



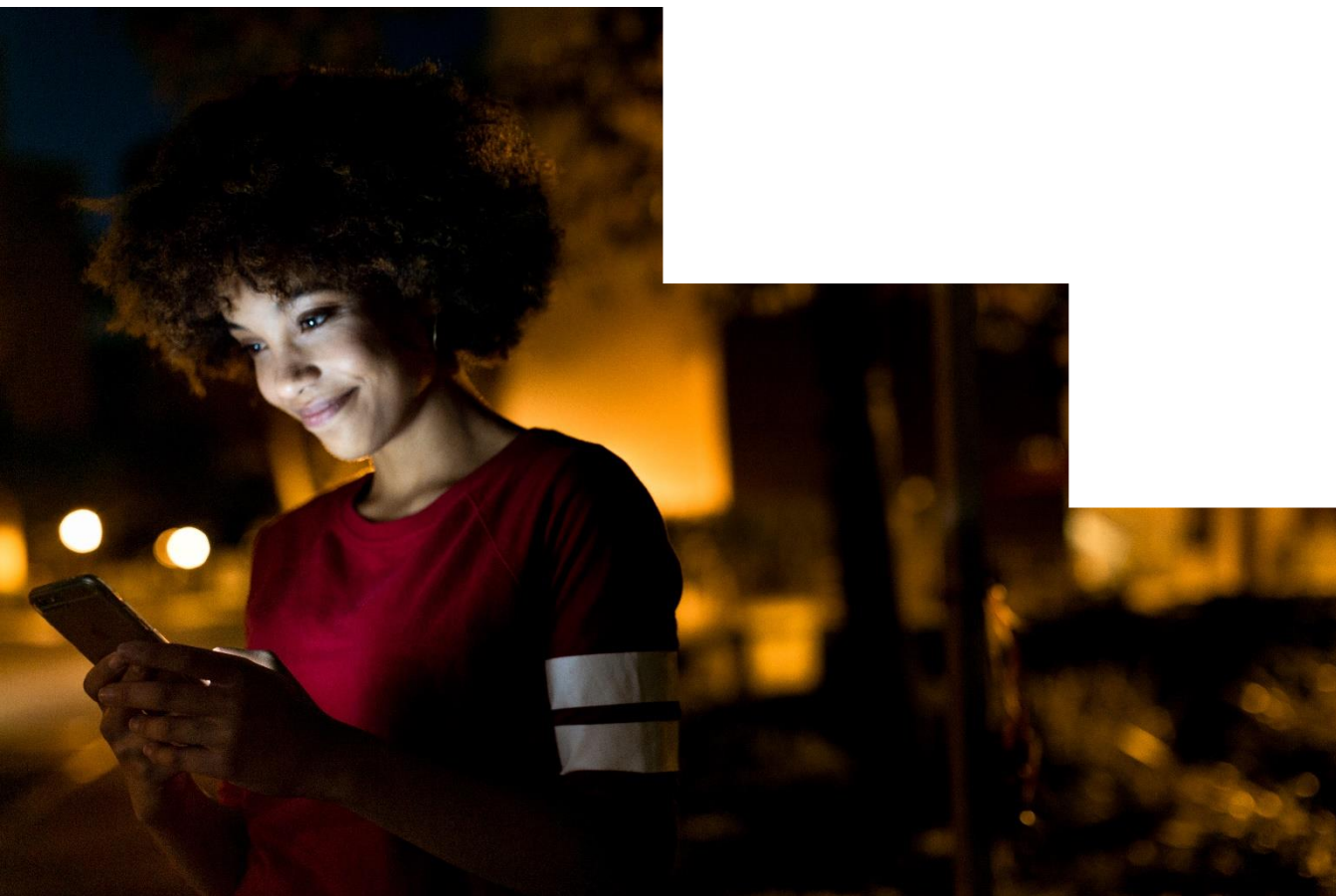
Robotic Process Automation in a Day

Lab 4 – Integrate with cloud flows (create machine connection)

60 mins

May 2023

Applies to Power Automate Desktop v. 2.31.105.23101 ([more](#))



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Lab Overview

You will complete the following tasks in this lab:

- Create a new Solution to package the end-to-end invoice processing solution and required connection references
- Create a cloud flow
- Configure machine connection to enable the cloud flow to execute the desktop flow on your device
- Add the "Enter invoice with input" desktop flow to this new cloud flow
- Perform a test run of the new cloud flow

Prerequisites

This lab builds on the previous labs – ensure all tasks are complete.

Note: If you have registered your machine with Lab 1.3 steps, you should be good to go. In such case, just take a look at the steps below to ensure, you're machine is registered properly.

Manage machines

Machines are the physical or virtual devices that are used to automate your desktop processes. When you connect your machine to Power Automate, you can instantly start your desktop automation using any of the wide array of [available triggers](#), such as when you receive an e-mail or on a pre-defined scheduled.

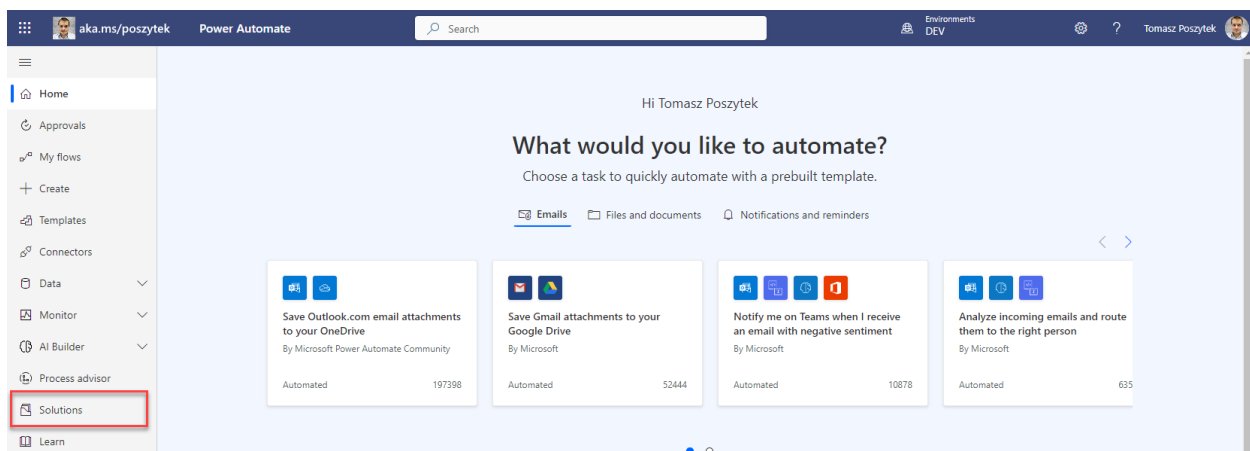
Connecting your machine directly to Power Automate and the cloud allows you to harness the full power of your robotic process automation (RPA). The easiest way to connect your machine to the cloud is with our direct connectivity. All you need to do is ensure that you installed and signed into the latest version of Power Automate Desktop, and your machine will be registered with Power Automate automatically. Once registered, you can create a connection right away in your cloud flows.

Register a new machine

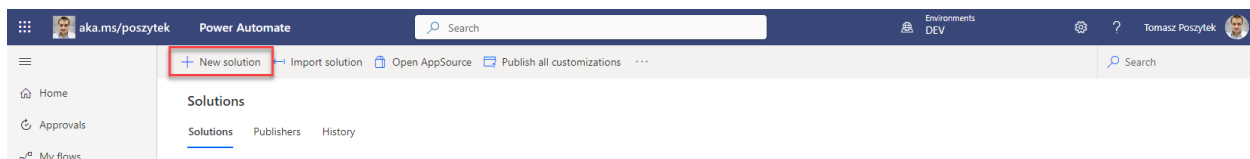
Note: this is covered in pre-requisite #1.3. Your machine should have already been registered on the currently selected environment in the application.

Create a solution and connection references

1. Open the test profile in a browser and navigate to <https://make.powerautomate.com/>.
2. Next navigate to the **Solutions**.



3. Click **New solution**.



4. Use the following values:
- Display name: **Invoice processing solution <MyUserName>**
 - Name – leave as generated
 - Publisher – click New publisher and provide the following values:
 - Display name – your name and lastname
 - Name – leave as generated
 - Prefix – use your initials, just letters
 - Choice value prefix – leave as is
 - Click **Save**
 - Version – leave as is
 - Click **Create**

The screenshot shows two side-by-side forms. The 'New solution' form on the left has fields for 'Display name *' (filled with 'Invoice processing solution <MyUserName>'), 'Name *' (filled with 'InvoiceprocessingsolutionMyUserName'), 'Publisher *' (a dropdown menu with 'Tomasz Poszytek (KDW)' and a '+ New publisher' button highlighted with a red box), 'Version *' (filled with '1.0.0.0'), and a 'More options' link. The 'New publisher' form on the right has tabs for 'Properties' and 'Contact', and fields for 'Display name *', 'Name *', 'Description', 'Prefix *', 'Choice value prefix *' (filled with '10000'), and a 'Preview of new object name' (filled with '_Object'). At the bottom, the 'New solution' form has a 'Create' button (highlighted with a red box) and a 'Cancel' button, while the 'New publisher' form has a 'Save' button (highlighted with a red box) and a 'Cancel' button. Two red arrows indicate the workflow: one from the '+ New publisher' button to the 'New publisher' form, and another from the 'More options' link to the 'Save' button.

New solution ×

Display name *
Invoice processing solution <MyUserName>

Name *
InvoiceprocessingsolutionMyUserName

Publisher *
Tomasz Poszytek (KDW) ✎
+ New publisher

Version *
1.0.0.0

More options ∨

Create Cancel

New publisher ×

Publishers indicate who developed associated solutions. [Learn more](#)

Properties Contact

Display name *

Name *

Description

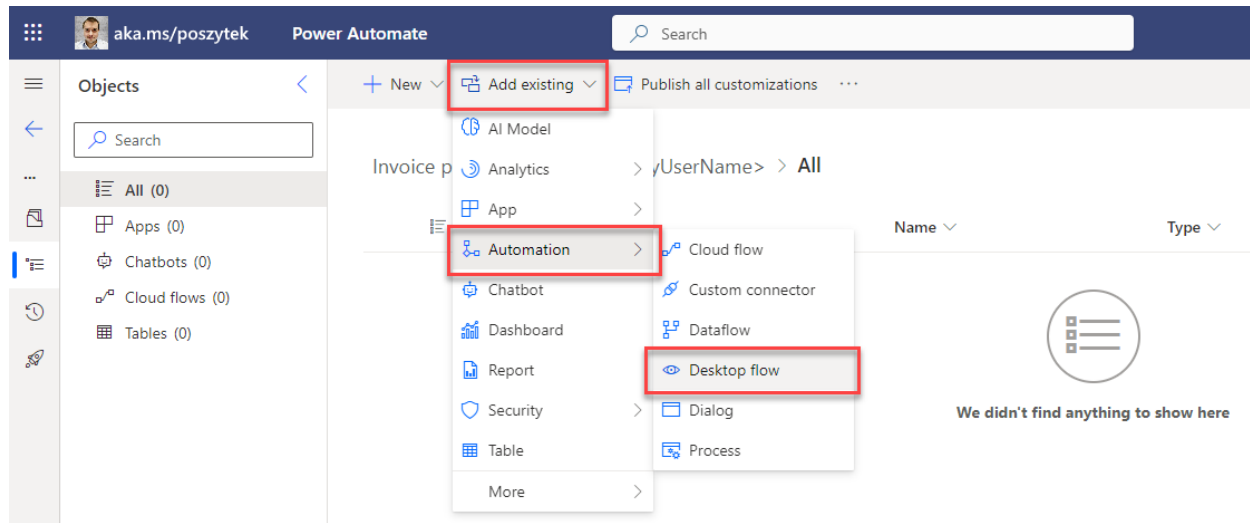
Prefix *

Choice value prefix *
10000

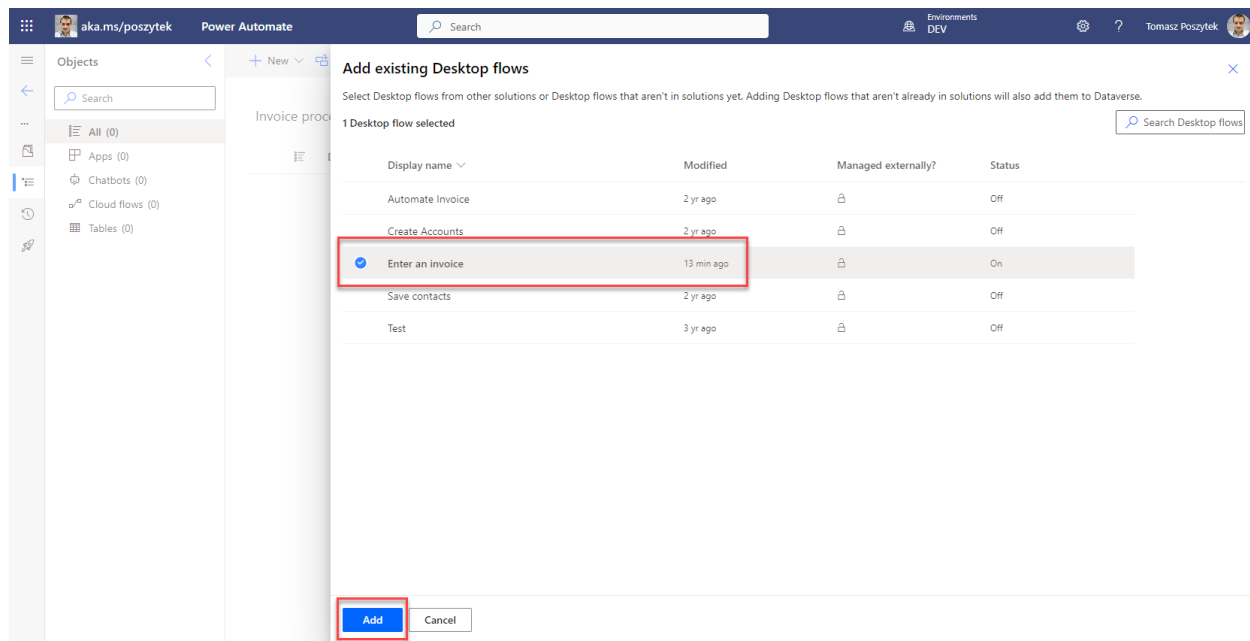
Preview of new object name
_Object

Save Cancel

5. After the solution is created, you will now add desktop flow created in lab 3 to the solution. To do that, click **Add existing**, then **Automation**, and then **Desktop flow**.



6. Select the **Enter an invoice** desktop flow and click **Add** button.



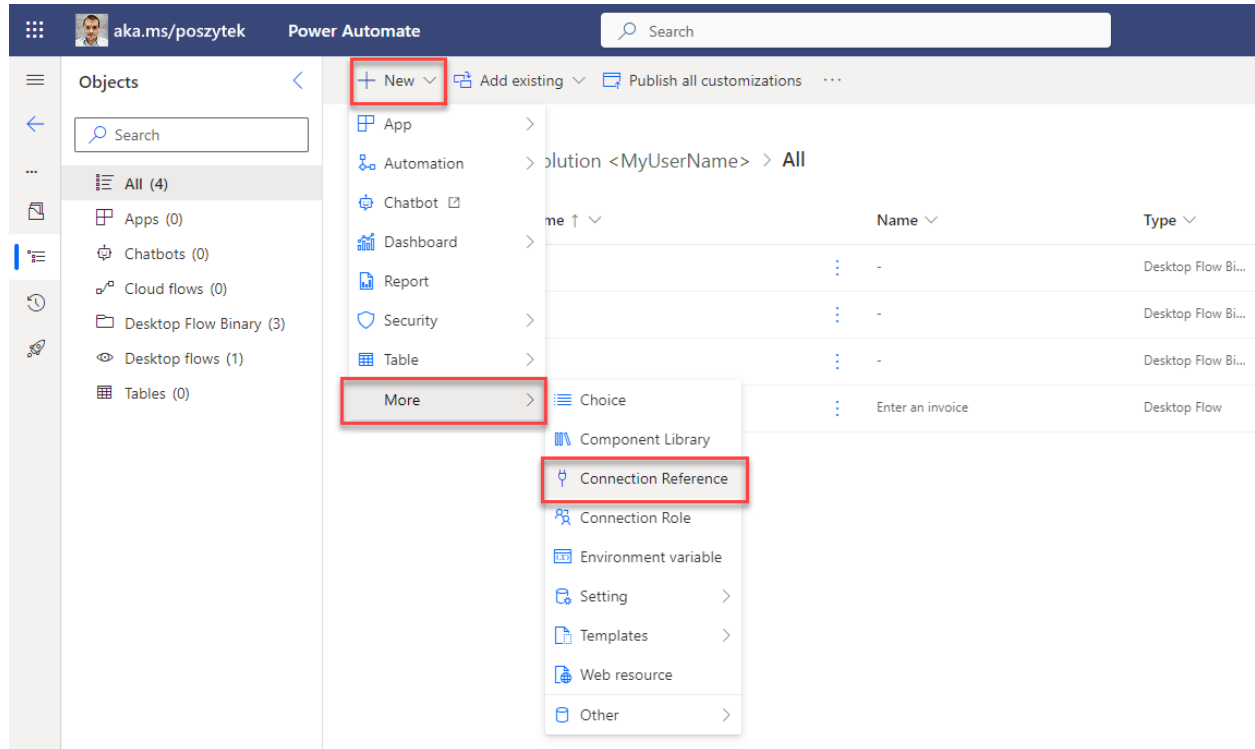
7. Now you need to create a couple of connection references, to handle future automation scenarios that are described in this training.

Note: to learn more about connection references, follow the link below:
<https://learn.microsoft.com/en-us/power-apps/maker/data-platform/create-connection-reference>

You will create the following connection references:

- Desktop flows
- Office 365 Outlook

- c. Microsoft Teams
 - d. Microsoft Dataverse
8. First, create the desktop flow connection reference. To do that, click New → More → Connection Reference.



9. Use the following information:
- a. Display name – **desktop flow conn**
 - b. Name – as generated
 - c. Connector – select Desktop flows
 - d. Connection – click New connection

New Connection Reference ✕

[Learn about](#) connections and connection references

Display name *

Name * ⓘ

Add a description

Connector *

Desktop flows ▼

Connection * ⓘ 🔄 Refresh

Choose an option ▼

+ New connection ⬆

Create

Close

10. A new tab will open, where you need to provide details for the new connection. In the displayed modal window, configure fields with the following settings:
- Connect** - select **Directly to machine**
 - Machine or machine group** – select the machine you have registered in lab 1.3
 - Domain** and username – the account used to sign in to the machine
 - Password** – the password of the account used to sign in to the machine

The screenshot shows a modal window titled 'Desktop flows'. It contains four configuration fields, each with an information icon (i) to its left and an asterisk (*) to its right. The fields are: 'Connect' with a dropdown menu showing 'Directly to machine'; 'Machine or machine group' with a dropdown menu showing 'MININT-TUSHI4F'; 'Domain and username' with a text input field containing 'Domain\Username'; and 'Password' with a text input field containing eight dots. A red rectangular box highlights the 'Domain and username' and 'Password' fields. At the bottom center of the modal is a blue button labeled 'Create'.

Note: If you are not sure what to put in the Domain and username field, you can use the **Command Prompt** window (open Start, type CMD and hit enter), type **"Set user"** command to locate the Domain and Username. Fill in the textbox with **USERDOMAIN\USERNAME**.

Tips: to make sure you have the correct login credentials. You can try log out the computer and use the username/password combination to see if you can successfully log into this computer.

Important: In order for the account to be able to create the connection it must be granted the "Desktop Flows Machine User" or "Environment user" environment security role:
<https://docs.microsoft.com/en-us/power-automate/desktop-flows/manage-machines#update-permissions-based-on-security-role>.

11. Click **Create**.

Desktop flows

* Connect

* Machine or machine group

* Domain and username

* Password

Create

12. You can now close the tab and return to the one with the solution. Hit refresh, select the created connection and hit Create button.

New Connection Reference ×

[Learn about](#) connections and connection references

Display name *

desktop flow conn

Name * ⓘ

poszytek_ desktopflowconn

Add a description

Connector *

Desktop flows

Connection * ⓘ

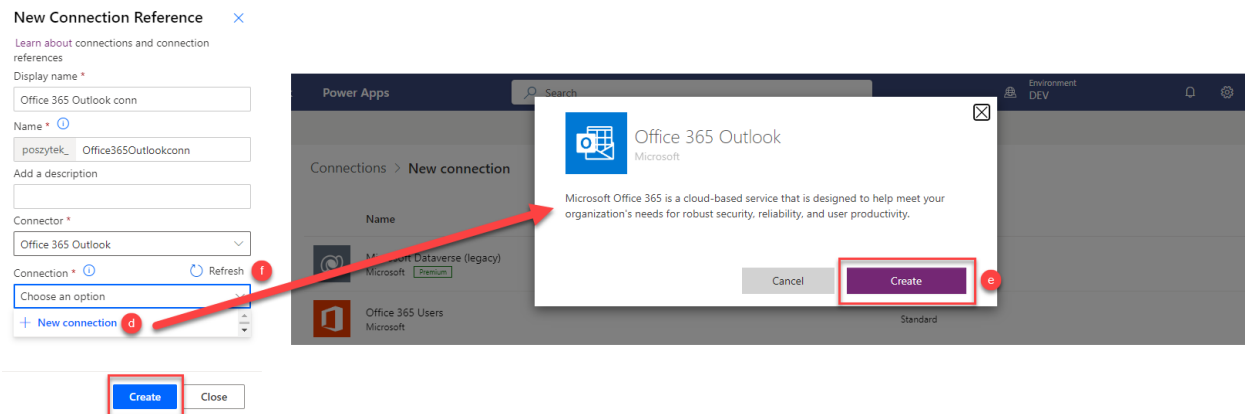
Domain\Username (MININT-TUSHI4F)

Refresh

Create Close

13. Next, repeat the same steps for the remaining connection references to: Office 365 Outlook, Microsoft Teams and Microsoft Dataverse:

- Click **New → More → Connection Reference**
- Set **Display name** to <connector name> conn, eg. Office 365 Outlook conn
- Leave **Name** as generated
- Under the **Connection** click **New connection** and set up the connection in the new tab.
- After a connection is created, close the new tab, return to the one with the solution.
- Hit **Refresh** button above the **Connection** field, select the created connection and hit **Create** button.



14. After all the connection references are created, your solution should contain the following elements:

Invoice processing solution <MyUserName> > All

	Display name ↑ ↓	Name ↓	Type ↓	Managed ↓	Last Modif... ↓	Owner ↓	Status
	-	-	Desktop Flow Bi...	No	36 minutes ago	Tomasz Poszytek	Off
	-	-	Desktop Flow Bi...	No	36 minutes ago	Tomasz Poszytek	Off
	-	-	Desktop Flow Bi...	No	36 minutes ago	Tomasz Poszytek	Off
?	desktop flow conn	poszytek_desktopflowconn	Connection Refe...	No	8 minutes ago	Tomasz Poszytek	Off
🔍	Enter an invoice	Enter an invoice	Desktop Flow	No	36 minutes ago	Tomasz Poszytek	On
?	Microsoft Dataverse conn	poszytek_MicrosoftDataverseconn	Connection Refe...	No	just now	Tomasz Poszytek	Off
?	Microsoft Teams conn	poszytek_MicrosoftTeamsconn	Connection Refe...	No	21 seconds ago	Tomasz Poszytek	Off
?	Office 365 Outlook conn	poszytek_Office365Outlookconn	Connection Refe...	No	38 seconds ago	Tomasz Poszytek	Off

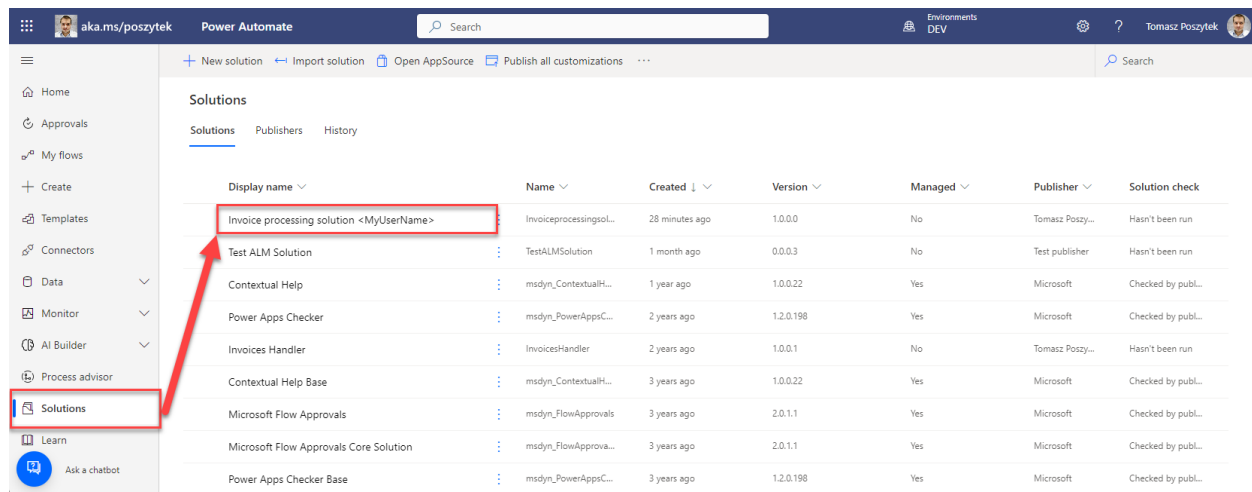
Trigger a desktop flow to run on your machine

Note: To use this functionality, you have to own a paid or a trial of [premium per-user plan with attended RPA](#). (If you have done lab 1.1 pre-requisite, you should already have a premium trial)

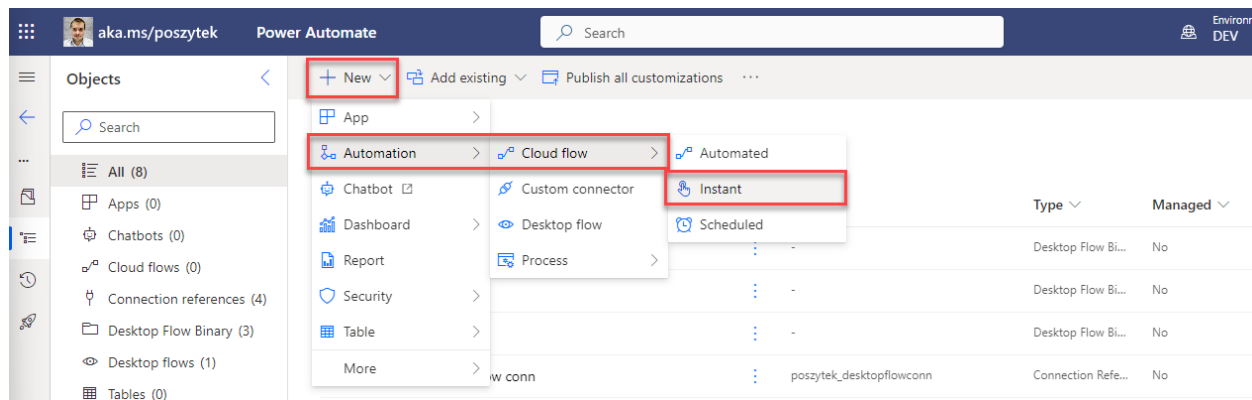
15. Open the test profile in a browser and navigate to <https://make.powerautomate.com/>.

16. Navigate to solutions.

17. Select the solution **Invoice processing solution <MyUserName>** created earlier in this lab.



18. Select New → Automation → Cloud flow → Instant



19. Name the flow **Manual trigger desktop flow to enter invoice**, choose **Manually trigger a flow**. Then select **Create**.

Build an instant cloud flow



Triggered manually from any device, easy-to-share instant flows automate tasks so you don't have to repeat yourself.








Examples:

- Get an automatic mobile alert whenever a VIP client emails you
- Save all your email attachments to a folder automatically

Flow name

Manual trigger Desktop flow to enter invoice

Choose how to trigger this flow *

- ☒  Manually trigger a flow
Flow button for mobile ⓘ
-  PowerApps
PowerApps ⓘ
-  When Power Virtual Agents calls a fl...
Power Virtual Agents ⓘ
-  When a flow step is executed
Common Data Service (current environment) ⓘ
-  For a selected message
Microsoft Teams ⓘ
-  For a selected file
OneDrive for Business ⓘ
-  For a selected file ⓘ

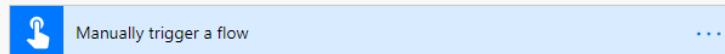
Skip

Create

Cancel

20. Add a step by clicking **+ New step**.

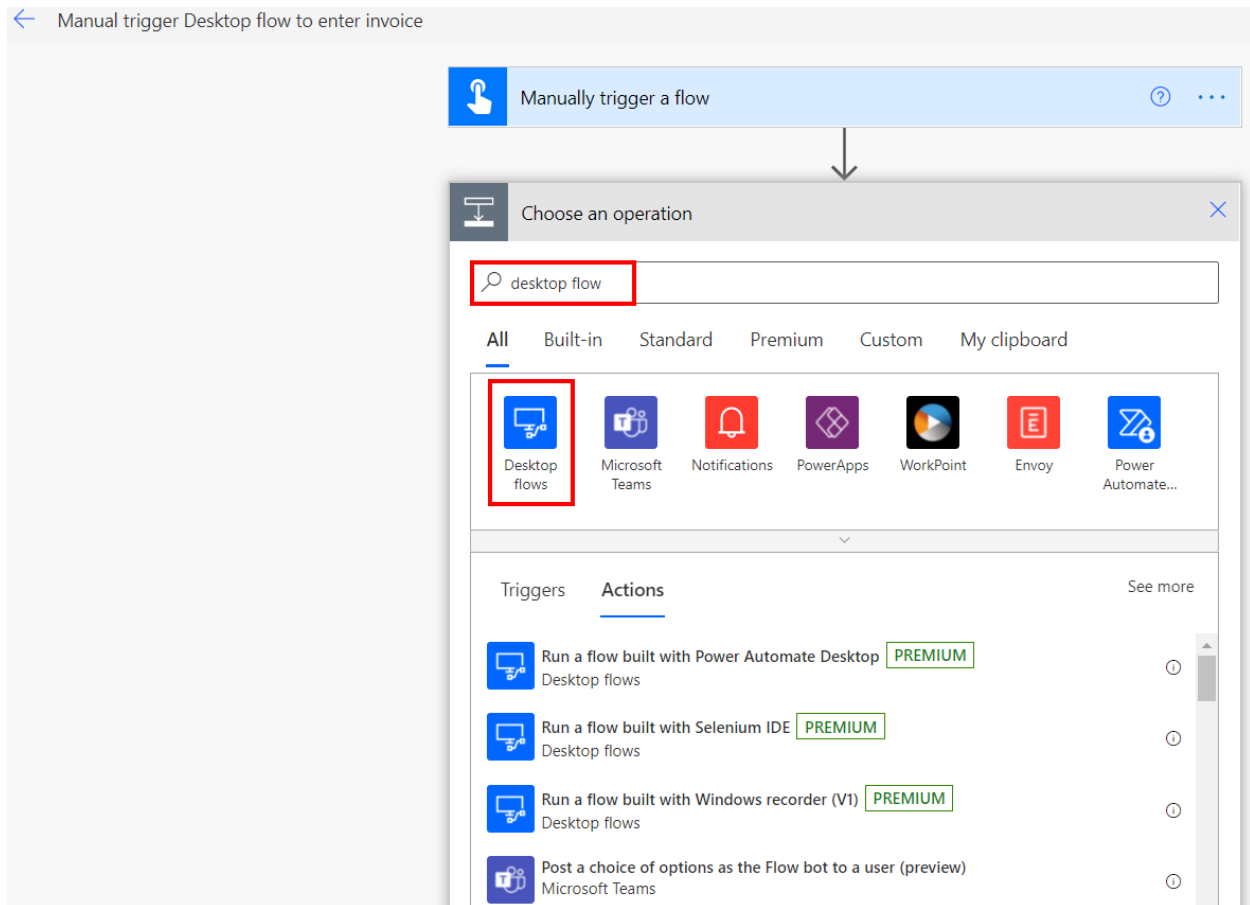
← Manual trigger Desktop flow to enter invoice



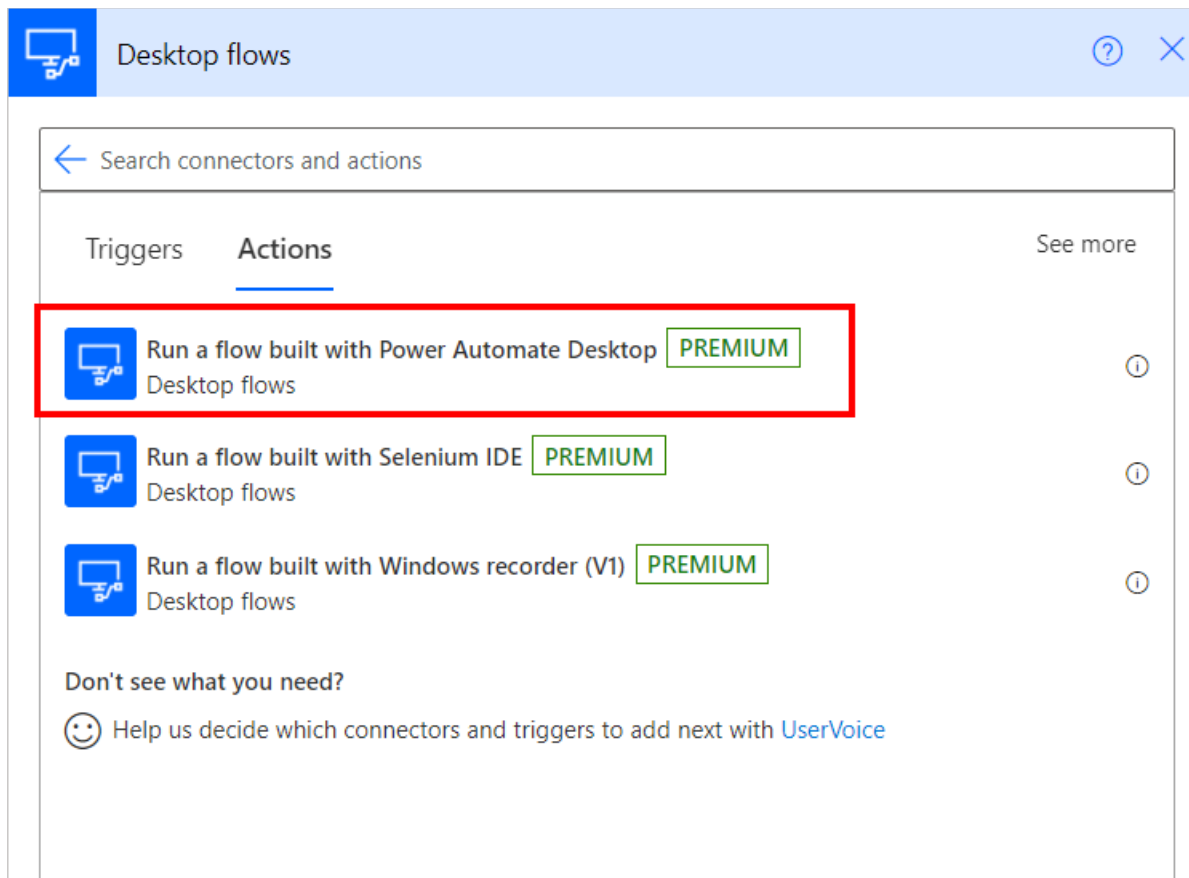
+ New step

Save

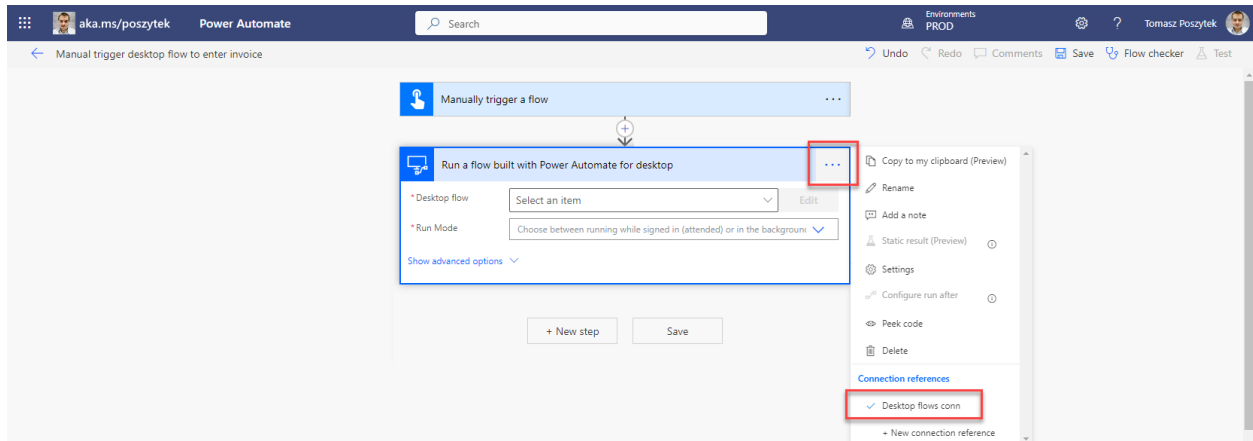
21. Enter **desktop flow** in the search box and choose **Desktops flows**.



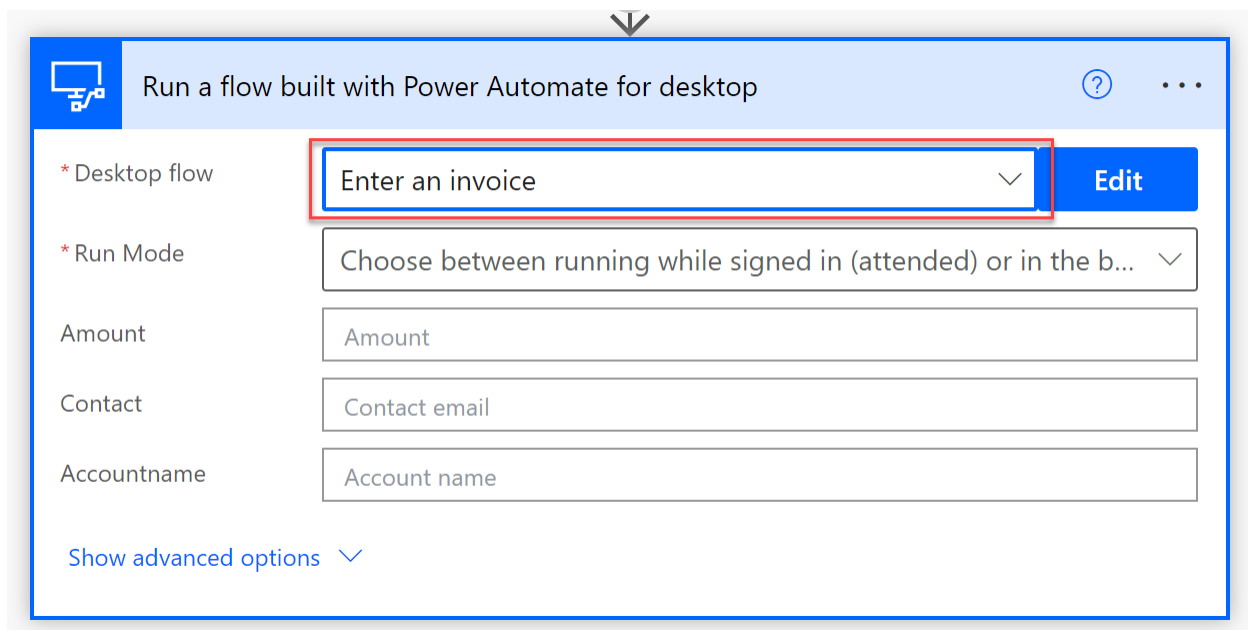
22. Select **Run a flow built with Power Automate Desktop**.




23. After you click the ellipsis icon, you'll notice, that the connection reference you have created previously is automatically selected.



24. Under **desktop flow**, select **Enter an invoice** desktop flow that you have created in previous lab.



25. Under **Run Model**, select **Attended – Runs when you're signed in**. This mode will run the desktop flow while you are signed in the same machine.

 Run a flow built with Power Automate Desktop ? ...

* Desktop flow	Enter an invoice ▼ Edit
* Run Mode	Attended - Runs when you're signed in ▼
Amount	Amount
Contact	Contact Email
Account name	Account name

[Show advanced options](#) ▼

26. Fill the box with these input values: (note we are using static input values for now and will learn in next labs how to use dynamic input values)

- **Amount:** 200
- **Contact:** b.friday@wingtiptoy.com
- **Account name:** WingTip Toys

Then click **Save**.

Manually trigger a flow

Run a flow built with Power Automate for desktop

* Desktop flow Enter an invoice Edit

* Run Mode Attended (runs when you're signed in)

Amount 200

Contact b.friday@wingtip toys.com

Accountname WingTip Toys

Show advanced options

+ New step Save

27. Select **Test** at the top-right of the screen.

Save Flow checker Test

28. Select **Manually**. Then click **Test**.

Test Flow ×

☒ **Manually**
Perform the starting action to trigger it.

☐ Automatically

Test Cancel

29. If you see a green check, you are ready to go. Click **Continue**.


Run flow ×

Manual trigger Desktop flow to enter invoice

Owner: Chris Lan

Sign in

This flow uses the following apps. A green check means you're ready to go.

 Desktop flows ✓ ...

Continue Cancel

30. Click **Run flow**.

This flow uses Desktop flows.
[Review connections and actions](#)



31. Click **Done** if your flow run successfully started.

Note: Do not interact with your device while testing.

Run flow ×

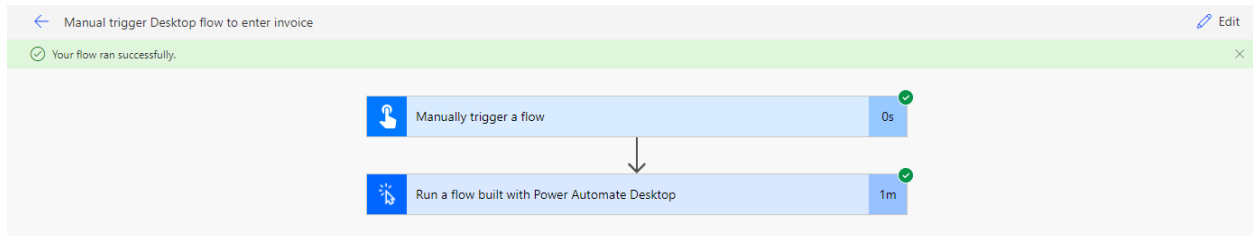


Your flow run successfully started. To monitor it,
go to the [Flow Runs Page](#).



32. Watch your desktop flow will be triggered from the cloud and run on your desktop

33. After your flow has been run successfully, you will see the run detail page and the **Invoice ID** returned as the output value.



Tip: If the flow run failed at the desktop flow step, **always** go to the desktop flow page, click into the desktop flow just ran, and look up run history from there to see detail error messages. This will help you troubleshooting and fix the run.

Flows

Cloud flows **Desktop flows** Business process flows Shared with me

	Name	Modified	Built with
	Enter an invoice	2 d ago	Power Automate Desktop

Desktop flows > Enter an invoice

Details

[Edit](#)

Flow
Enter an invoice

Owner
Chris Lan

Created
Dec 10, 03:10 PM

Modified
Dec 11, 05:39 AM

Built with
Power Automate Desktop

Run history

[All runs](#)

Requested	Duration	Status
Dec 13, 10:53 PM (5 min ago)	00:01:02	Succeeded
Dec 13, 10:52 PM (6 min ago)	00:00:28	Failed

Monitor the list of machines

Once a machine is registered to an environment, you can view its details at any time in Power Automate. You can also view all other machines that you have access to.

34. Open the test profile in a browser and navigate to <https://make.powerautomate.com/>.

35. Select **Monitor**, then select **Machines**.

Within the list, for each machine you can view:

- The name of the machine.
- The description of the machine.
- The version of the installed Power Automate Desktop software.
- The group that the machine is a part of, if applicable.
- The status of the machine.
- The number of flows running on the machine.
- The number of flows queued on the machine, if applicable.
- The type of access you have to the machine.
- The owner of the machine.

The screenshot shows the Power Automate web interface. The left sidebar contains a navigation menu with 'Monitor' and 'Machines' highlighted by red rectangles. The main content area is titled 'Machines' and displays a table of machine details. The table has the following columns: Machine name, Description, Version, Group, Status, Flows run..., Flows que..., Ac..., and Owner. Two machines are listed in the table, both with a status of 'Connect...' and 0 flows running or queued.

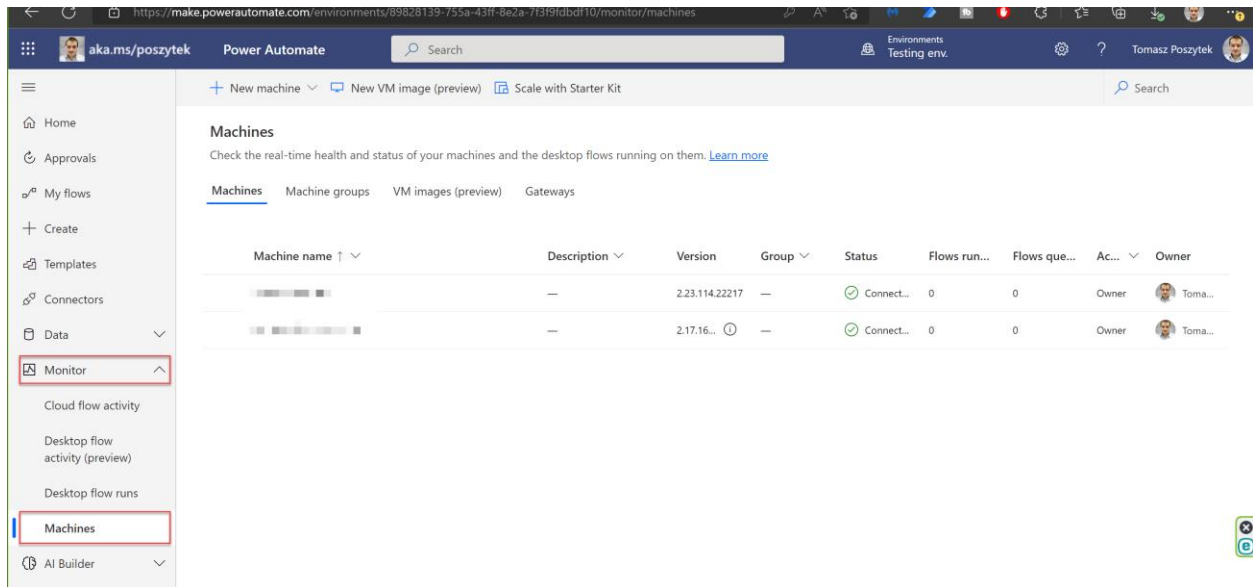
Machine name	Description	Version	Group	Status	Flows run...	Flows que...	Ac...	Owner
[Redacted]	—	2.23.114.22217	—	Connect...	0	0	Owner	Toma...
[Redacted]	—	2.17.16...	—	Connect...	0	0	Owner	Toma...

Share a machine

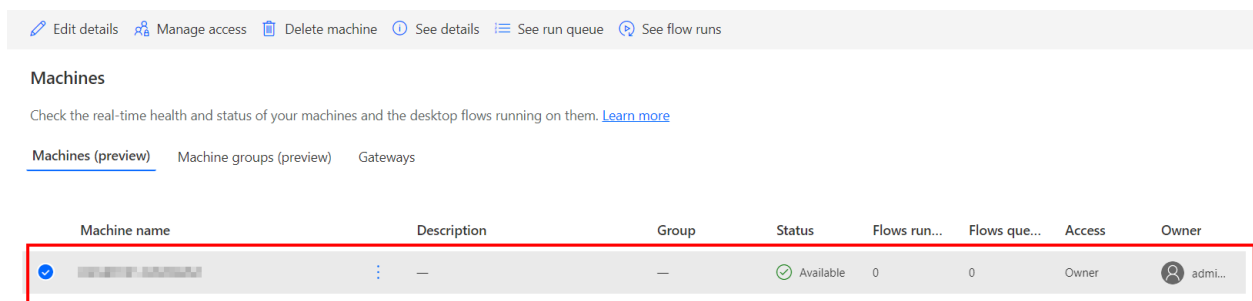
You can share a machine with other users in your organization, giving those users specific permissions to access your machine.

36. Open the test profile in a browser and navigate to powerautomate.microsoft.com.

37. Select **Monitor**, then select **Machines**.



38. Select your machine from the list.



39. Select **Manage access**.

[Edit details](#) **Manage access** [Delete machine](#) [See details](#) [See run queue](#) [See flow runs](#)

Machines

Check the real-time health and status of your machines and the desktop flows running on them. [Learn more](#)

[Machines \(preview\)](#) [Machine groups \(preview\)](#) [Gateways](#)

	Machine name	Description	Group	Status	Flows run...	Flows que...	Access	Owner
✓	XXXXXXXXXX	—	—	✓ Available	0	0	Owner	admi...

40. Select the **Add people** field, then enter the name of the person in your organization with whom you'd like to share the machine.

Manage access

Choose who can use your machine and set their permissions.

Lan Li

LL

Lan Li

AB

admin bot
Owner

Your machine hasn't been shared. Add people to get started.

Save

Cancel

41. Select the name of the person to choose with which permissions they can access the machine.

Manage access



Choose who can use your machine and set their permissions.

Lan Li



admin bot
Owner

Your machine hasn't been shared. Add people to get started.

Save

Cancel

42. Click **Save**.

Manage access



Choose who can use your machine and set their permissions.

Add people

New



Lan Li
User



Shared with

Sort by Name



admin bot
Owner

Select or add people to set their permissions.

Save

Cancel

43. There are two levels of permissions that you can use when managing access to your machine:

- **Co-owner:** This access level gives full permissions to that machine. Co-owners can run desktop flows on the machine, share it with others, edit its details, and delete it.
- **User:** This access level only gives permission to run desktop flows on the machine. No edit, share, or delete permissions are possible with this access.

Manage access



Choose who can use your machine and set their permissions.

Add people

New

✓

LL

Lan Li
User

×

Shared with

Sort by Name

AB

admin bot
Owner

Lan Li

☒ User

Can run desktop flows on this machine.

☐ Co-owner

Can run desktop flows on this machine, share it with others, edit its details, and delete it.

Actions	Co-owner	User
Run a desktop flow on the machine	X	X
Share the machine	X	
Add machine to group	X	
Edit details	X	
Delete machine	X	

Check your knowledge

Lab 4

7 mins

1. Users will need either an _____ or Desktop Flows Machine Owner role to register machines.

- A. Environment Maker
- B. Environment user
- C. Environment Help
- D. None of the above

Answer: A. Environment user

2. If the cloud flow run failed at the desktop flow step, always go to the desktop flow page, click into the desktop flow just ran, and look up Run history from there to see detail error messages. This will help you troubleshooting and fix the run.

- A. True
- B. False

Answer: A. True, you can find detail information about your desktop flow execution within the desktop flow Run history page.

3. When creating a connection to use the "Run a flow built with Power Automate Desktop" action, if you are not sure what to put in the domain and username field, you can use the Command Prompt window (open Start, type CMD and hit enter), type "_____" command to locate the Domain and Username.

- A. Find user
- B. Locate user
- C. What's my user
- D. Set user

Answer: D. Set user

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