

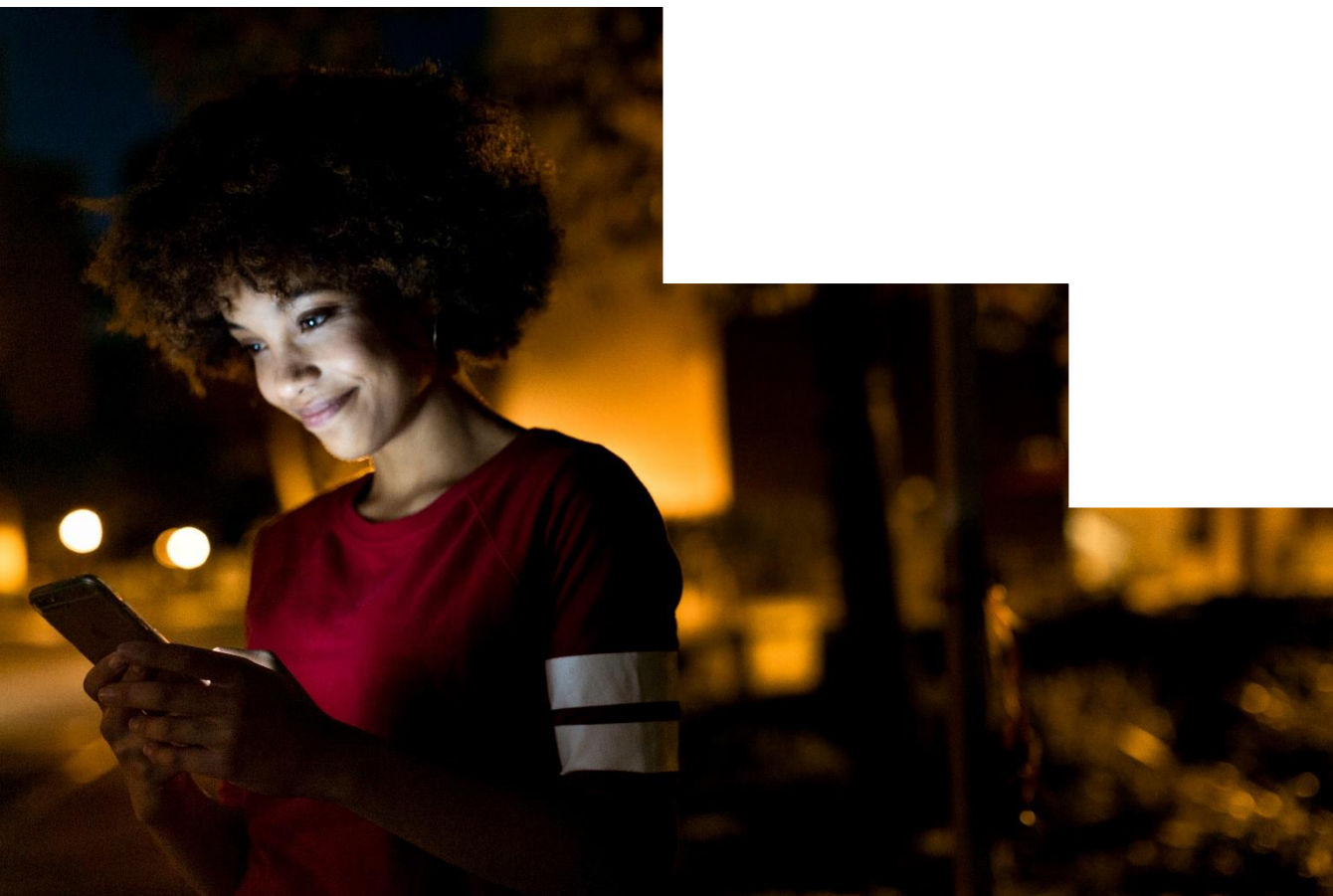


# Robotic Process Automation in a Day

## Lab 4 – Use Input and Output Parameters

30 mins

October 2021



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## Lab Overview

You will complete the following tasks in this lab:

- Create a new Power Automate Desktop flow with predefined inputs
- Record actions performed in the desktop-based Contoso Invoicing application using these inputs, and capturing application data for output
- Perform a test run of the new desktop flow with a new set of inputs

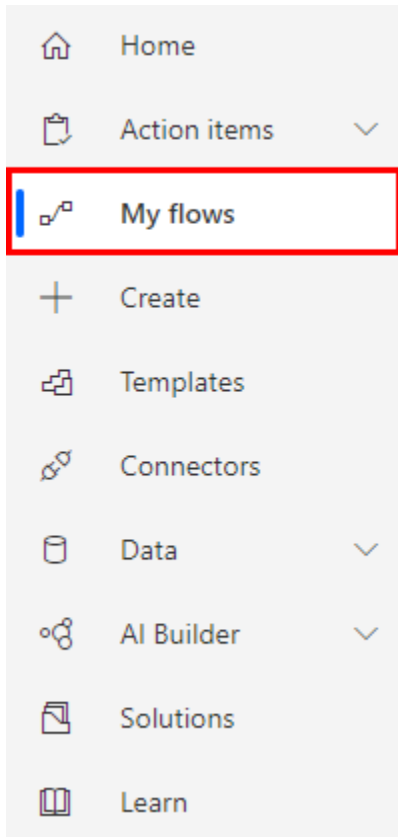
## Prerequisites

This lab builds on the initial setup lab (Lab 1) – ensure all tasks are complete.

**Important Additional Prerequisite:** As you will be recording actions performed in your UI in this lab, **you will have the best experience if you view the lab instructions on a separate device or in a printout.** You can still complete the lab while pursuing the instructions during UI action recording, but you will have to perform extra work to cut the recorded actions of viewing the instructions from the UI flow.

## Use input and output parameters



1. Open the test profile in a browser and navigate to <https://powerautomate.microsoft.com>
2. Open Contoso Invoicing app.
3. Select **My flows** > **Desktop flows**.



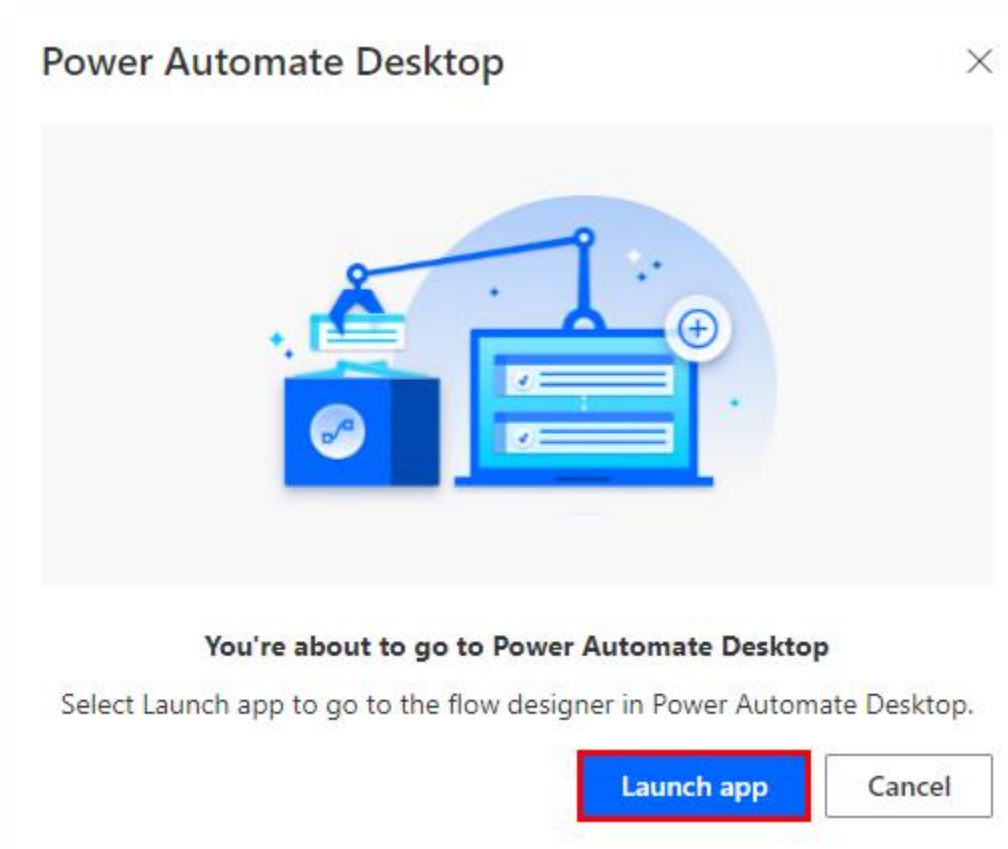
### Flows




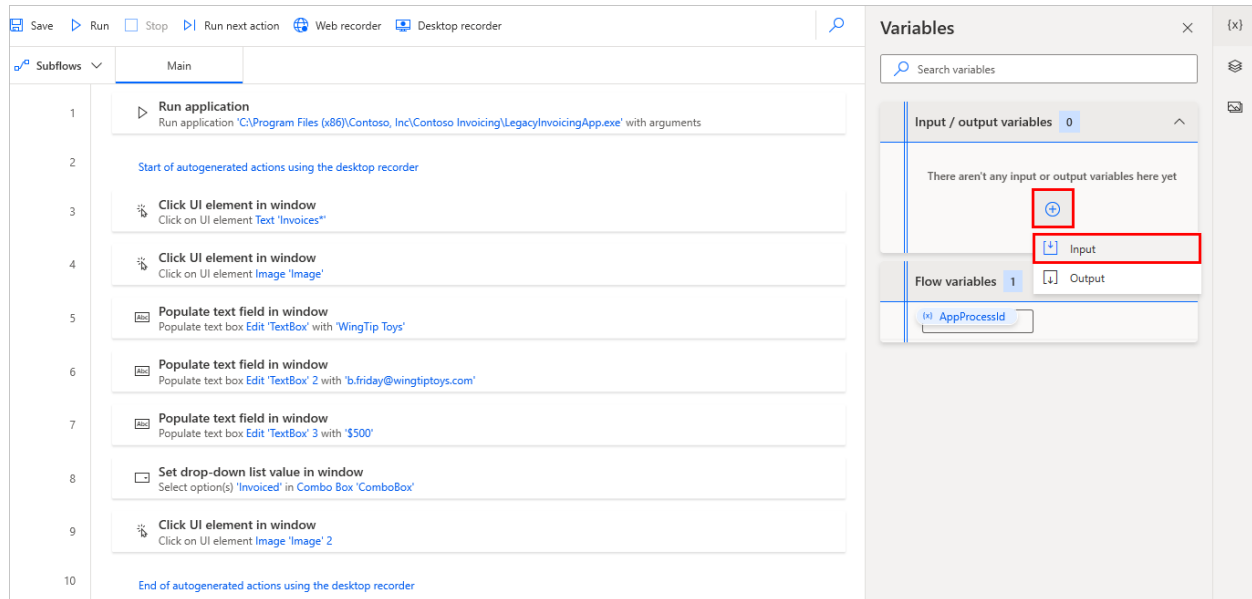
4. Edit **Enter an invoice** flow by clicking 

	Name	Edit	Modified	Built with
<input type="radio"/>	 Enter an invoice		2 min ago	Power Automate Desktop

- Click Launch app.



- Power Automate Desktop provides the ability to receive input values from Cloud flows and return values using output values. We will now create a series of input values by clicking **Input/output variables**, then click  - **Input** to add your first input.



7. Use these values to setup the first input:

- Variable Type: Input
- Variable Name: Amount
- Data type: Text
- Default value: \$500
- External Name: Amount
- Description: Amount

### Add a new input variable

×

⌵

Add a new variable to be used as input or output [More info](#)

Variable type:

Input

ⓘ

Variable name:

Amount

ⓘ

Data type:

Aa Text

ⓘ

Default value:

\$500

ⓘ

External name:

Amount

ⓘ

Description:

Amount

ⓘ

Create

Cancel

8. Click **Create**.



### Add a new input variable

⌵

Add a new variable to be used as input or output [More info](#)

Variable type:

Input

ⓘ

Variable name:

Amount

ⓘ

Data type:

Aa Text

ⓘ

Default value:

\$500

ⓘ

External name:

Amount

ⓘ

Description:

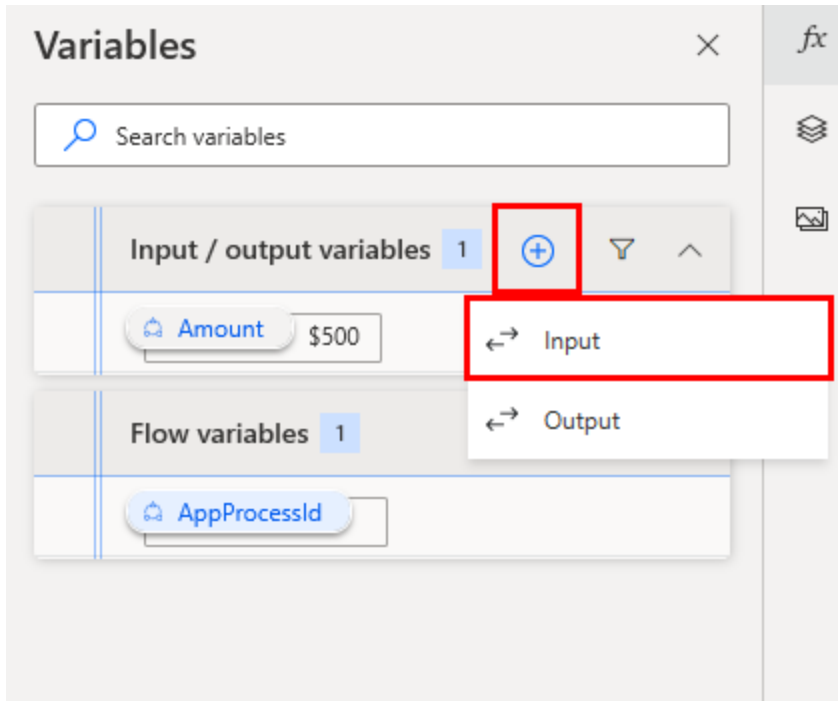
Amount

ⓘ

Create

Cancel

9. Click  > **Input** to add 2 more inputs.



10. Use these values to setup two new added inputs.

- **Variable Type:** Input
- **Variable Name:** Contact
- **Data type:** Text
- **Default value:** b.friday@wingtiptoy.com
- **External Name:** Contact
- **Description:** Contact email

## Add a new input variable



⬇ Add a new variable to be used as input or output [More info](#)

Variable type:	<input type="text" value="Input"/>	ⓘ
Variable name:	<input type="text" value="Contact"/>	ⓘ
Data type:	<input type="text" value="Aa Text"/>	ⓘ
Default value:	<input type="text" value="b.friday@wingtip toys.com"/>	ⓘ
External name:	<input type="text" value="Contact"/>	ⓘ
Description:	<input type="text" value="Contact email"/>	ⓘ

Create

Cancel

- Variable Type: Input
- Variable Name: Account
- Data type: Text
- Default value: WingTip Toys
- External Name: Accountname
- Description: Account name

## Add a new input variable



↓ Add a new variable to be used as input or output [More info](#)

Variable type:

Input

i

Variable name:

Account

i

Data type:

Aa Text

✓

i

Default value:

WingTip Toys

i

External name:

Accountname

i

Description:

Account name

i

Create

Cancel

### 11. Click Save.

Actions

Save Run Stop Run next action Web recorder Desktop recorder

Search actions

Subflows Main

1 Run application  
Run application 'C:\Program Files (x86)\Contoso, Inc\Contoso Invoicing\Legacy\InvoicingApp.exe' with arguments

2 Start of autogenerated actions using the desktop recorder

3 Click UI element in window  
Click on UI element 'Text 'Invoices''

4 Click UI element in window  
Click on UI element 'Image 'Image''

5 Populate text field in window  
Populate text box Edit 'TextBox' with 'WingTip Toys'

Variables

Search variables

Input / output variables 3

Account WingTip Toys

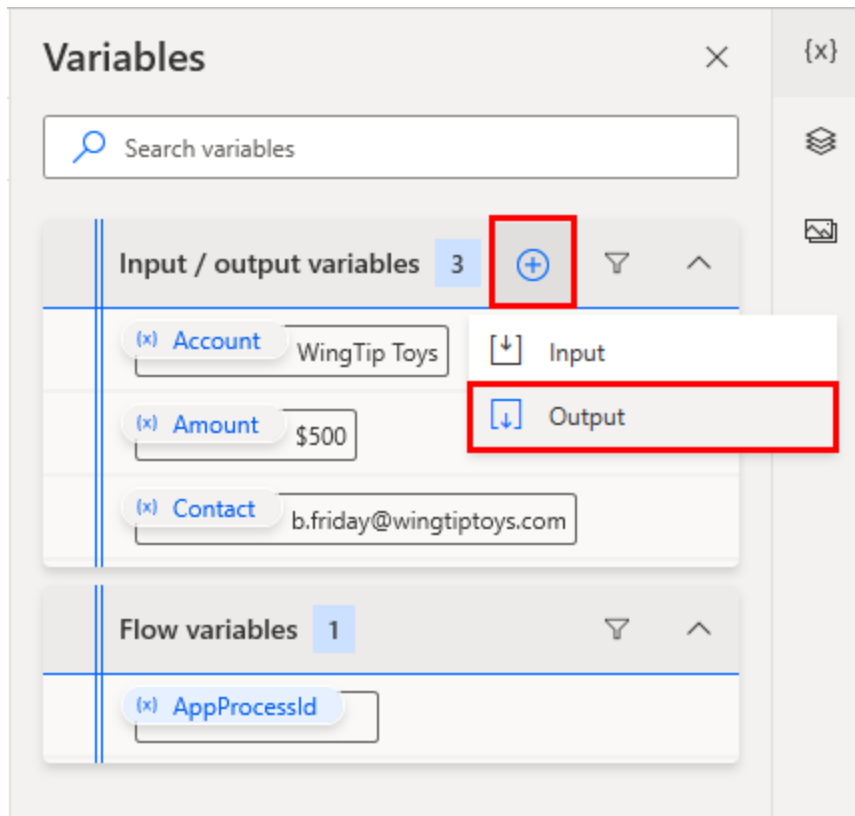
Amount \$500

Contact b.friday@wingtip toys.com

Flow variables 1

AppProcessId

12. On the right-side **Input/output variables**, click  > **Output** to add your first **output**.



13. Use these values to setup the first output:

- **Variable Type:** Output
- **Variable Name:** InvoiceID
- **External Name:** InvoiceID
- **Description:** InvoiceID

### Add a new output variable

↔ Add a new variable to be used as input or output [More info](#)

Variable type:

Output

i

Variable name:

InvoiceID

i

External name:

InvoiceID

i

Description:

InvoiceID

i

Create

Cancel

14. After providing the required values in each field, click **Create** to proceed.

### Add a new output variable

↔ Add a new variable to be used as input or output [More info](#)

Variable type:

Output

i

Variable name:

InvoiceID

i

External name:

InvoiceID

i

Description:

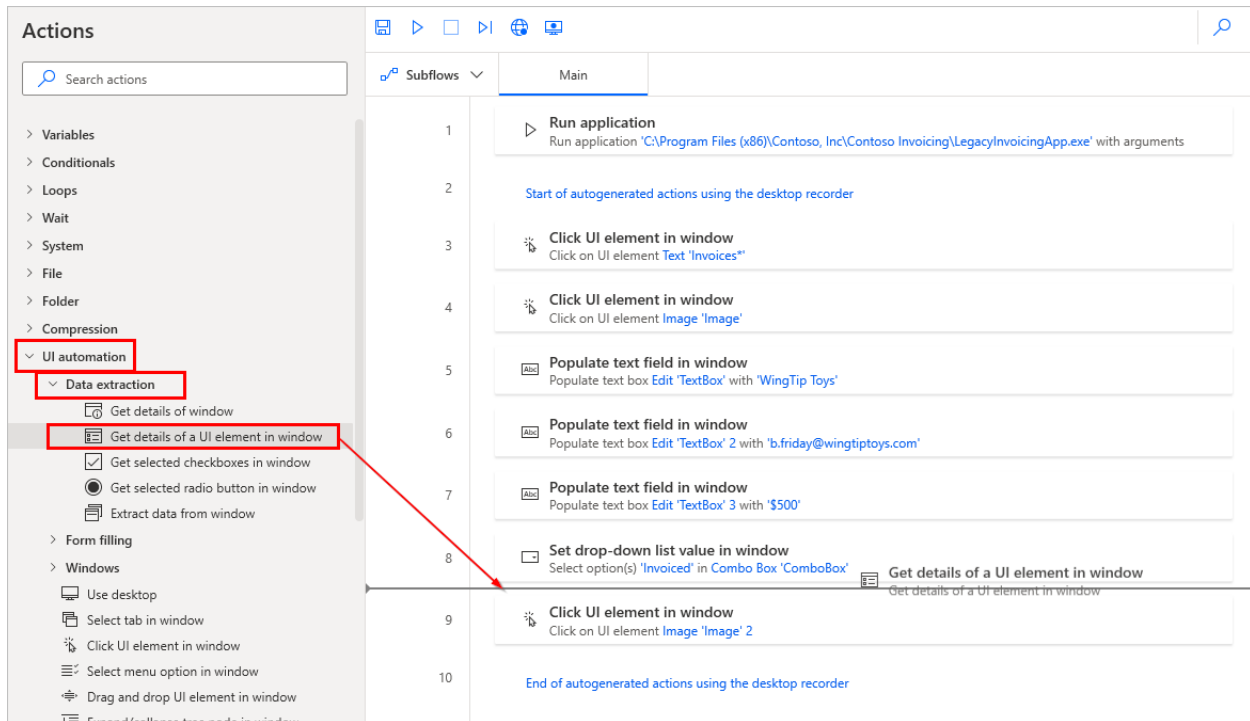
InvoiceID

i

Create

Cancel


15. Within our process, we now need to add an action to set this output. Please ensure the Contoso application is still running. Drag the **Get details of a UI element's attribute in a window** from **UI automation > Data extraction** folder under **Step 8** in your actions.



16. Click on the **UI element** dropdown and then click **Add a new UI element**.

## Get details of a UI element in window



 Gets the value of a UI element's attribute in a window [More info](#)

### Select parameters

UI element:

> Advanced

> Variables

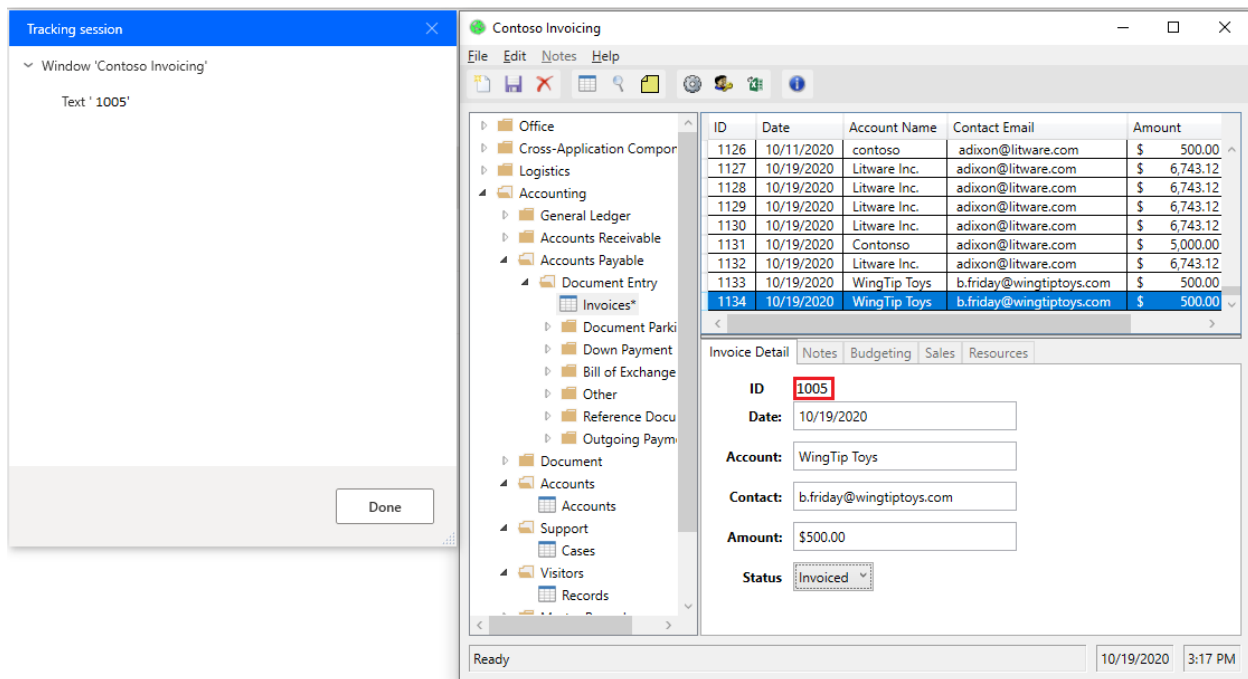
**UI elements** 11

- Quick Launch Bar
  - Contoso Invoicing - 1 running win...
- Window 'Contoso Invoicing'
  - Text 'Invoices'
  - Image 'Image'
  - Edit 'TextBox'

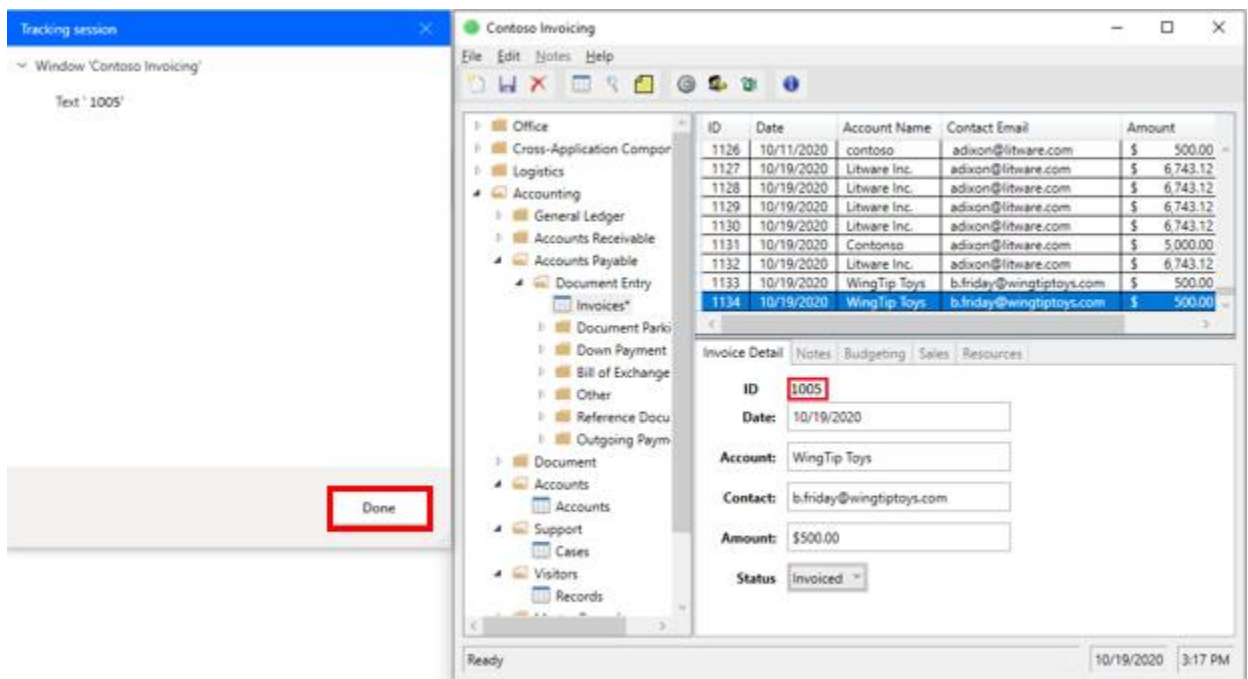
**Note:** A red rectangle appears in the browser while hovering the mouse over the elements.

- Go to **Contoso Invoicing app**, move the mouse over the value that belongs to ID number. Hold the **CTRL** key on your keyboard and then **Left-Click** to select the element (You may have a different ID than the number displayed here).





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

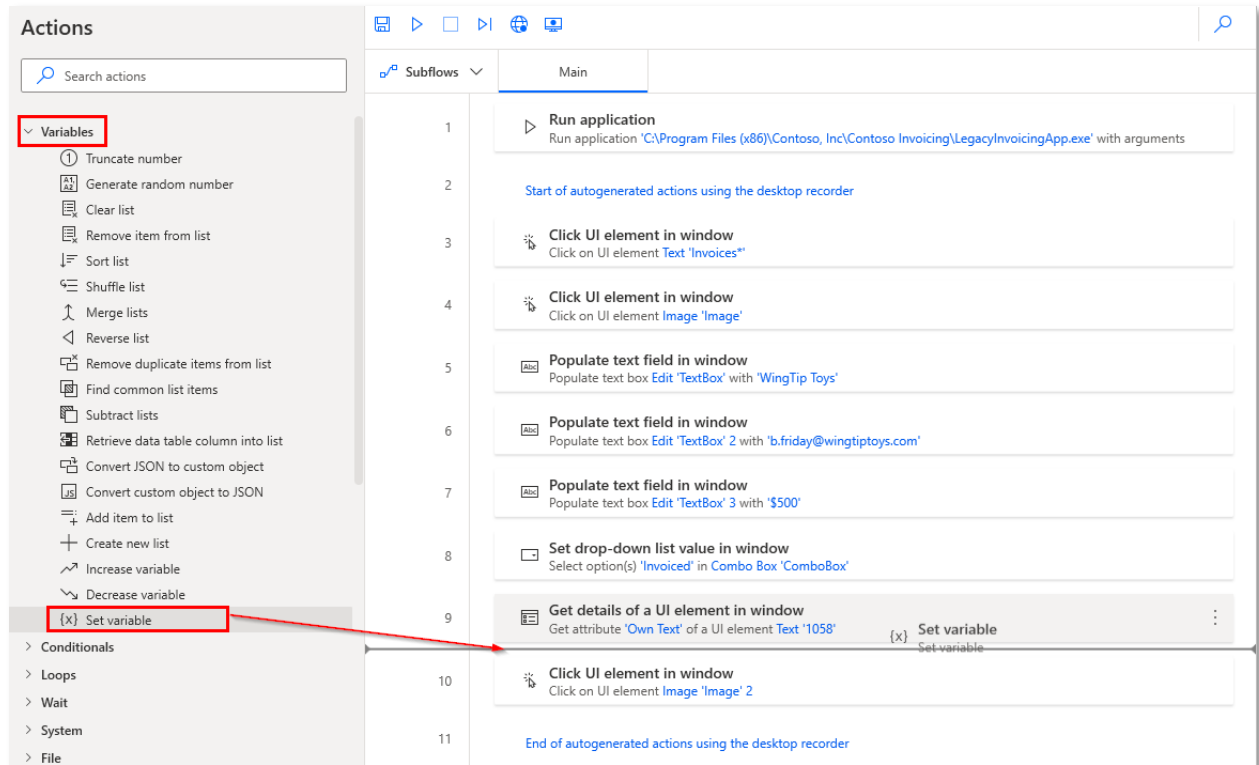


19. Click Save.

The screenshot shows a dialog box titled "Get details of a UI element in window" with a close button (X) in the top right corner. Below the title bar, there is a light blue header bar containing a list icon and the text "Gets the value of a UI element's attribute in a window" followed by a blue link "More info". The main area is titled "Select parameters" and contains a "UI element:" label followed by a text box with the value "%appmask['Window \'Contoso Invoicing\'']['Text \'1005\'"]%" and a dropdown arrow. To the right of the text box is a help icon (i). Below this, there are two expandable sections: "> Advanced" and "> Variables produced". The "Variables produced" section is expanded, showing a blue pill-shaped button labeled "AttributeValue". At the bottom left, there is a shield icon and the text "On error". At the bottom right, there are two buttons: "Save" (highlighted with a red border) and "Cancel".

**Note:** This action will automatically create a variable called **AttributeValue** as an output that we can refer to in subsequent actions within Power Automate Desktop.

20. Add **Set variable** action from **Variables** folder under **Step 9 (Get details of a UI element in window)** we just created).



21. We will now set an **InvoiceID** variable that will be used to capture the Invoice ID that we previously captured in step 21. This allows us to use the Invoice ID in downstream processes or from our API flow that will be created in a future lab. Use below information to fill out **Set variable**:

- **Set:** %InvoiceID%
- **To:** %AttributeValue%

**Note:** You can also use the fx button to assign our **AttributeValue** from a dropdown list.

22. Click **Save** to complete this step.

## Set variable



{x} Set the value of a new or existing variable, create a new variable or overwrite a previously created variable [More info](#)

Set: **InvoiceID** {x}

To:

{x}



Save

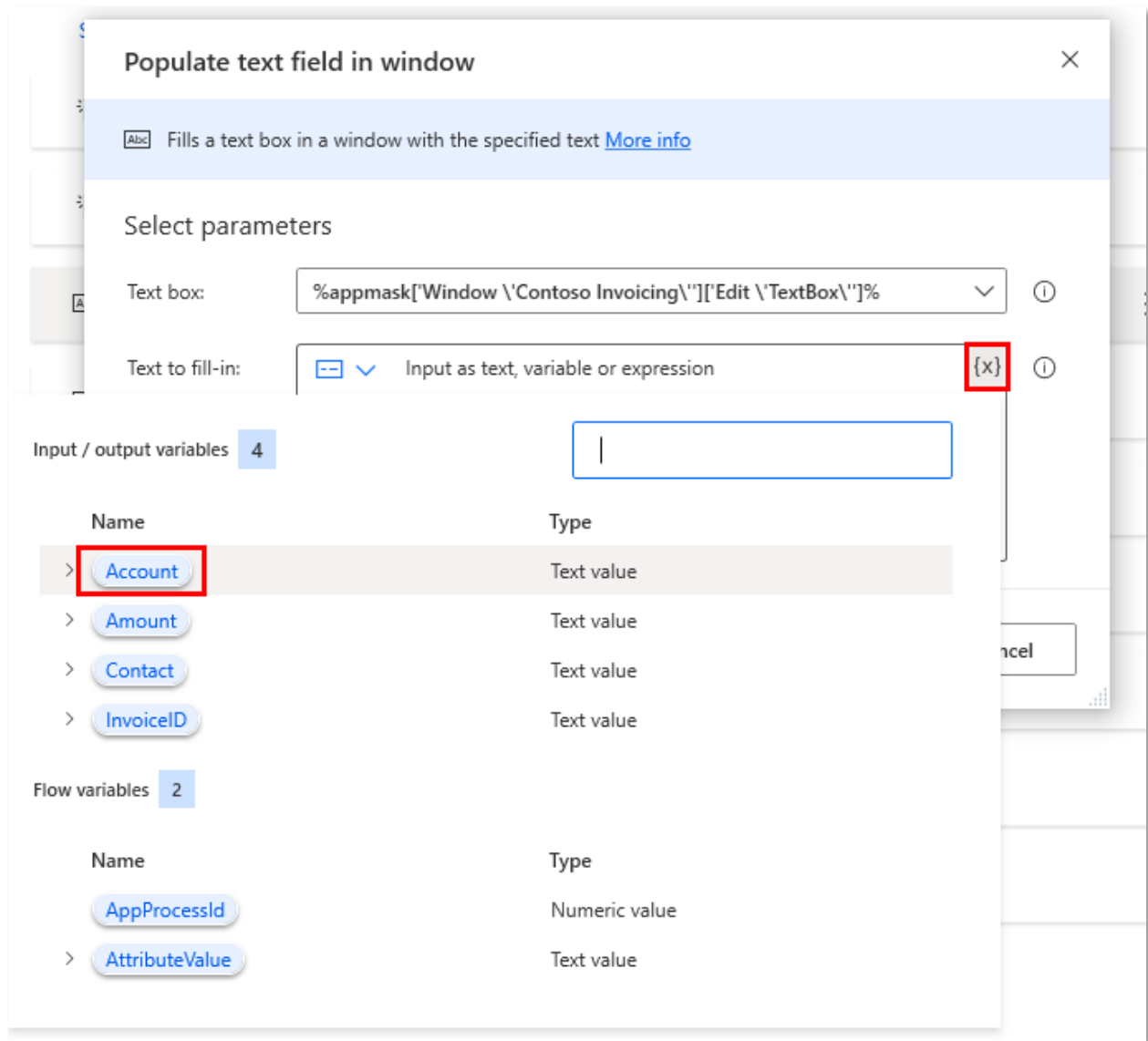
Cancel

23. Go back to **Step 5 (Edit 'TextBox' with 'WingTip Toys')** of your UI flow, click ... icon. Select **Edit**.

The screenshot displays the UiPath Studio interface. The workflow editor shows a sequence of 12 steps. Step 5, 'Populate text field in window', is highlighted with a red box. A context menu is open over Step 5, with the 'Edit' option highlighted. The 'Input / output variables' panel on the right shows variables: Account (WingTip Toys), Amount (\$500), Contact (b.friday@wingtip toys.com), and InvoiceID.

Step	Action
1	Run application
2	Start of autogenerated actions using the desktop recorder
3	Click UI element in window
4	Click UI element in window
5	Populate text field in window
6	Populate text field in window
7	Populate text field in window
8	Set drop-down list value in window
9	Get details of a UI element in window
10	Set variable
11	Click UI element in window
12	End of autogenerated actions using the desktop recorder

24. Delete the value in **Text to fill-in**. Double click **Account** (One of the inputs we created earlier) by clicking **{x}** > **Account**.



25. Click **Save**.

## Populate text field in window



Fills a text box in a window with the specified text [More info](#)

### Select parameters

Text box:

Window 'Contoso Invoicing' > Edit 'TextBox'



Text to fill-in:

Input as text, variable or expression



%Account%

> Advanced

On error

Save

Cancel

26. Follow the same steps above to change the value in **Text to fill-in** in **Step 6** and **Step 7**.

- Use **Input Contact** for **Step 6**
- Use **Input Amount** for **Step 7**

6

#### Populate text field in window











Populate text box [Edit 'TextBox' 2](#) with **'b.friday@wingtiptoy.com'**

7

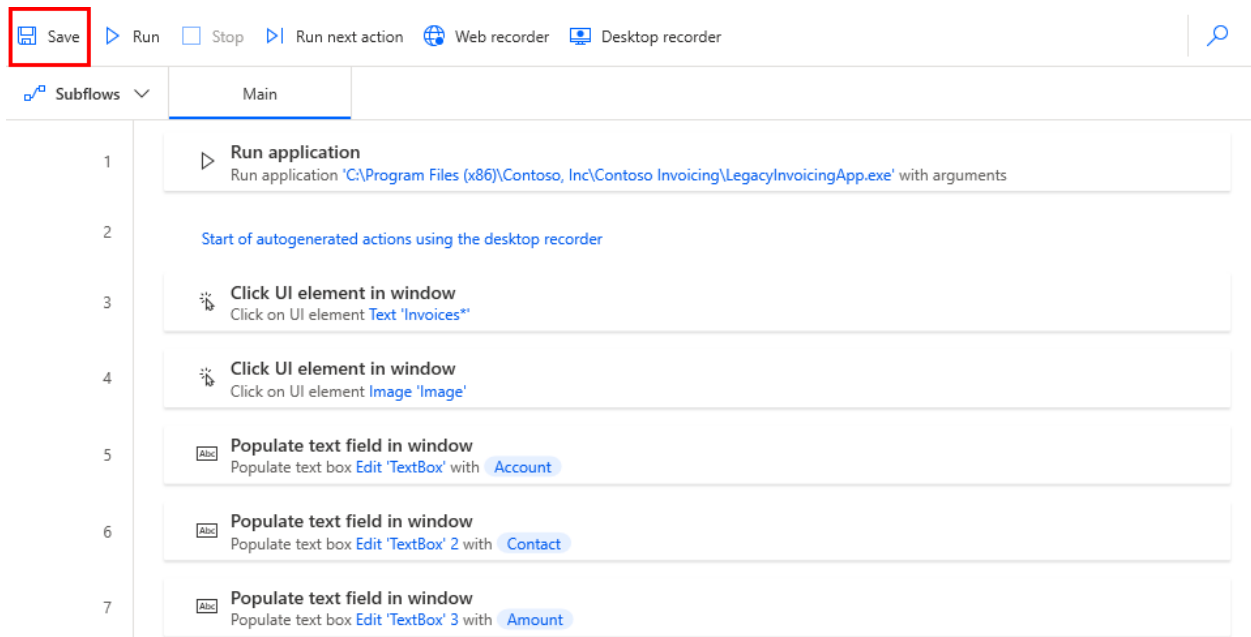
#### Populate text field in window

Populate text box [Edit 'TextBox' 3](#) with **'\$500'**

27. Once you're done, your actions should look like the screenshot below.

1	 <b>Run application</b> Run application 'C:\Program Files (x86)\Contoso, Inc\Contoso Invoicing\Legacy\InvoicingApp.exe' with arguments
2	Start of autogenerated actions using the desktop recorder
3	 <b>Click UI element in window</b> Click on UI element Text 'Invoices'
4	 <b>Click UI element in window</b> Click on UI element Image 'Image'
5	 <b>Populate text field in window</b> Populate text box Edit 'TextBox' with Account
6	 <b>Populate text field in window</b> Populate text box Edit 'TextBox' 2 with Contact
7	 <b>Populate text field in window</b> Populate text box Edit 'TextBox' 3 with Amount
8	 <b>Set drop-down list value in window</b> Select option(s) 'Invoiced' in Combo Box 'ComboBox'
9	 <b>Get details of a UI element in window</b> Get attribute 'Own Text' of a UI element Text '1005'
10	 <b>Set variable</b> Set InvoiceID to AttributeValue
11	 <b>Click UI element in window</b> Click on UI element Image 'Image' 2
12	End of autogenerated actions using the desktop recorder

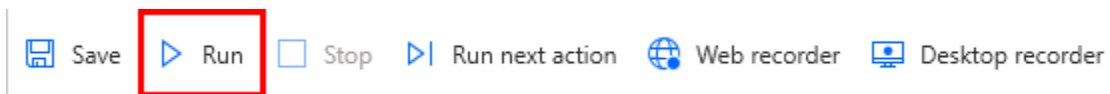
28. Click **Save**.



The screenshot shows the top toolbar of the UiPath Studio interface. The 'Save' button, represented by a floppy disk icon, is highlighted with a red rectangular box. Other buttons in the toolbar include 'Run' (play icon), 'Stop' (square icon), 'Run next action' (play icon with a vertical line), 'Web recorder' (globe icon), and 'Desktop recorder' (monitor icon). Below the toolbar, the 'Subflows' dropdown is open, showing a list of subflows under the 'Main' tab. The subflows are numbered 1 through 7:

- 1. **Run application**  
Run application 'C:\Program Files (x86)\Contoso, Inc\Contoso Invoicing\LegacyInvoicingApp.exe' with arguments
- 2. **Start of autogenerated actions using the desktop recorder**
- 3. **Click UI element in window**  
Click on UI element **Text 'Invoices'**
- 4. **Click UI element in window**  
Click on UI element **Image 'Image'**
- 5. **Populate text field in window**  
Populate text box **Edit 'TextBox'** with **Account**
- 6. **Populate text field in window**  
Populate text box **Edit 'TextBox' 2** with **Contact**
- 7. **Populate text field in window**  
Populate text box **Edit 'TextBox' 3** with **Amount**

29. Now you can test your flow by clicking **Run**.



The screenshot shows the top toolbar of the UiPath Studio interface. The 'Run' button, represented by a play icon, is highlighted with a red rectangular box. Other buttons in the toolbar include 'Save' (floppy disk icon), 'Stop' (square icon), 'Run next action' (play icon with a vertical line), 'Web recorder' (globe icon), and 'Desktop recorder' (monitor icon).



# Check your knowledge

## Lab 4

10 mins

1. If you need to pass parameters from a Cloud flow into a Desktop flow, where do you define these values \_\_\_\_\_?

- A. Run
- B. Run next action
- C. Input/output variables
- D. None of the above

Answer: C. Input/output variables allow the maker to establish parameters that can be sent from a Cloud flow. In addition, output variables can be used to send data back to Cloud flows.

2. We need to hold the \_\_\_\_\_ key on keyboard and then \_\_\_\_\_ to select the element.

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

Answer: C. CTRL + Left-Click

3. Which of the following action allows us to use Invoice ID in downstream desktop flow actions or is required in order to return the value to a cloud flow?

- A. Create new list
- B. Set variable
- C. Add item to list
- D. Increase variable

Answer: B. Set variable - This will capture the Invoice ID. It will allow us to use the Invoice ID in downstream processes or send back to our cloud flow that will be created in a future lab.



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