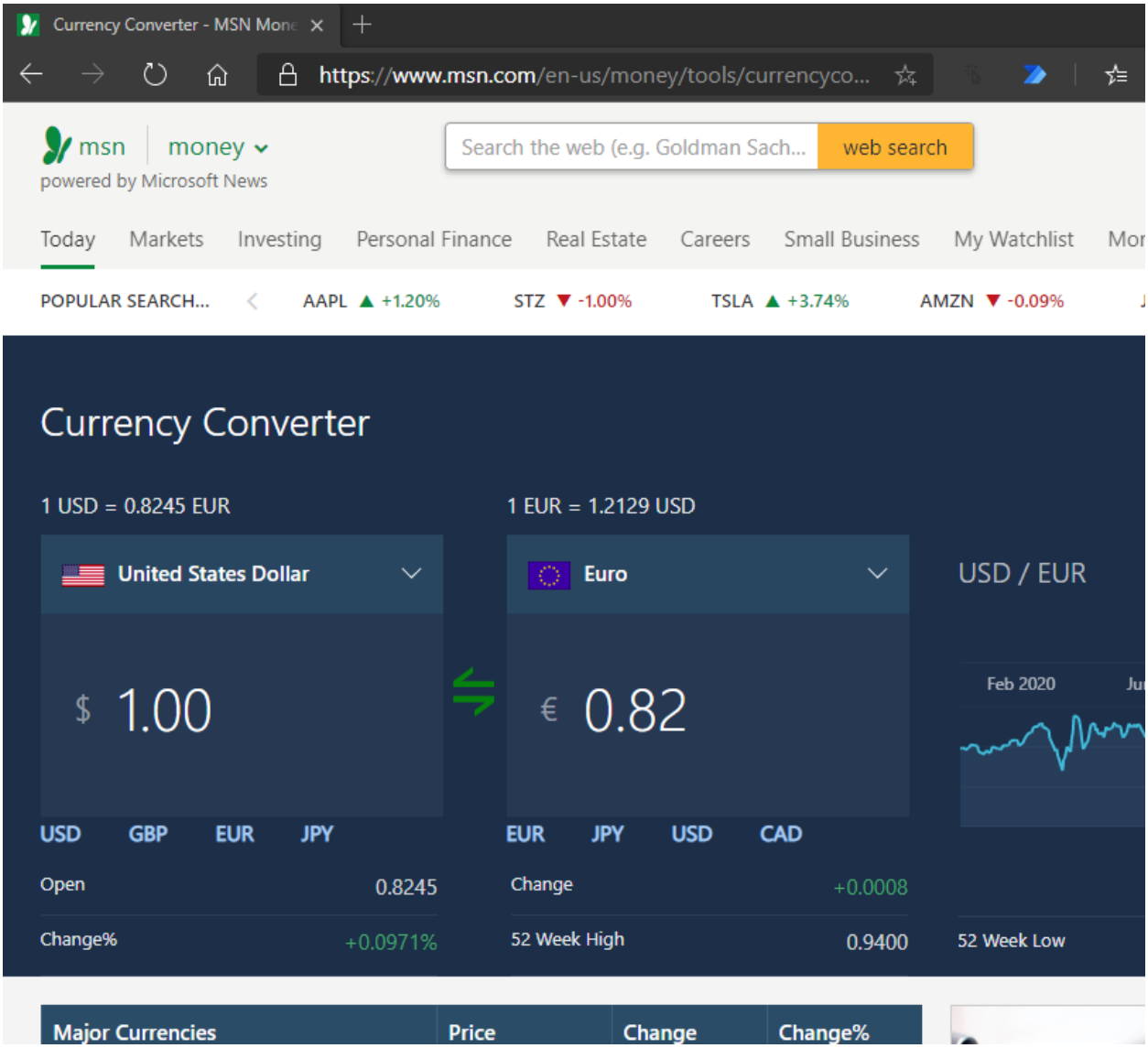
5. Add the **Launch New Edge** Action from the **Web automation** folder into the workspace.



6. In the **Initial URL** field enter: **www.msn.com/en-us/money/tools/currencyconverter**
Click **Save**.

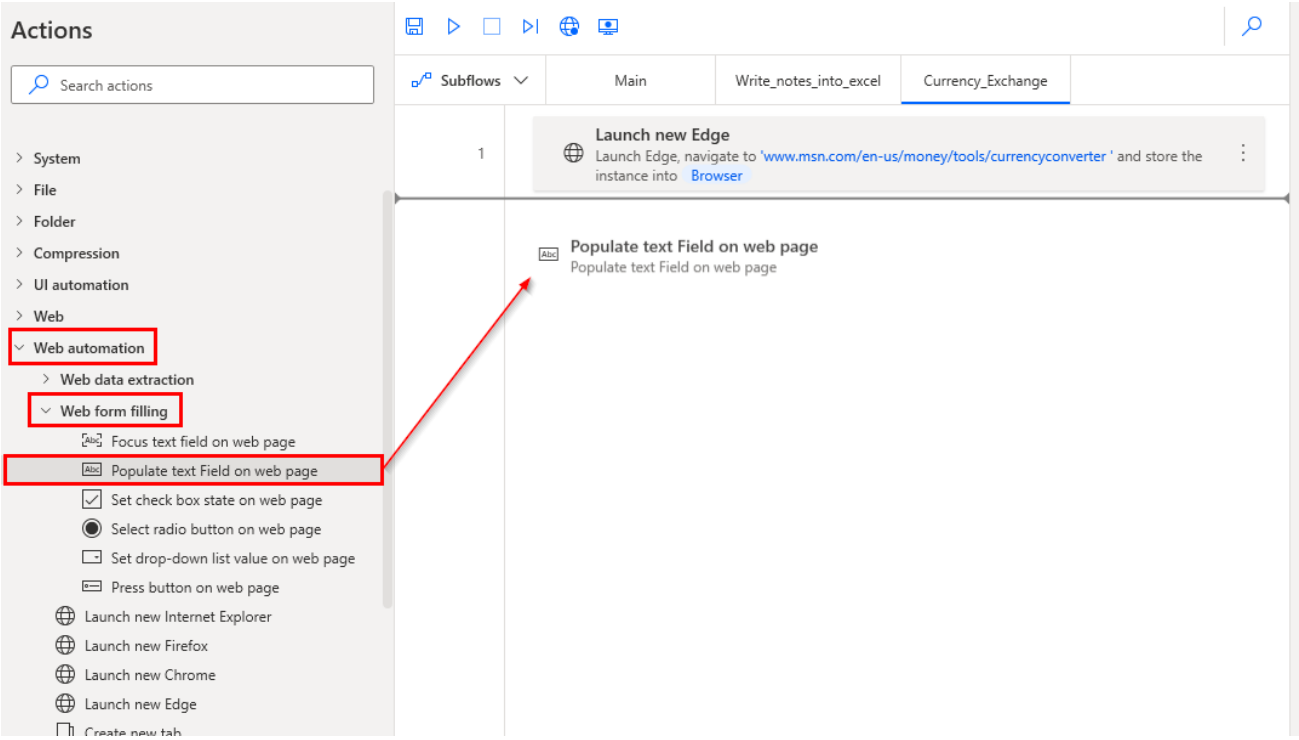


7. Open an Edge web browser and navigate to **www.msn.com/en-us/money/tools/currencyconverter**



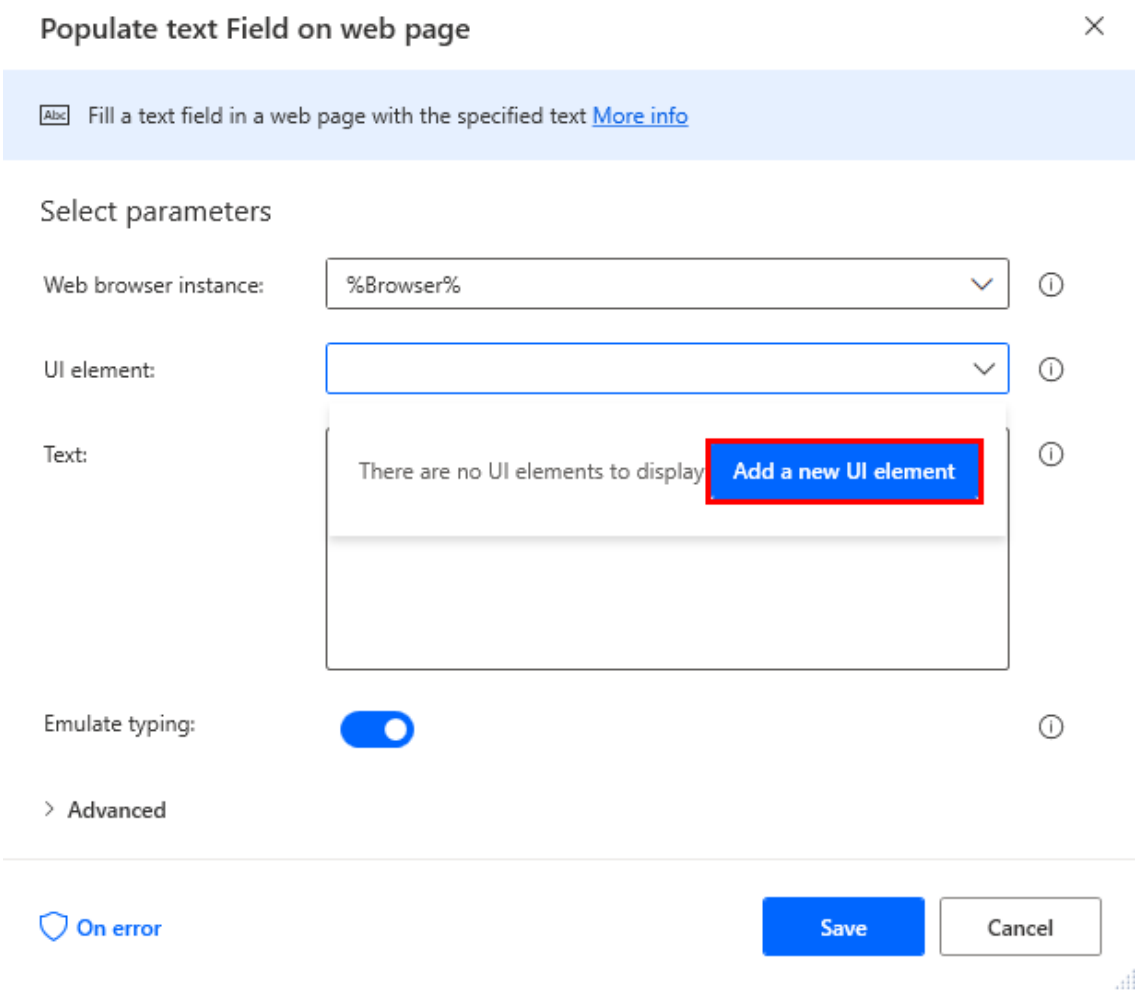
8. Select the **Populate text Field on web page** action from the **Web form filling** subfolder.

Note: When it is time to test populating a value into the currency conversion web page and you are finding that the value isn't being updated properly, ensure that '$' is not being passed into the web page. It needs to be a numeric value being sent to the web page instead i.e. 2500.

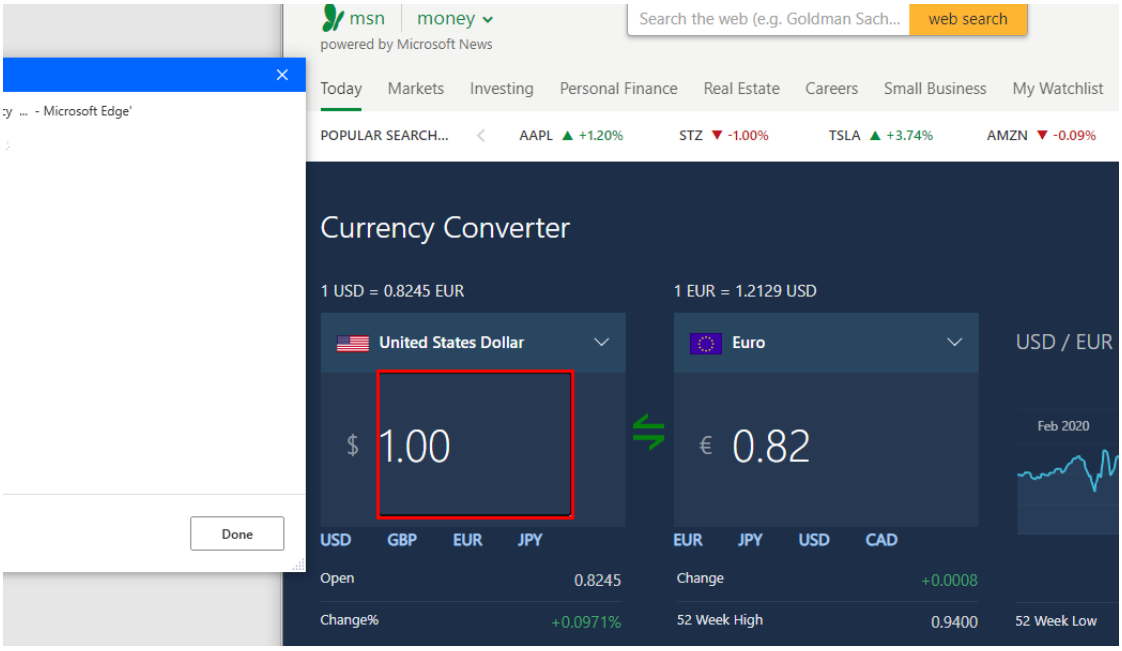


9. The **Web Browser Instance** is already populated with the **%Browser%** instance.

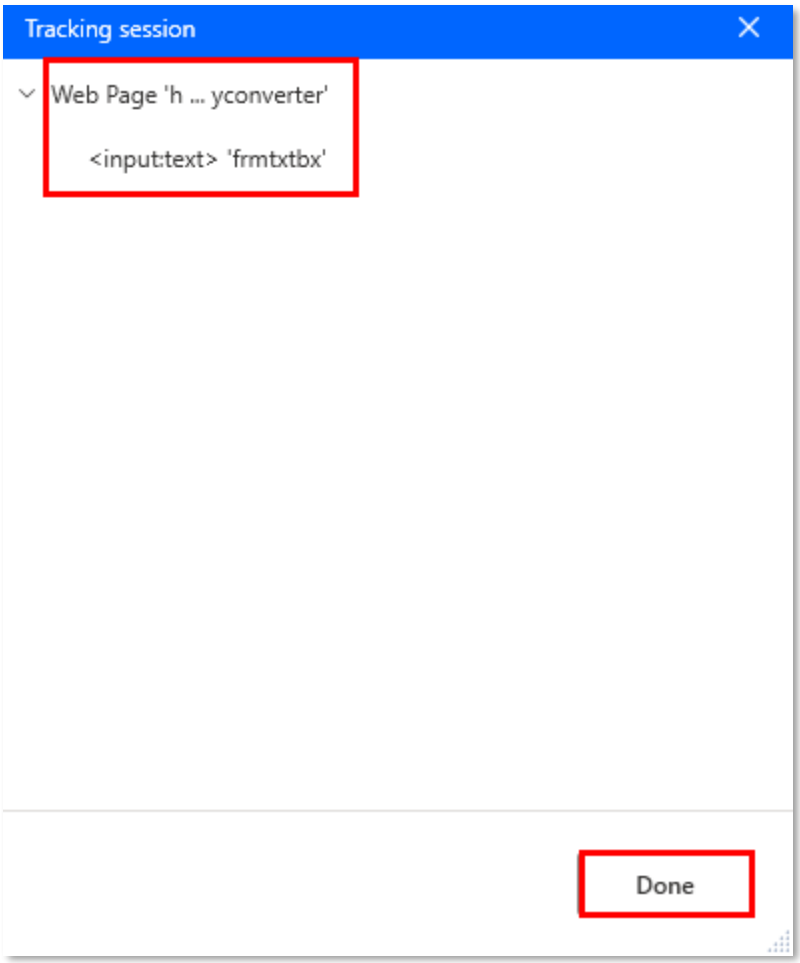
10. Click on the **UI element** and then on **Add a new UI element** to be able to capture the element.



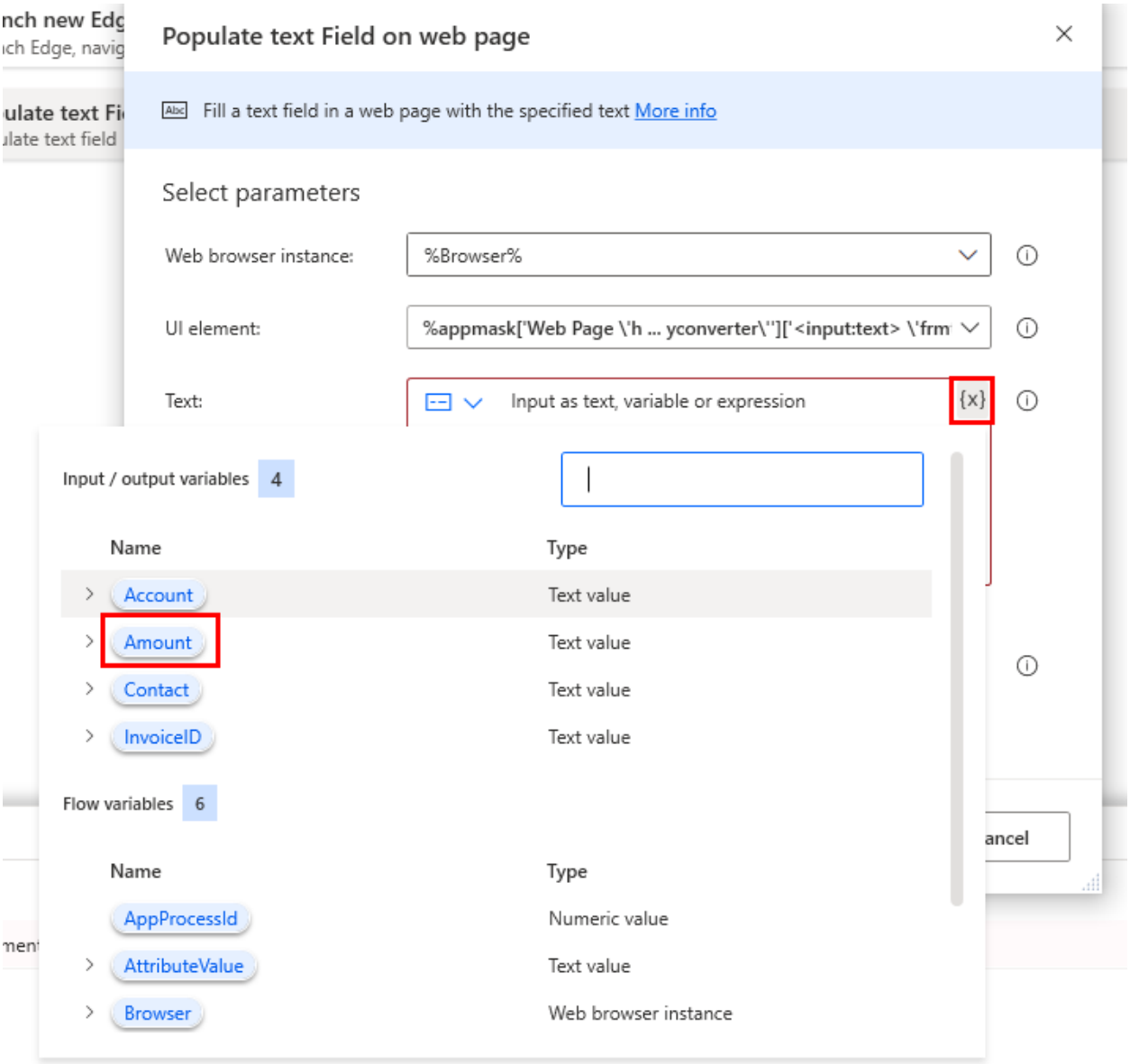
11. Having done this, a red rectangle appears in the browser while hovering the mouse over the elements. Move the mouse over the field containing the value, hold the **Left Control** on your keyboard and **Left-Click** to select the element.



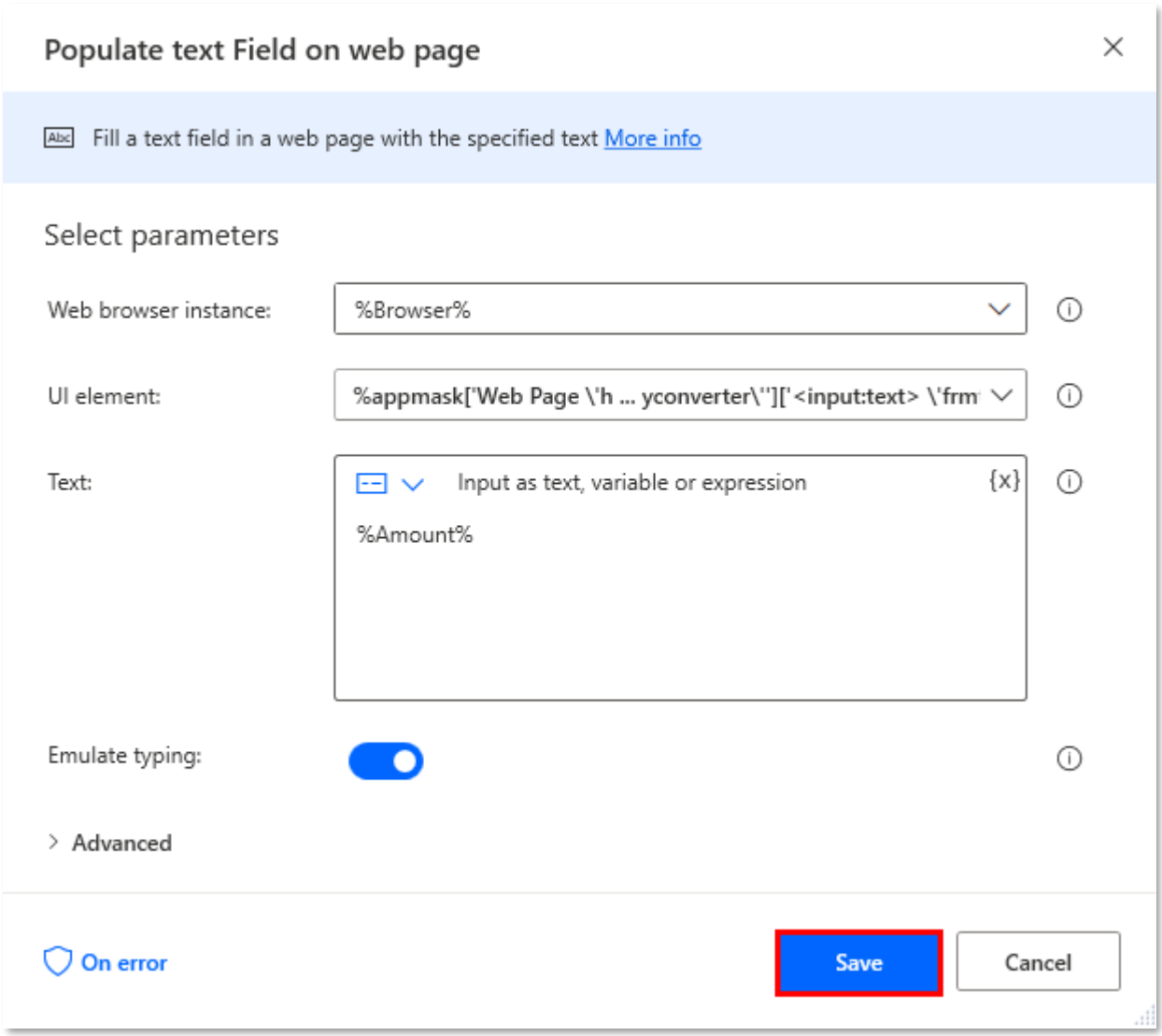
12. Once you selected the element, you will see the value appeared in tracking session. Click **Done**.



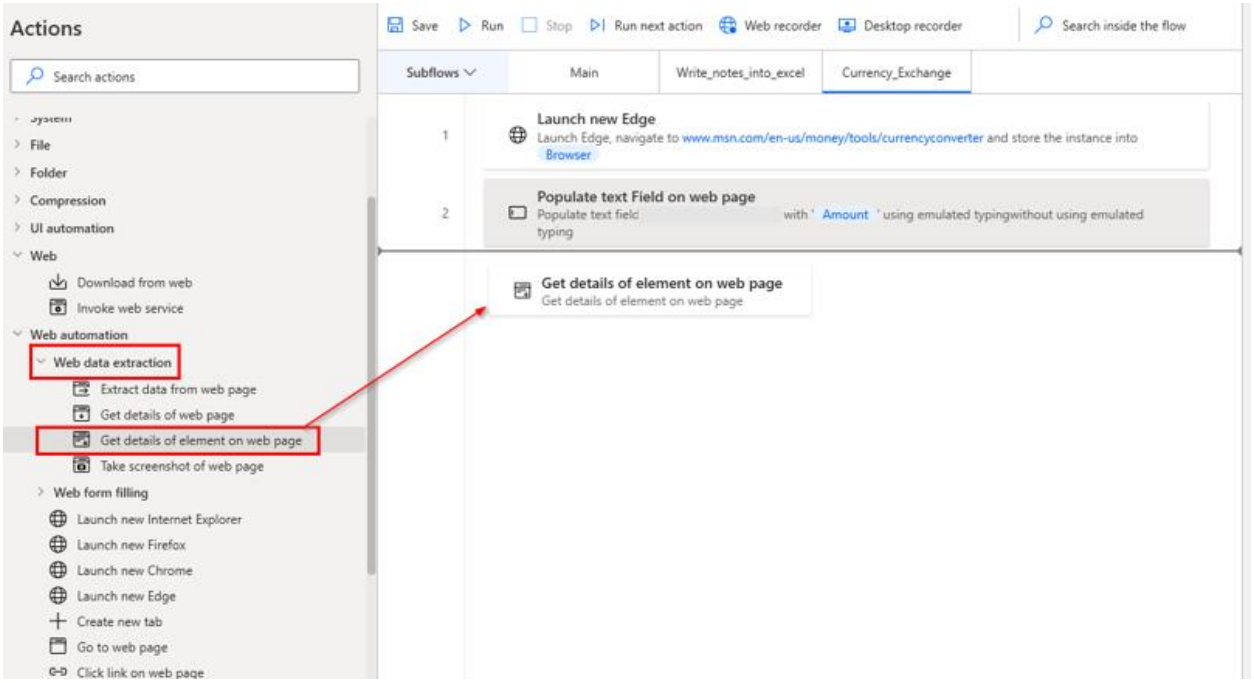
13. Set %**Amount**% in the **Text** field by clicking {x} icon.

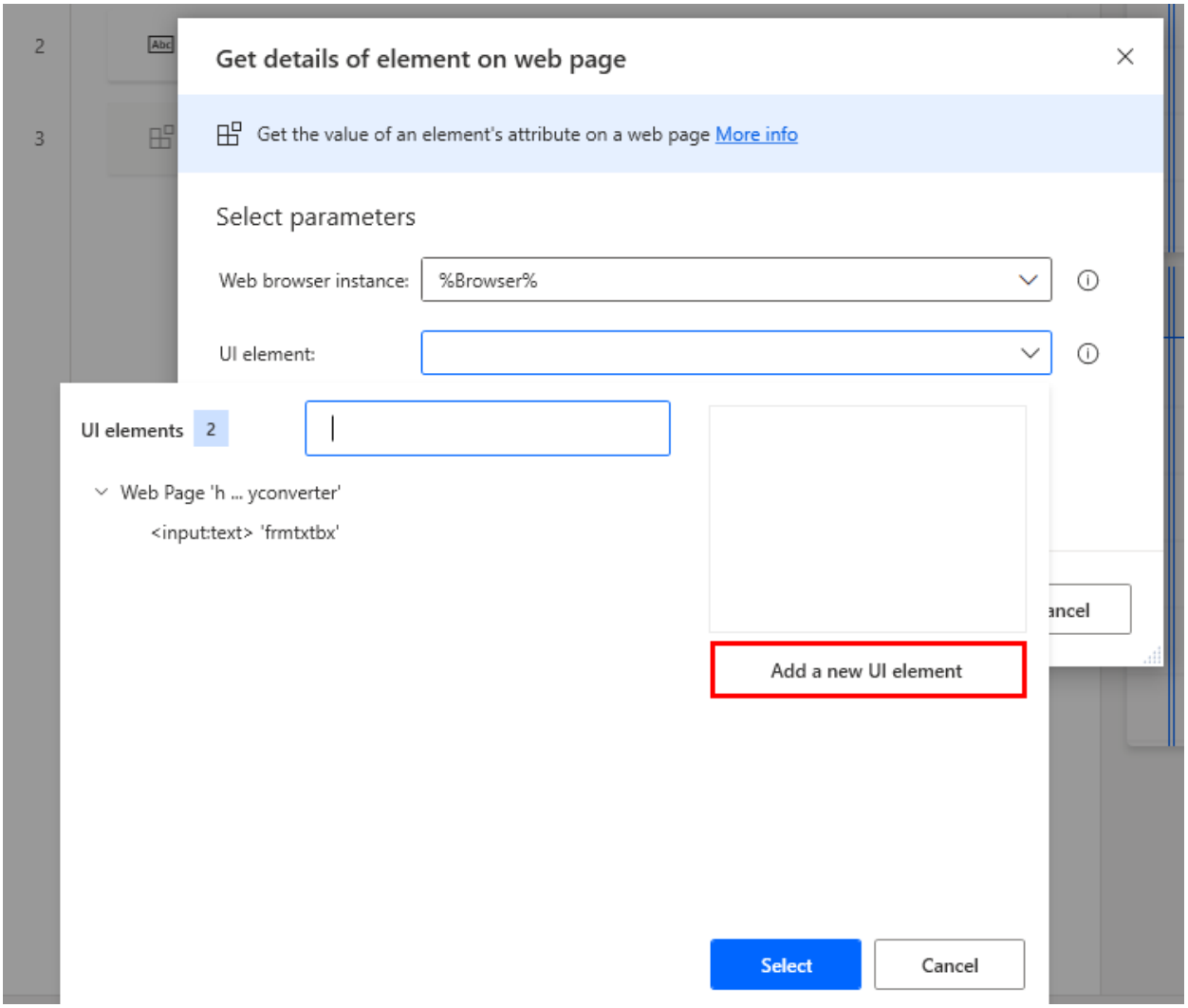


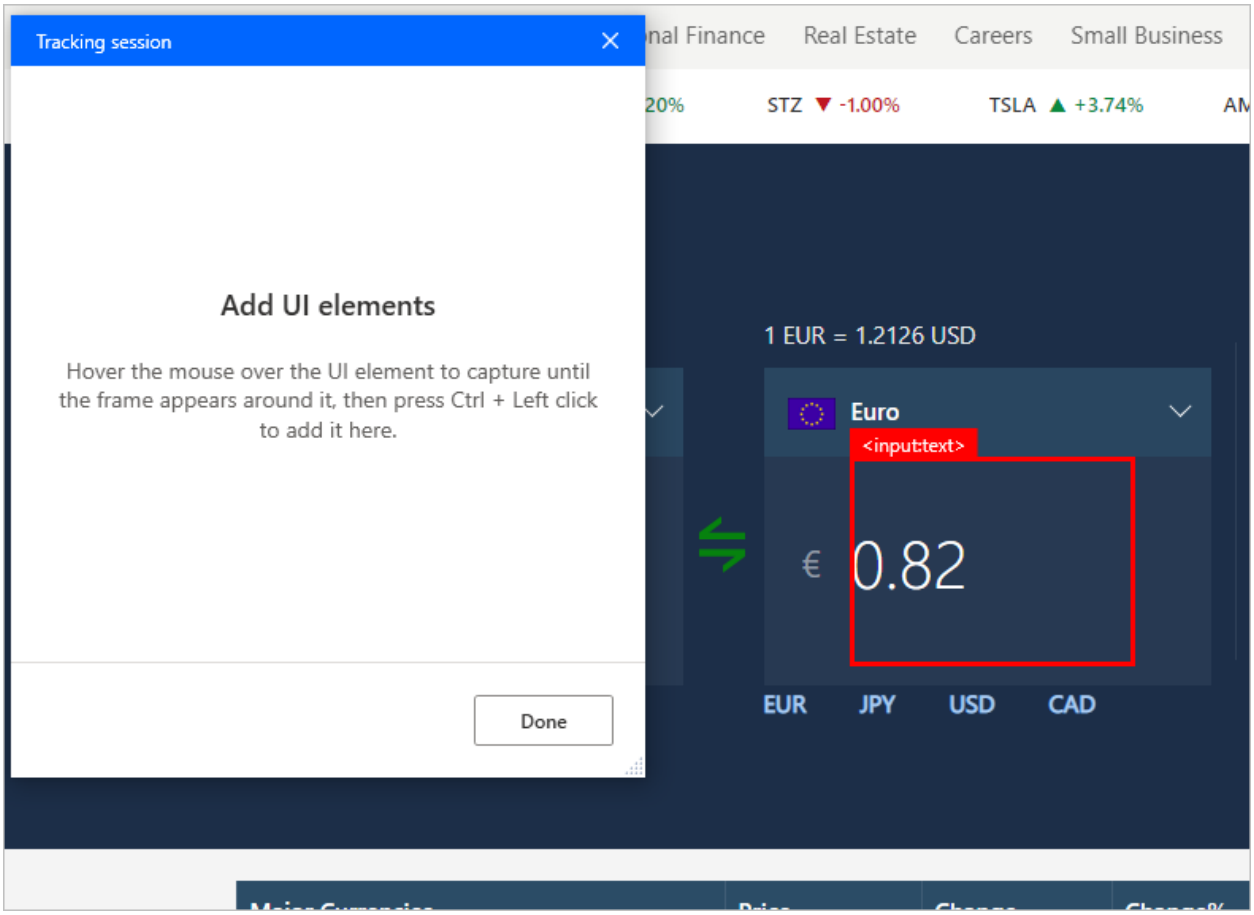
14. Click **Save**.



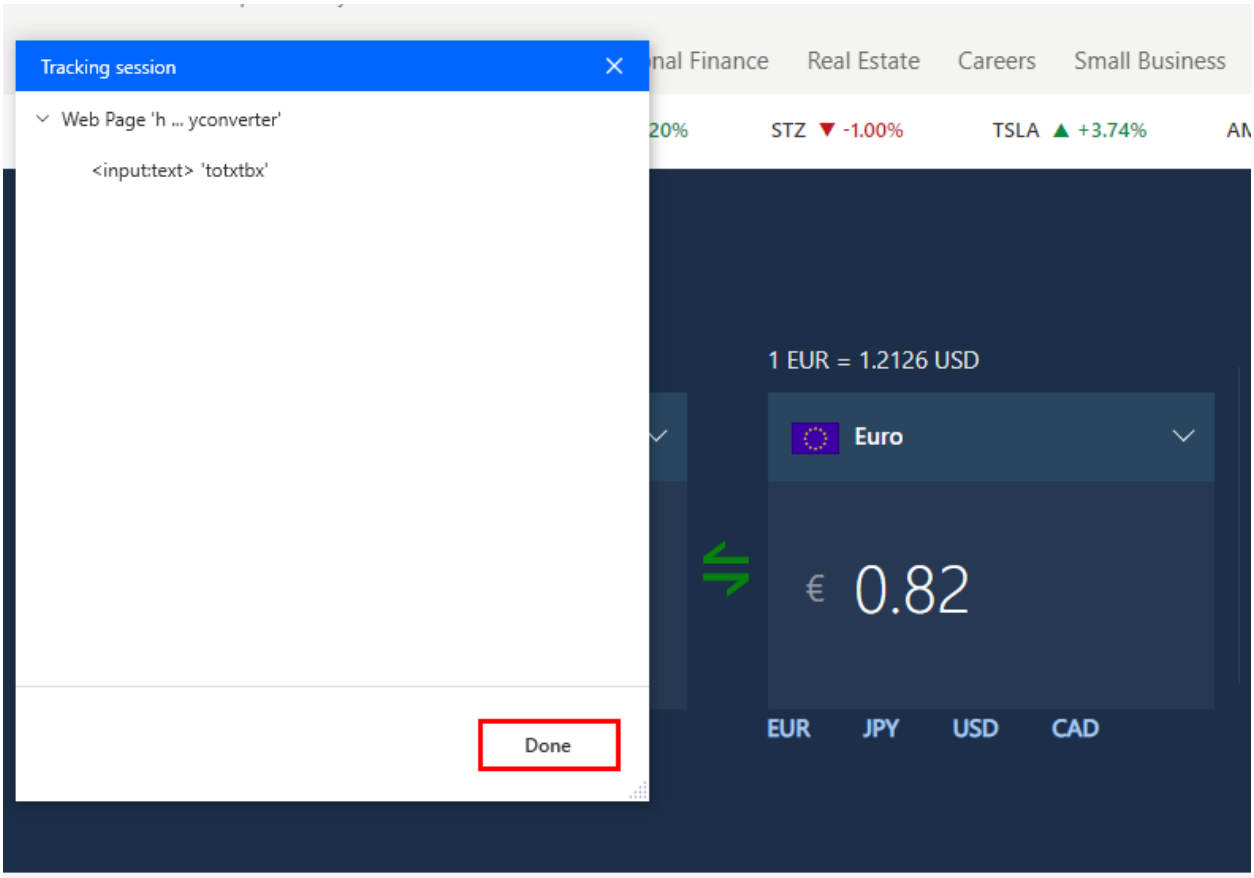
15. Use the **Get details of element on web page** action in the **Web data extraction** subfolder to select the **converted value (Euro)** with the same way described above.



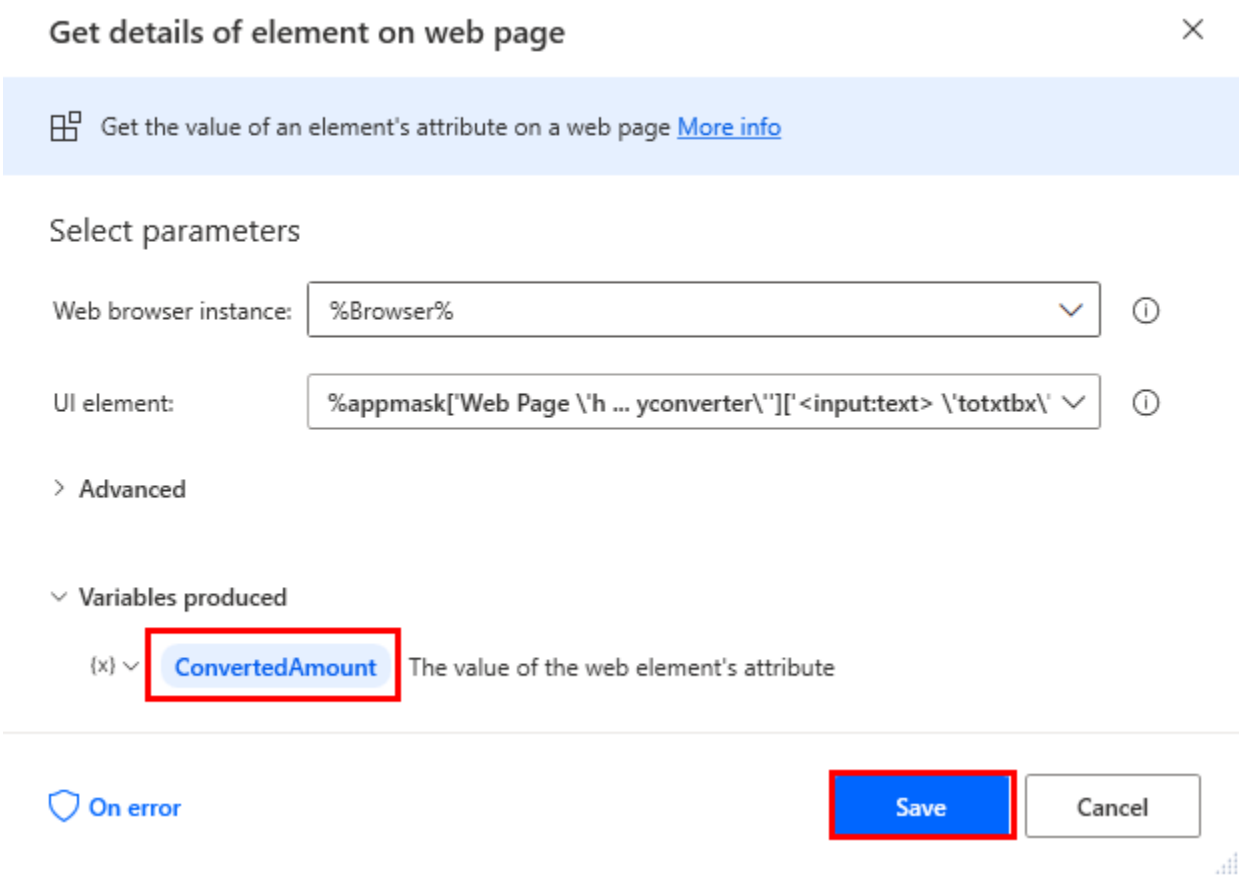

Get details of element on web page
Get the value of an element's attribute on a web page More info
Select parameters
Web browser instance:
%Browser%
UI element:
UI elements 2
Web Page 'h ... yconverter'
<input:text> 'frmtxtbx'
Add a new UI element
Select
Cancel


Tracking session
Add UI elements
Hover the mouse over the UI element to capture until the frame appears around it, then press Ctrl + Left click to add it here.
Done
Real Estate
Careers
Small Business
STZ ▼ -1.00%
TSLA ▲ +3.74%
1 EUR = 1.2126 USD
Euro
<input:text>
€ 0.82
EUR
JPY
USD
CAD

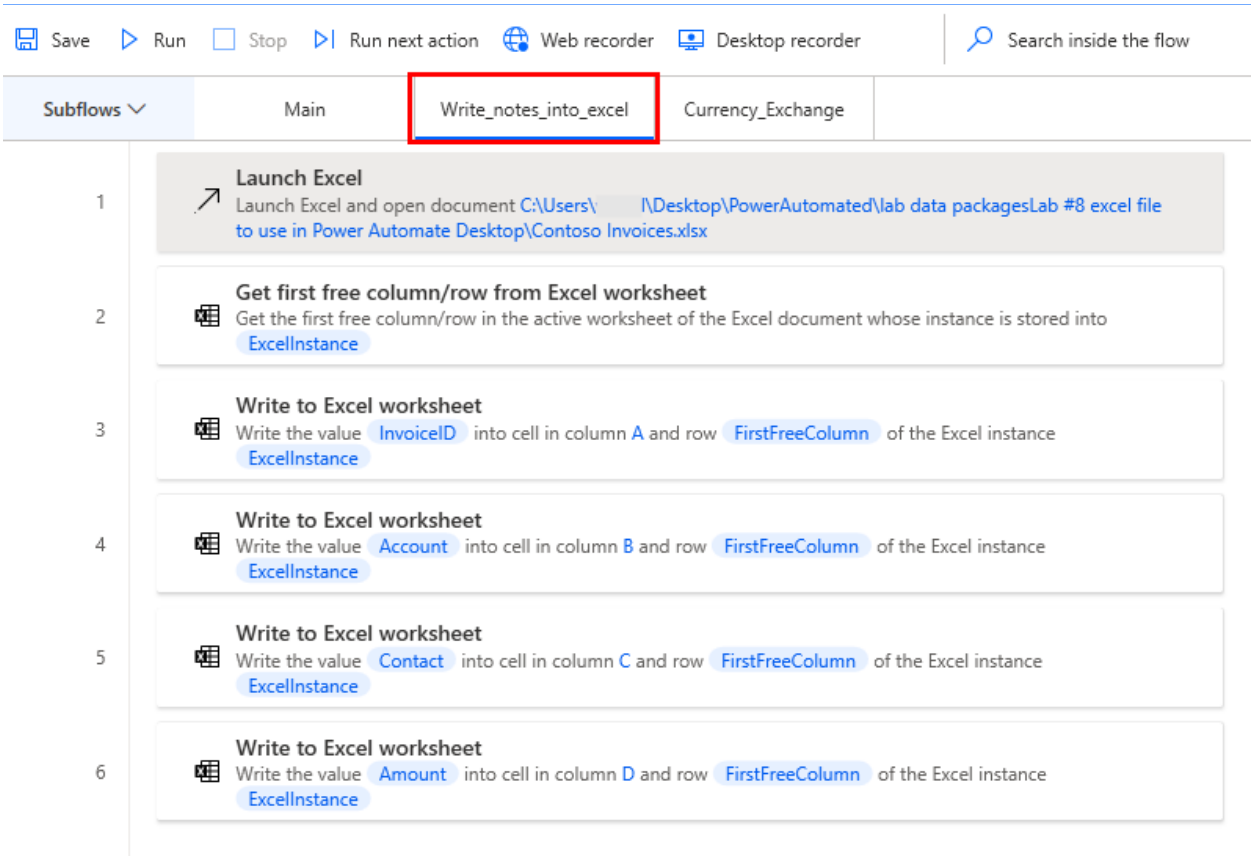
16. Select **Done.**



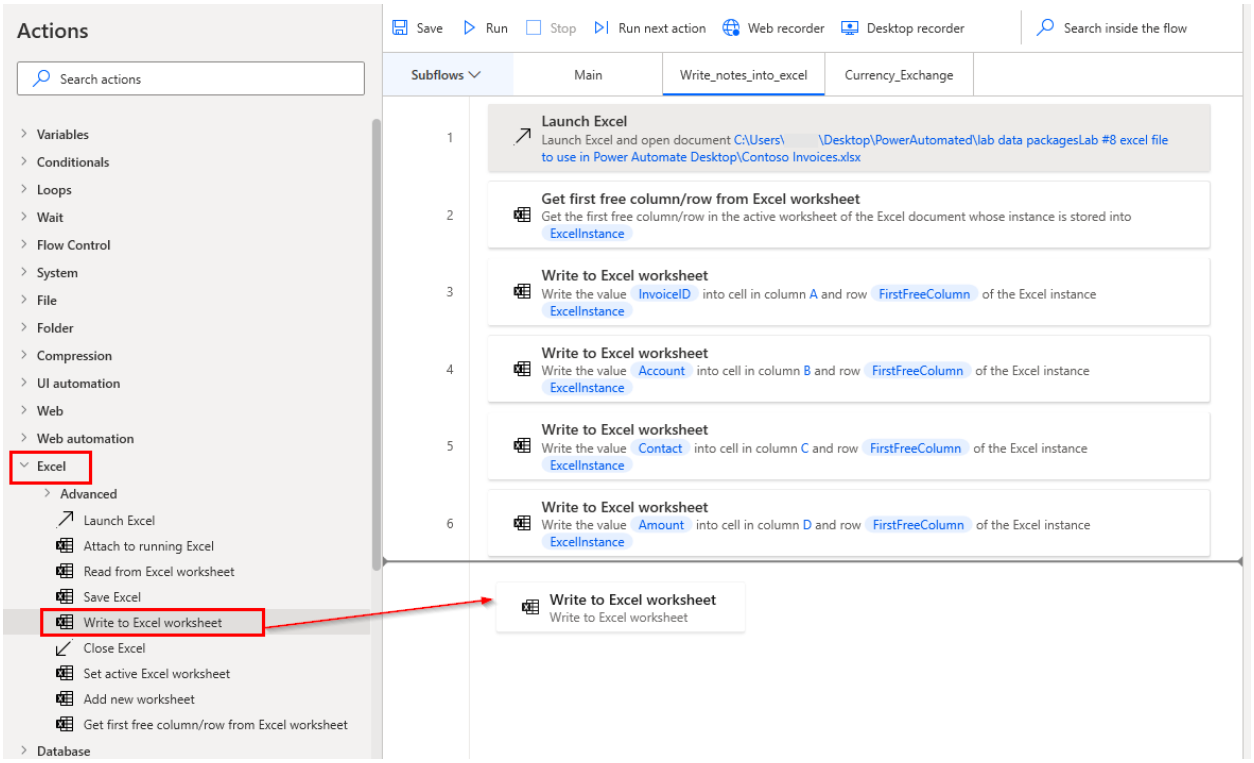
17. Change the **Variables produced** from **%AttributeValue2%** to **%ConvertedAmount%** by clicking **%AttributeValue2%**. Once you're done, click **Save**.



18. Go back **Write_notes_into_excel** subflow you created in exercise 1 by clicking **Write_notes_into_excel**.

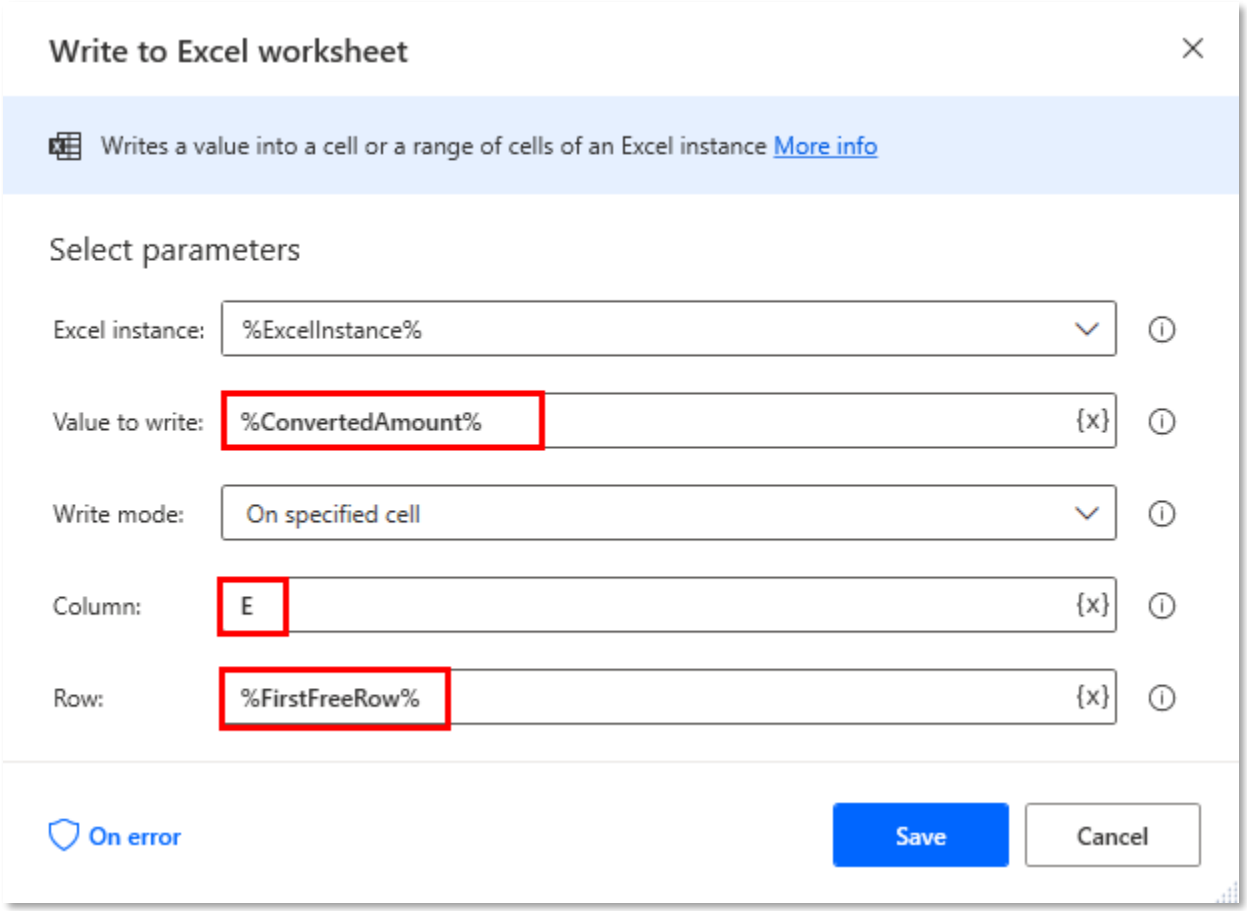


19. Add the **Write to Excel Worksheet** action from the **Excel** folder under **Step 6**.

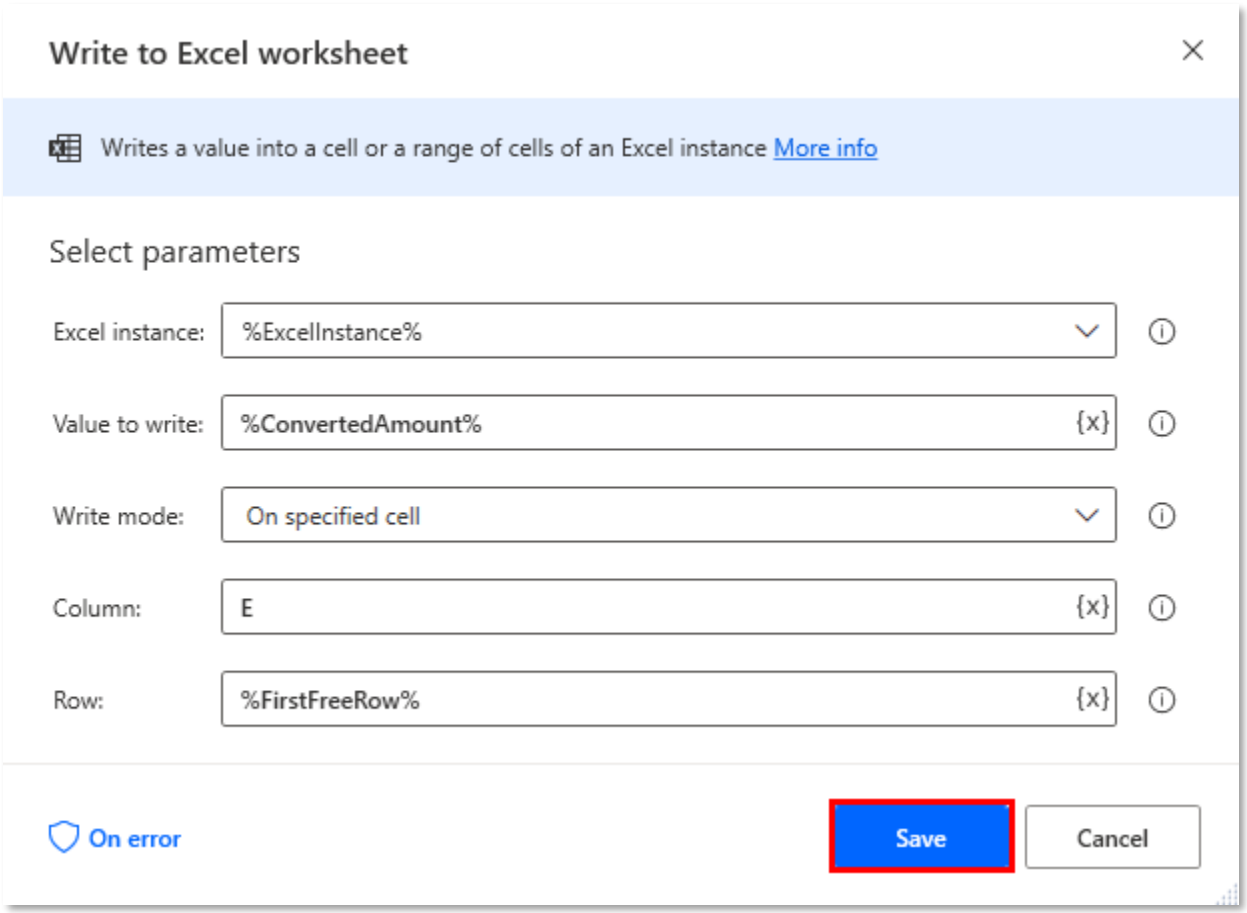


20. Writing values of variables to cells as the information below.

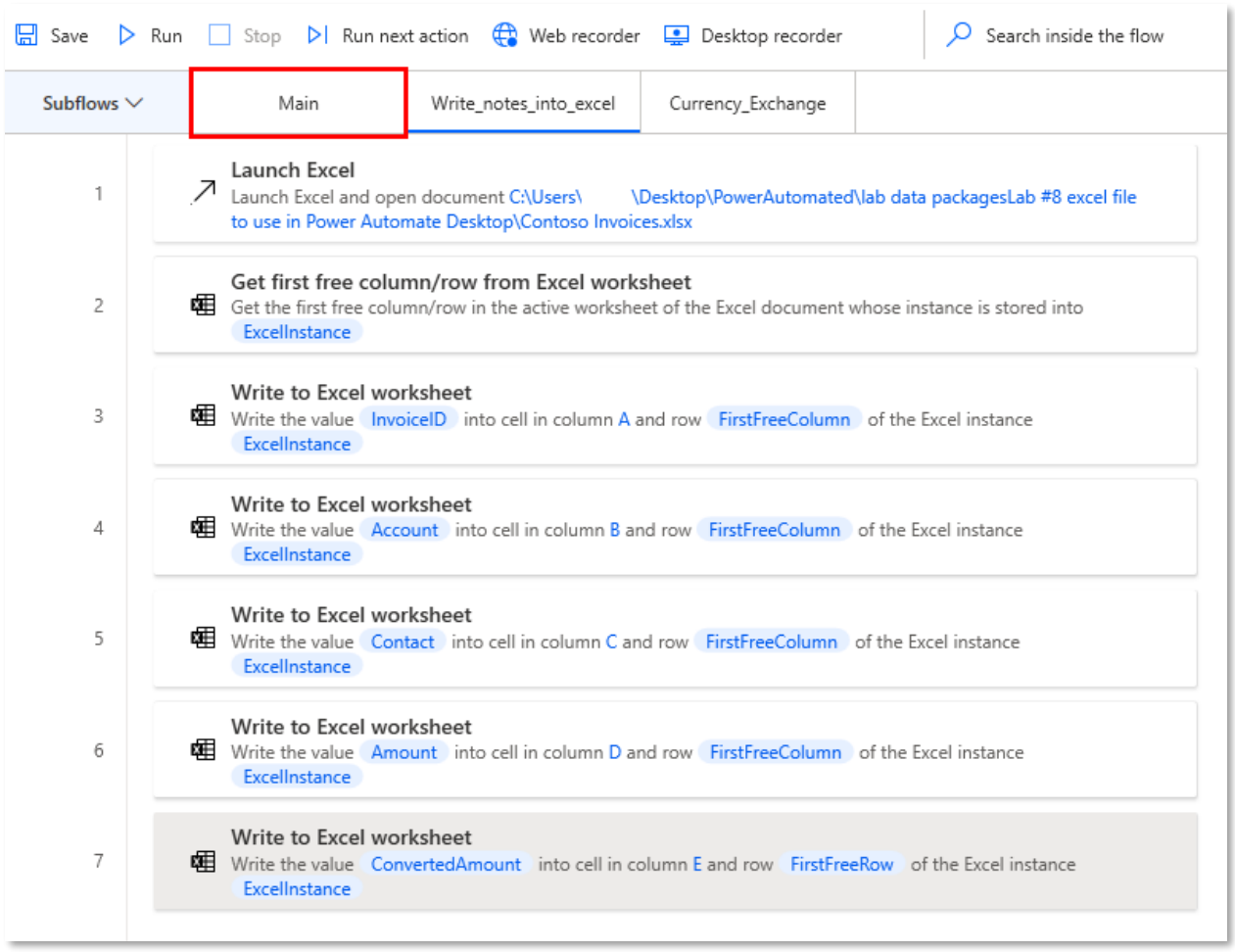
- **Value to write:** %ConvertedAmount%
- **Column:** E
- **Row:** %FirstFreeRow%



21. Click **Save**.

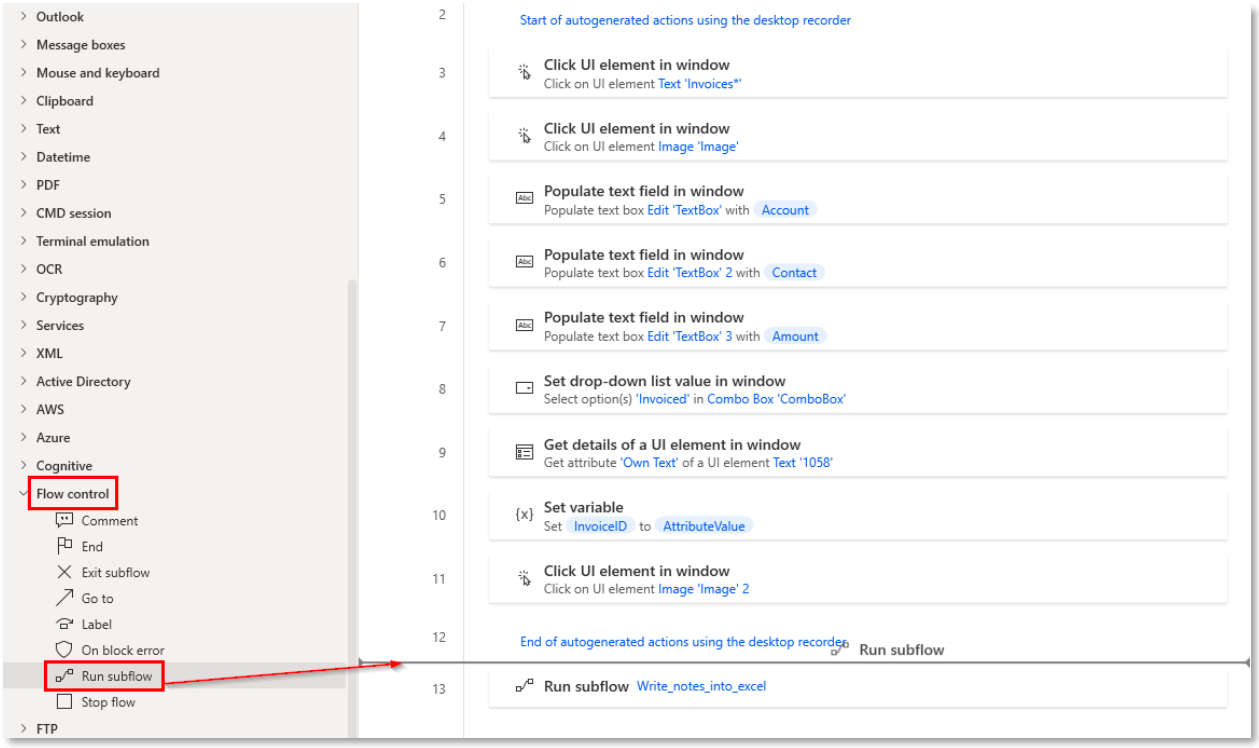


22. Go back to your Main flow by clicking **Main**.

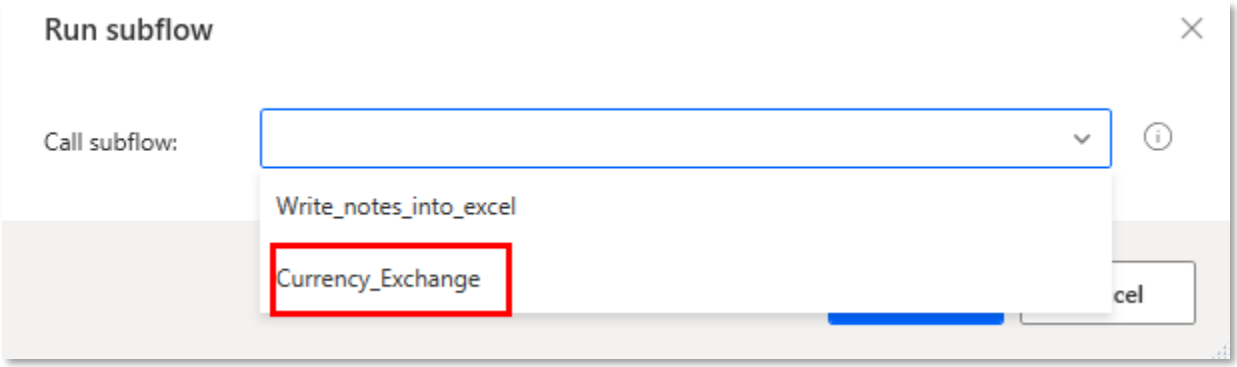


23. Add the **Run subflow** action from **Flow Control** folder as **Step 12 of your process**.

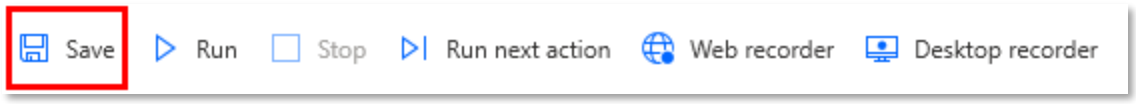
    Note: this subflow should be called prior to the **Write_notes_to_excel** subflow call.



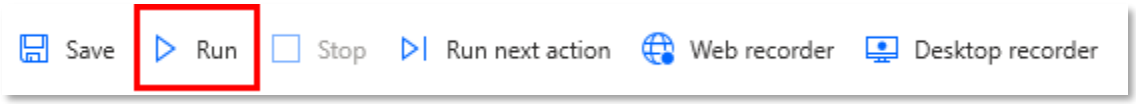
24. Call **Currency_Exchange** subflow you just created. Then click **Save**.



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



26. You can now run your flow by clicking **Run**.



27. 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

Check your knowledge

Lab 9

5 mins

1. Which of the following can you use as your Subflow name?

   A. Currency exchange
   B. Currency Exchange
   C. Currency_exchange
   D. All of the above

   Answer: C. Currency_exchange. Power Automate Desktop does not allow for spaces to be in the name of a Subflow.

2. When you try to capture a web element from a web page, after selecting the Populate text Field on web page action and clicking UI element dropdown, you need to select _____ to be able to capture the element.

   A. Add a new UI element
   B. Save
   C. Browser
   D. None of the above

   Answer: A. Add a new UI element - You need to click this button to start capture elements

3. When you are populating text Field on web page, you need to hold the _____ and _____ to select the element.

   A. Left CTRL + Left-Click
   B. Left Tab + Left-Click
   C. Left CTRL + Right-Click
   D. Left Tab + Right-Click

   Answer: A. Left CTRL + Left-Click