

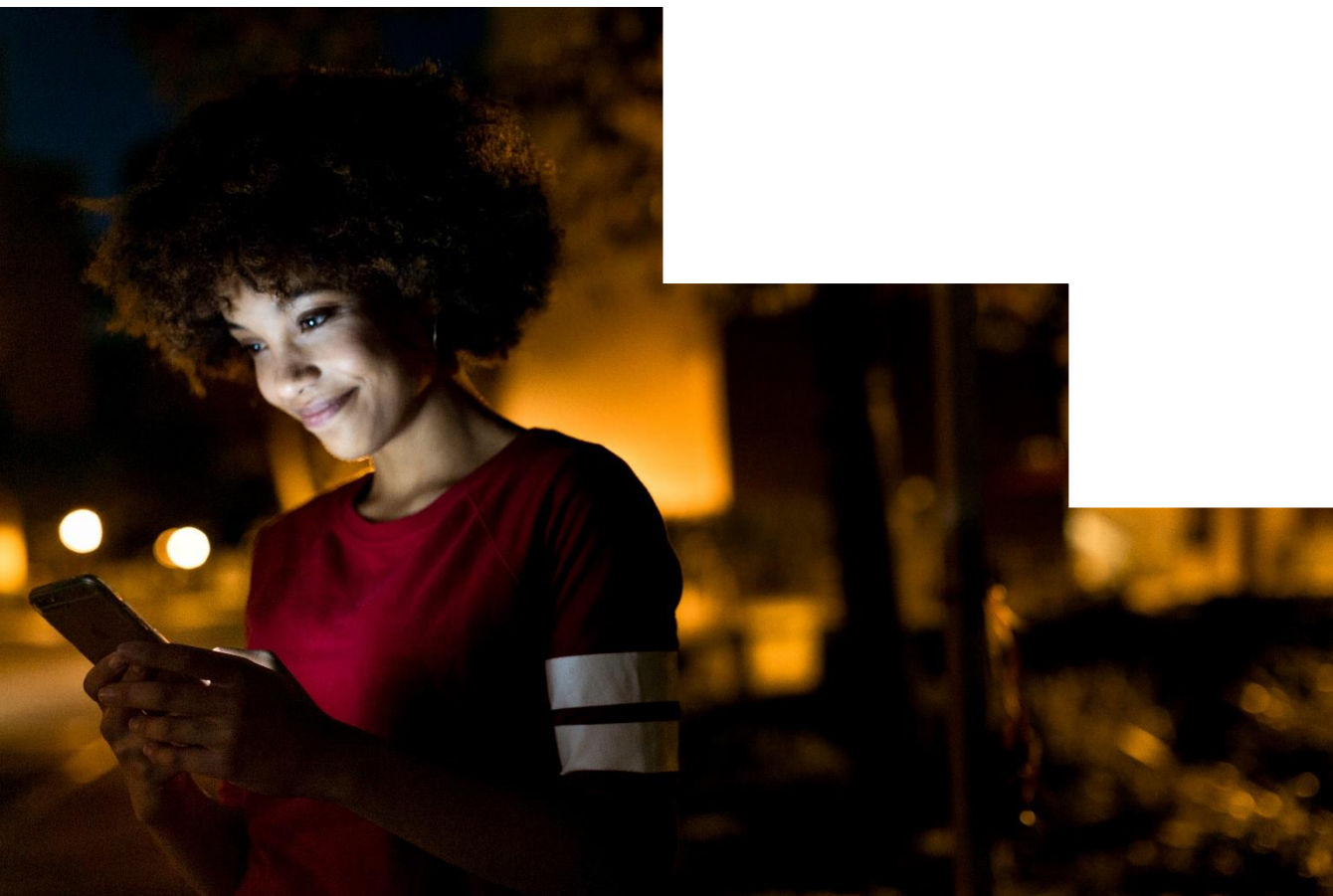


Robotic Process Automation in a Day

Lab 3 – Create your first Desktop flow

30 mins

April 2021



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Lab Overview

You will complete the following tasks in this lab:

- Getting familiar with Power Automate Desktop flows
- Create a new Desktop flow
- Record actions performed in the desktop-installed Contoso Invoicing application
- Perform a test run of the new Desktop flow

Prerequisites

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

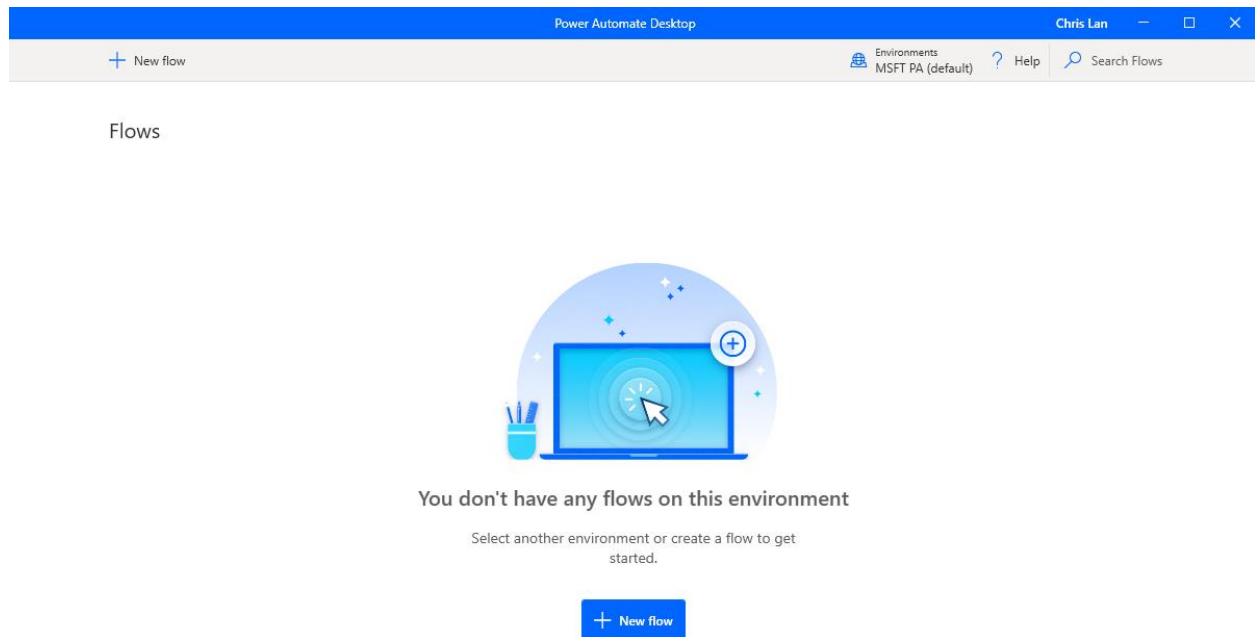
Important Additional Prerequisite: As you will be recording actions performed in your UI in this lab, **you will have the best experience if you view the lab instructions on a separate device or in a printout.** You can still complete the lab while using the instructions during UI action recording, but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

Also please check the known OS requirements and limitations here for Desktop flows
<https://docs.microsoft.com/en-us/power-automate/ui-flows/setup>

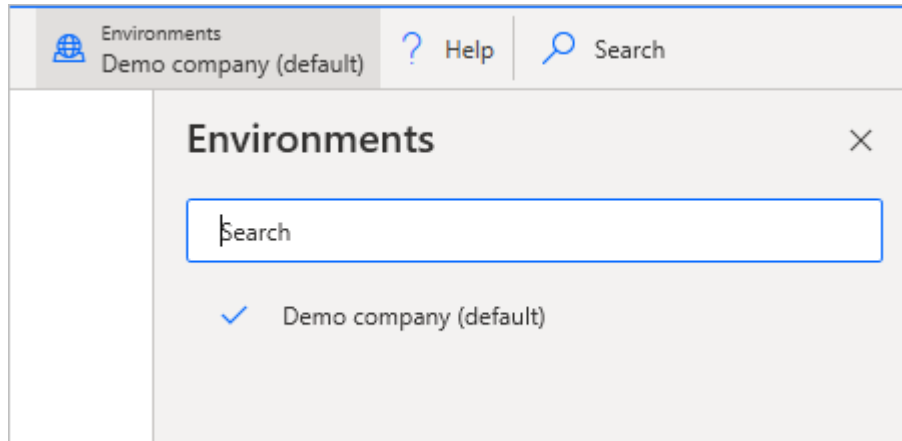
Getting Familiar with Power Automate Desktop

Note: Please complete Lab 1.3 Prerequisite - Install required software to install the latest version of Power Automate Desktop.

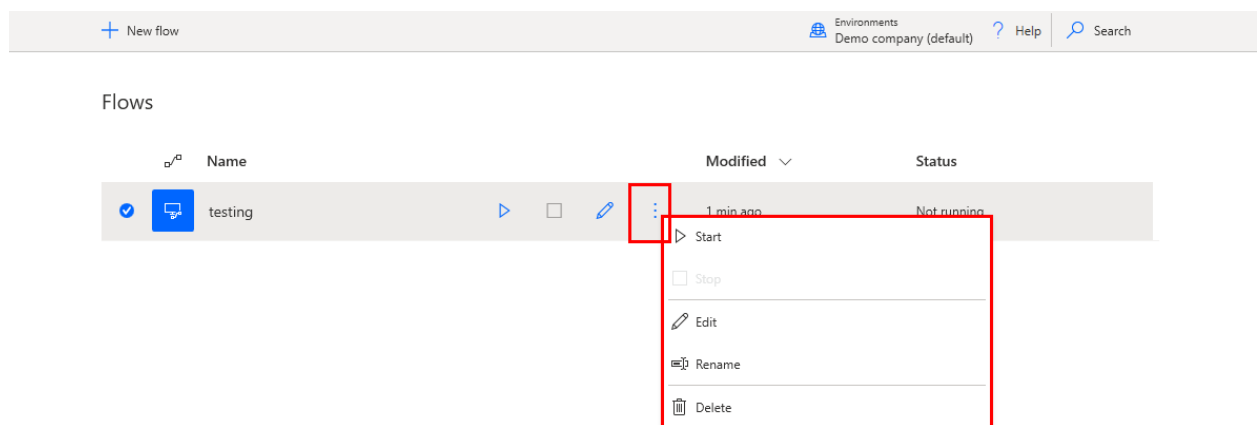
1. Launch Power Automate Desktop from your computer and sign into your account.



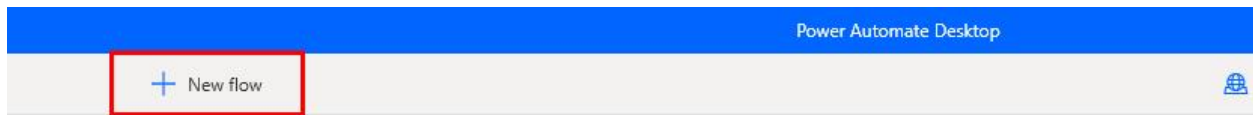
2. Click **Environments dropdown** to change your environment to the appropriate one. This is the same environment that was created as part of the prerequisites.



3. If you have any existing Power Automate Desktop flows. You can click ... icon to **Start**, **Edit**, **Rename** and **Delete** them. If not, that is ok, as we will create one in the next step.



4. Now let's click **+New flow** to create a new Power Automate Desktop flow.



Flows



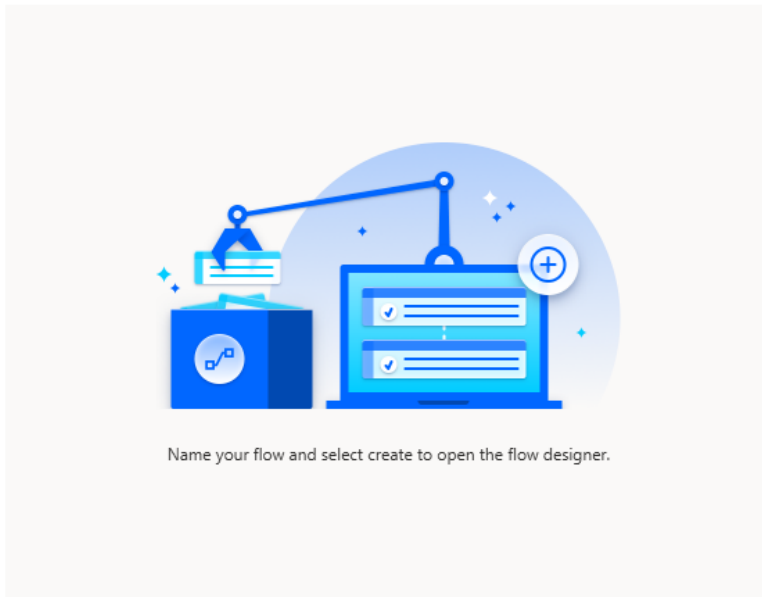
You don't have any flows on this environment

Select another environment or create a flow to get started.

+ New flow

5. Name it **testing** and then click **Create**.

Build a flow



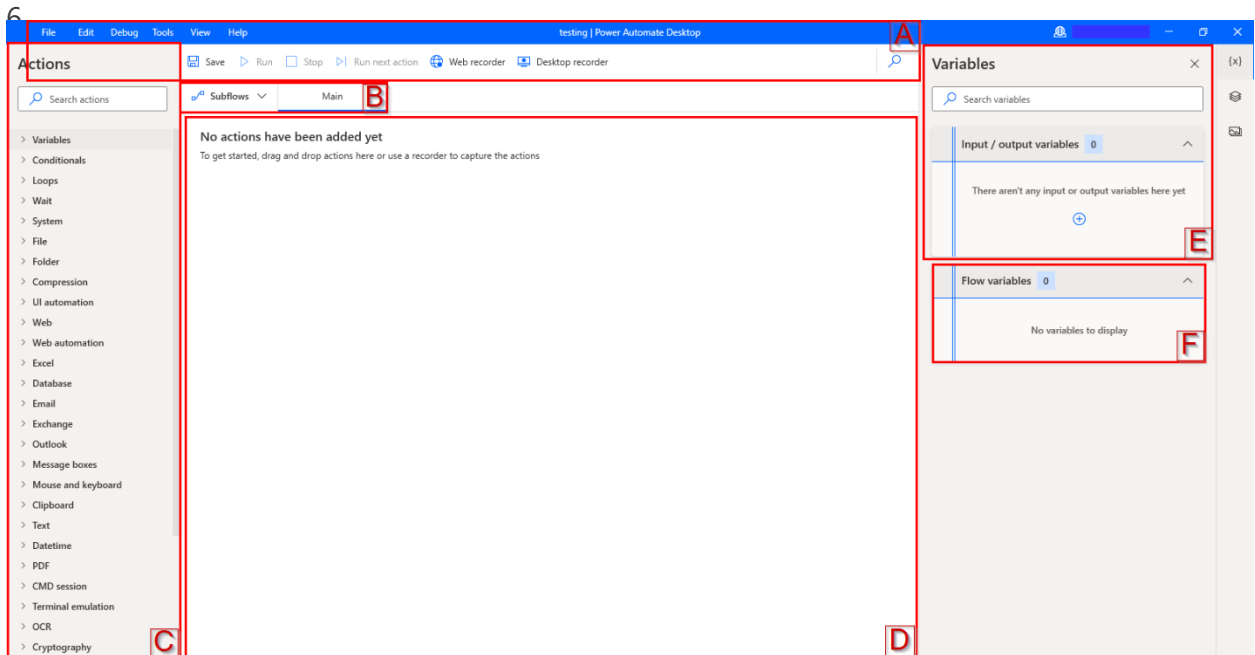
Flow name

testing

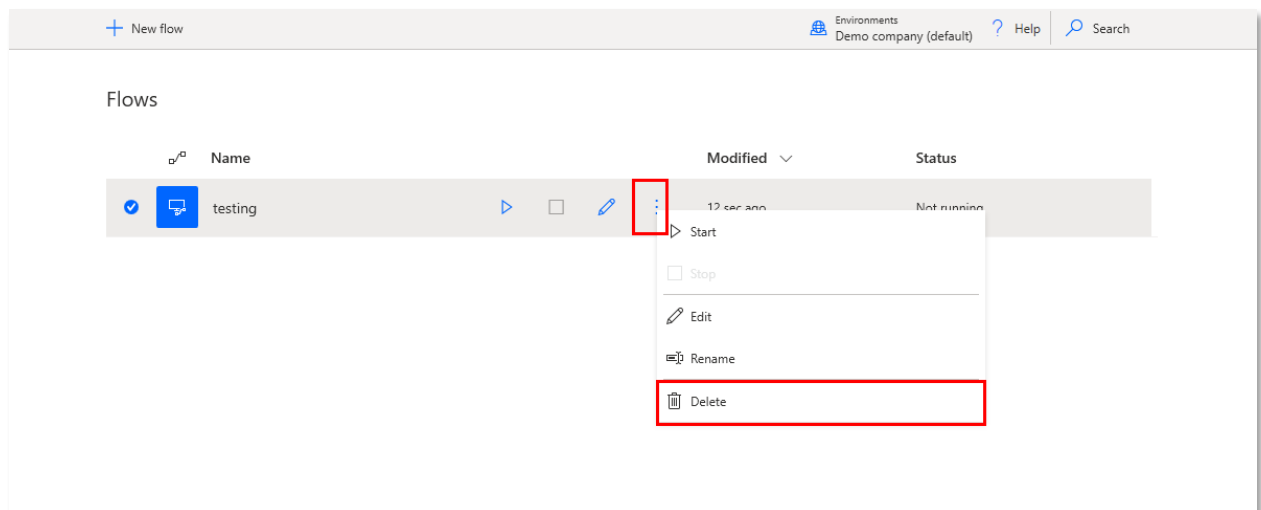
Create

Cancel

6. You will see the Power Automate Desktop designer which consists of the following toolbars and panes:
 - A. The toolbar - Contains basic operations for use with actions (Save, Undo, Copy, Debug and Paste) as well as buttons to start the Desktop/Web Recorders, and control the process execution (Start/Pause/Stop).
 - B. Subflows – Allows you to create subflows under your main flow.
 - C. Actions pane - Contains all Power Automate Desktop Actions and includes a search bar that assists in finding specific actions by matching the action name to the text string.
 - D. Workspace – Contains all the actions added to the process so far. Functions are separated into tabs.
 - E. Input/output variables - Contains all the variables you created in the process.
 - F. Flow variables - List of all variables used in the process.



7. Now you can save and close the window. Click **Delete** to delete the testing Power Automate Desktop flow.



Create your first Power Automate Desktop flow

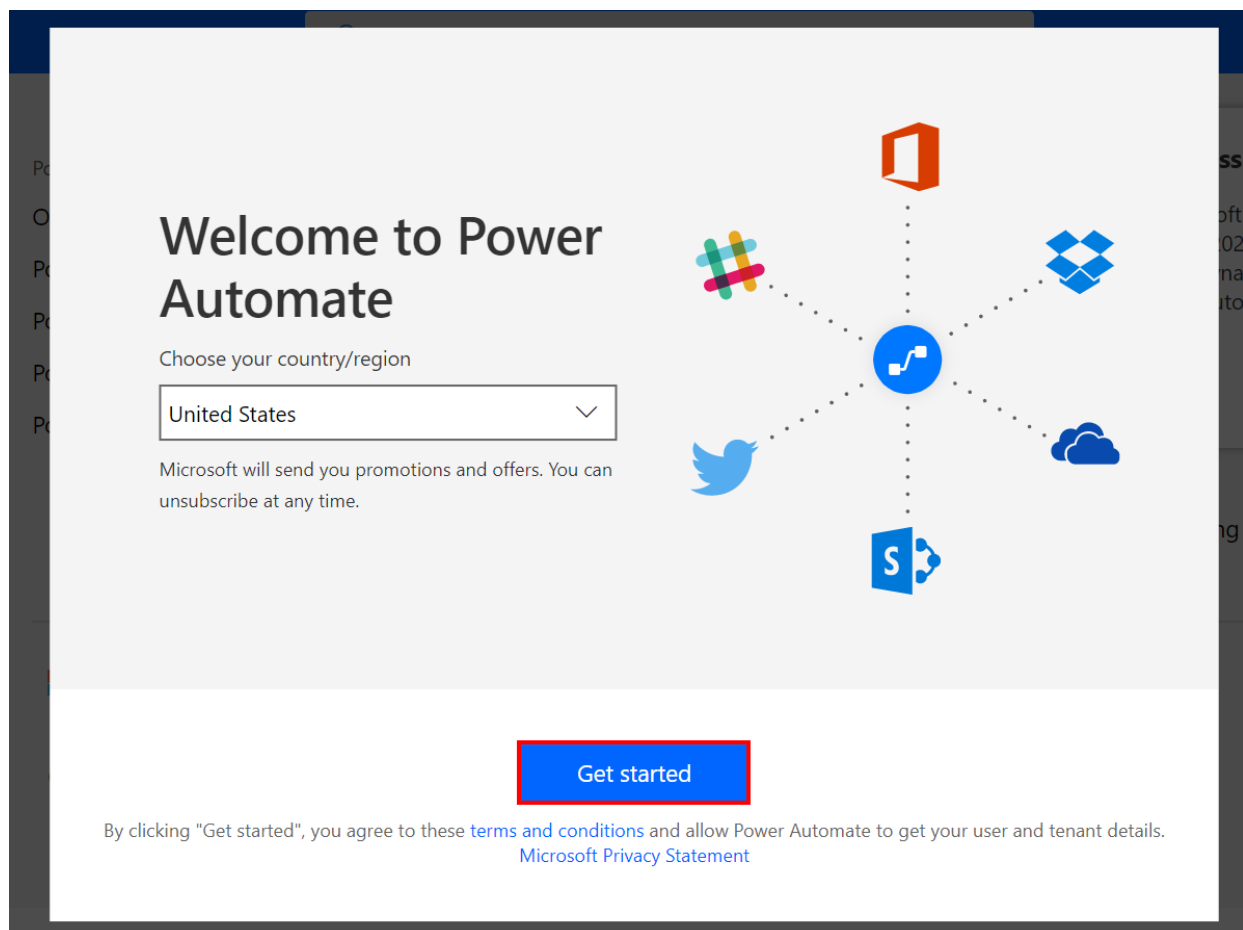
Note: If you haven't completed Lab 1.3 download and install the **ContosoInvoicingSetup** from the **lab data packages folder**. Pin the app icon to the task bar for quick launch. We will use this app for the recording.

You will need to click "More Information" and "Run it anyway" during installation of the Contoso app if Windows Defender prompts that the app is coming from untrusted source. This is normal and doesn't expose any risk.

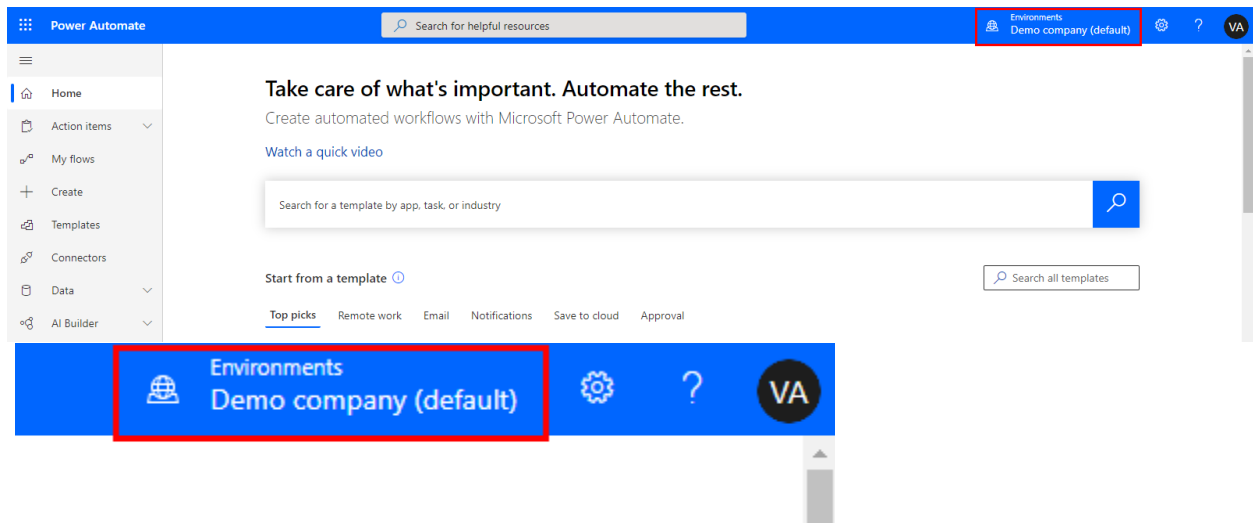
1. Open an Edge (chromium) or Chrome browser (using the test profile in 1.2 if needed) and navigate to powerautomate.microsoft.com (this will point to the same location as flow.microsoft.com)

Note: Please don't use the flows tab from powerapps.com.

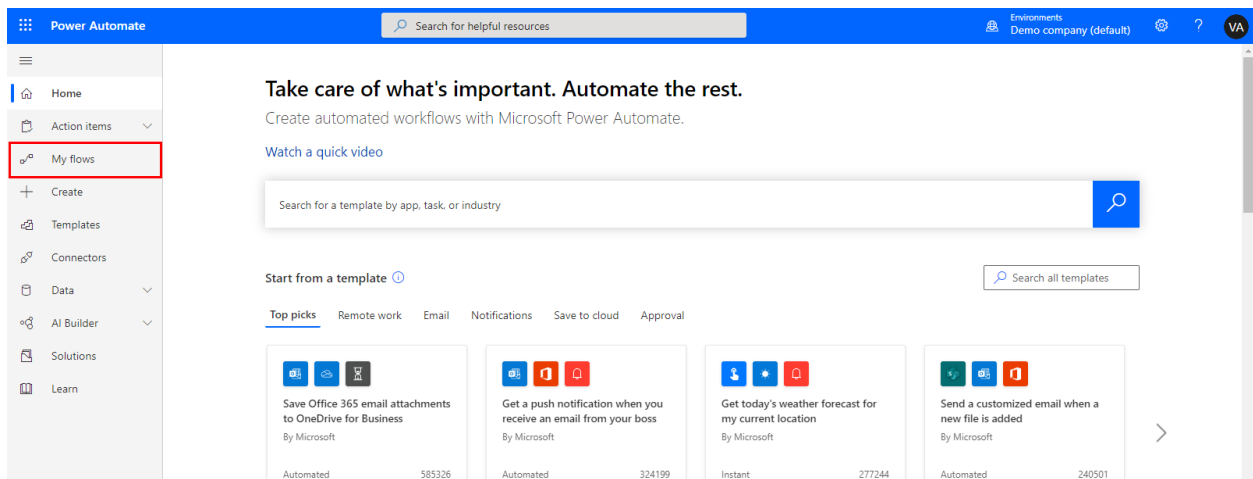
2. Click Get started.



Note: Please make sure you have selected the correct environment (with database) to use for the labs (either use the one you created in lab 1.1, or what your instructor provided you with). You can switch between different environments by clicking on the Environments button on the title bar.



3. Click My flows.



4. Select Desktop flows.

Flows

Cloud flows

Desktop flows

Business process flows


Shared with me

5. Click + New.

+ New

6. Name your flow as **Enter an invoice**, then click **Launch app**.

Build a desktop flow



You're about to go to Power Automate Desktop
Name your flow then select Launch app to go to the flow designer in Power Automate Desktop.

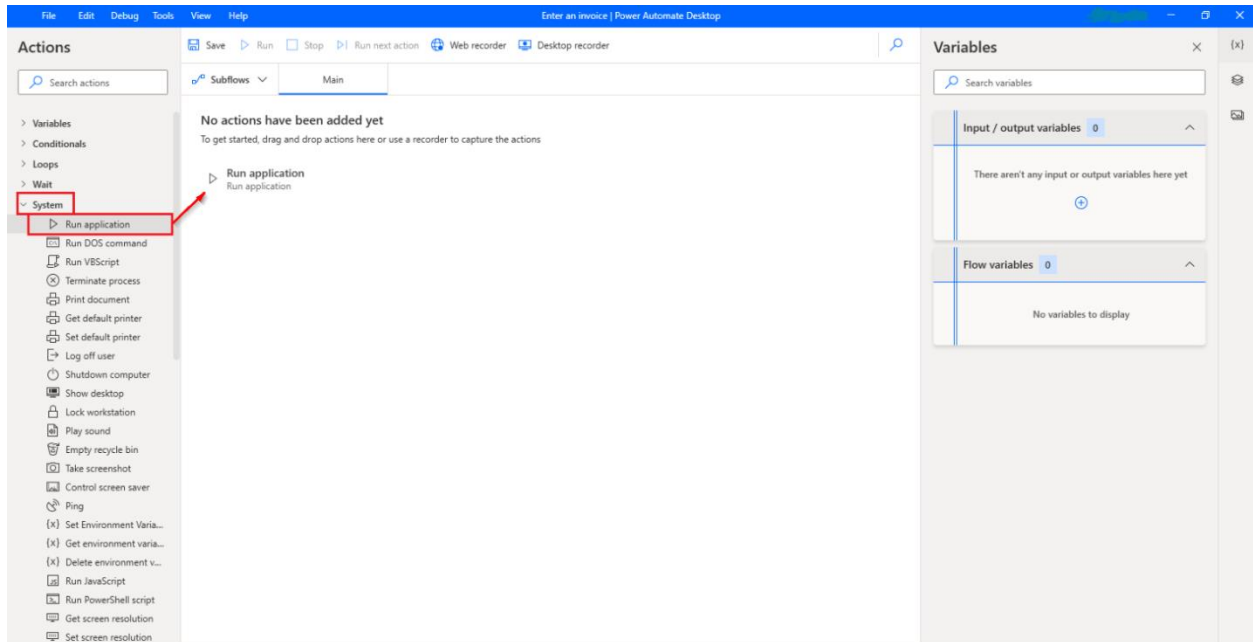
Flow name

[Additional desktop flow options](#)

Launch app Cancel

7. Click **Open** to open **Power Automate Desktop**.

- Within the **Actions** experience, under **System**, drag the **Run application** from the left drop down list to the right.



9. Enter the location path of Contoso Invoicing app under **Application path**. (This will open the Contoso Invoicing app when you are running your flow).


Run application


Executes an application or opens a document by executing the associated application [More info](#)

Select parameters

Application path:


C:\Program Files (x86)\Contoso, Inc\Contoso Invoicing\LegacyInvoicingApp.exe

 {x}





Command line arguments:

{x}




Working folder:


 {x}



Window style:


Normal






After application launch:


Continue immediately





> Variables produced

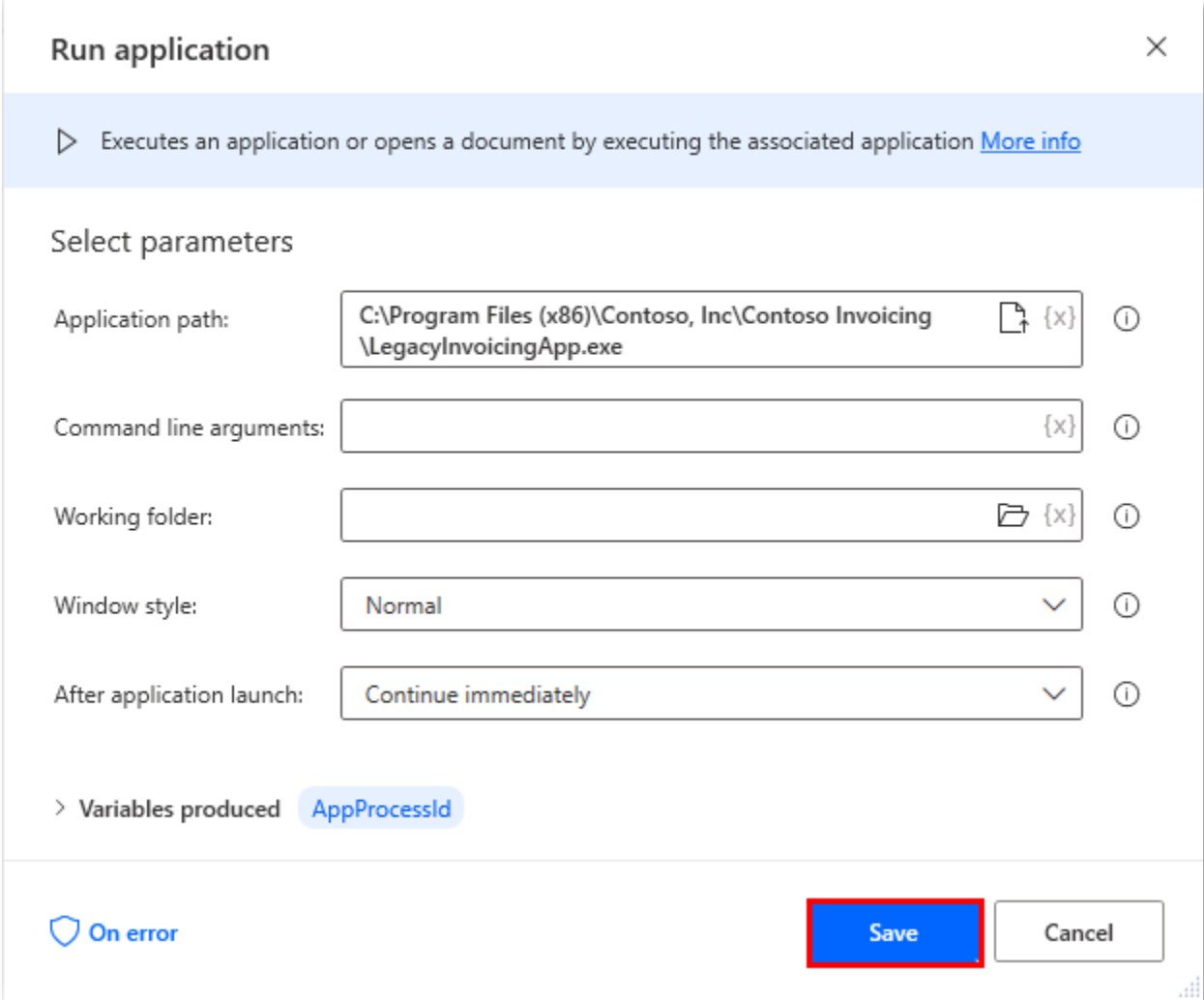
AppProcessId

 On error

Save

Cancel

10. Click Save.



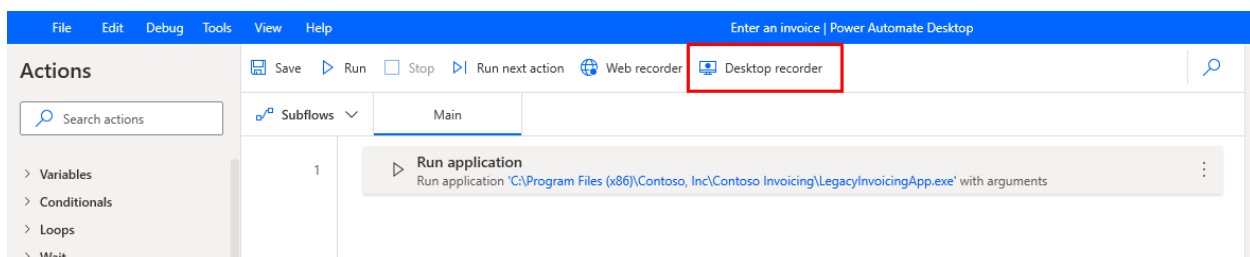
The 'Run application' dialog box is shown. It has a title bar with a close button. Below the title bar is a blue header bar with a play icon and the text 'Executes an application or opens a document by executing the associated application' followed by a 'More info' link. The main area is titled 'Select parameters' and contains five rows of input fields, each with an information icon (i) to its right:

- Application path:** A text box containing 'C:\Program Files (x86)\Contoso, Inc\Contoso Invoicing\LegacyInvoicingApp.exe' and a file icon.
- Command line arguments:** A text box containing '{x}'.
- Working folder:** A text box containing '{x}' and a folder icon.
- Window style:** A dropdown menu with 'Normal' selected.
- After application launch:** A dropdown menu with 'Continue immediately' selected.

Below these fields is a section titled '> Variables produced' with a blue pill-shaped button labeled 'AppProcessId'. At the bottom left is a shield icon and the text 'On error'. At the bottom right are two buttons: 'Save' (highlighted with a red border) and 'Cancel'.

11. Open and minimize **Contoso Invoicing** app manually, then click **Desktop recorder**.

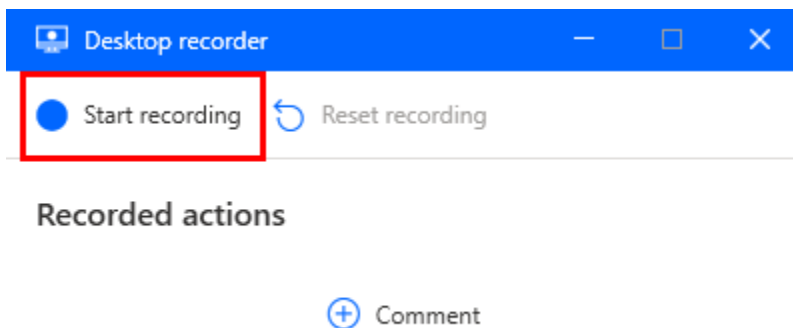
Note: Ensure the Power Automate Desktop Process editor is maximized to ensure the Desktop recorder button is visible.



Tip 1: Now we are going to start recording. It is recommended you get familiar with steps below until the recording is done. This allows you to finish the recording in one shot without the need to go back and forth with this manually. If your first few recordings were not very good. Feel free to delete the recording after (using the ... icon) and practice more until you have a good recording.

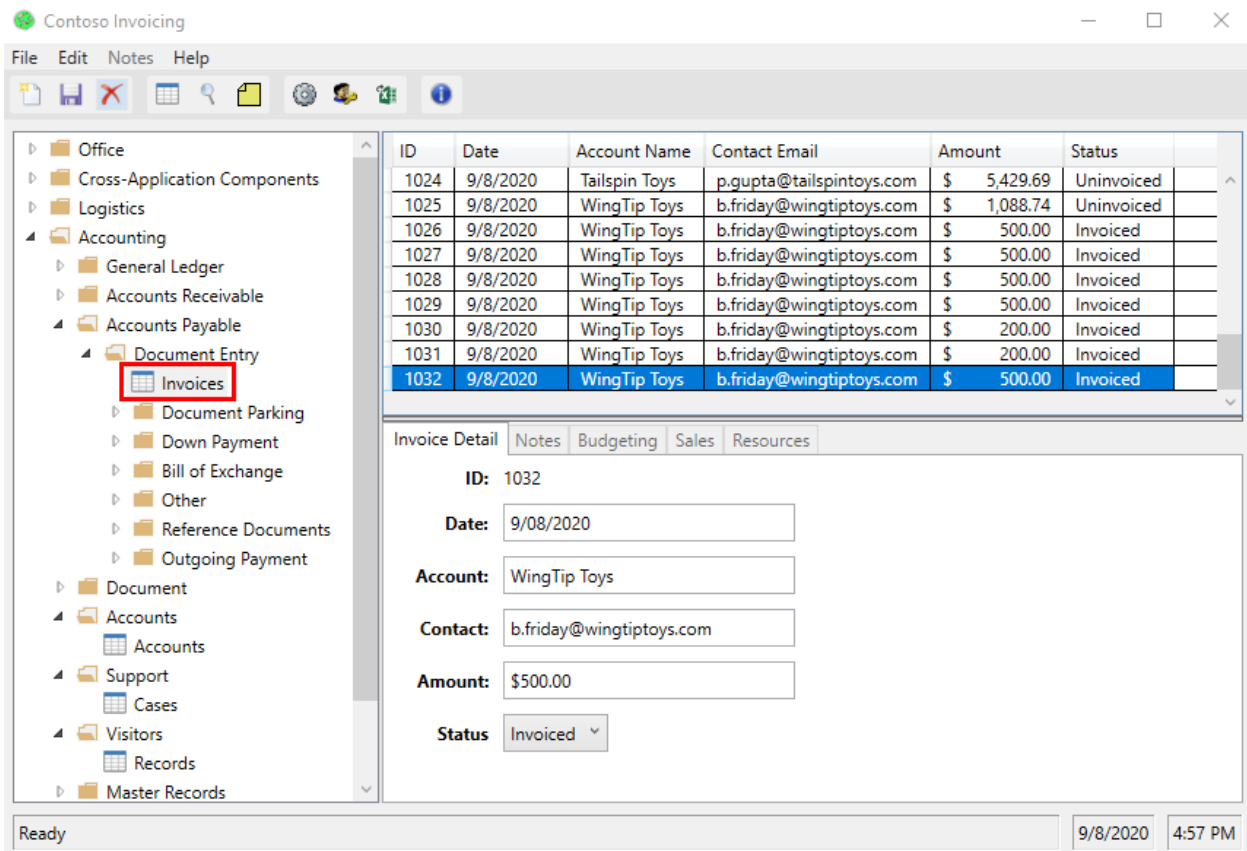
Tip 2: to help with the resilience of UI automation playbacks, it is recommended to minimize other apps from your desktop.

12. Make sure the **Contoso Invoicing** app is opened. Now click the **Start recording** button.



13. In the Contoso Invoicing application, Click Invoices.










Tip: As your mouse hovers over controls in the app, you'll notice that a red outline highlights each control. Don't record at very fast speed and always wait a bit between each mouse move and click, until you see the blue highlight rectangle around the control first, before you click to select the control. If the red highlight did not show up before you click, the action might not be recorded properly.




14. Create a new record by clicking New record icon on the left

Contoso Invoicing

File Edit Notes Help

- Accounting
 - General Ledger
 - Accounts Receivable
 - Accounts Payable
 - Document Entry
 - Invoices* 
 - Document Parking
 - Down Payment
 - Bill of Exchange
 - Other
 - Reference Documents
 - Outgoing Payment
 - Document
 - Accounts
 - Accounts
 - Support
 - Cases
 - Visitors
 - Records
 - Master Records
 - Master Records
 - Legal
 - Reference Documents

ID	Date	Account Name	Contact Email	Amount	Status
1027	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 500.00	Invoiced
1028	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 500.00	Invoiced
1029	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 500.00	Invoiced
1030	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 200.00	Invoiced
1031	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 200.00	Invoiced
1032	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 500.00	Invoiced
1033	9/8/2020			\$	Uninvoiced
1034	9/8/2020			\$	Uninvoiced
1035	9/8/2020			\$	Uninvoiced

Invoice Detail

Notes Budgeting Sales Resources

ID: 1033

Date:

Account:

Contact:

Amount:

Status:

Ready 9/8/2020 7:52 PM

15. Use these values to complete the recording (Note you can also use any arbitrary values)

- **Date:** Current date
- **Account:** WingTip Toys
- **Contact:** b.friday@wingtiptoys.com
- **Amount:** \$500
- **Status:** Invoiced

ID	Date	Account Name	Contact Email	Amount	Status
1027	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 500.00	Invoiced
1028	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 500.00	Invoiced
1029	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 500.00	Invoiced
1030	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 200.00	Invoiced
1031	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 200.00	Invoiced
1032	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 500.00	Invoiced
1033	9/8/2020	WingTip Toys	b.friday@wingtiptoys.com	\$ 500.00	Invoiced
1034	9/8/2020			\$	Uninvoiced
1035	9/8/2020			\$	Uninvoiced

Invoice Detail | Notes | Budgeting | Sales | Resources

ID: 1033

Date: 9/08/2020

Account: WingTip Toys

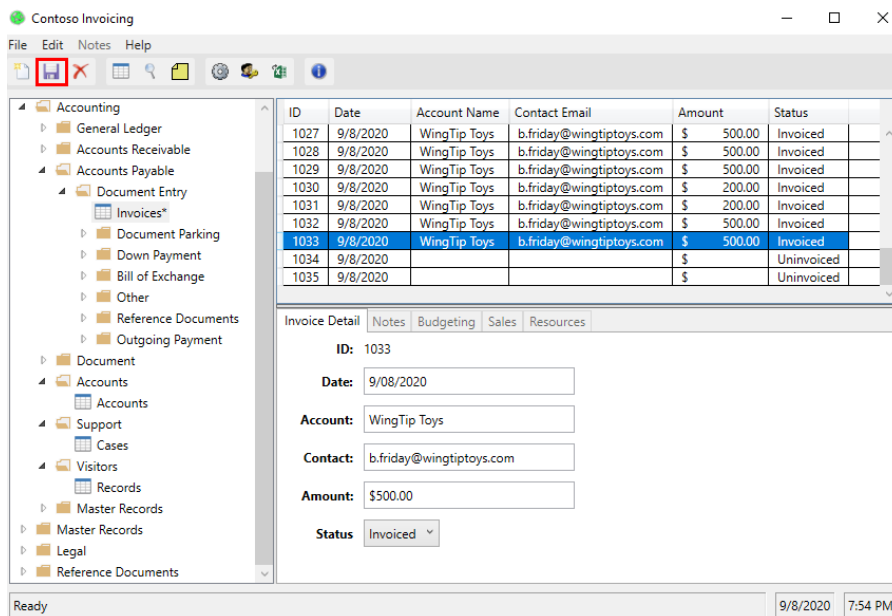
Contact: b.friday@wingtiptoys.com

Amount: \$500.00

Status: Invoiced

Ready 9/8/2020 7:54 PM

16. Click Save icon to keep your changes.



17. Click Finish and close the Contoso Invoicing app.

Note: We did not record closing the app. This is for simplicity to view the result as the Contoso app will remain open after we test the Desktop flow. In a real-world use case, you can decide to record the closing action or not.

Note 2: By default, the Desktop flow will launch a new instance of the app every time when it runs. Even if you leave the app open, the next Desktop flow run will launch another new app window. You can also change this behavior to only attach to existing app instead of launching another new instance from the portal (details see following steps).

Recorded actions

Polulate text field in window

Populate Edit 'TextBox' 2 on screen:
Window 'Contoso Invoicing' with Aa Text ▼
b.friday@wingtiptoys.com

Polulate text field in window

Populate Edit 'TextBox' 3 on screen:
Window 'Contoso Invoicing' with Aa Text ▼ \$500

Set drop down list value in window

Select option by name Invoiced of UI element
Combo Box 'ComboBox' on screen
Window 'Contoso Invoicing'

Click element in window

Left click on UI element: Image 'Image' 2 on screen:
Window 'Contoso Invoicing'

Comment

Help

Finish

Cancel

18. Within Power Automate Desktop, you can view the recorded script with the screenshots of each step by clicking the ellipsis (...) icon > **Edit**. You can also do some editing here.

The screenshot shows the Power Automate Desktop interface. On the left is the 'Actions' pane with a search bar and a list of actions under categories like Variables, Conditionals, Loops, Wait, and System. The main workspace displays a script with 10 steps. A red rectangle highlights the ellipsis (...) icon in the header of the third step, 'Click UI element in window'. To the right is the 'Variables' pane with search bars for input/output variables and flow variables. Below the main workspace, a detailed view of the selected action is shown, including a red box around the 'Edit' button and a list of keyboard shortcuts (Undo, Redo, Cut, Copy, Paste, Move up, Move down, Disable, Delete).

Tip 1: Select the ellipsis (...) icon in each action's header > **Delete** selection to remove any duplicate steps or the entire script.

Subflows ▾ Main

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 'WingTip Toys'

6 📄 **Populate text field in window**
Populate text box **Edit 'TextBox' 2** with 'b.friday@wingtip toys.com'

7 📄 **Populate text field in window**
Populate text box **Edit 'TextBox' 3** with '\$500'

8 📄 **Set drop-down list value in window**
Select option(s) 'Invoiced' in **Combo Box 'ComboBox'**

9 🖱️ **Click UI element in window**
Click on UI element **Image 'Image' 2**

10 End of autogenerated actions using the desktop recorder

Search variables

Input / output variables 0

There aren't any input or output variable

Edit Enter

Undo Ctrl+Z

Redo Ctrl+Y

Cut Ctrl+X

Copy Ctrl+C

Paste Ctrl+V

Move up Ctrl+Alt+Shift+Up

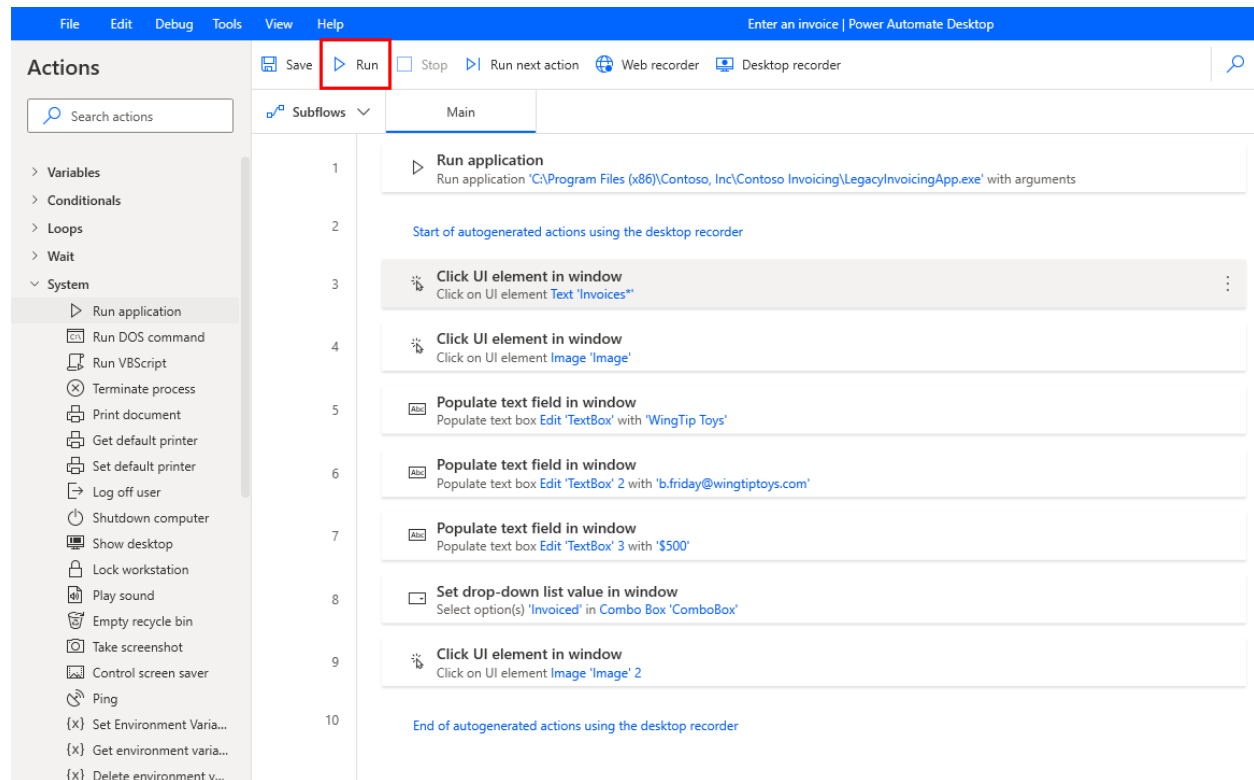
Move down Ctrl+Alt+Shift+Down

Disable ☒

Delete Delete

19. You can click Run to test your flow.

Note: Don't interact with your device during testing. You will see the recording played back successfully.



20. Click Save.

The screenshot shows the Power Automate Desktop application window. The title bar reads "Enter an invoice | Power Automate Desktop". The menu bar includes "File", "Edit", "Debug", "Tools", "View", and "Help". The "Actions" pane on the left lists various system actions under the "System" category, including "Run application", "Run DOS command", "Run VBScript", "Terminate process", "Print document", "Get default printer", "Set default printer", "Log off user", "Shutdown computer", "Show desktop", "Lock workstation", "Play sound", "Empty recycle bin", "Take screenshot", "Control screen saver", "Ping", "Set Environment Variable", and "Get environment variable". The main workspace displays a flow with 10 steps. The "Save" button in the top bar is highlighted with a red box. The flow steps are: 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 'WingTip Toys'), 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'), 8. Set drop-down list value in window (Select option(s) 'Invoiced' in Combo Box 'ComboBox'), 9. Click UI element in window (Click on UI element Image 'Image' 2), and 10. End of autogenerated actions using the desktop recorder.

Pro Tip

If you want to reset the data saved in Contoso Invoice app, you can modify or delete the excel file under this folder:

%userprofile%\documents \Contoso Invoicing - 1.0.15.0

Check your knowledge

Lab 3

5 minutes

1. You can use any environment to create a new Power Automate desktop flow.

- A. True
- B. False

Answer: B. False - You can only create desktop flow in an environment that has Microsoft Dataverse database.

2. Which of the following panes contains reusable components that can be used within your automated process?

- A. Actions pane
- B. Workspace
- C. Flow variables
- D. The toolbar

Answer: A. The Actions pane contains reusable components that simplify completing common tasks such as setting a variable, opening a file etc.

3. After opening and minimizing the Contoso Invoicing app manually, you will click the _____ button to start your 'Enter an invoice' recording.

- A. Web recorder
- B. Desktop recorder
- C. Run
- D. Run the next action

Answer: B. The Desktop recorder allows you to start recording your actions within the application.

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