Module 8 - Center of Excellence Starter Kit

Lab 1

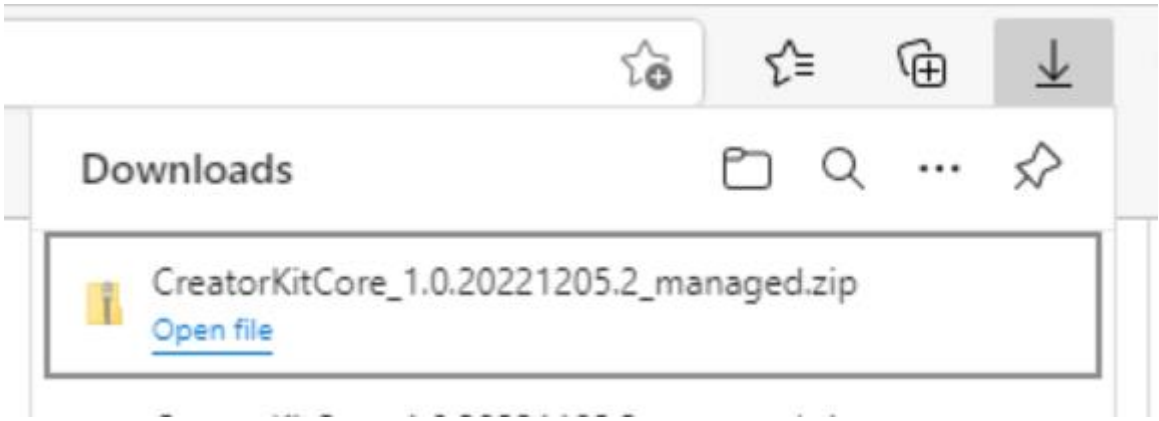
Estimated Time

120 minutes

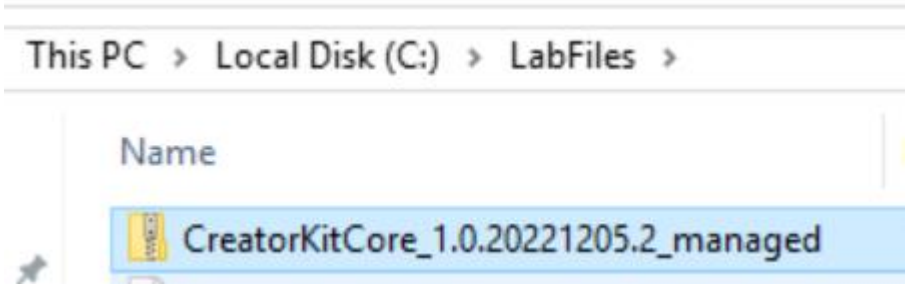
Exercise 1 - Install and configure Core Components

In this exercise we will install and configure Center of Excellence Core Components

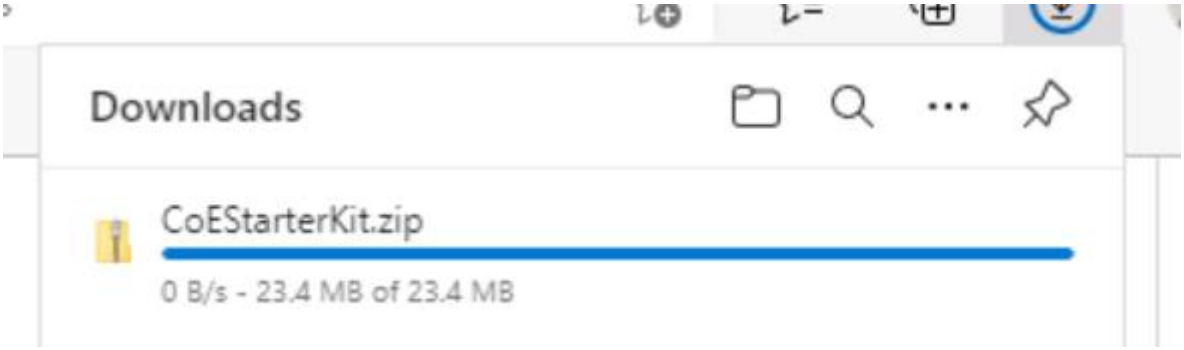
1. On **Virtual Machine** open **Edge Chromium**
2. Open this link **https://aka.ms/creatorkitdownload** by copy-pasting it to address bar to download latest released version of **CreatorKit**



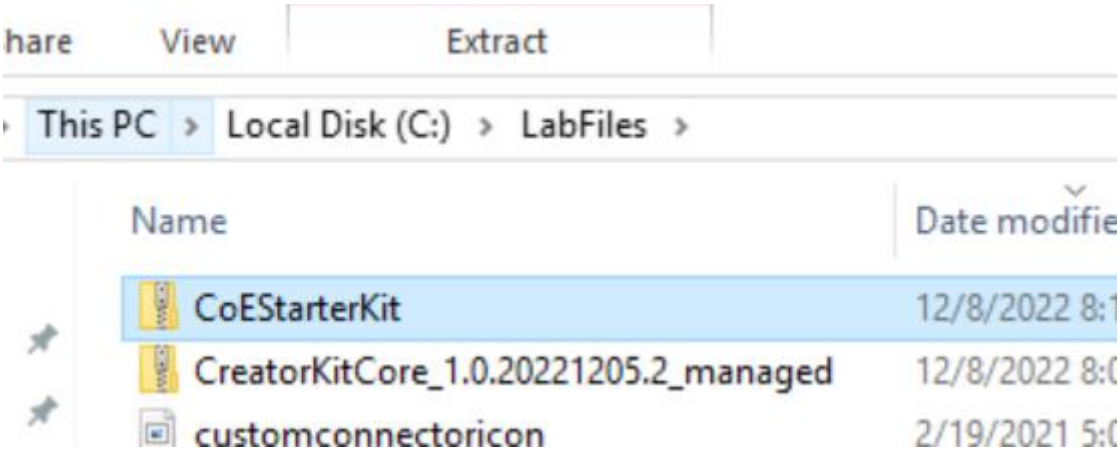
3. Move the package from Downloads to **C:\LabFiles**

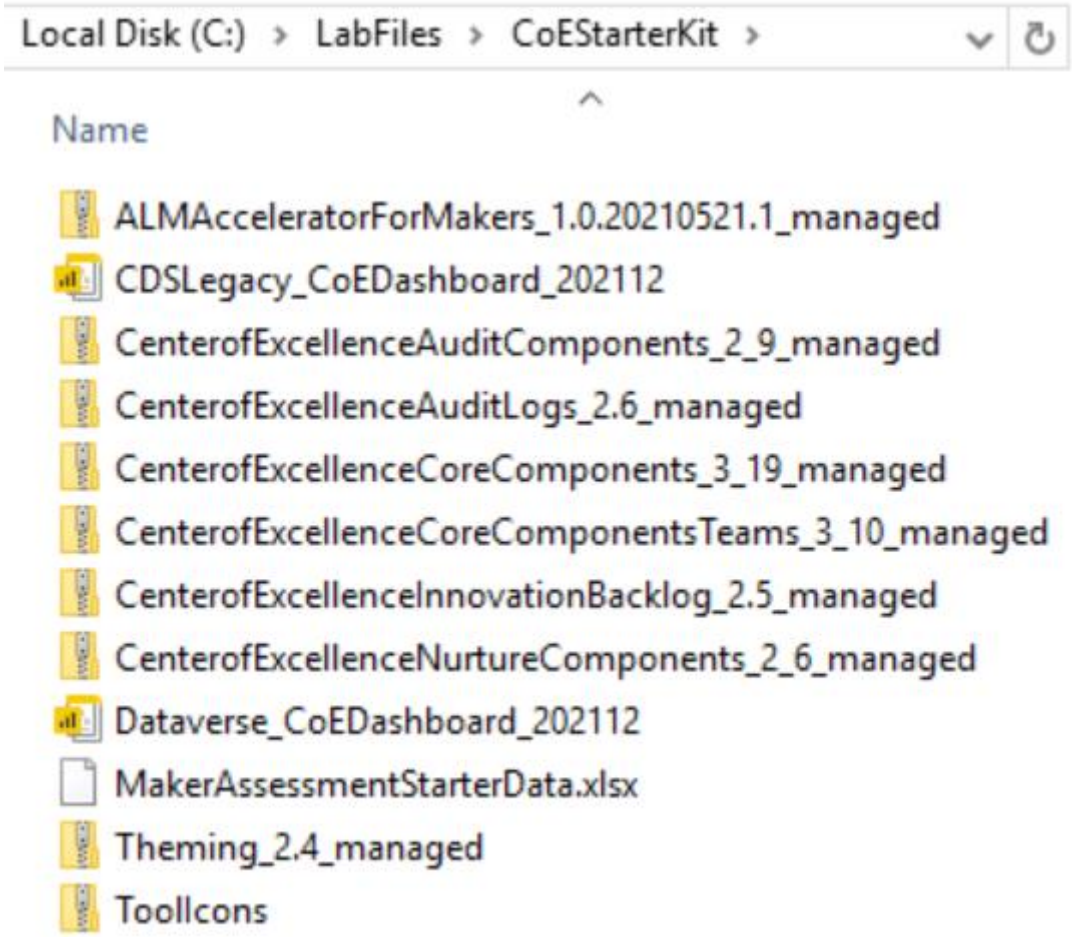


4. Open this link **https://aka.ms/CoeStarterKitDownload** by copy-pasting it to address bar to download latest released version of **CoE StarterKit**

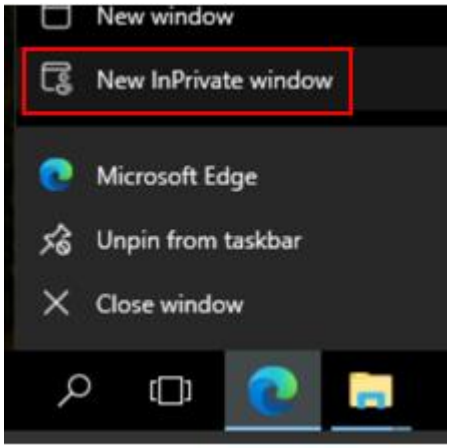


5. Move the package from Downloads to **C:\LabFiles** and extract the **main** ZIP package (you do **not** need to extract packages inside CoeStarterKit)





6. Open new browser (**InPrivate mode**) window



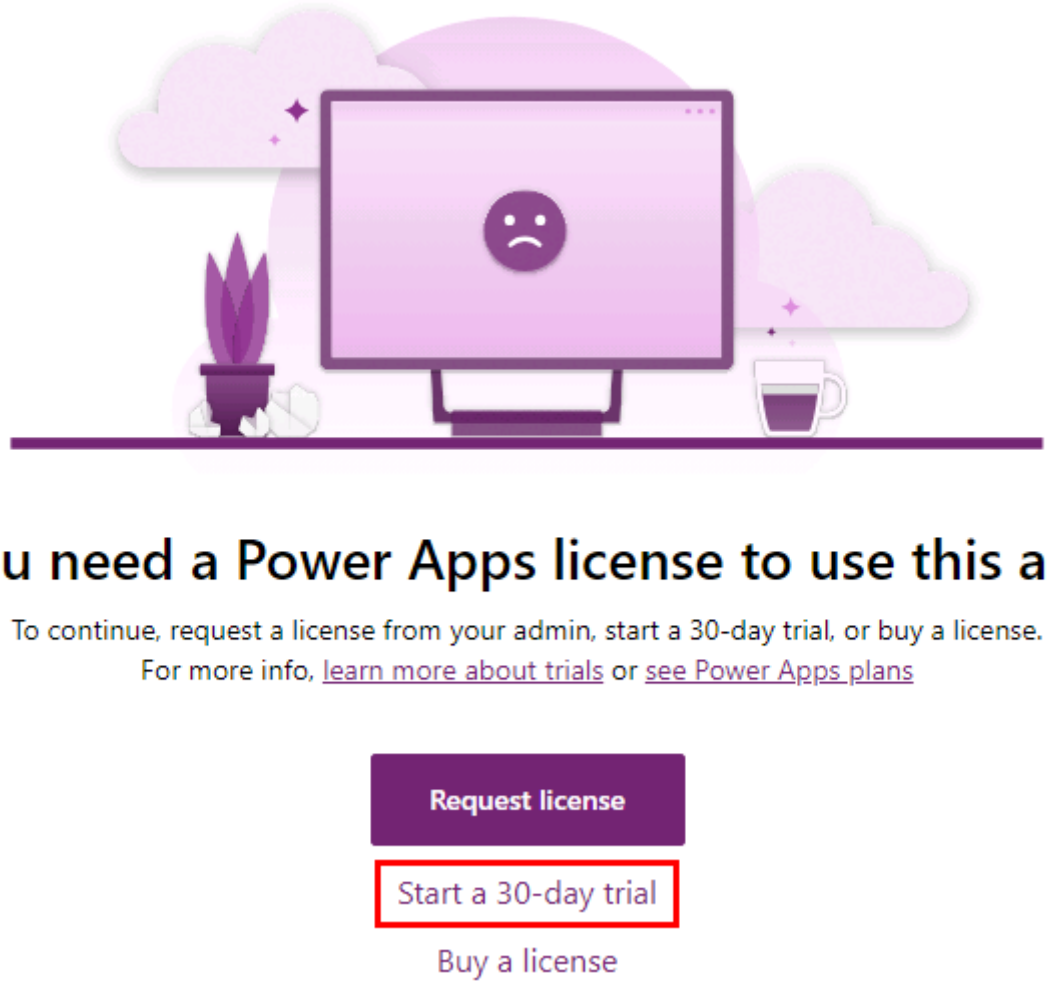
7. Paste this URL to address bar to start a Power Apps trial license

   https://apps.powerapps.com/trial?connections=premium&redirect=player

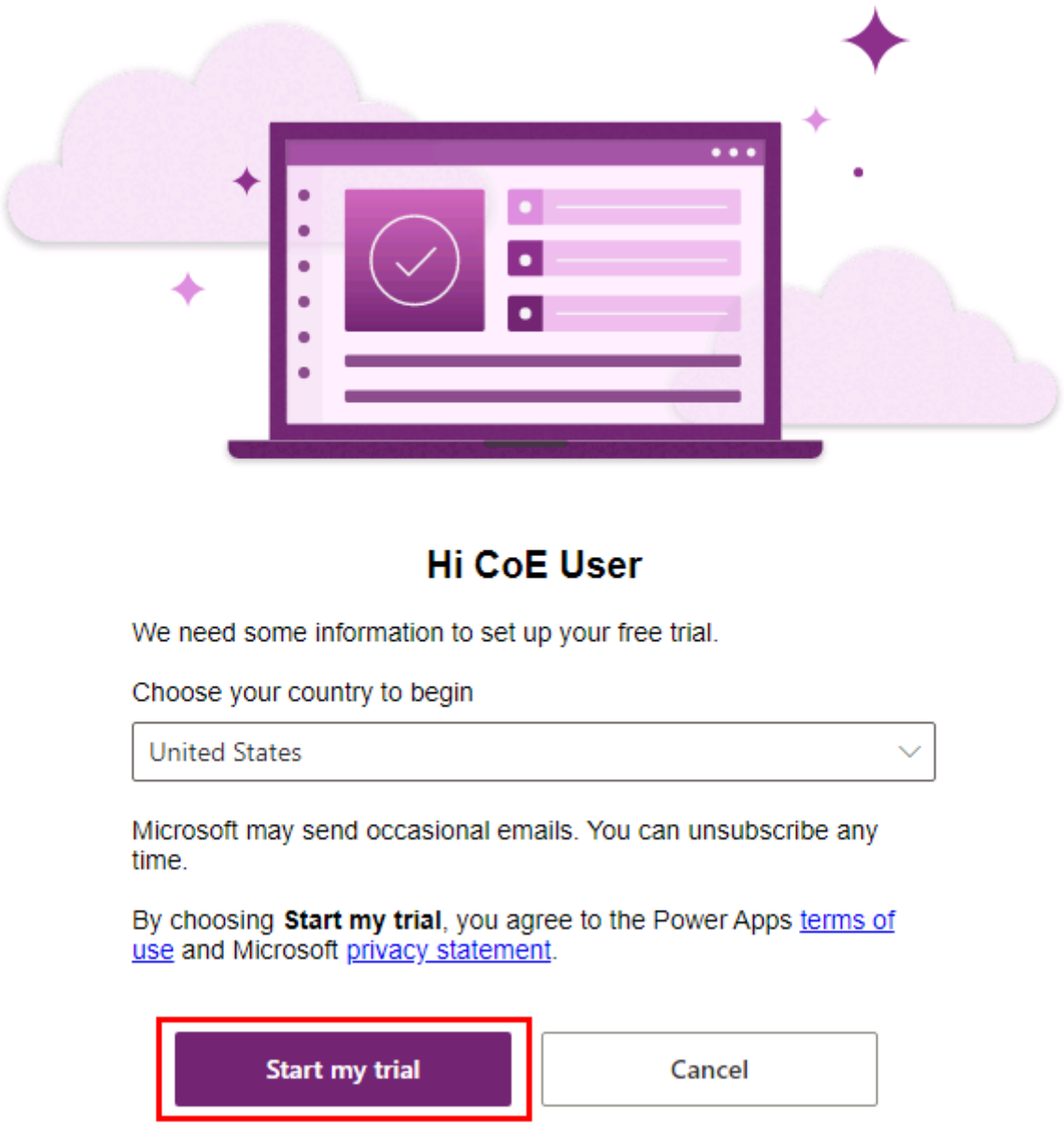
8. Login using **CoE User** account we created in the beginning of the first lab

Username: coe@**TENANTNAME.onmicrosoft.com** Password: **MOD Administrator Password**

9. Click **Start a 30-day trial**

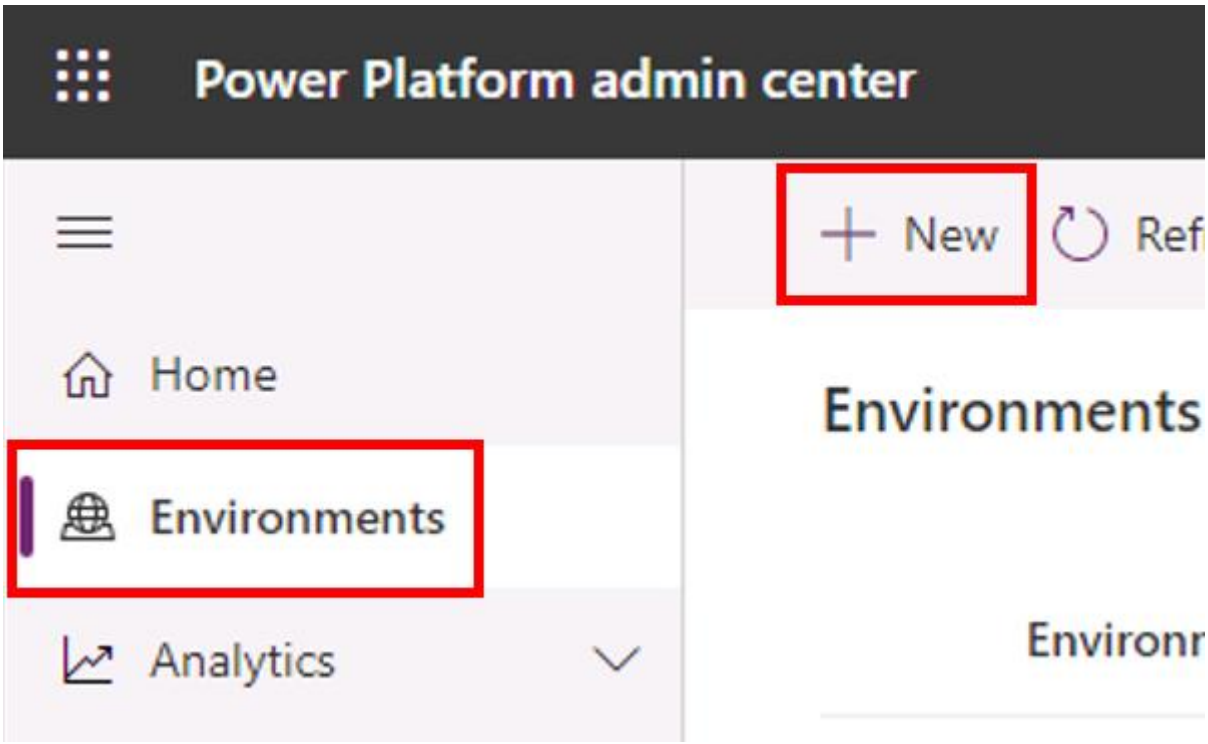


10. Click **Start my trial**

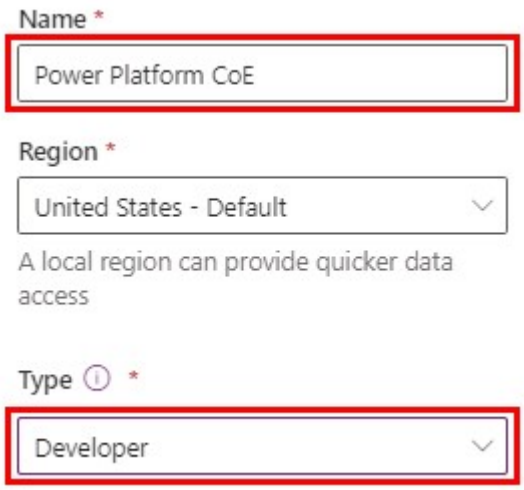


11. Open Power Platform Admin Center **https://aka.ms/ppac**

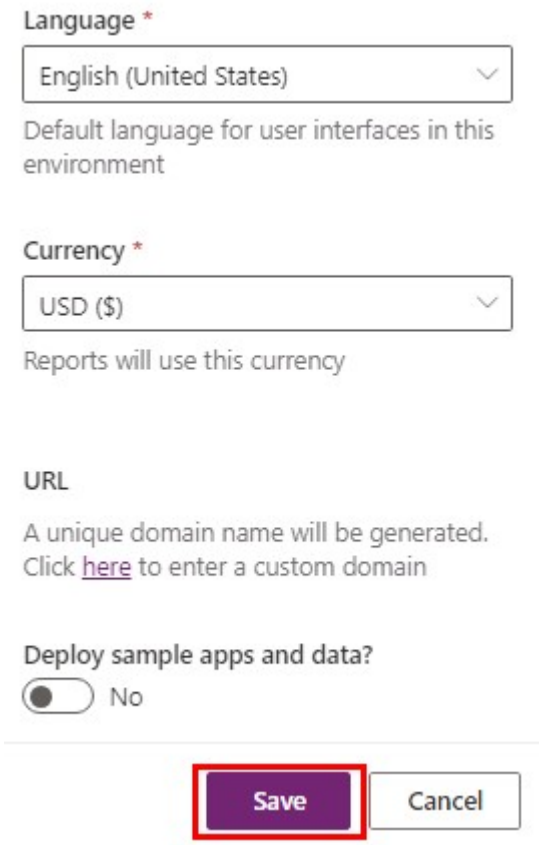
12. It is recommended to have own Power Platform environment for CoE StartetKit, so select **Environments** from the left menu and click **New** to create a new environment.



13. Name the environment **Power Platform CoE**, set the type to **Developer** and create a database (Dataverse) and click **Next**.

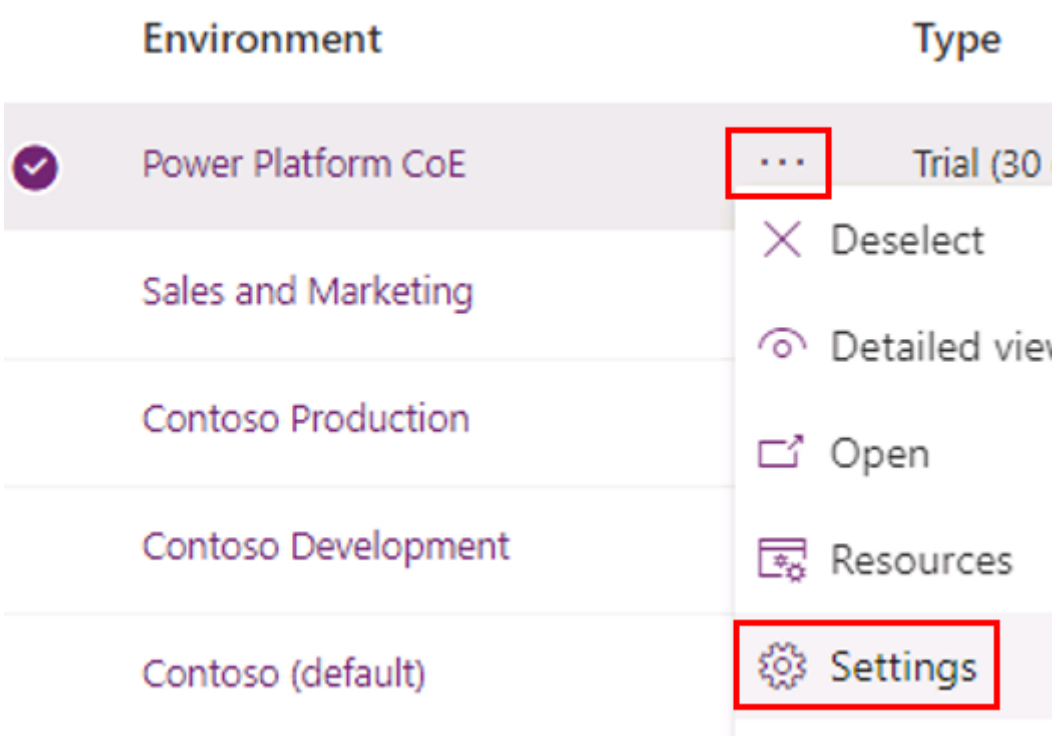


14. Click **Save** to create the environment

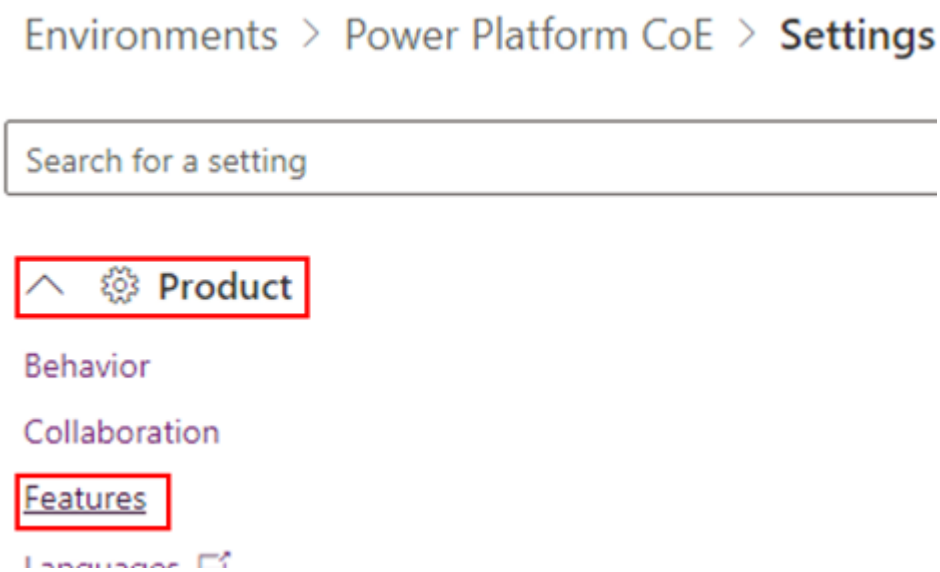


15. Environment provisioning takes a few minutes. Refresh the page to see the status. Wait until **State = Ready**

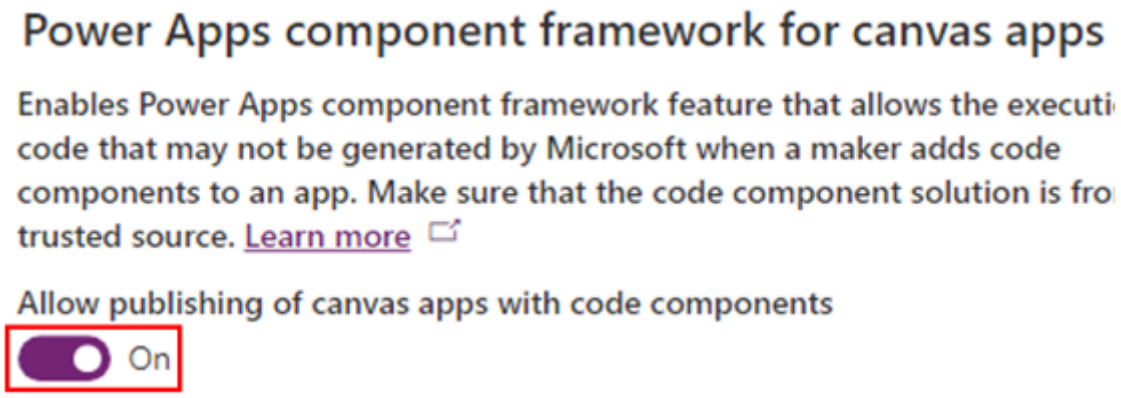
16. Open the context menu of the Power Platform CoE environment by clicking three dots and select Settings



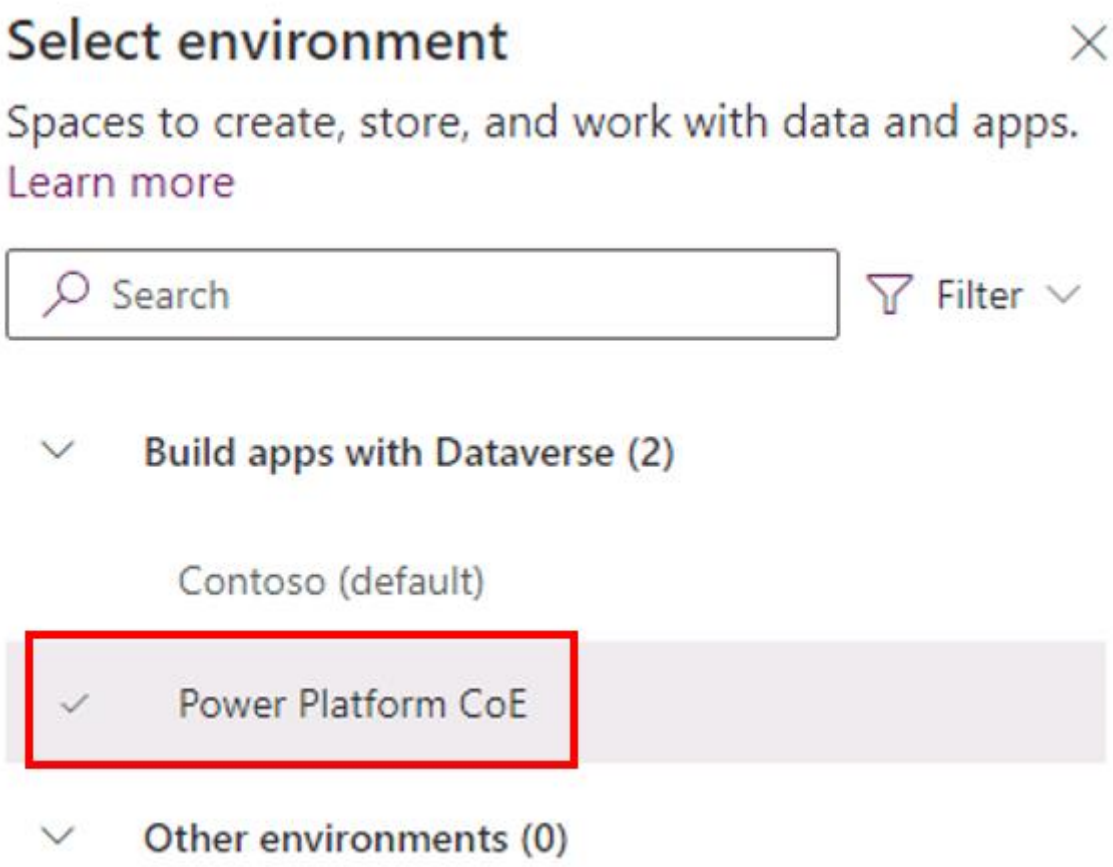
17. Open Product and select **Features**



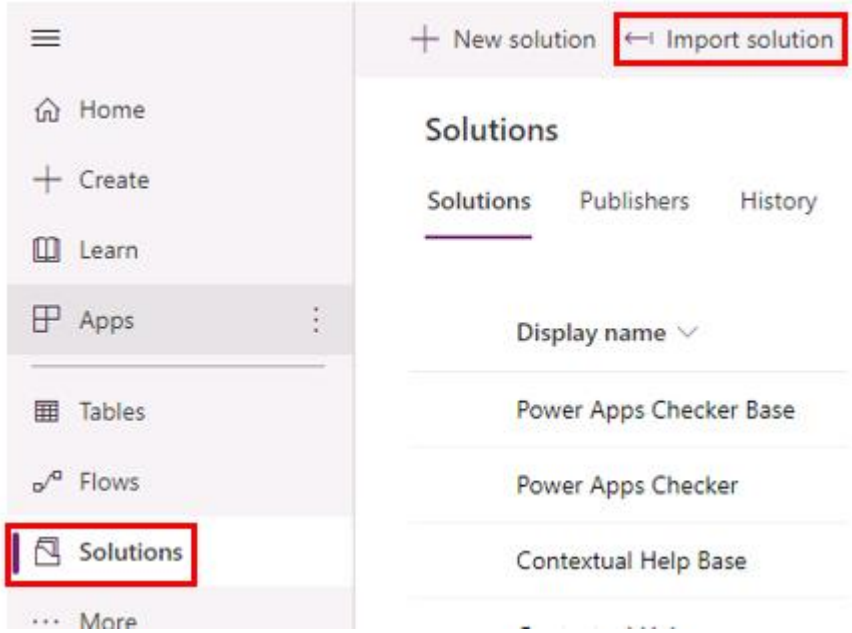
18. Scroll down the page a bit and on the right side you will see **Power Apps component framework for canvas apps**. Enable this feature and click **Save** from the bottom of the page



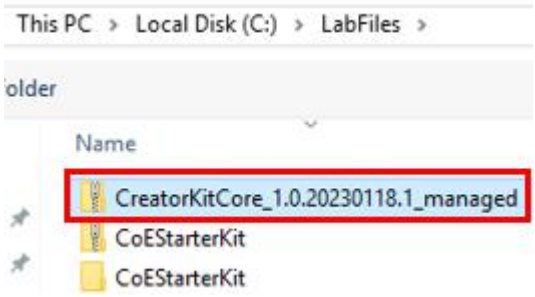
19. After the environment is provisioned navigate to **https://make.powerapps.com** and select **Power Platform CoE** environment from the environment selection on top right corner.



20. From the left menu select Solutions and click **Import solution**.

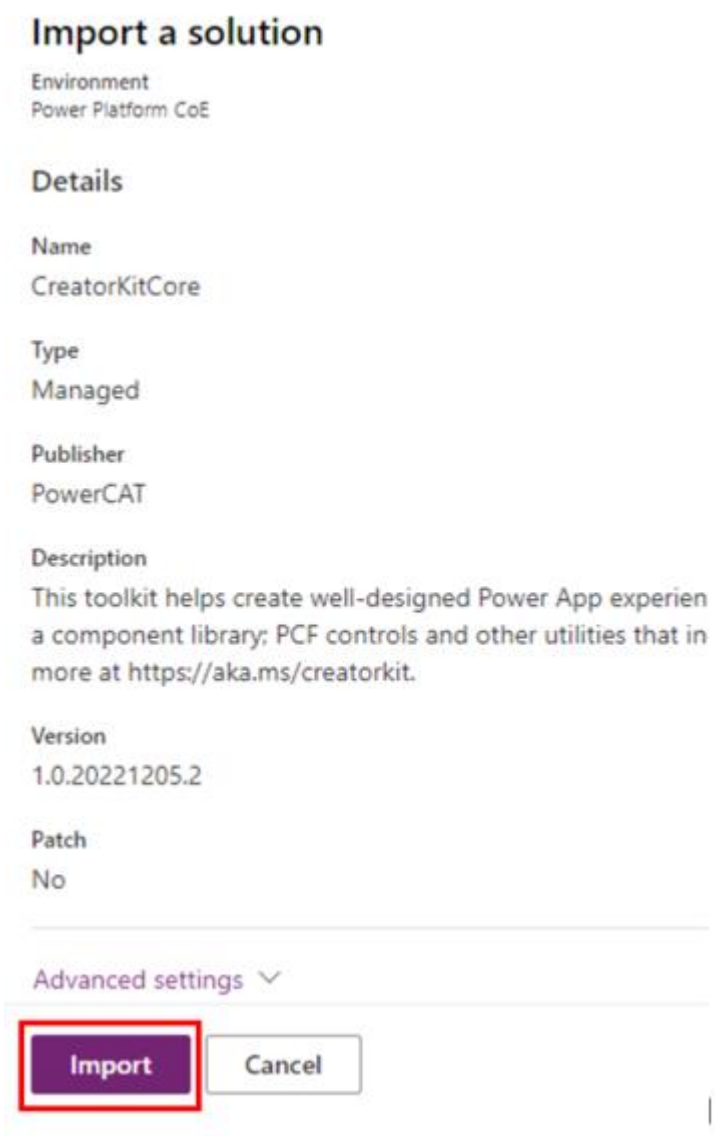


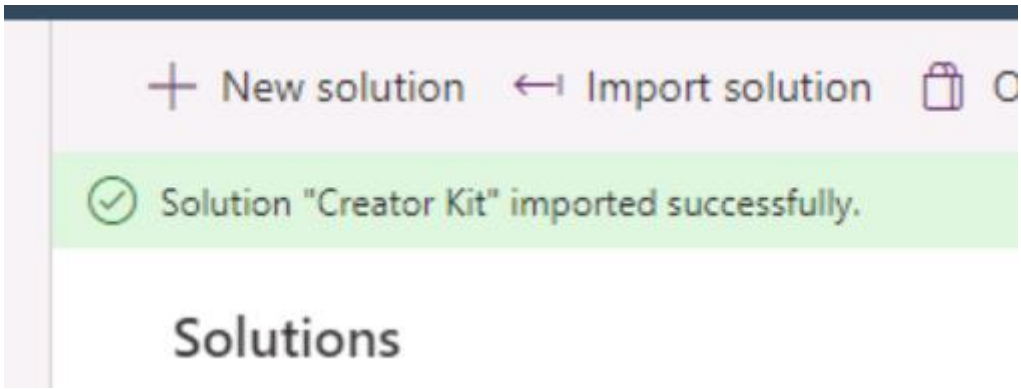
21. Click **Browse** and from the **C:\LabFiles**, select **CreatorKitCore_x.x.xxxxxx.x_managed.zip** and click **Next**.



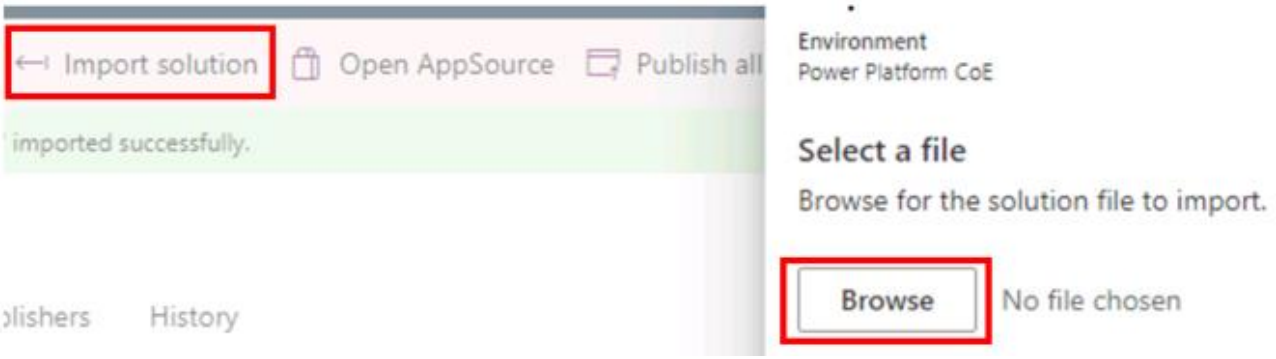
22. Click **Import** and solution import will start.

    NOTE You need wait until solution is imported before proceeding to next step. It will normally take couple minutes to import this solution

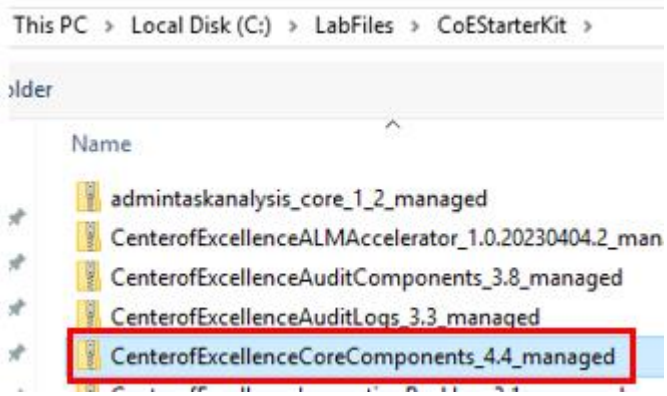


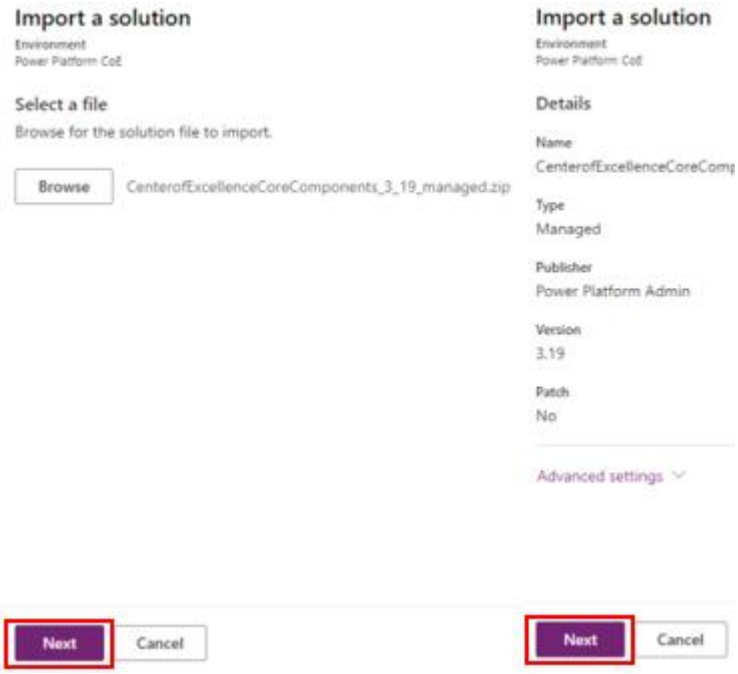


23. Click again **Import solution** and click **Browse**

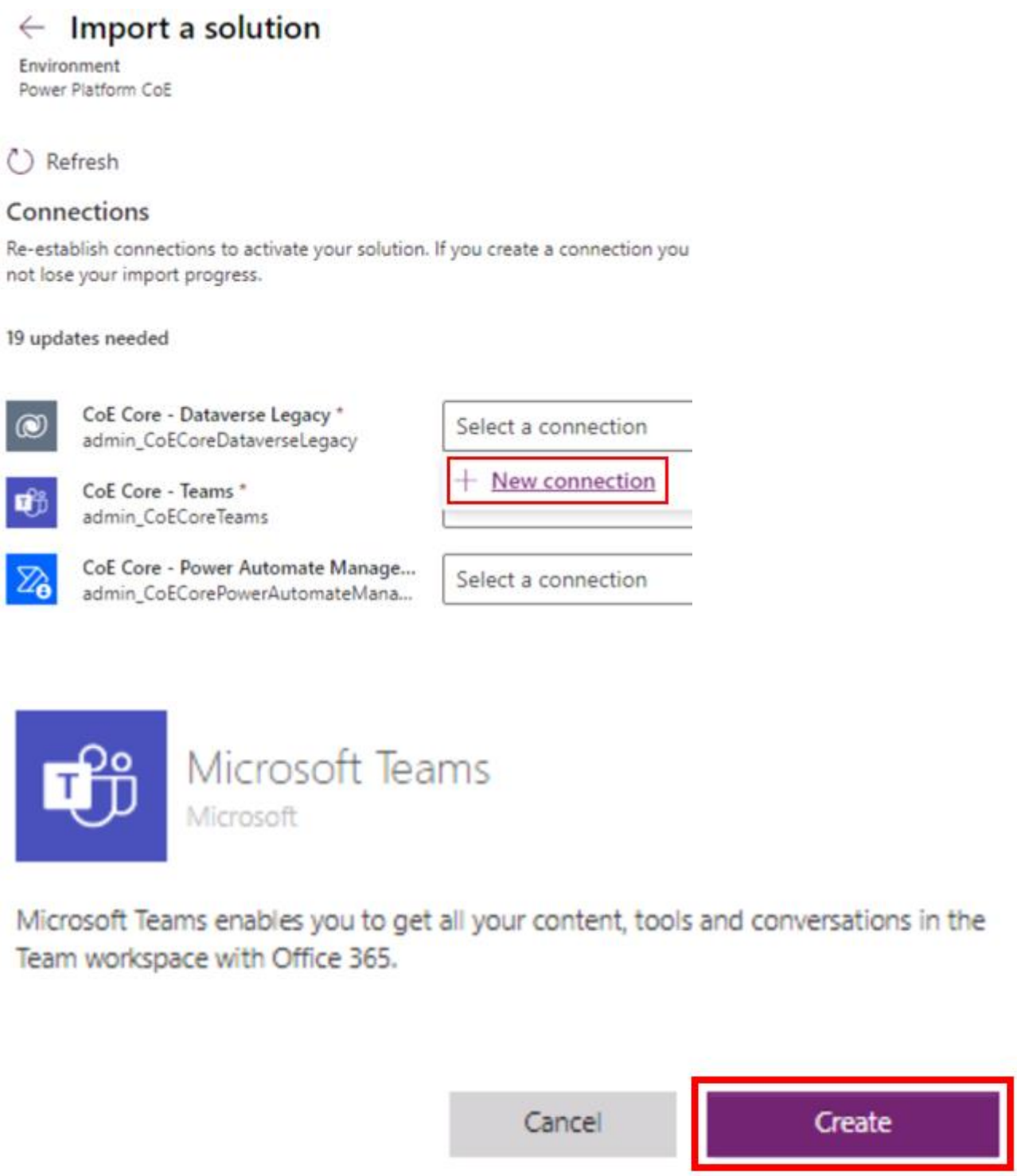


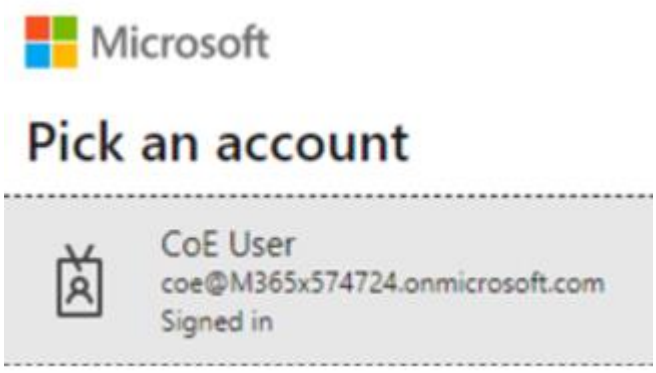
24. From **C:\LabFiles\CoEStarterKit**, select **CenterOfExcellenceCoreComponents_x_xx_x_managed.zip** and click **Next** twice.



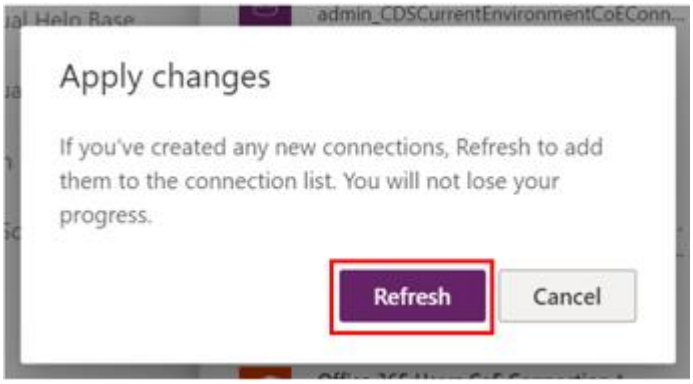


25. On the next screen you will define all required connections and use **CoE user** account for each connection.


Import a solution
Environment
Power Platform CoE
Refresh
Connections
Re-establish connections to activate your solution. If you create a connection you not lose your import progress.
19 updates needed
CoE Core - Dataverse Legacy *
admin_CoECoreDataverseLegacy
Select a connection
CoE Core - Teams *
admin_CoECoreTeams
New connection
CoE Core - Power Automate Manage...
admin_CoECorePowerAutomateMana...
Select a connection
Microsoft Teams
Microsoft
Microsoft Teams enables you to get all your content, tools and conversations in the Team workspace with Office 365.
Cancel
Create


Microsoft
Pick an account
CoE User
coe@M365x574724.onmicrosoft.com
Signed in

Go back to the connection references page and press **Refresh** to update and set the created connection for the connection reference. **Repeat these steps to configure all connections** and click **Next**.



When you create the connection for HTTP with Azure AD enter the following into the Base Resource URL and Azure AD Resource URI (Application ID URI): **https://graph.microsoft.com**

HTTP with Azure AD

Microsoft Premium

authenticated by Azure Active Directory (Azure AD), or from an on-premise web service.

How do you want to connect to your data?

(●) Connect directly (cloud-services)

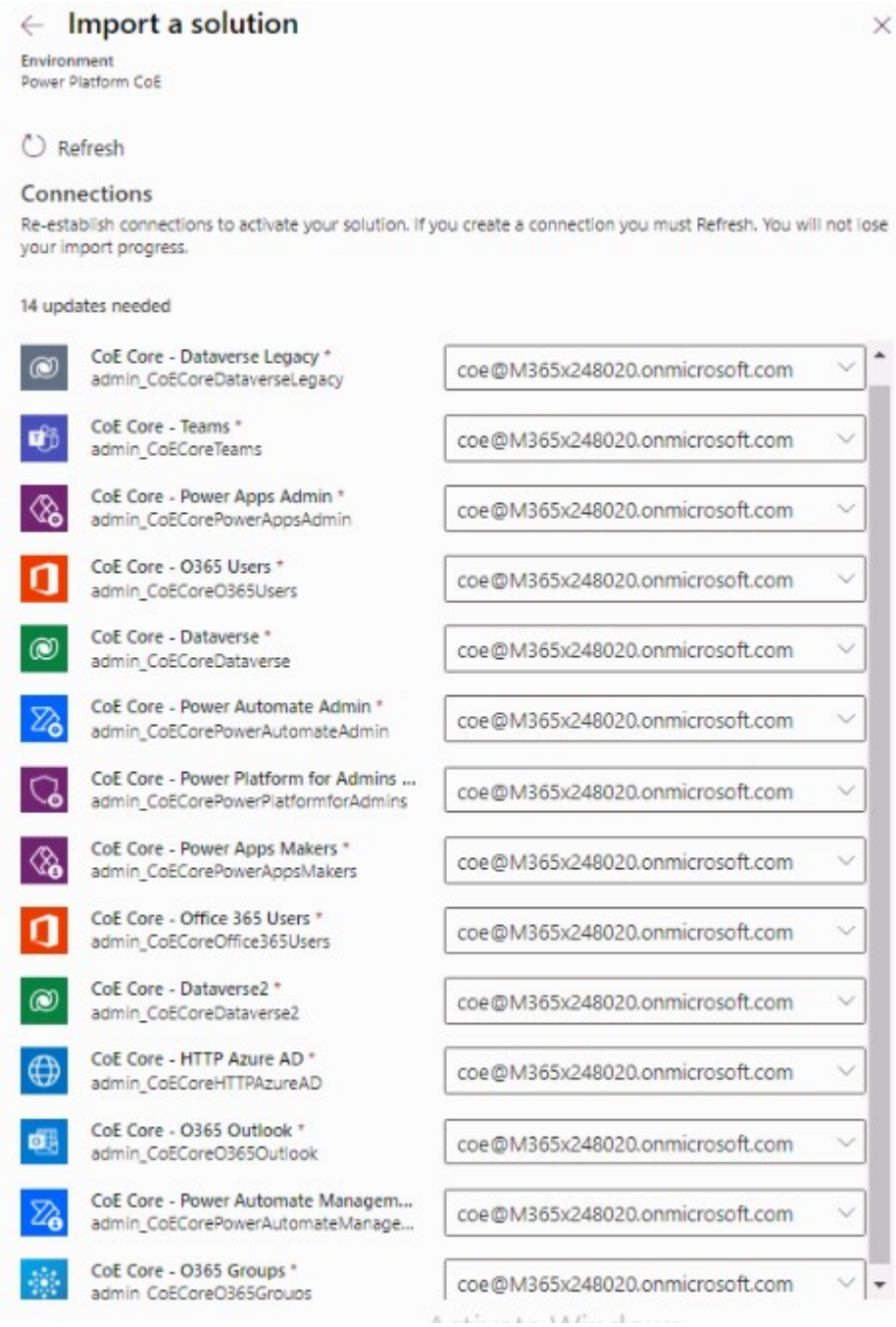
( ) Connect using on-premises data gateway (?)

Base Resource URL *

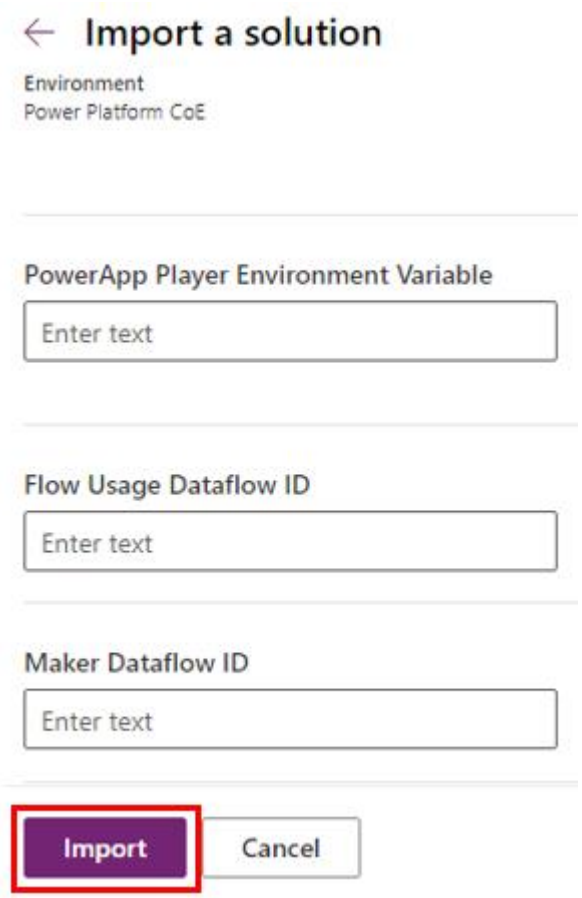
https://graph.microsoft.com/

Azure AD Resource URI (Application ID URI) *

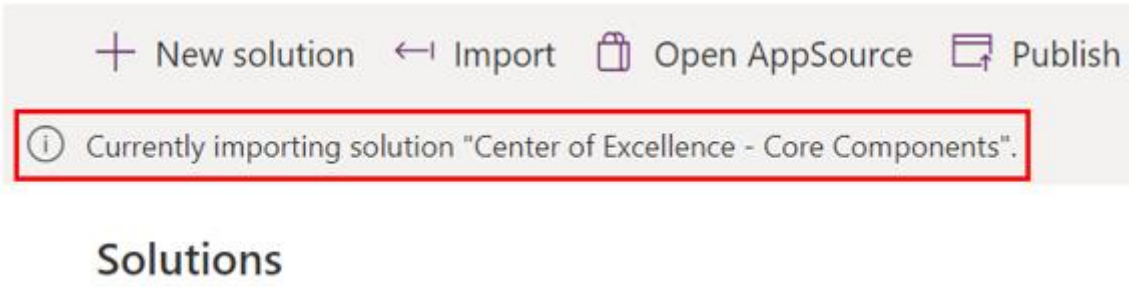
https://graph.microsoft.com/



26. Click **Import**. We do not configure any environment variable values at this point as they are set by the CoE Setup and Upgrade Wizard



27. The import process begins. This will take about **15 minutes** to complete.



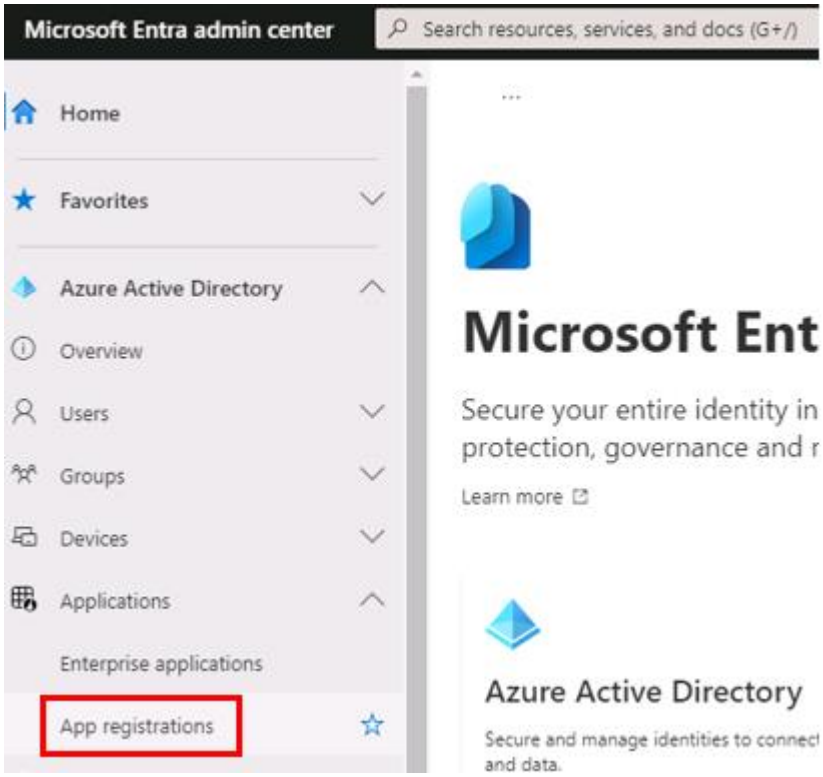
28. While waiting for Core Solution deployment, we will configure the Azure AD application registration which is used by CoE Audit Log component. **Continue to the next task**.

Exercise 2 - Create Azure AD App Registration for Office 365 Management API operations

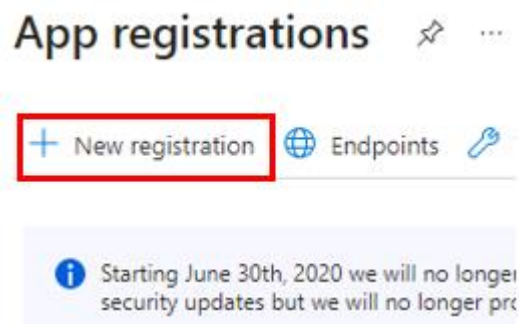
Here we configure Azure AD service principal which is used by the CoE StarterKit Audit Log inventory sync flows to fetch Power Apps launch events from Office 365 Audit Log

1. Move to the browser session where you are logged in as **MOD Administrator** and browse to **https://entra.microsoft.com**.

2. Go to the **Applications** > **App registration**.

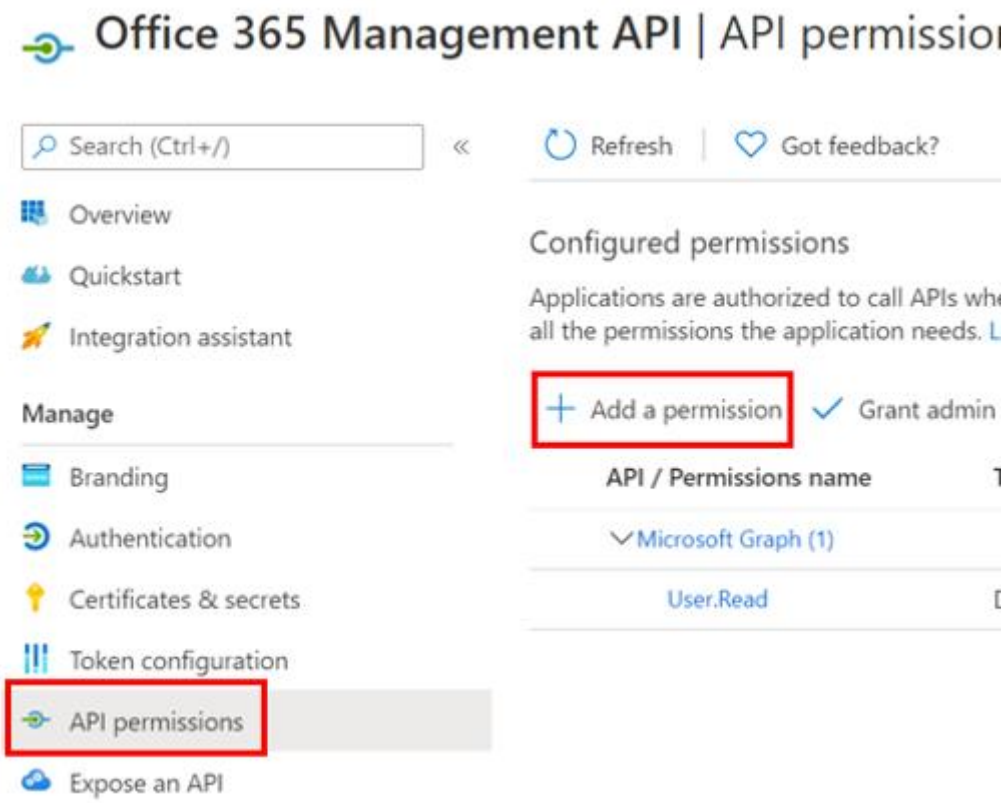


3. Open and click **New registration**.



4. Enter a name **Office 365 Management API** but don't change any other setting. Click **Register**.

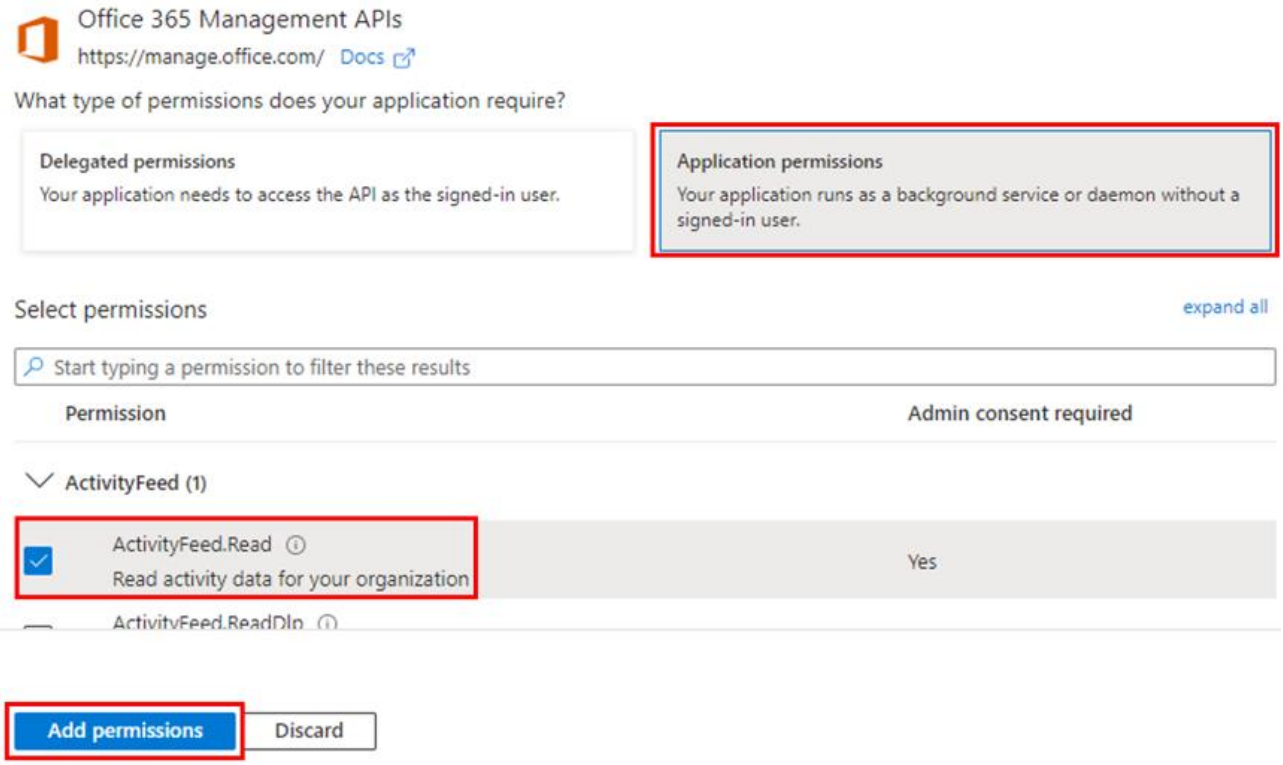
5. Enter a **Select API Permissions **> **+ Add a permission**



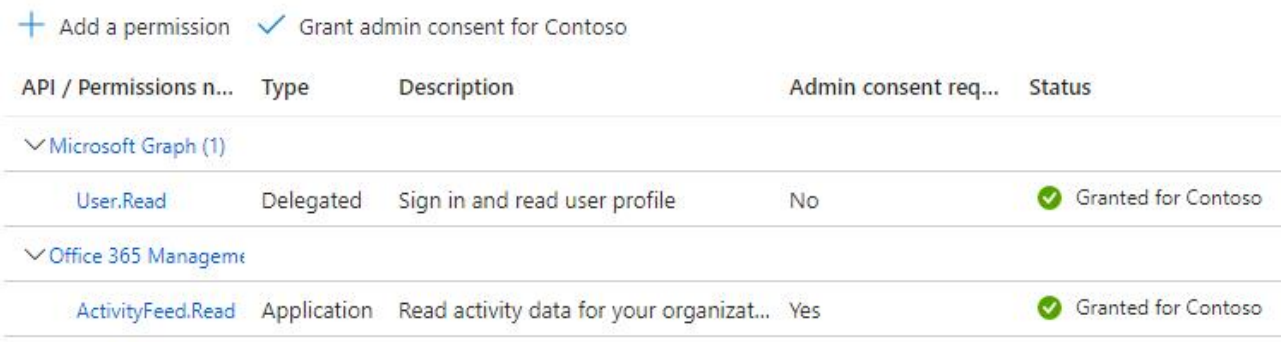
6. Select **Office 365 Management APIs**

7. Select following permissions:

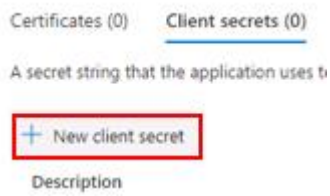
    - Application Permissions > ActivityFeed.Read



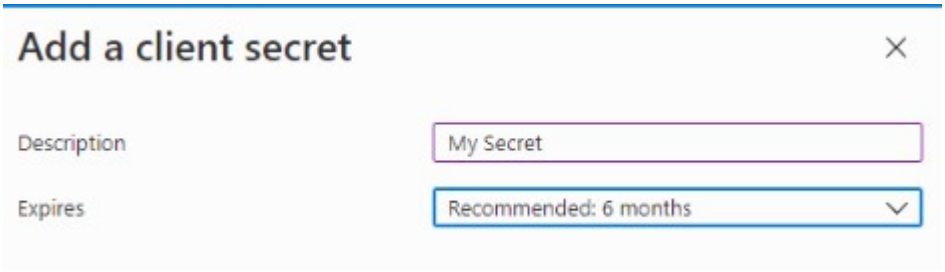
8. Click **Grant Admin Consent for (your organization)**.



9. Select **Certificates and secrets** > **+ New client secret**

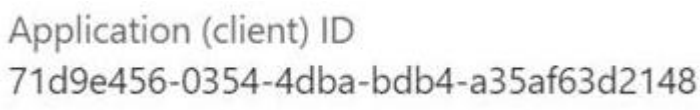


10. Add a description and expiration, and then select **Add**.

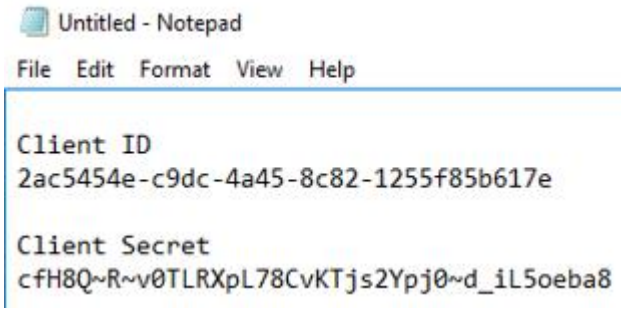


11. Click **Copy to clipboard** after secret value and copy secret to **Notepad**. **NOTE**: This is the only time you are able to copy the secret.

12. Go to **Overview** page and copy **Application ID** to notepad



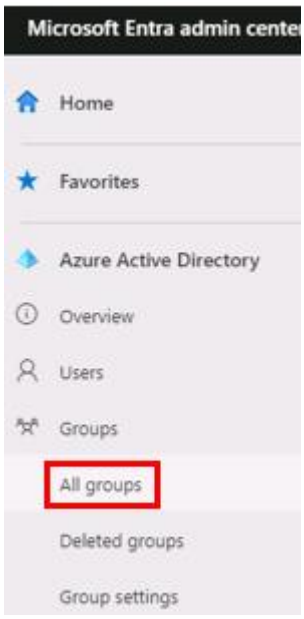
13. Now you should have Client ID and Secret copied to notepad matching your environment values



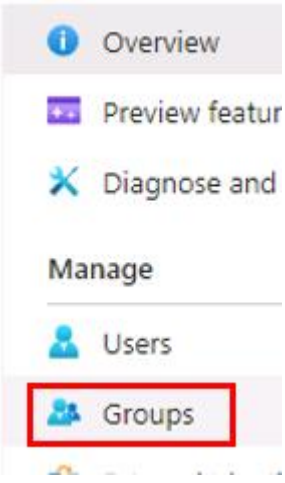
Exercise 3 - Create persona groups for the CoE Kit

In this task we create three Microsoft 365 Groups for the CoE Kit which are used in communications for different personas, admins, makers, and users.

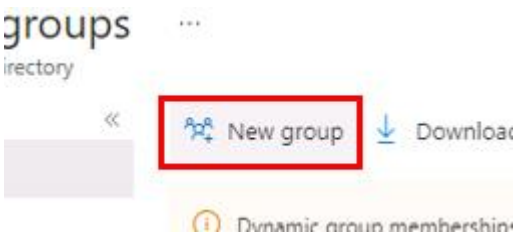
1. In Entra Admin Center, select **Groups** > **All groups** on the left menu



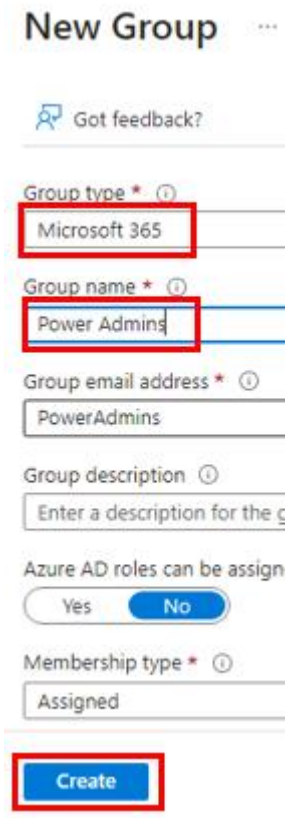
2. Select **Groups**



3. Click **New group**



4. Set group type **Microsoft 365**, group name **Power Admins** and then click **Create**



5. Create two more Microsoft 365 groups using following group names
    - **Power Makers**
    - **Power Users**

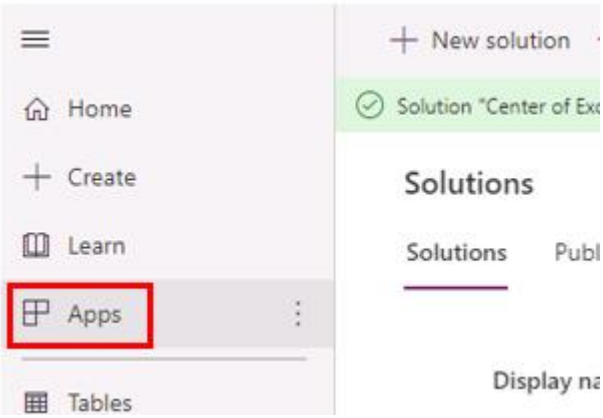
Exercise 4 – Configure Core Solution using CoE Setup and Upgrade Wizard

1. Move back to browser session where you are logged in as **CoE user** in Power Apps maker portal and check if the import of the CoE Core solution is already finished with notification "**Solution Center of Excellence - Core Components imported successfully**".

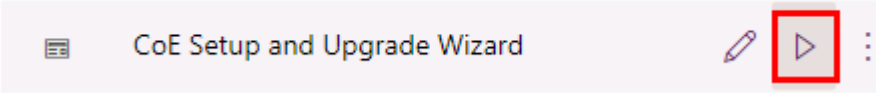
NOTE: If solution import is still in progress then you need to wait until it is finished

If you closed that browser session then navigate back to **https://make.powerapps.com** and login as **CoE User**. Make sure that you have **Power Platform CoE** environment selected.

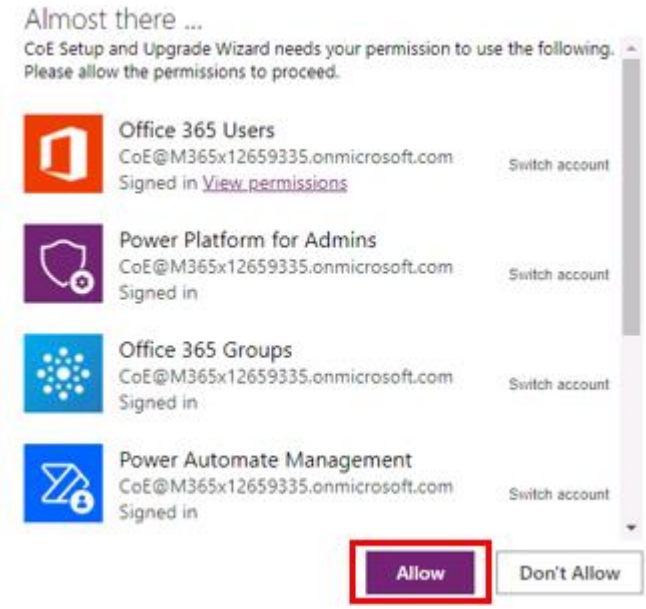
2. Select **Apps** on the left menu



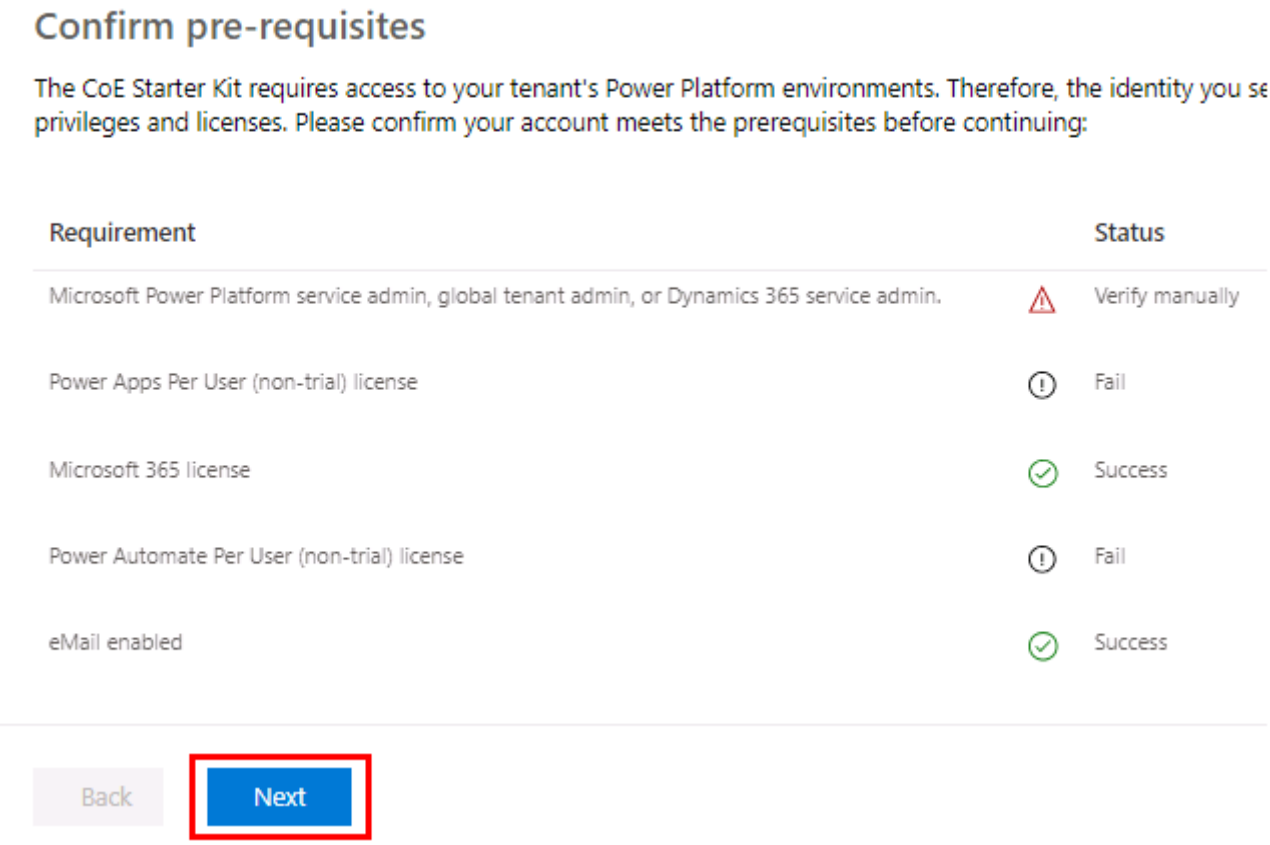
3. Run the **CoE Setup and Upgrade Wizard** by clicking the **Play** button



4. Click **Allow** to provide consent for the connections



5. Click **Next** in the Confirm pre-requisites step which checks that account you are using to configure CoE has necessary licenses and permissions

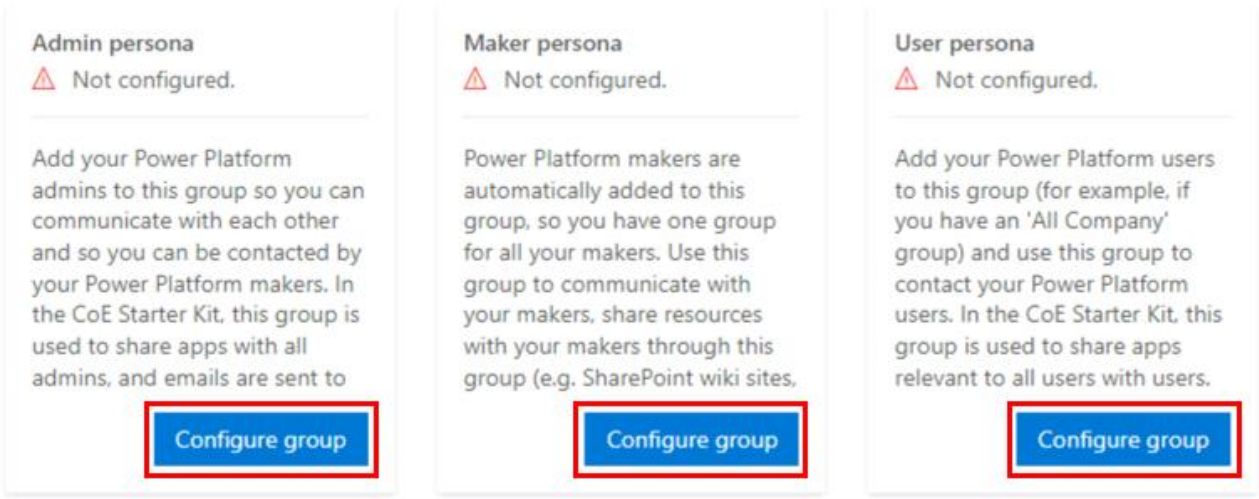


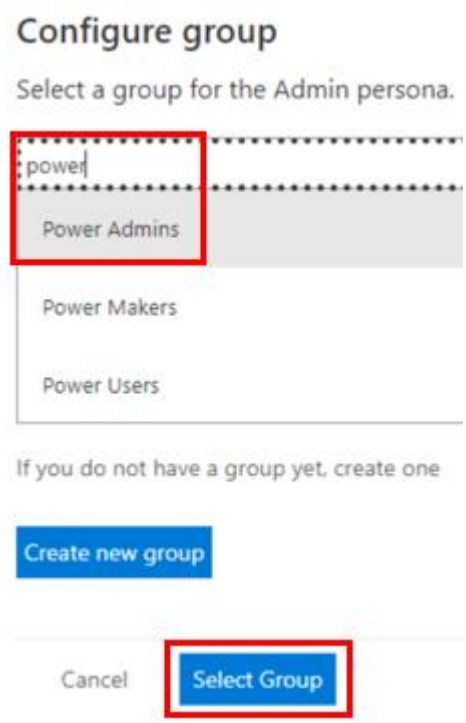
6. Set the CoE personas by clicking **Configure group** and select the corresponding group for each persona we created in the previous task

    - Admin persona = **Power Admins**
    - Maker persona = **Power Makers**

- User persona = **Power Users**

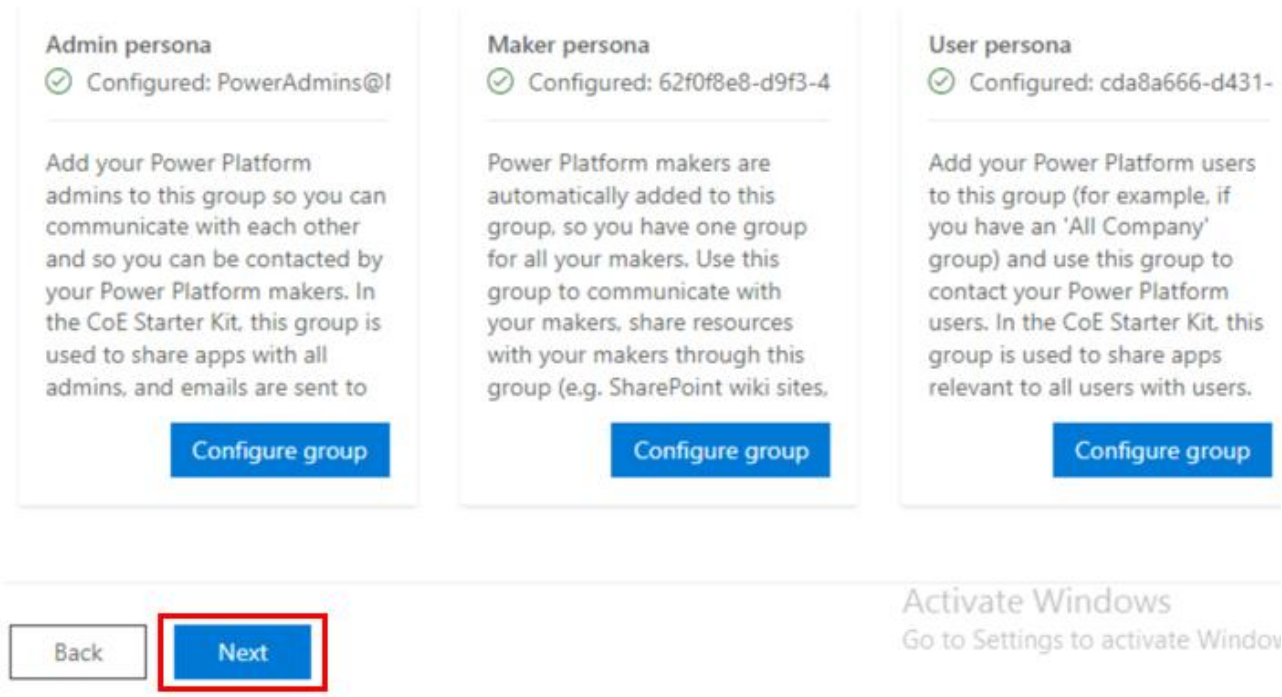
Note! If you are not able to see the UI controls as in the screenshots because of small screen and/or resolution, then use the browser zoom to zoom out to see the UI correctly



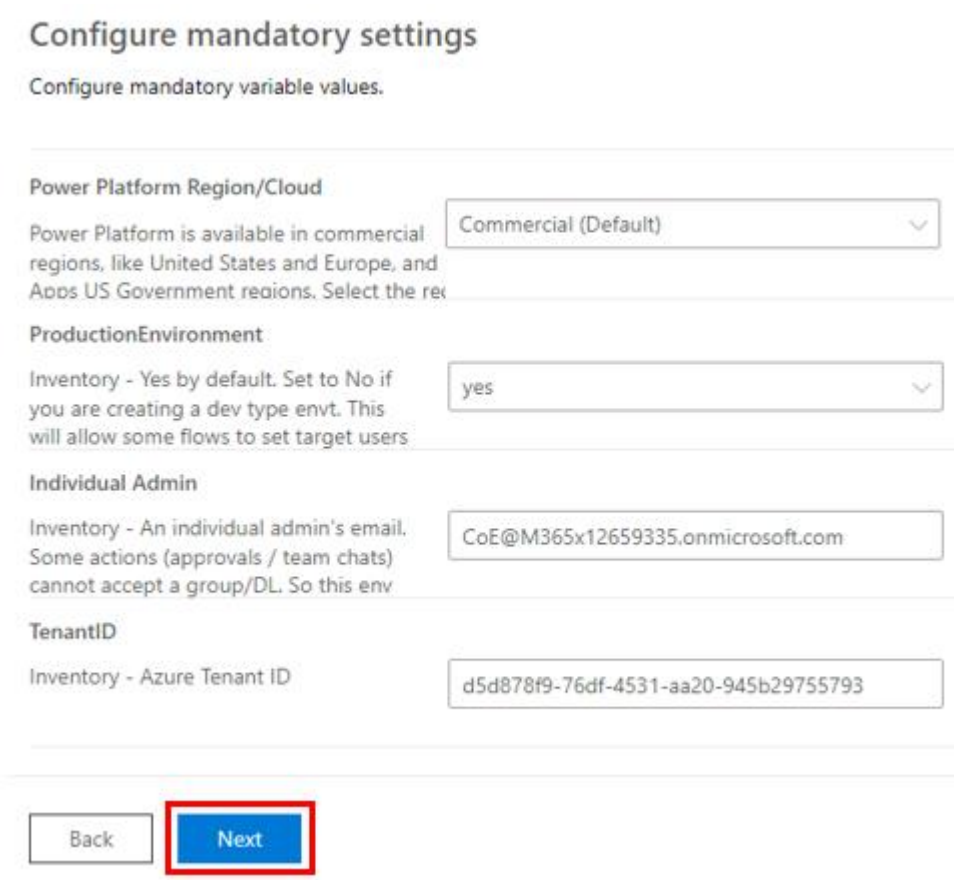


7. Click **Next** when all three personas are configured.

Note that Maker and User groups are defined as ObjectIDs

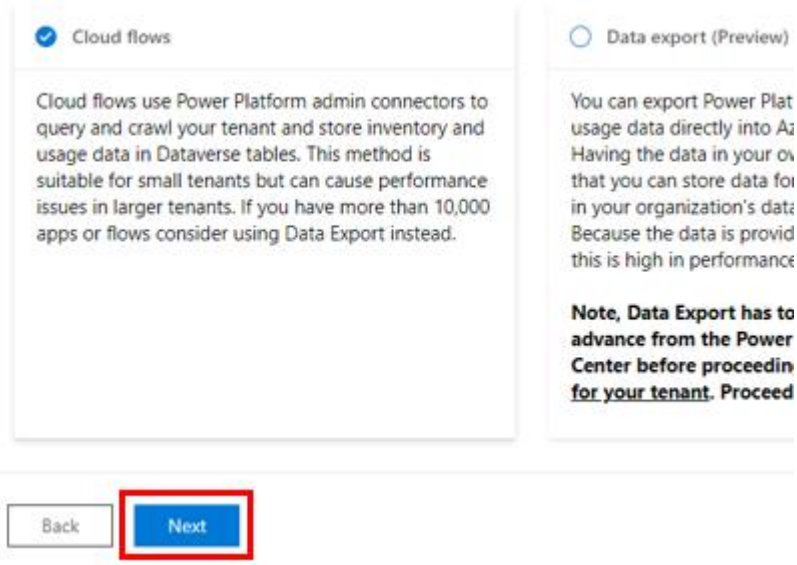


8. Accept all the default settings and click **Next**.



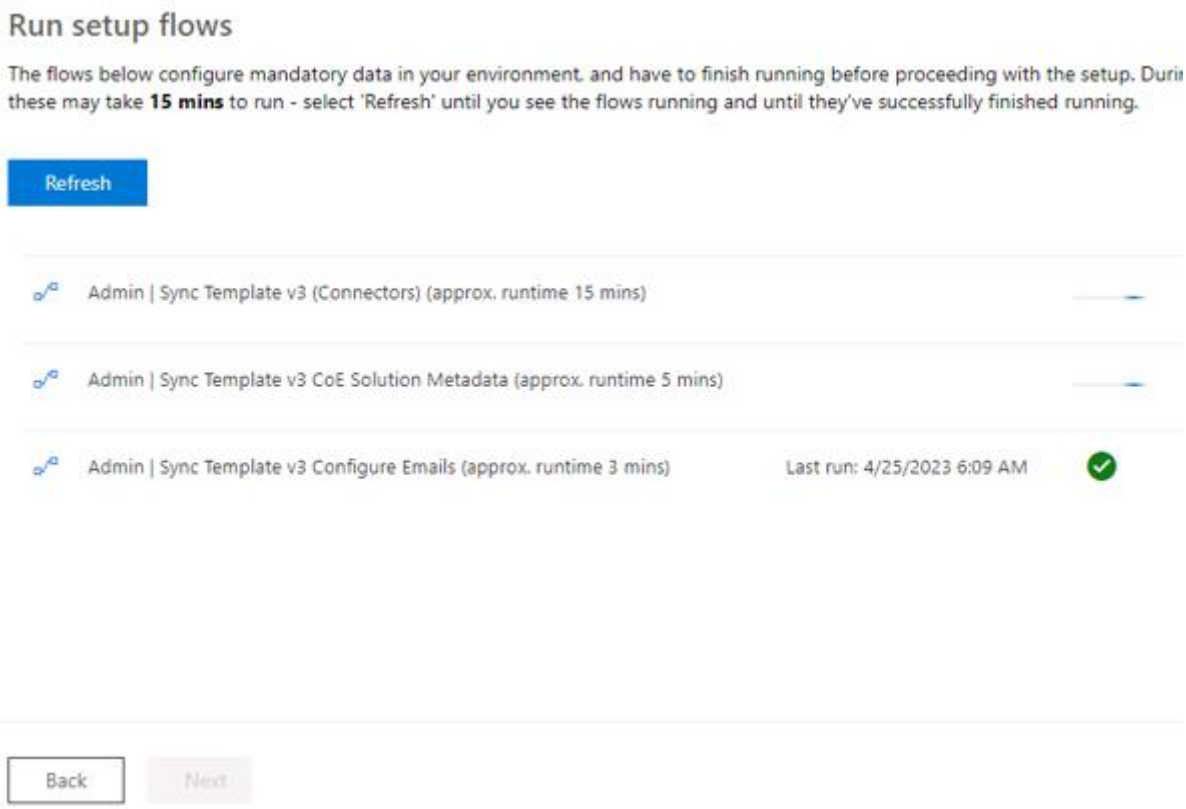
9. Setup wizard will now set environment variable values and enables setup flows. This will take couple minutes

10. We will use Cloud flows setup option, so just click **Next**

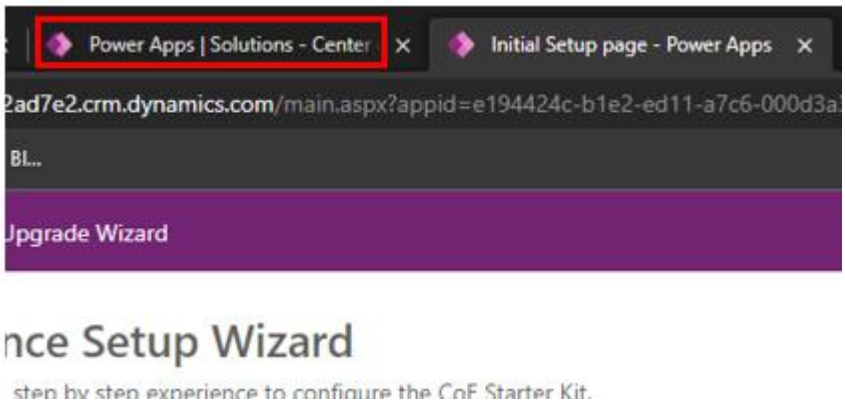


11. This step starts three setup flows and we need to wait until they are completed. This takes normally about 15-30 minutes.

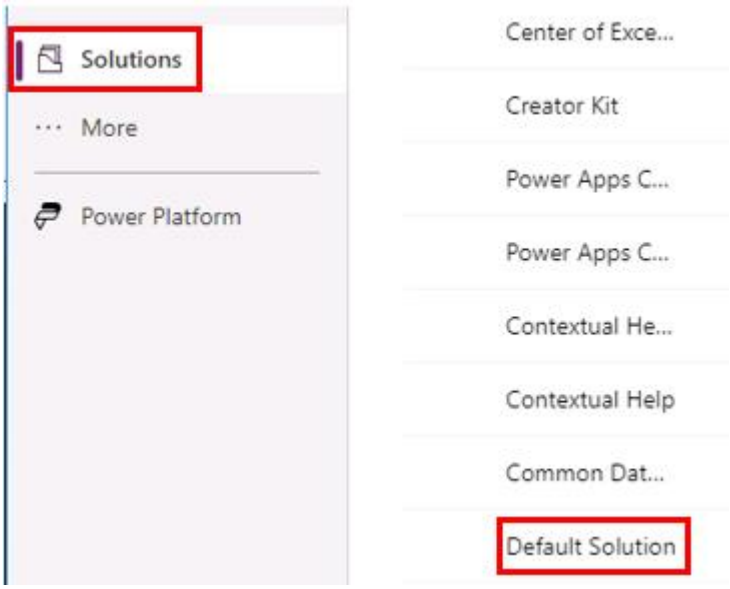
    We will complete few other setup tasks while waiting these flows to complete, so just go to the next step



12. Switch to another browser tab from where you opened the CoE Setup and Upgrade Wizard

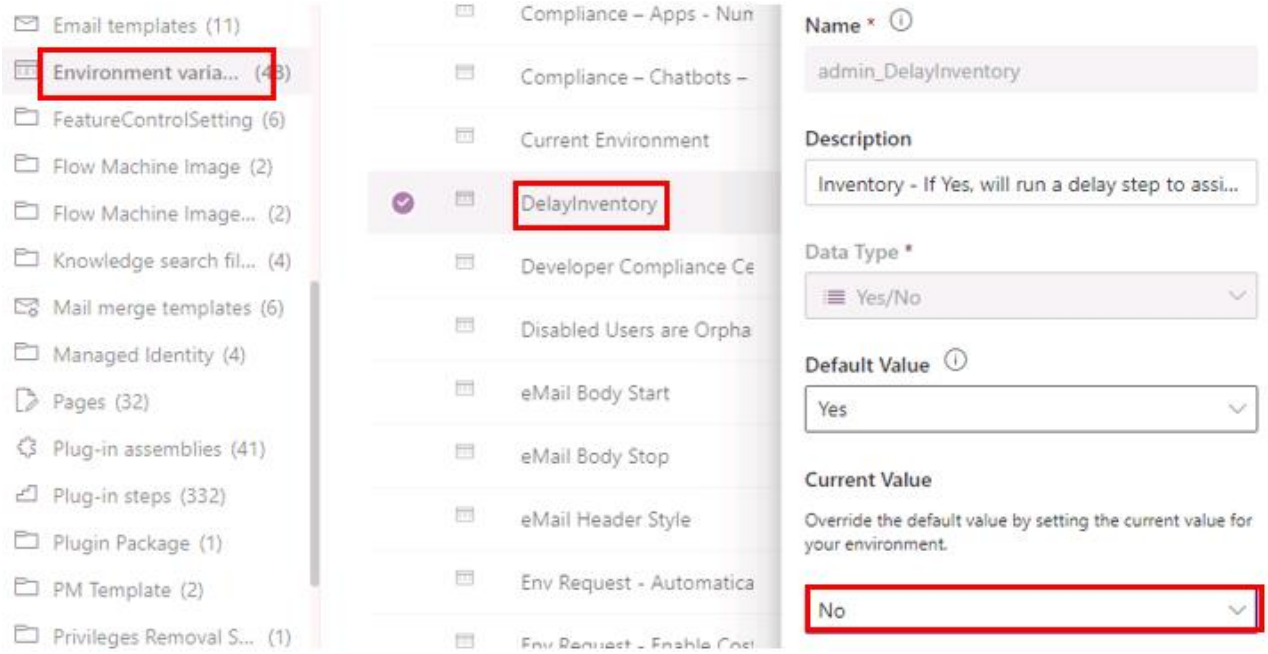


13. Select **Solutions** from the left menu and open the **Default Solution**

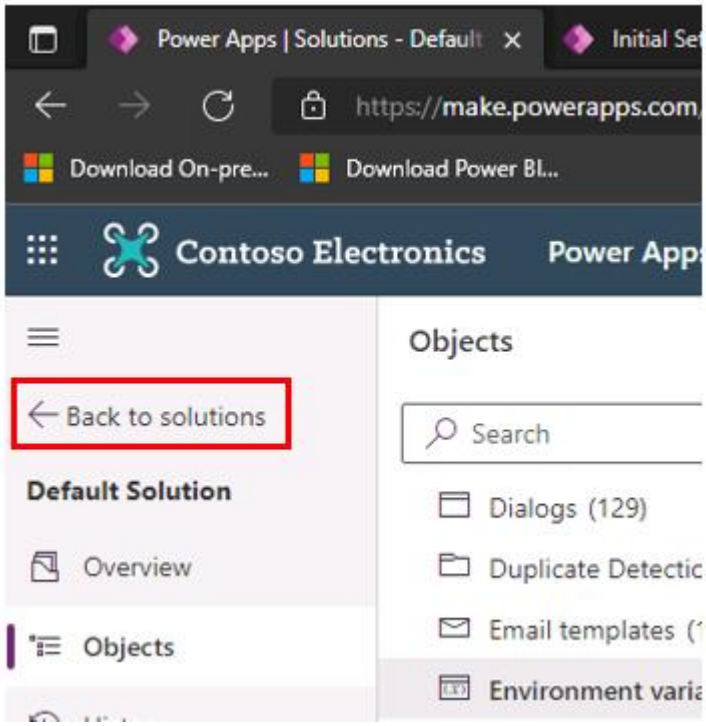


14. Select **Environment variables** > **DelayInventory** and set the Current Value to be **No** and click **Save**

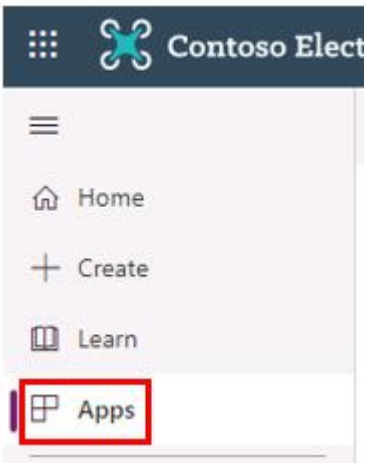
    NOTE! This variable is used to control how the **Admin | Sync Template v3** flow will start. Default and recommended value is Yes which means that this flow will actually start to run its logic randomized between 1 minute and 15 hours after scheduled trigger has started the flow. This is done to better assist the health of Dataverse database. But for the this lab we obviously can't wait max 15 hours for this flow to complete, so we need to change this value to No



15. Click **Back to solutions**

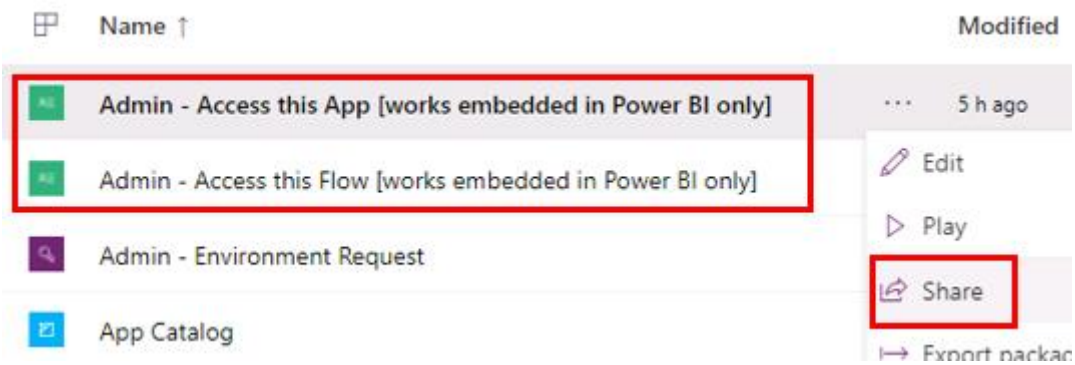


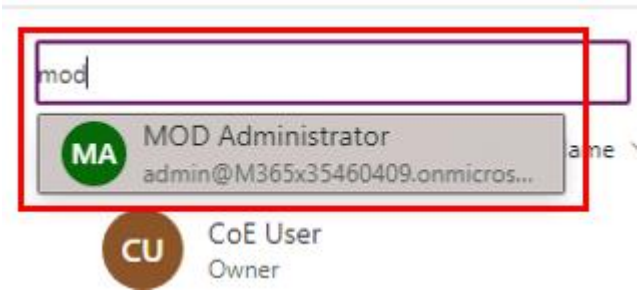
16. Select **Apps** from the left menu

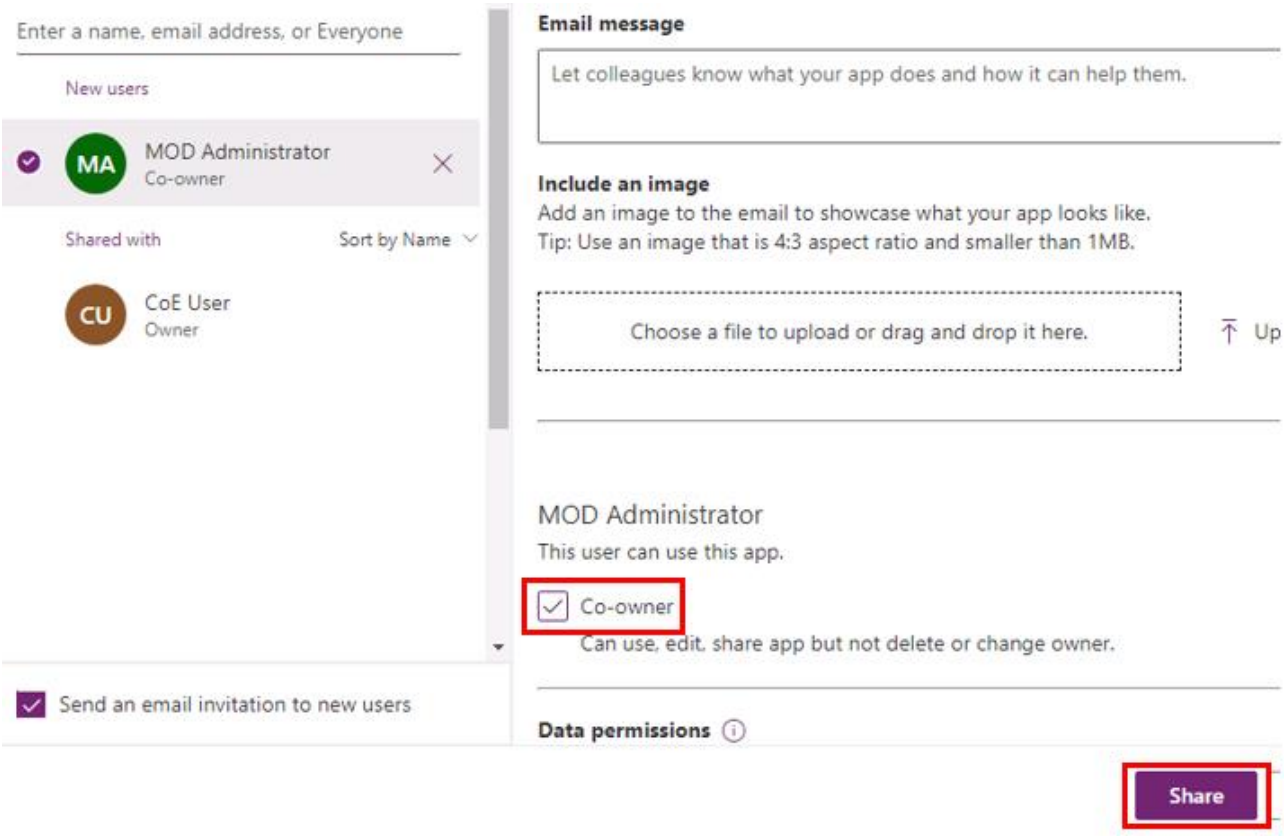


17. Share the following Canvas Apps with MOD Administrator account granting **co-owner** permisssions, so that in next exercise MOD Administator can use these apps in Power BI dashboard

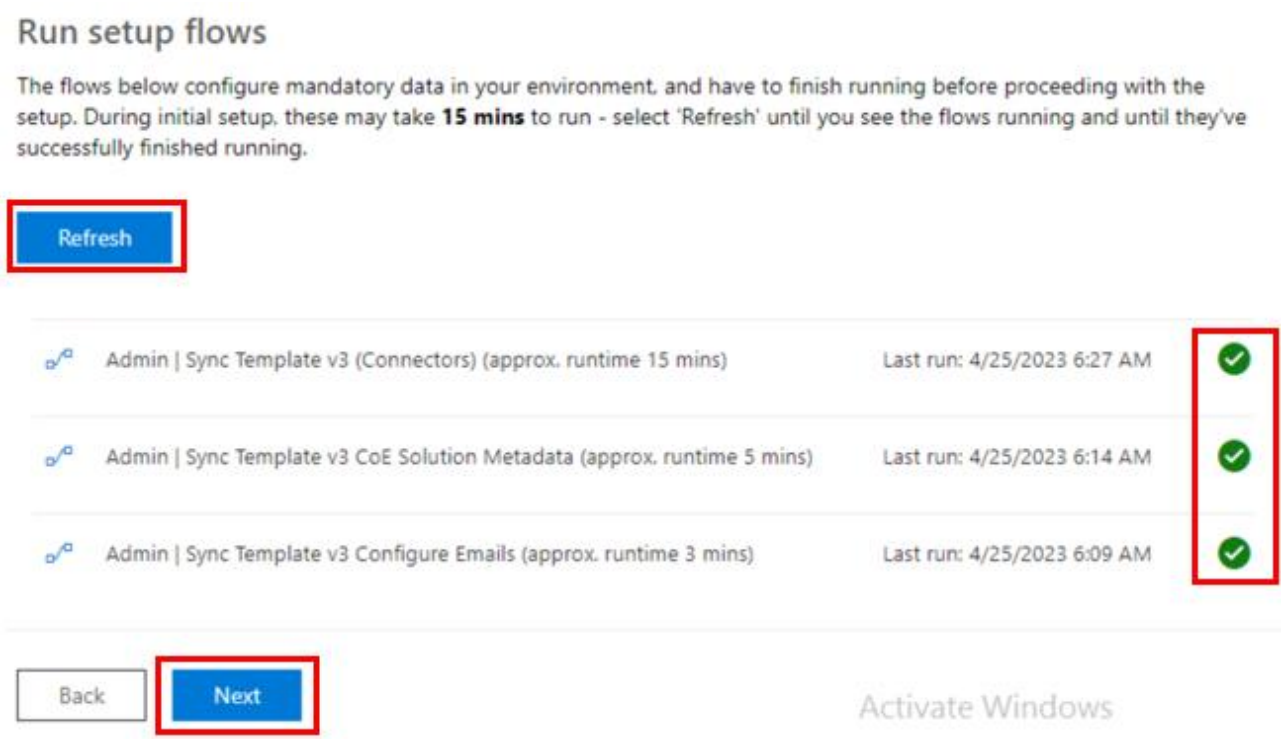
    - **Admin - Access this App [works embedded in Power BI only]**
    - **Admin - Access this Flow [works embedded in Power BI only]**







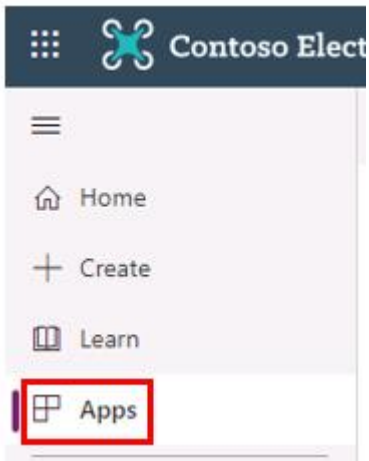
18. Go back to browser tab where you have CoE Setup and Upgrade Wizard open and click **Refresh**. If all the three flows are completed then click **Next** to move to the next step otherwise you need to wait until flows are completed. Use Refresh to see when flows are finished. This is also good time to have a short break if you need to wait the flows 😃



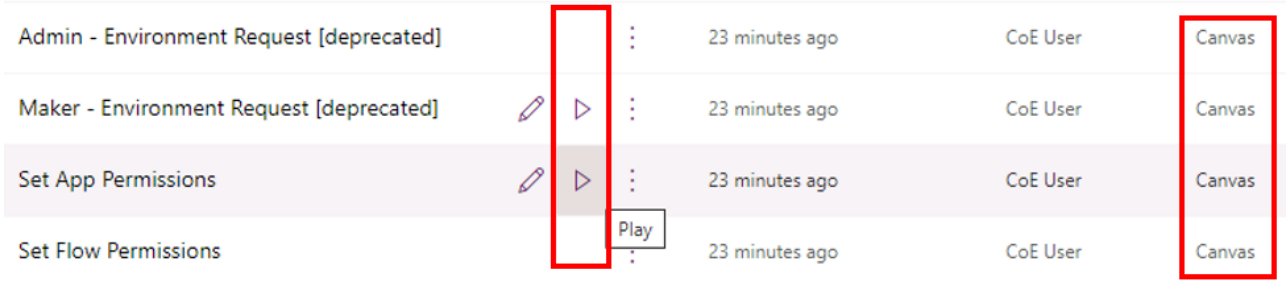
19. Setup wizard will now enabled most of the inventory and helper flow which takes normally 5-10 minutes.

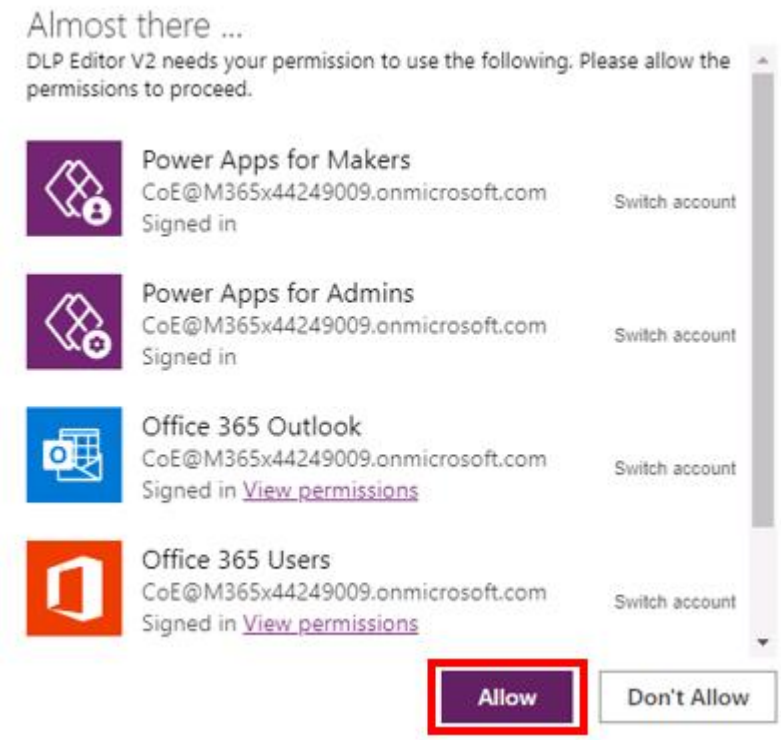
    NOTE! while waiting this step to complete we can configure Audit Log flows, **so continue to next step**

20. Move to browser tab where you have Power Apps portal open (from where you opened the CoE Setup and Upgrade Wizard) and from the left menu select **Apps**

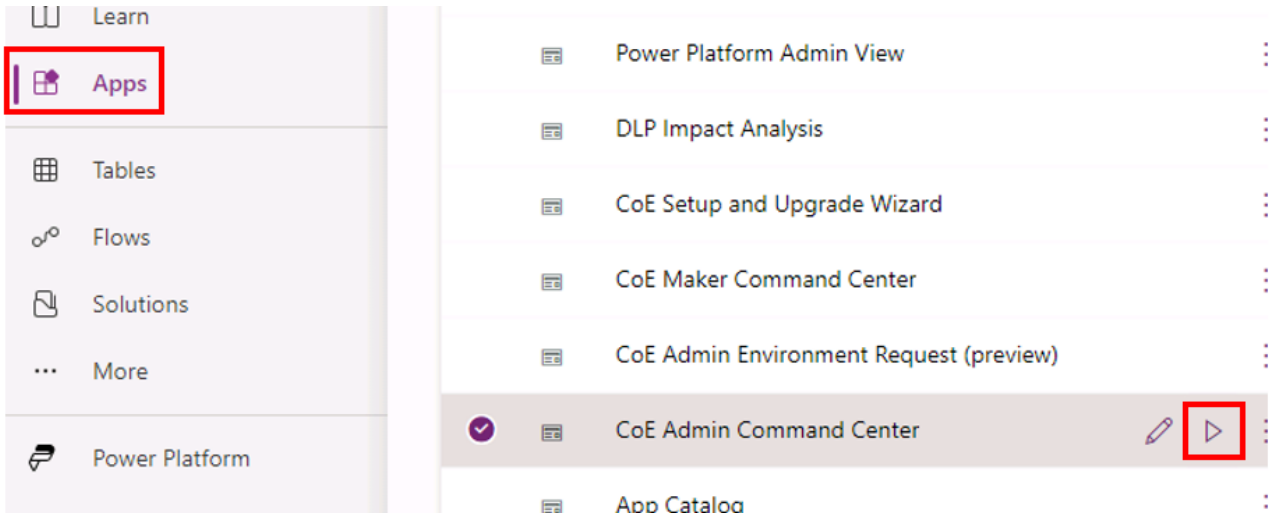


21. Launch some CoE **Canvas Apps** few times to generate Launch PowerApp audit log events.

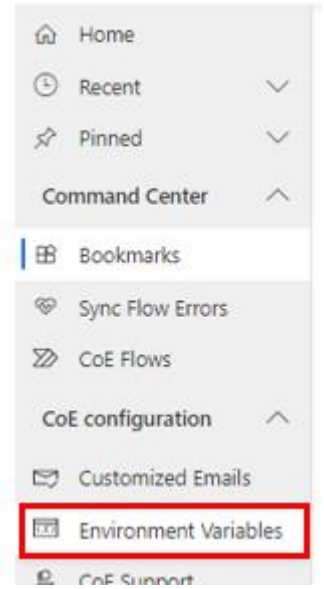




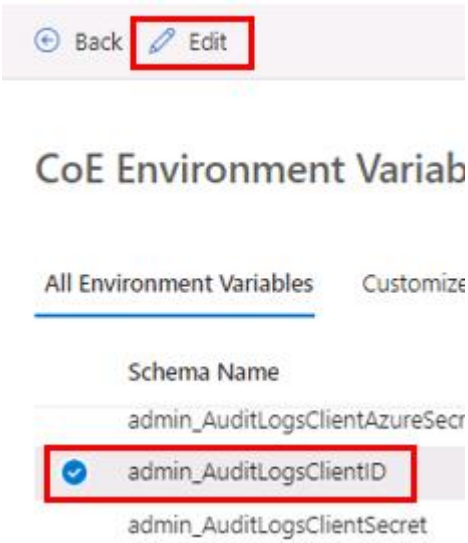
22. Go back to **Apps** and open **CoE Admin Command Center**.



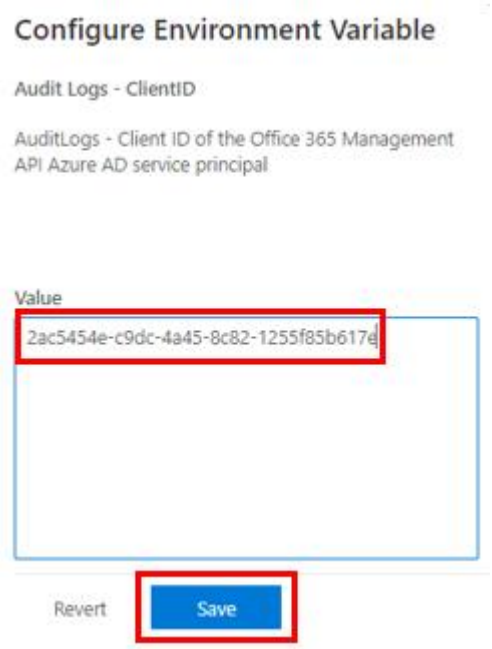
23. Select **Environment Variables** from the laft menu under CoE Configuration



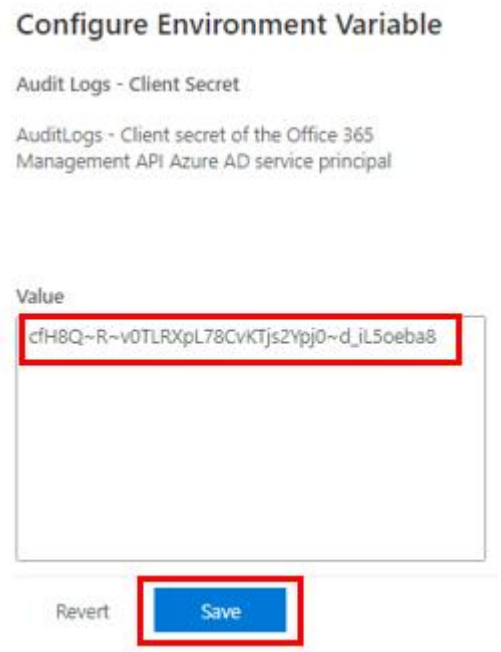
24. Select **admin_AuditLogsClientID** and click **Edit**



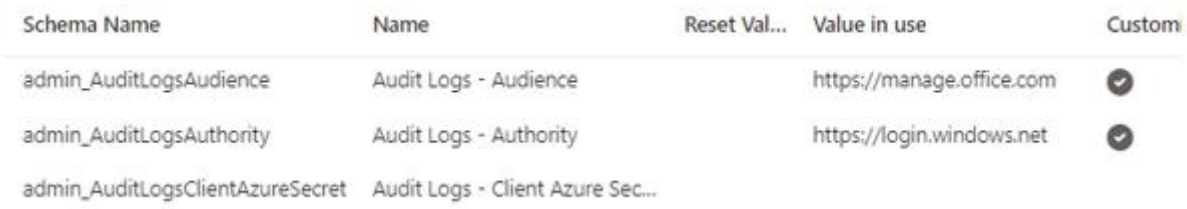
25. Copy-paste the **Client ID** value from the notepad to the text field and click **Save**



26. Do the same for **admin_AuditLogsClientSecret**. Copy-paster the **Client Secret** value from the notepad to the value of the environment variable and click **Save**



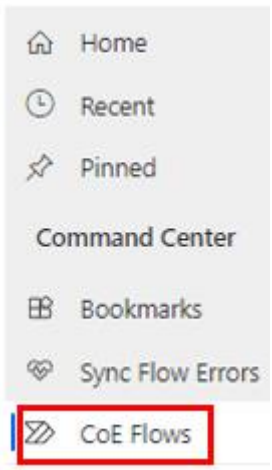
27. Note that there are **admin_AuditLogsAudience** and **admin_AuditLogsAuthority** variable which are already set by the Setup Wizard.



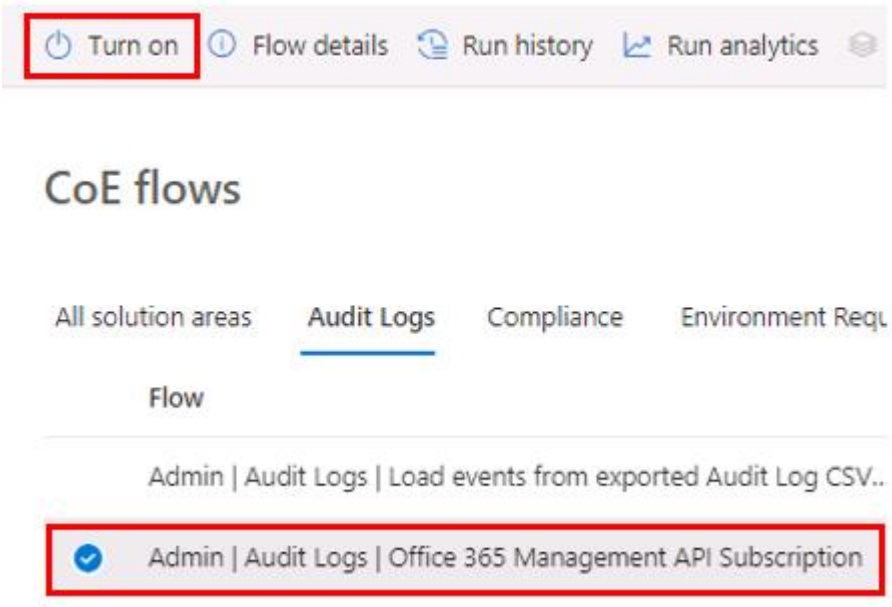
Schema Name	Name	Reset Val...	Value in use	Custom
admin_AuditLogsAudience	Audit Logs - Audience		https://manage.office.com	✓
admin_AuditLogsAuthority	Audit Logs - Authority		https://login.windows.net	✓
admin_AuditLogsClientAzureSecret	Audit Logs - Client Azure Sec...			

admin_AuditLogsClientAzureSecret is used when the Client Secret is stored in Azure KeyVault which we do not use in this lab

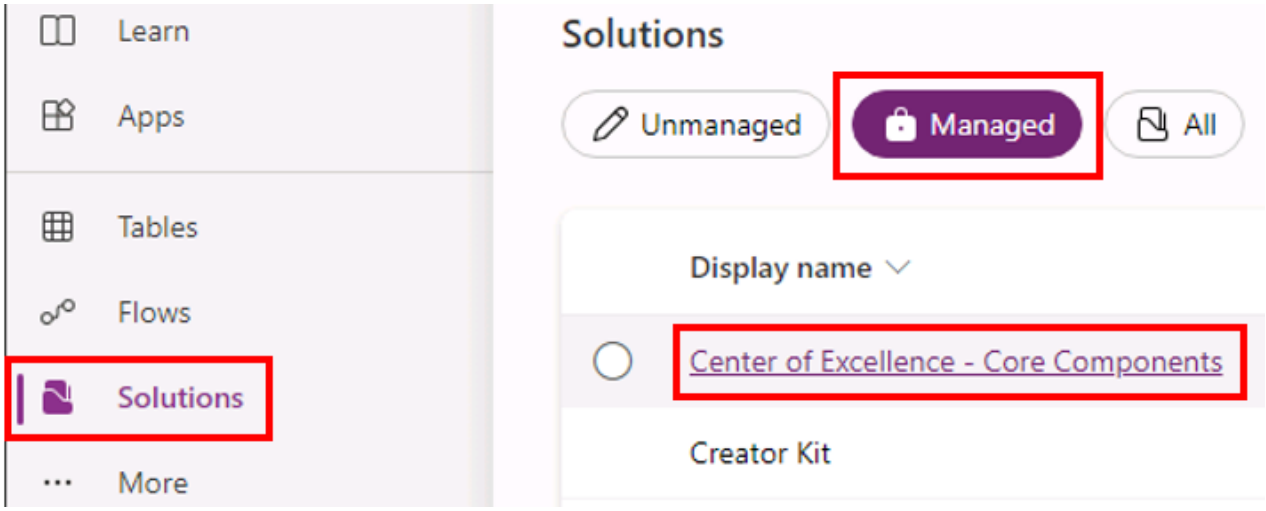
28. Select **CoE Flows** from the left menu



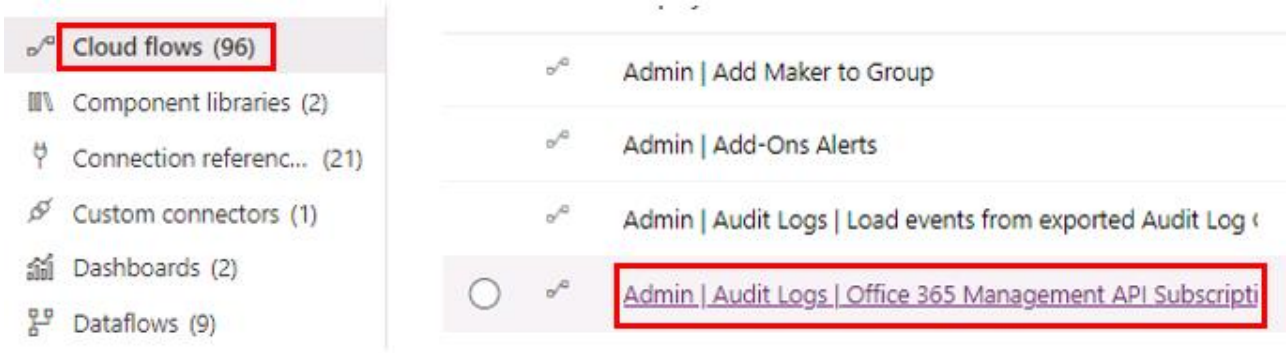
29. Select **Admin | Audit Logs | Office 365 Management API Subscription** flow and click **Turn on**



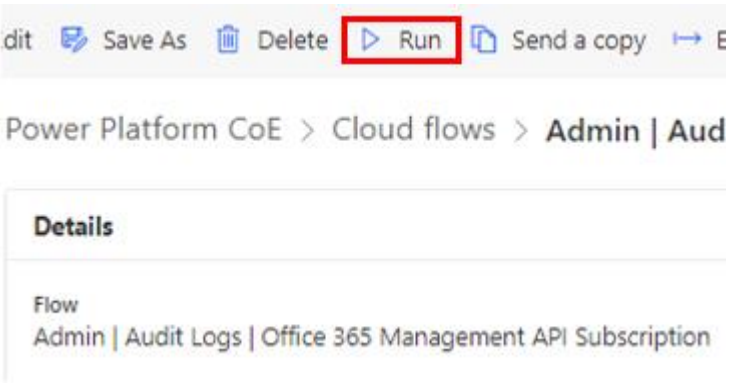
30. When flow is turned on, switch to another browser tab from where you opened this app and select **Solutions** > **Center of Excellence - Core Components**



31. Select Cloud Flows and click **Admin | Audit Logs | Office 365 Management API Subscription** to open the flow



32. Click **Run**

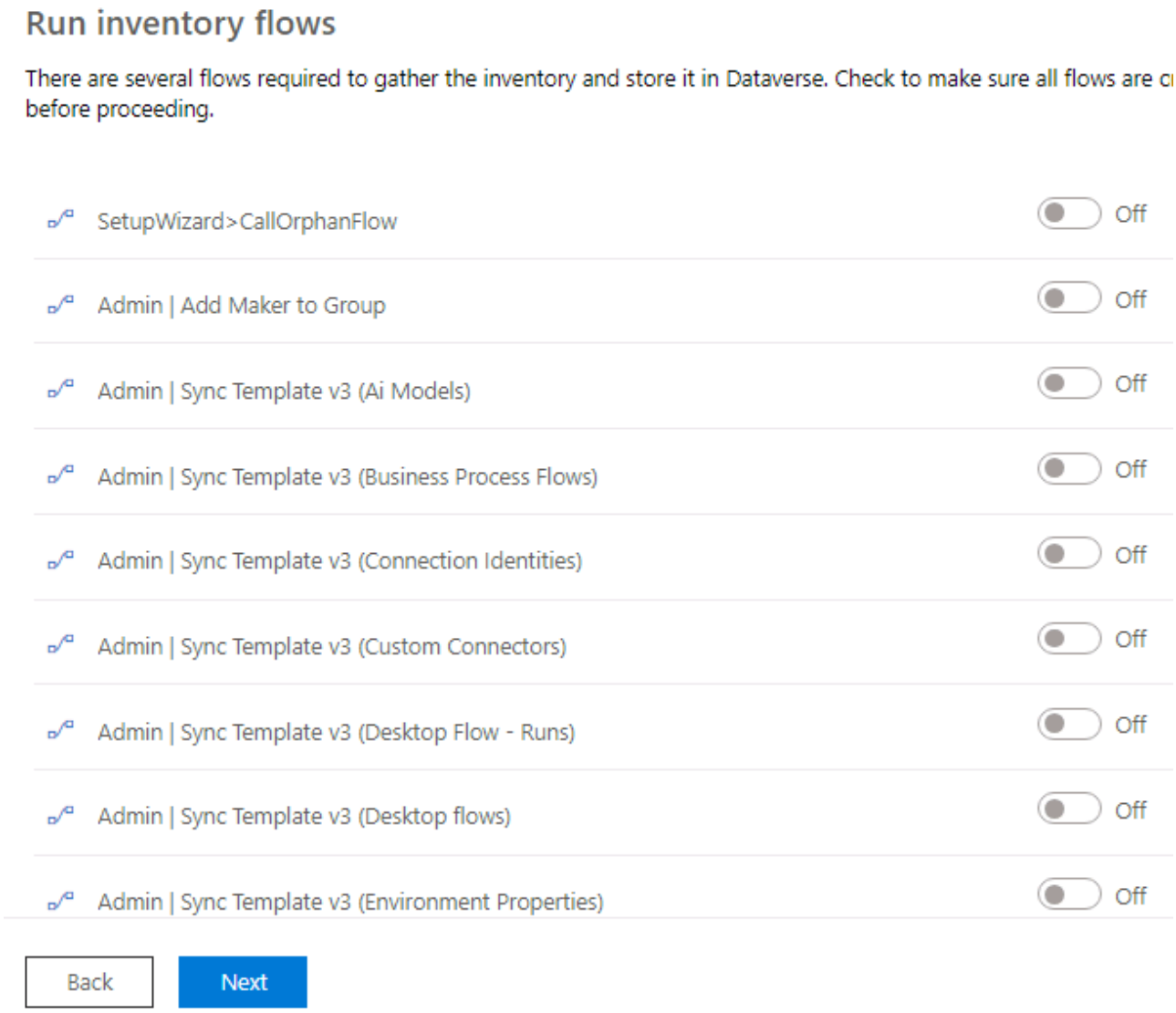


33. Provide value **start** for the Operation parameter and click **Run flow**

34. This flow will start the Office 365 Management API subscribtion for the tenant to allow calls to be made against the API. Verify that flow runs successfully. It should take only few seconds to complete

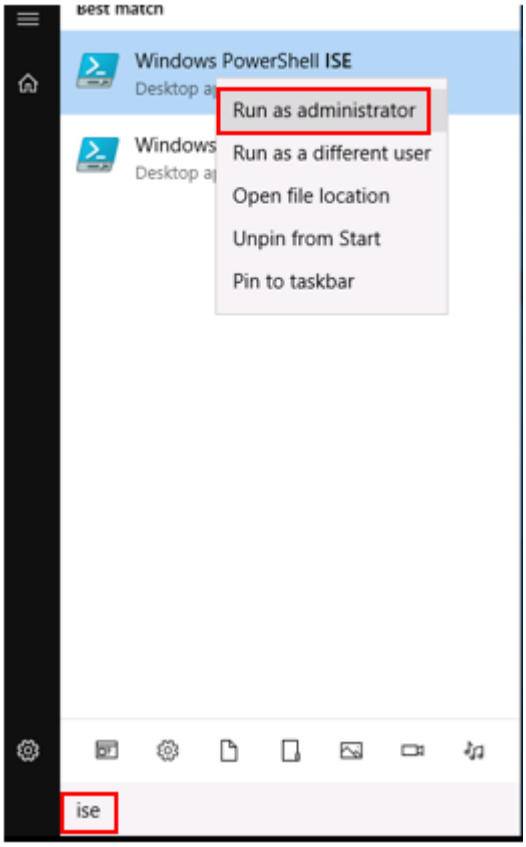
35. Move back to **CoE Setup and Upgrade Wizard** and see has the step we are waiting already finished. If **not** then wait until it is finished before moving to next step

36. You should see this screen, when previous step is finished.



> [!hint] **IMPORTANT:** In the next steps we execute a PowerShell script to be able to run CoE inventory sync flows in the lab environment. This is **only** needed here and should not be used in any other environments

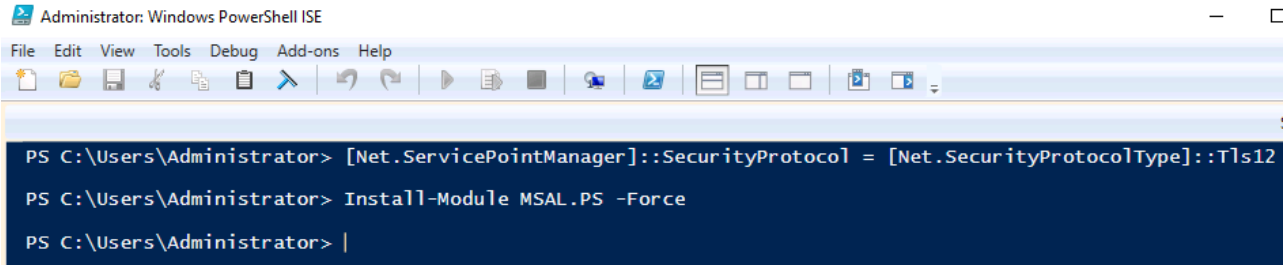
37. Open PowerShell ISE as Administrator



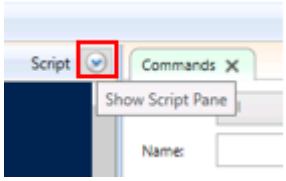
38. Paste and run the following commands in PowerShell ISE console

```
[Net.ServicePointManager]::SecurityProtocol =
[Net.SecurityProtocolType]::Tls12
```

```
Install-Module MSAL.PS -Force
```



39. Open the **Script Pane**



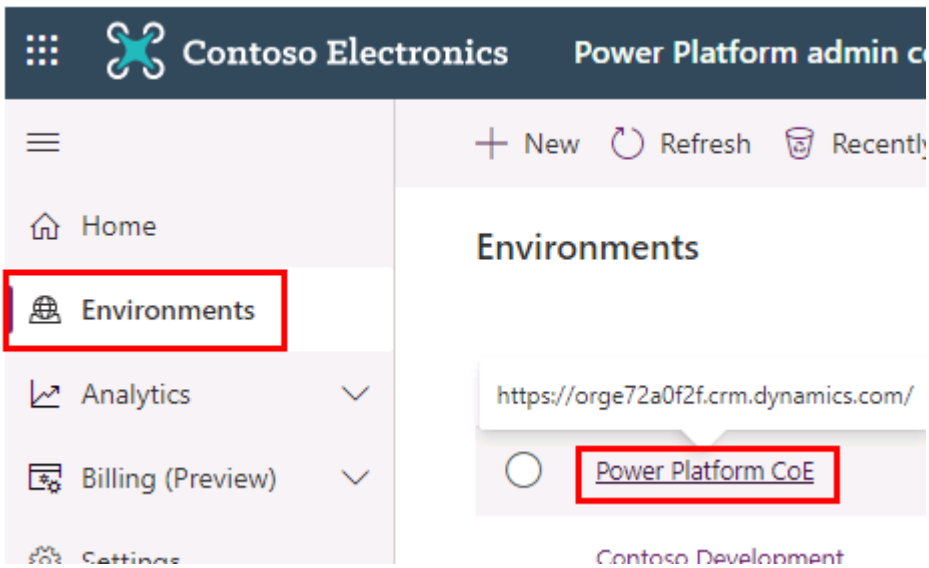
40. Paste this script to Script Pane. **NOTE!** You need to wait until everything is copied to ISE

```
# COPY ENVIRONMENT URL FROM PPAC AND PASTE HERE
$EnvironmentUrl = ""

$connectionDetails = @{
'TenantId'     = "**TENANTNAME.onmicrosoft.com**"
'ClientId'     = '51f81489-12ee-4a9e-aaae-a2591f45987d'
'Interactive'  = $true
'RedirectUri'  = 'https://localhost'
'Scopes'    = $EnvironmentUrl + '.default'
}

$t = Get-MsalToken @connectionDetails

$authHeader = @{
"Authorization" = $t.CreateAuthorizationHeader()
"Content-type" = "application/json"
"Accept" = "application/json"
}

$resSolution = Invoke-RestMethod -Uri
"$($EnvironmentUrl)api/data/v9.2/solutions?`$filter=(uniquename eq
'CenterofExcellenceCoreComponents')" -Method Get -Headers $authHeader

$solution = $resSolution.value

$resObjects = Invoke-RestMethod -Uri
"$($EnvironmentUrl)api/data/v9.2/msdyn_solutioncomponentsummaries?`$filter=
(msdyn_solutionid eq $($solution.solutionid) and msdyn_componenttype eq 29)"
-Method Get -Headers $authHeader

$objects = $resObjects.value | Sort-Object msdyn_componenttype

foreach($o in $objects)
{
$reqFlow = "$($EnvironmentUrl)api/data/v9.2/workflows($($o.msdyn_objectid))"
$resFlow = Invoke-RestMethod -Uri $reqFlow -Headers $authHeader -Method Get


$clientData = $resFlow.clientdata

if ($clientData -like "*`"minimumItemCount`":10000*")
{
```

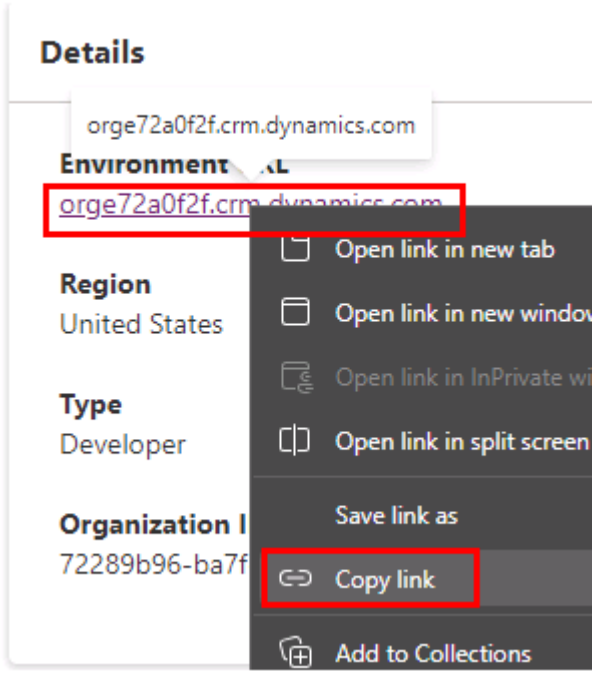
```
if ($resFlow.name -ne "Admin | Sync Template v3 CoE Solution Metadata")
{
if ($resFlow.name -like "Admin | Sync Template*" -or $resFlow.name -like
"Admin | Audit Logs | Sync*")
{
Write-Host $resFlow.name

$clientData = $clientData.Replace("`"minimumItemCount`":100000",
"`"minimumItemCount`":5000")

$clientData = $clientData | ConvertTo-Json -Depth 100

$b = '{"statecode": 1, "clientdata": ' + $clientData + '}'

Invoke-RestMethod -Uri
"$($EnvironmentUrl)api/data/v9.2/workflows($($o.msdyn_objectid))" -Method
Patch -Headers $authHeader -Body $b
}
}
}
}
```

41. Open Power Platform Admin Center **https://aka.ms/ppac**

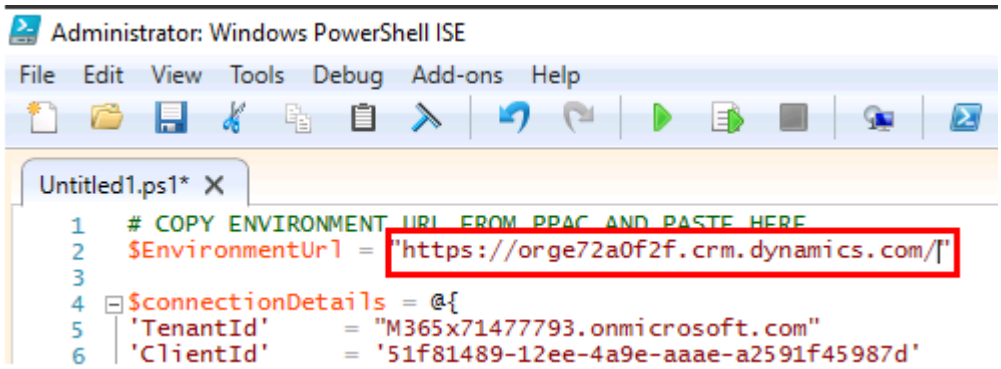
42. Select **Environments** and click **Power Platform CoE** environment



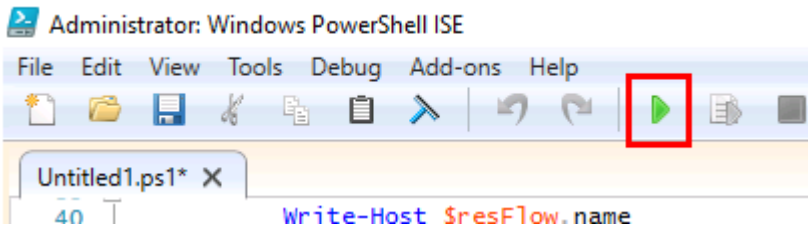
43. Right click Environment Url and click **Copy link**



44. Move back to PowerShell ISE and paste the environment url to the value of **$EnvironmentUrl** variable like below

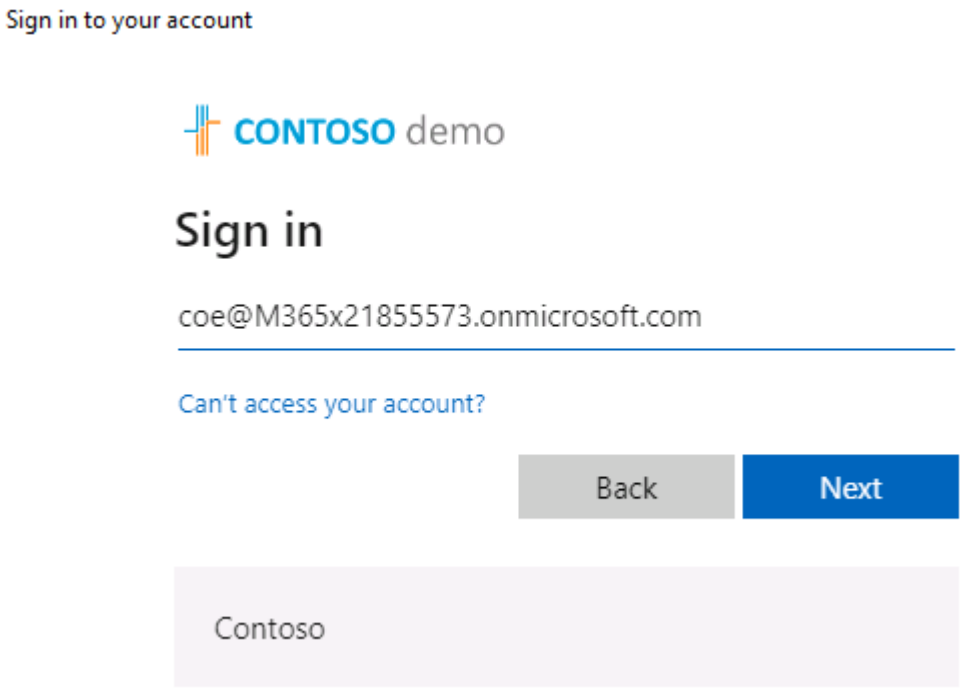


45. Run the script and login using **CoE User** account

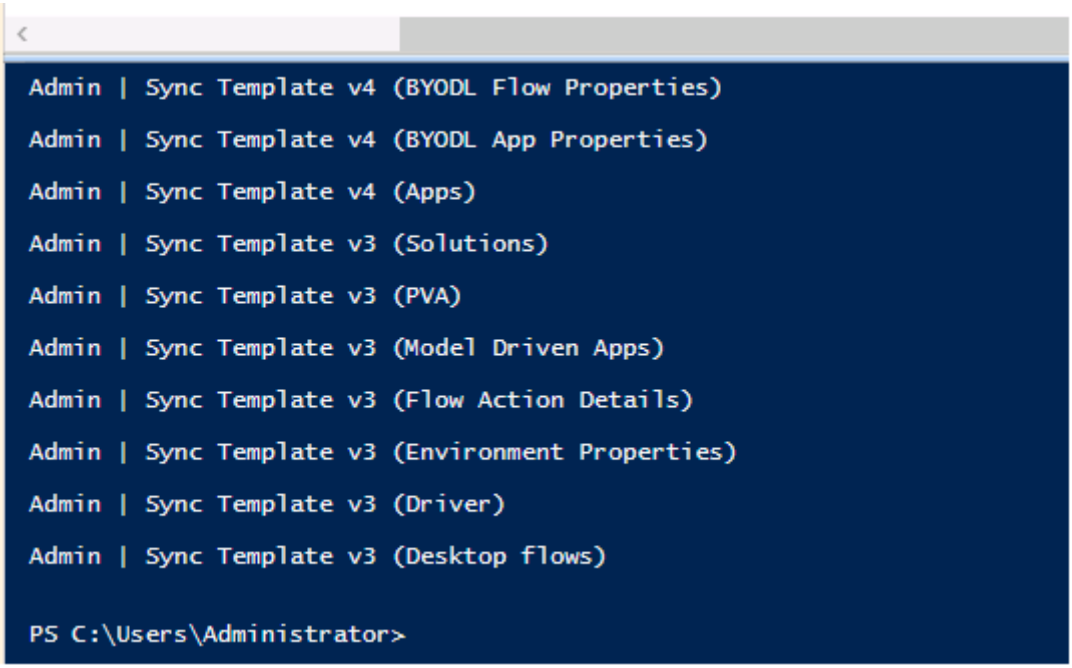


coe@**TENANTNAME.onmicrosoft.com**

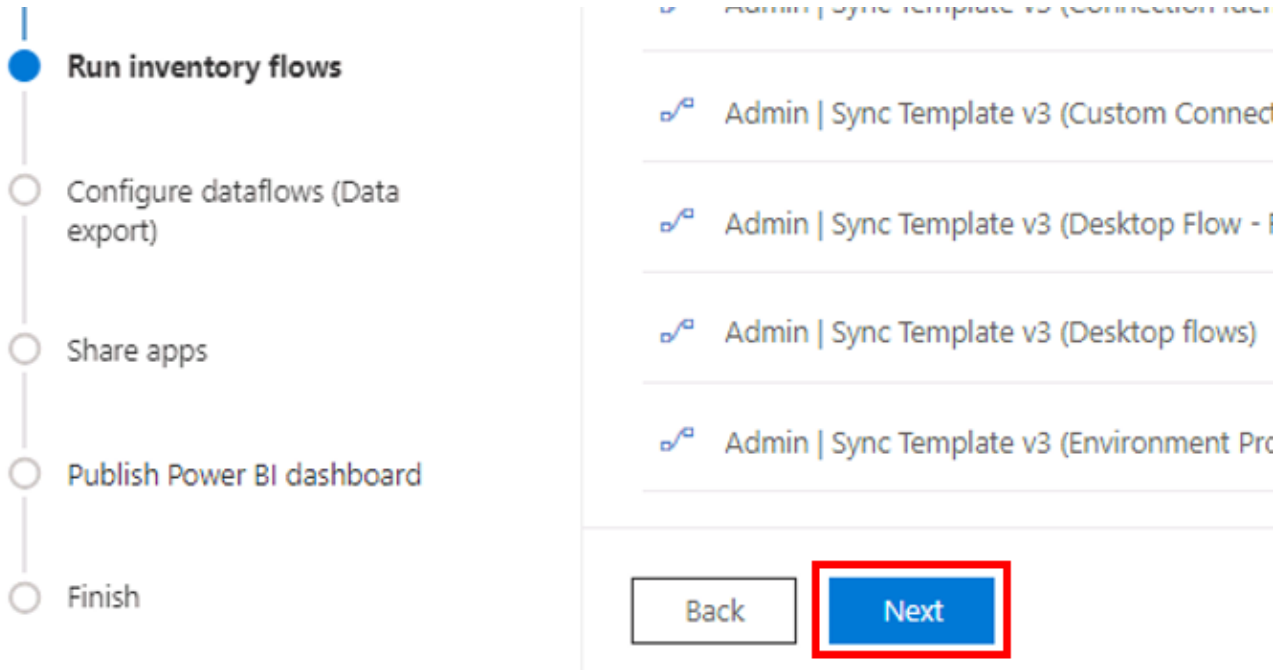
MOD Administrator Password



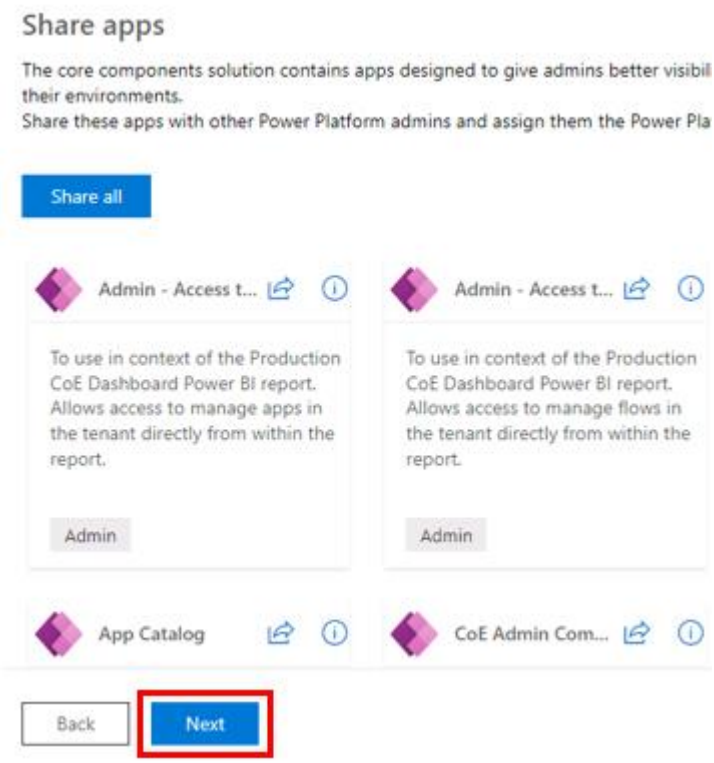
46. Wait until script run is finished



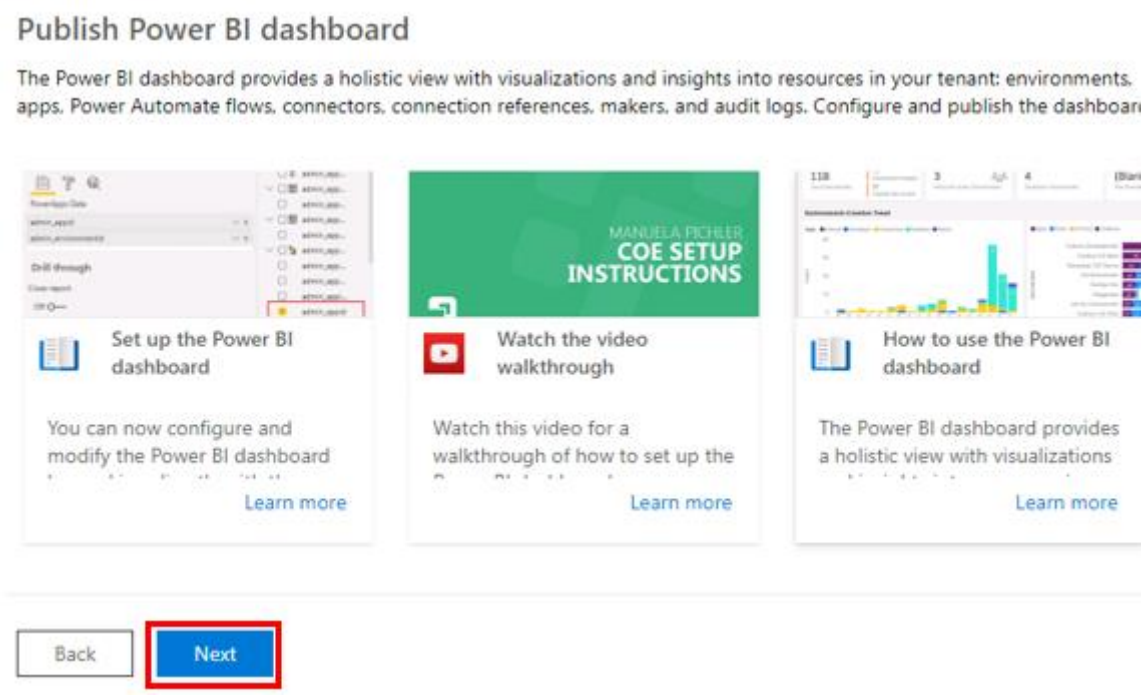
47. All the inventory and helper flows should be automatically enabled and first inventory running. Click **Next**



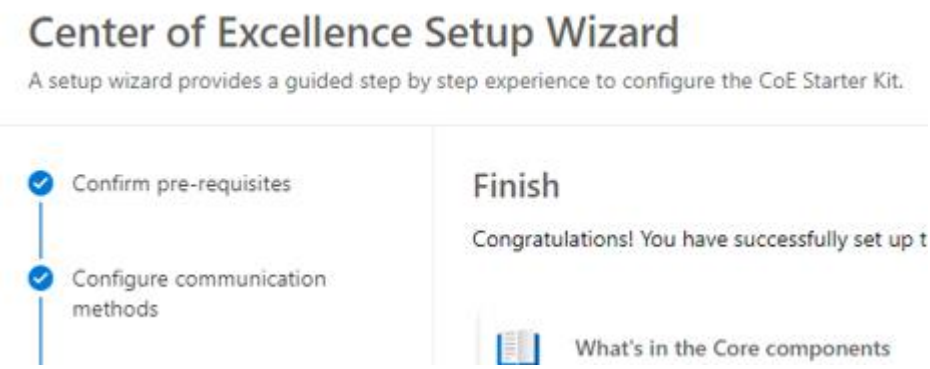
48. In this step you can share CoE Kit Power Apps to corresponding persona groups we created in the beginning. For the lab we do not need to share the apps but if you want you can test how the sharing works. Click **Next**.



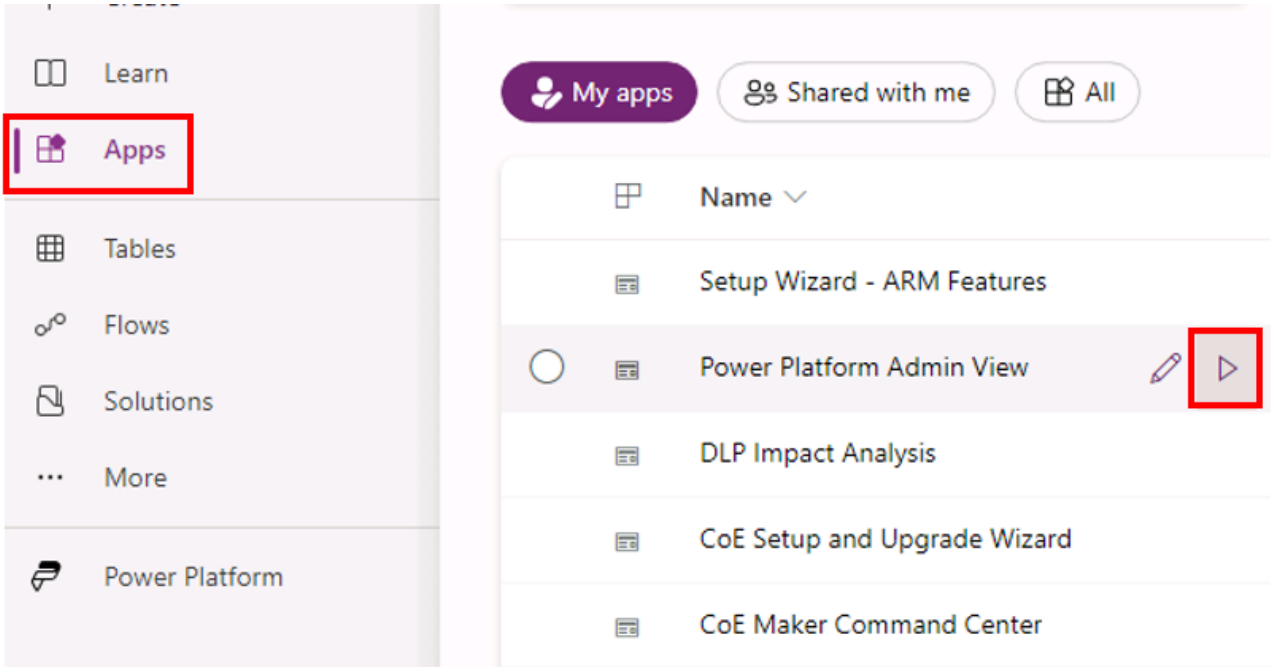
49. In the last step we have instructions how to configure CoE Kit Power BI Dashboard. This can't be done currently in setup wizard and need to be done manually which we will do in the last exercise. Click **Next**

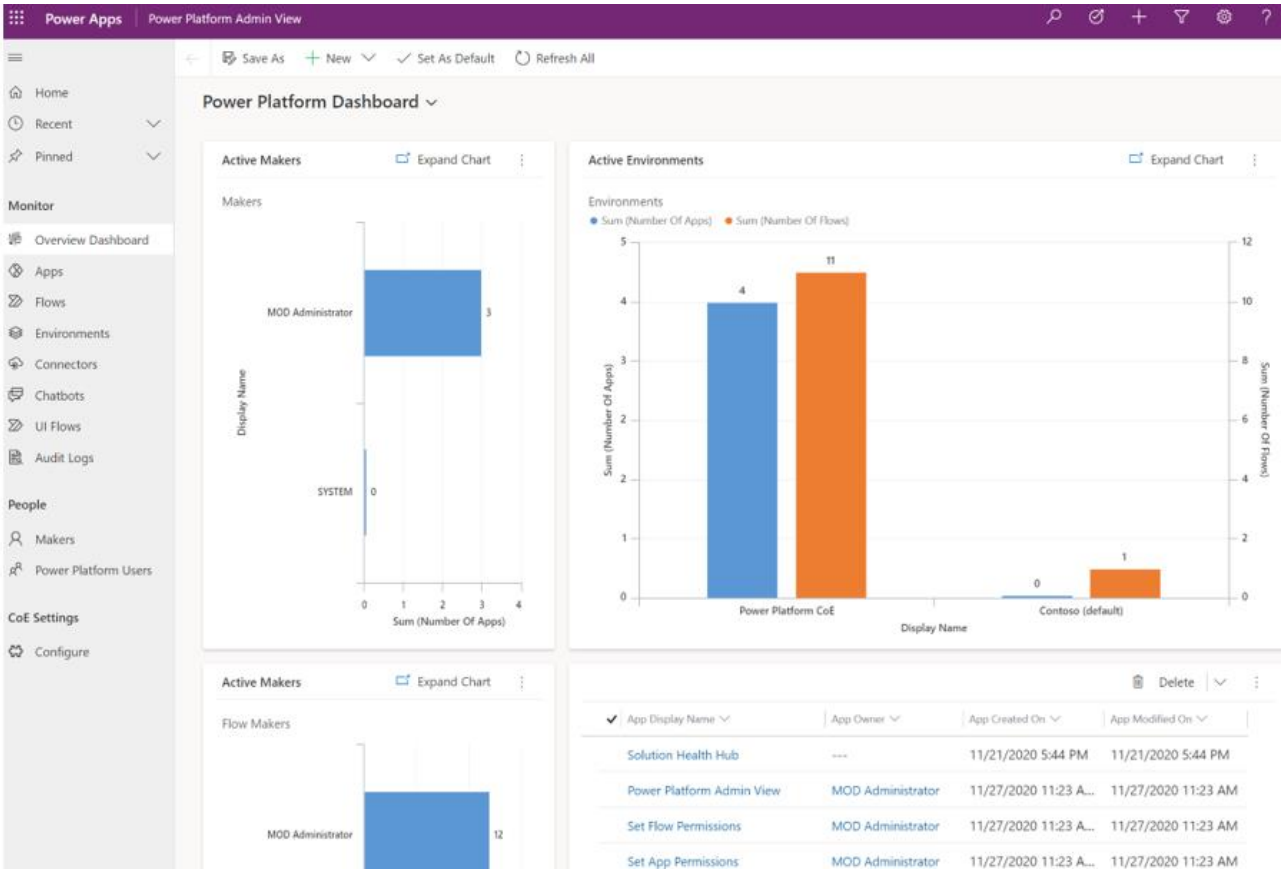


50. Core components setup is now finished, **so you can close the setup wizard**



51. In the left menu select **Apps** and test the **Power Platform Admin View** to see are the inventory flows already populated environments, apps, flows etc.





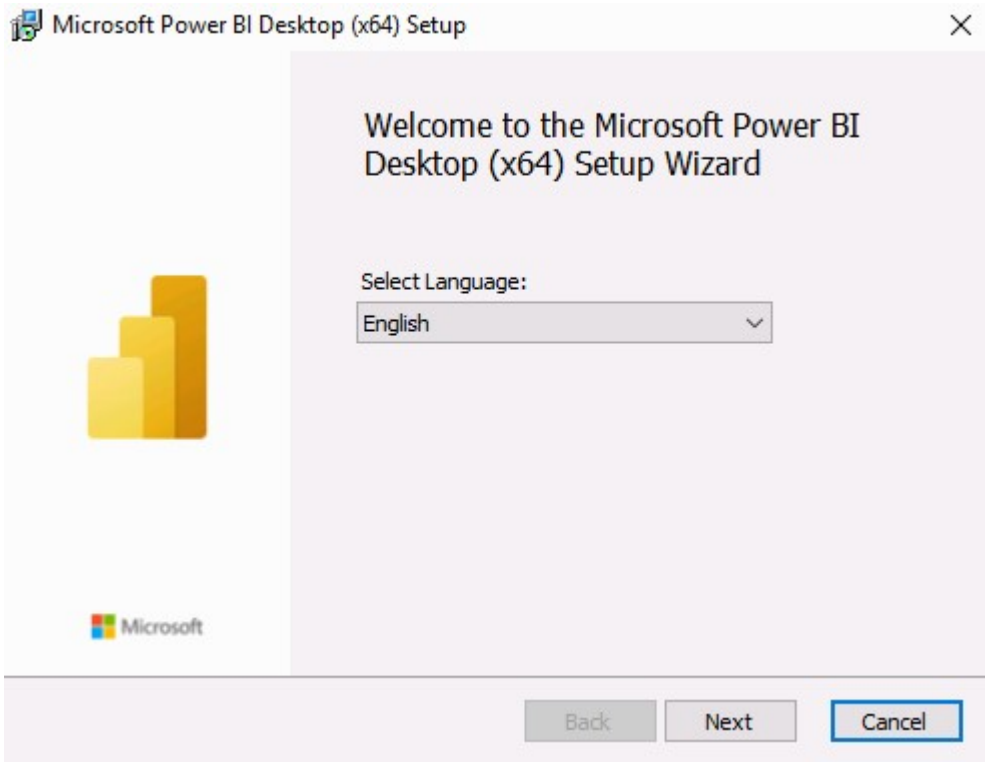
Lab 2

Exercise 1 - Install Power BI Desktop and configure CoE Power BI Dashboard

In this exercise we will configure the CoE Power BI Dashboard and familiarize ourselves with what reports are available specifically for Power Platform Administrators.

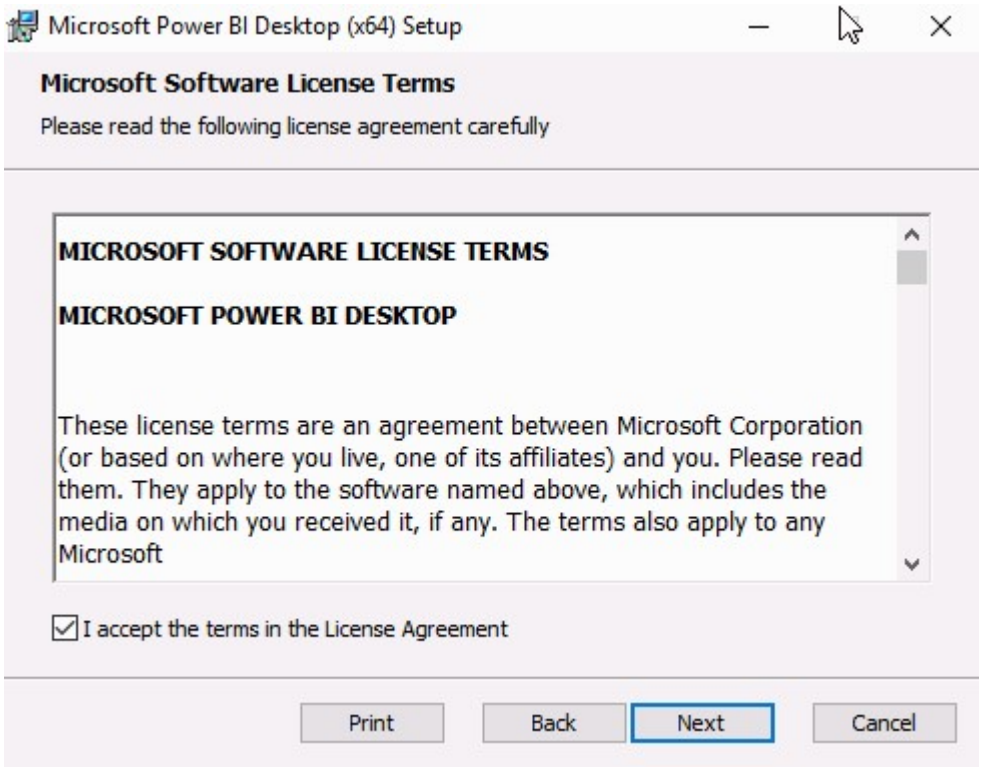
1. Power BI Desktop is installed on **Virtual Machine** but it is not automatically updated to newest version, so download latest version by clicking the below link and install it using default installation settings

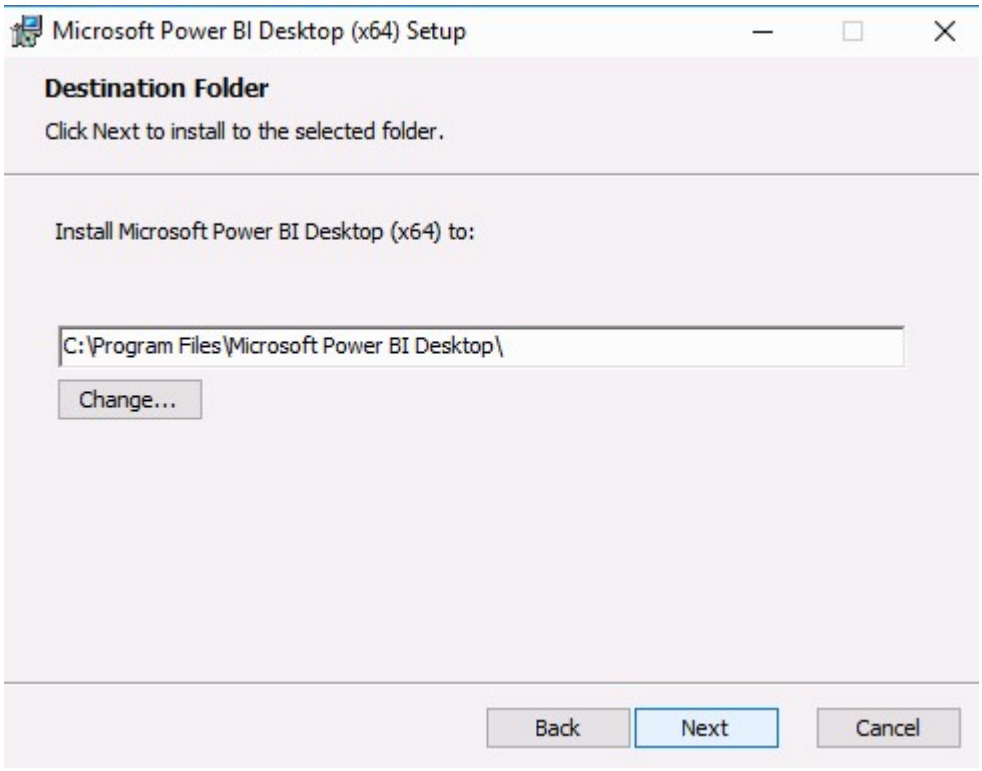
   https://www.microsoft.com/en-us/download/confirmation.aspx?id=58494

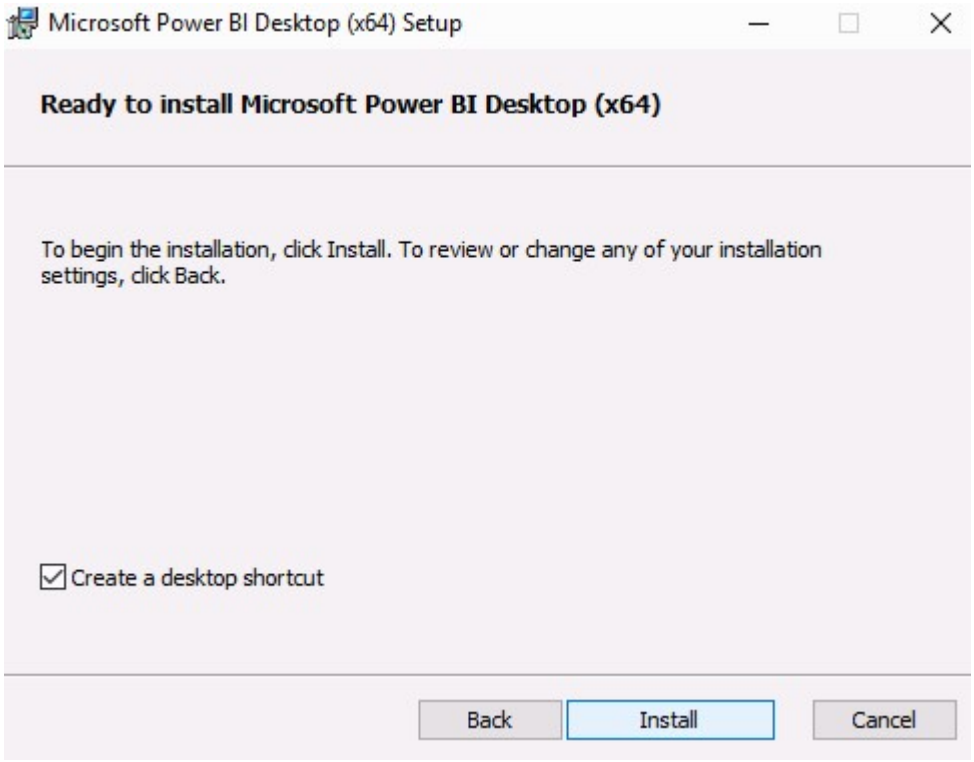


This steps can take some time to complete

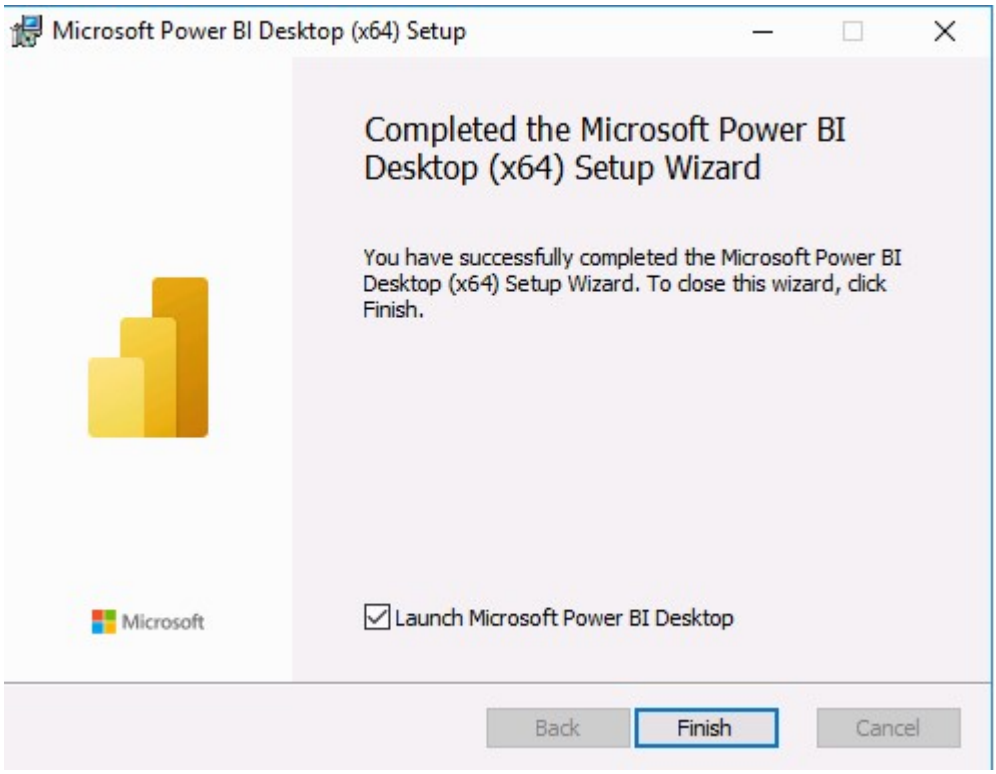

Microsoft Power BI Desktop (x64) Setup
Welcome to the Microsoft Power BI Desktop (x64) Setup Wizard
The Setup Wizard will install Microsoft Power BI Desktop (x64) on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
Microsoft collects usage data to improve Microsoft Power BI Desktop (x64). Read the privacy statement online here.
Microsoft
Learn how to opt out of collection here.
Back
Next
Cancel


Microsoft Power BI Desktop (x64) Setup
Microsoft Software License Terms
Please read the following license agreement carefully
MICROSOFT SOFTWARE LICENSE TERMS
MICROSOFT POWER BI DESKTOP
These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. The terms also apply to any Microsoft
I accept the terms in the License Agreement
Print
Back
Next
Cancel

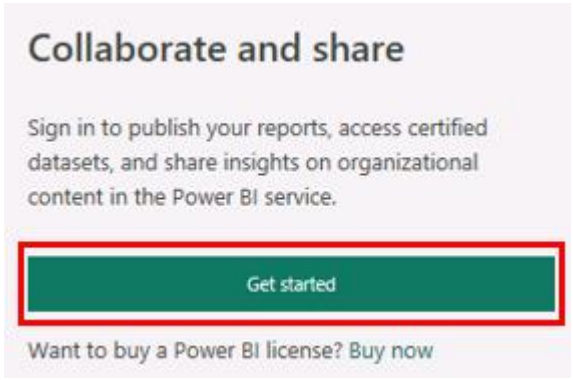




2. When installation is finished, launch the **Power BI Desktop**

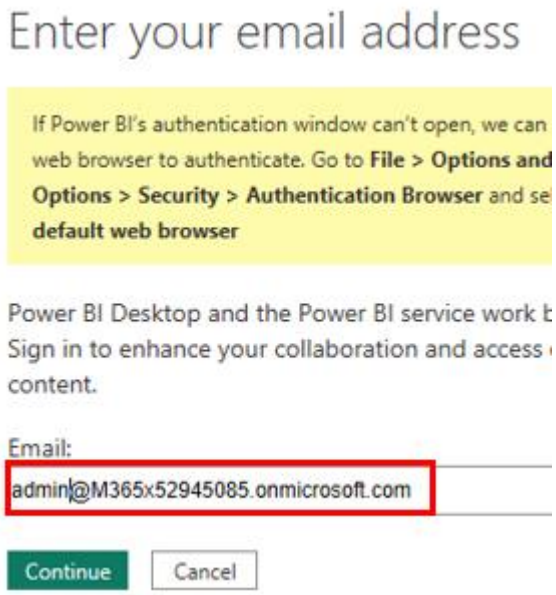


3. Click **Get started**



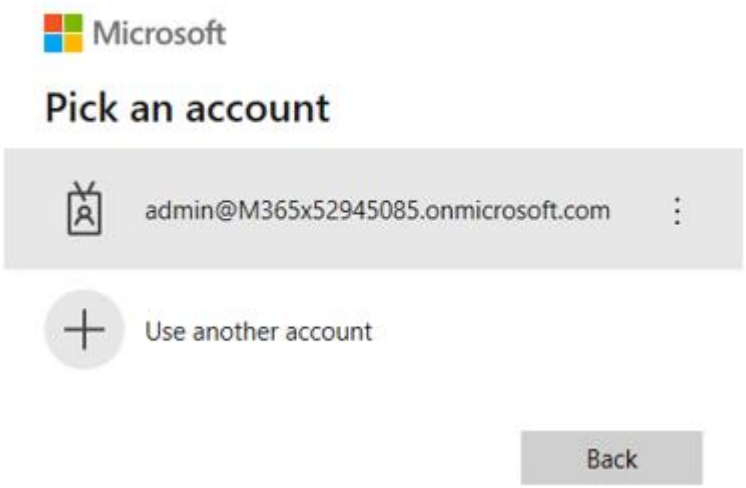
4. Enter MOD administrator email address and click **Continue**

   MOD Administrator Username

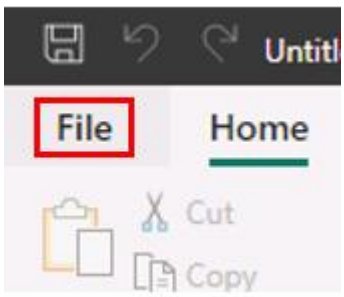


5. Login using MOD Administrator credentials

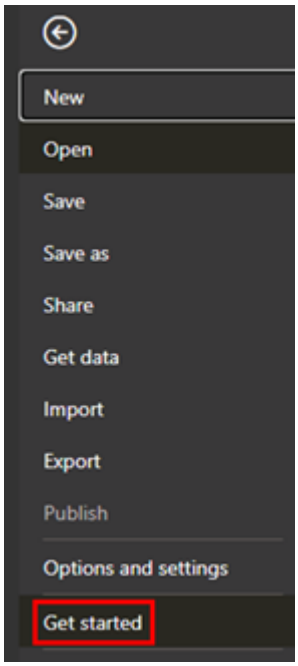
   Password: **MOD Administrator Password**



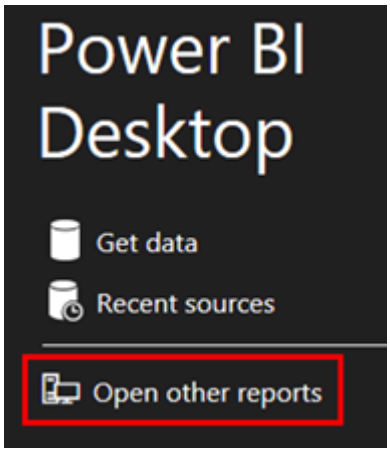
6. Select **File** and **Browse reports**



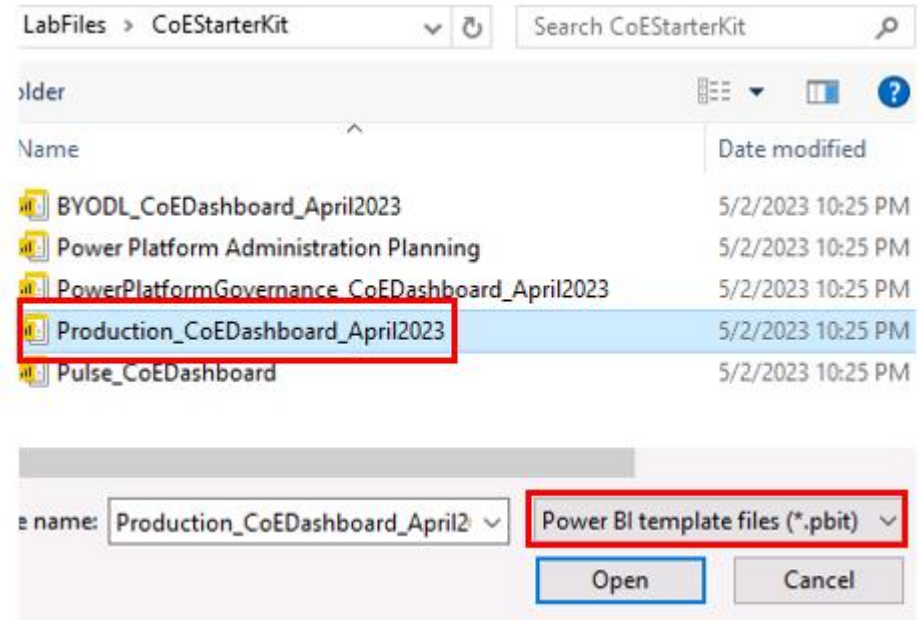
7. Select **Get Started**



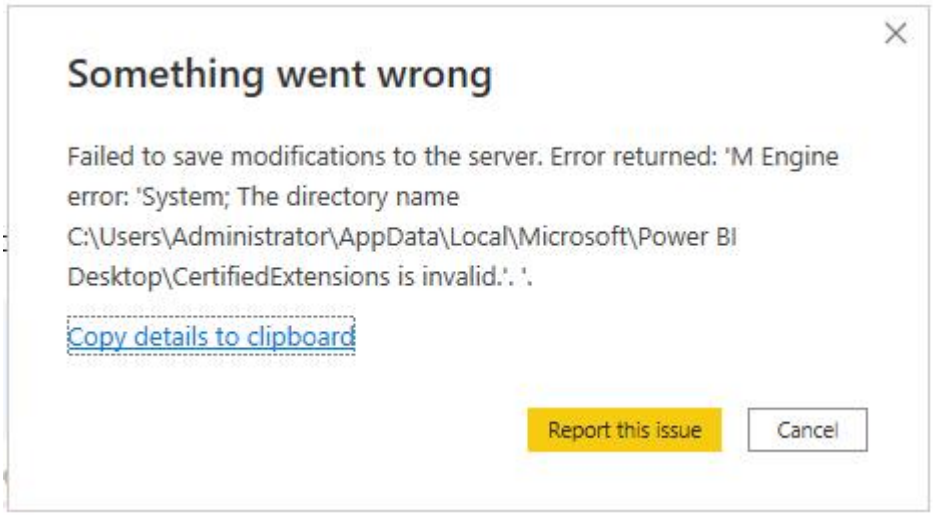
8. Select **Open other reports**



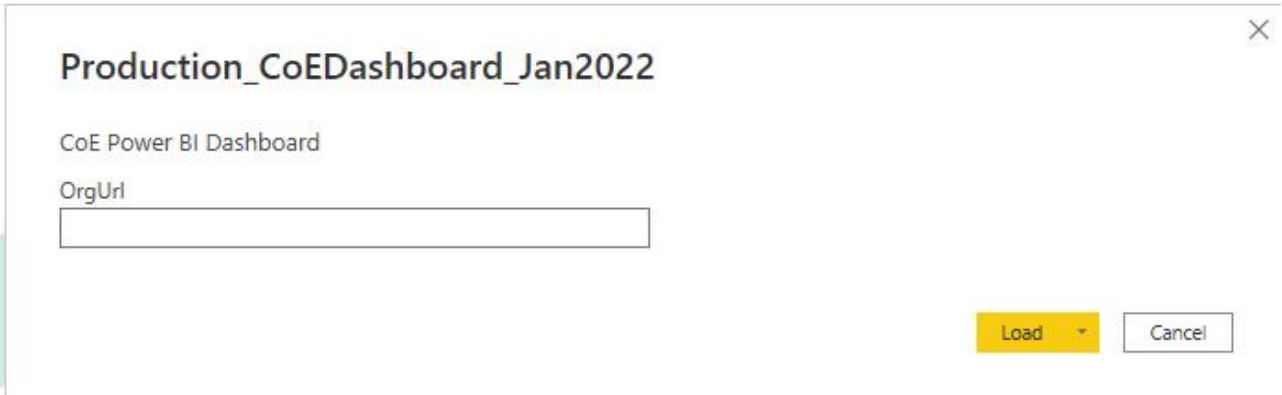
9. Select ***.pbit** files and choose **Production_CoEDashboard_xxxxxx.pbit** from **C:\LabFiles\CoEStarterKit**



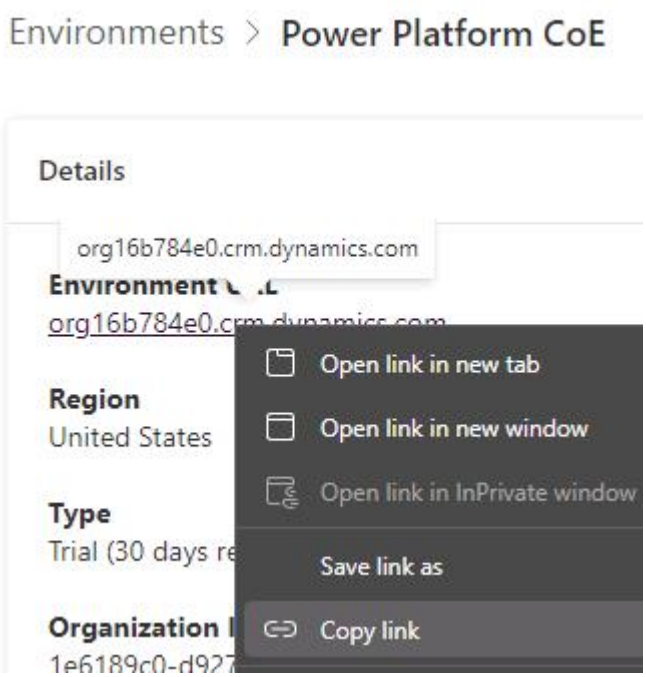
NOTE: If you see this error then just restart Power BI Desktop and try again



10. You will see the following dialog, so in browser open **https://aka.ms/ppac** to get the **OrgUrl**

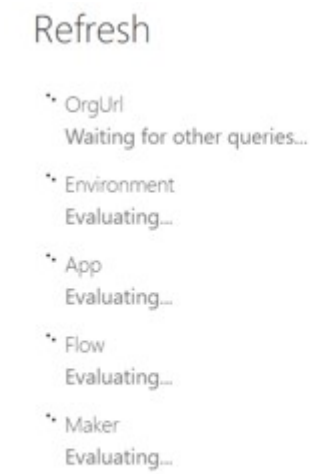


11. Open **Power Platform CoE** environment page in PPAC and copy the **Environment URL**.



12. Paste the Environment URL to the **OrgUrl** field and click **Load**.

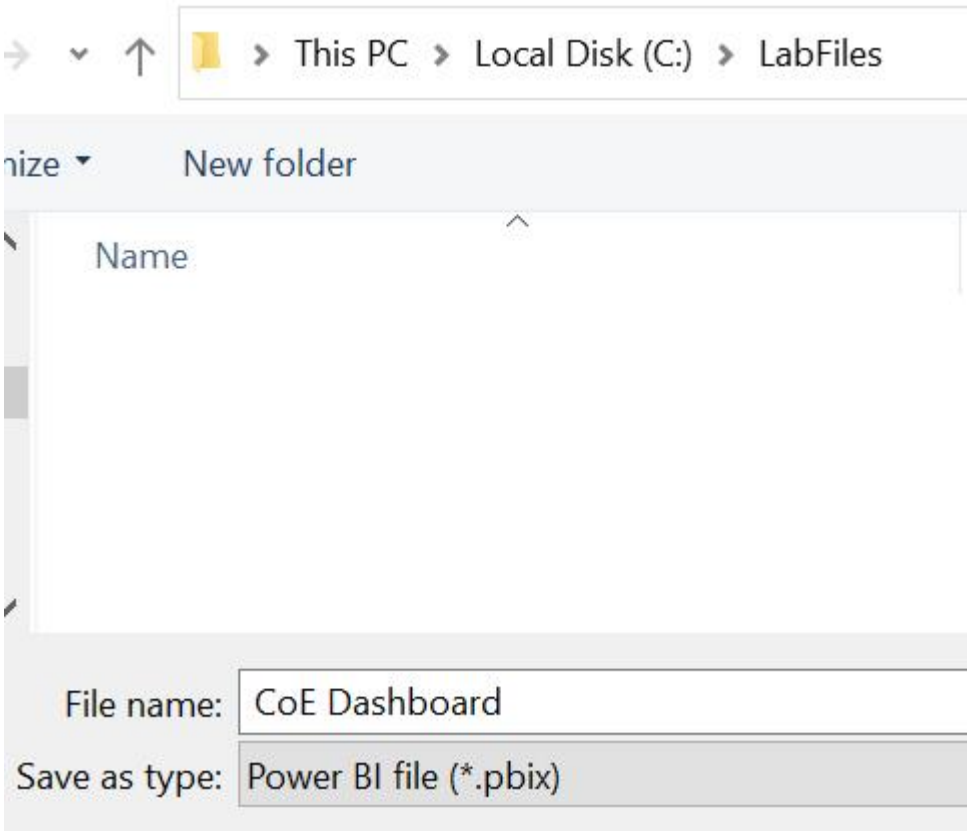
    NOTE! If you are prompted to sign in the use **MOD Administrator Username** account and password **MOD Administrator Password** to sign in



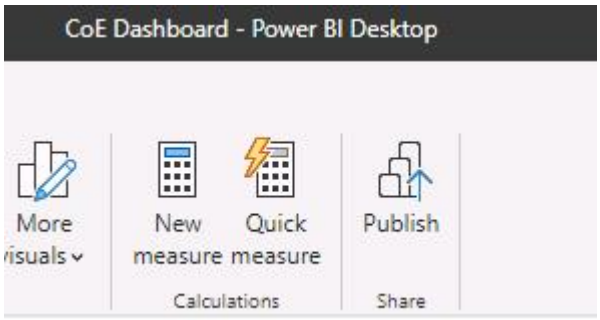
13. You should see a dashboard with reports showing information about Apps, Flows and other resources. These are mostly CoE related Flows and Apps because there is no other demo Power Platform content available.

14. **Browse on different pages of the Dashboard to see what kind of reports are available.**

15. Save the report locally, for example to **C:\LabFiles**



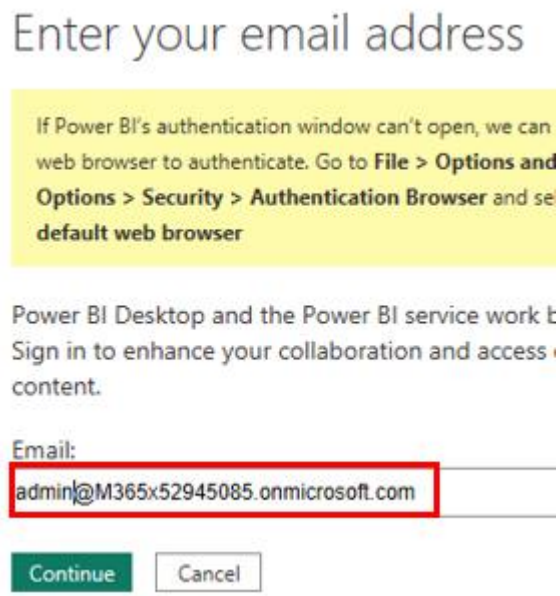
16. Publish Dashboard to Power BI Service by clicking in **Publish** on top right corner (or File menu).

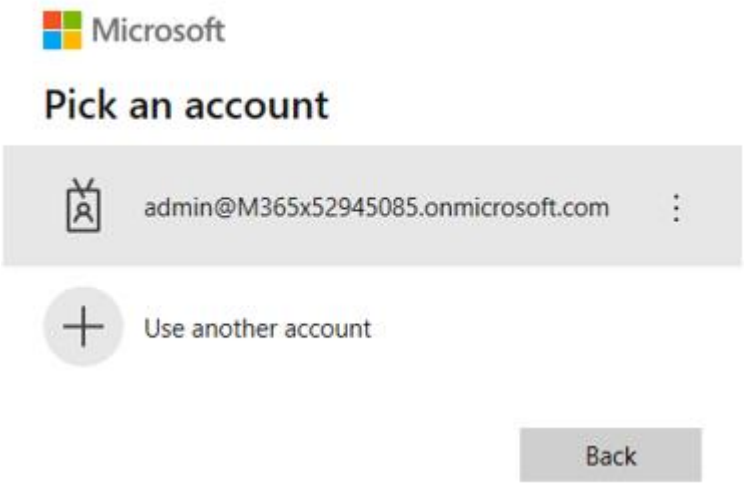


17. Type in MOD Administrator account and password and sign in

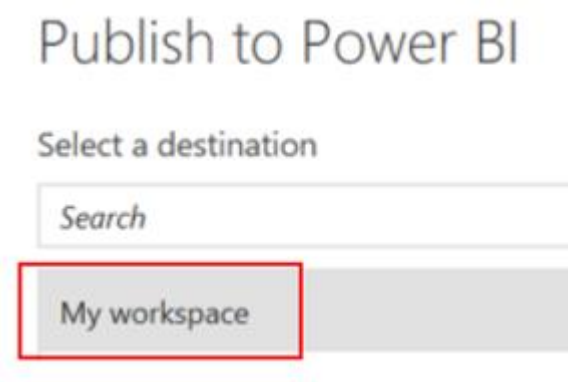
MOD Administrator Username

MOD Administrator Password

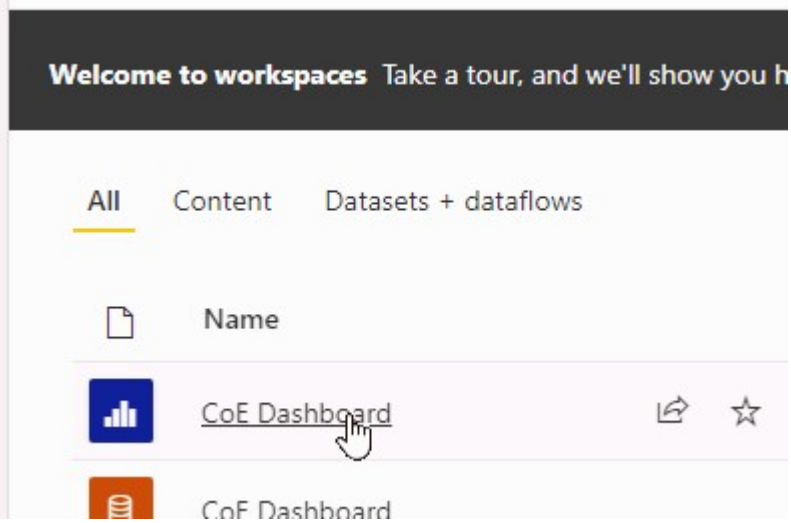


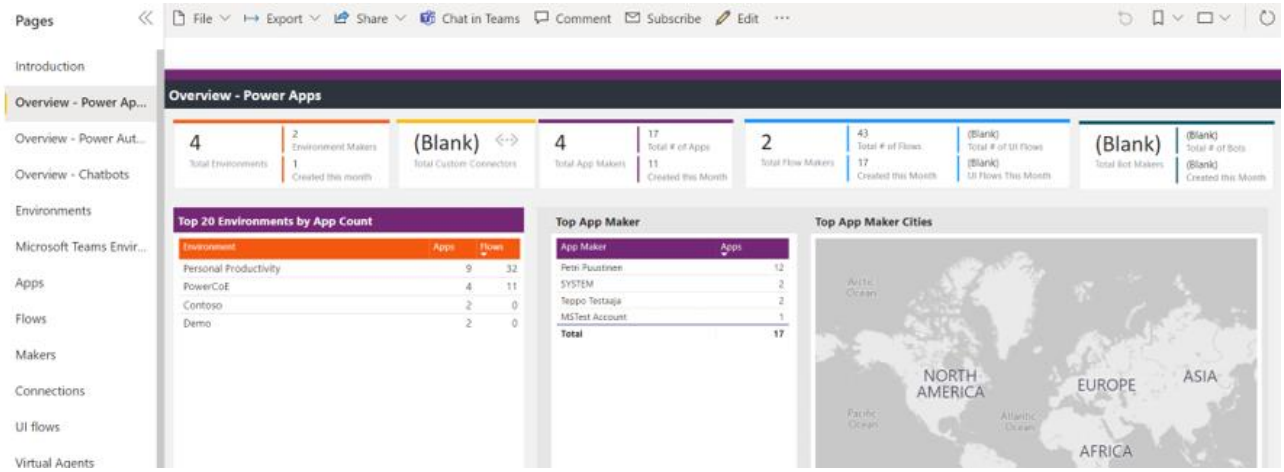


18. Select **My Workspace**.



19. After dashboard is published, click the link to the report in the dialog



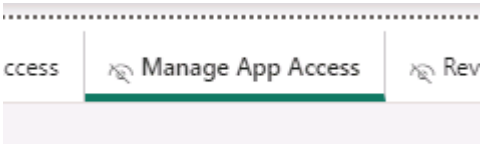


Exercise 2 – Install and use embedded Apps for Power BI Dashboard

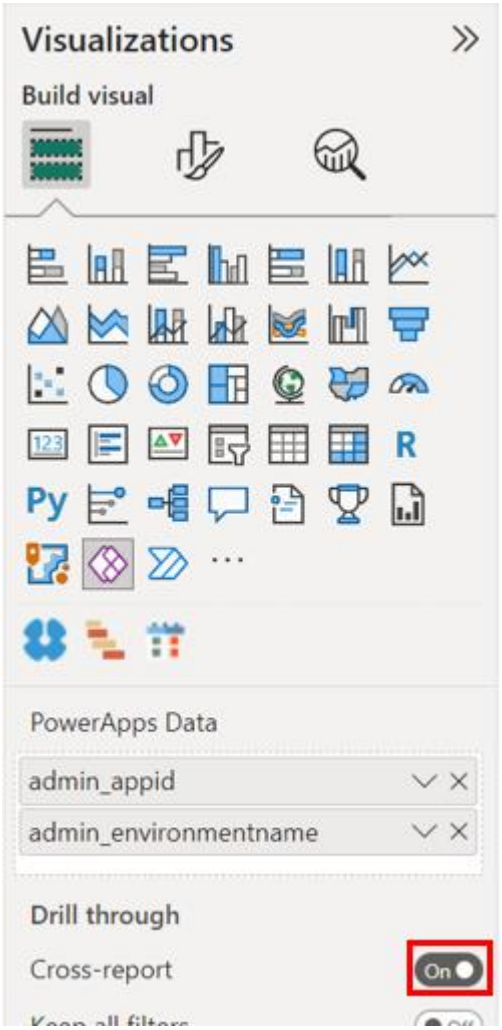
In this exercise we will import Power BI embedded apps for CoE dashboard. With these apps we can take ownership of Apps and Flow directly in the report.

1. Go to Power BI Desktop where you should have the CoE Dashboard still open. If not then open the saved **C:\LabFiles\CoE Dashboard.pbix**

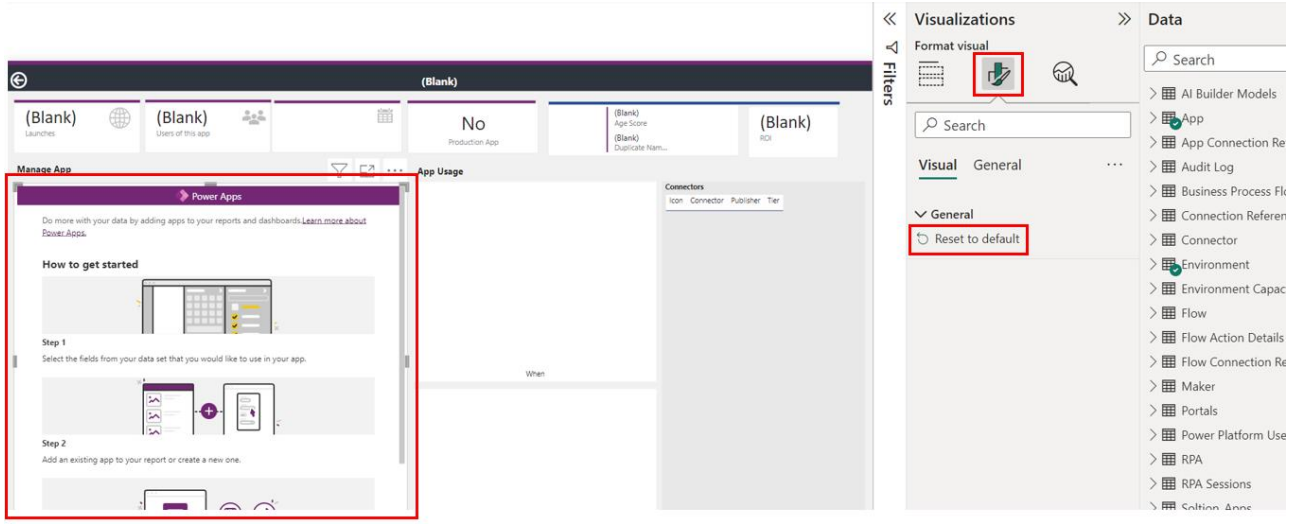
2. Go to the **Manage App Access** page.



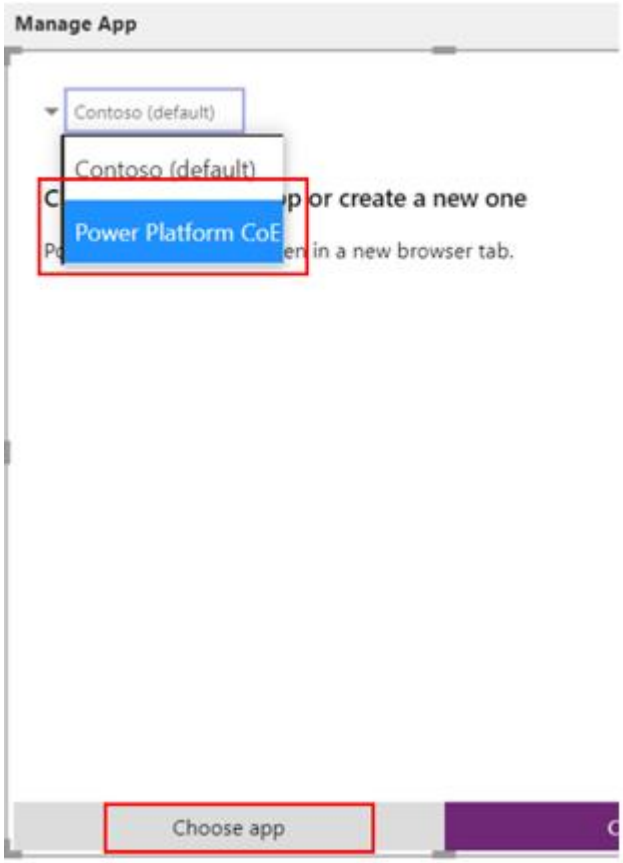
3. Set Cross-report setting to **On**. This allows drill-through functionality from other pages to here for the selected App.



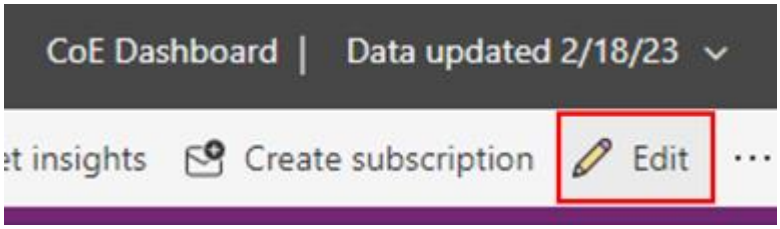
4. Select the Power Apps visual, then open **Format visual** settings in the **Visualizations** menu and click **Reset to default **

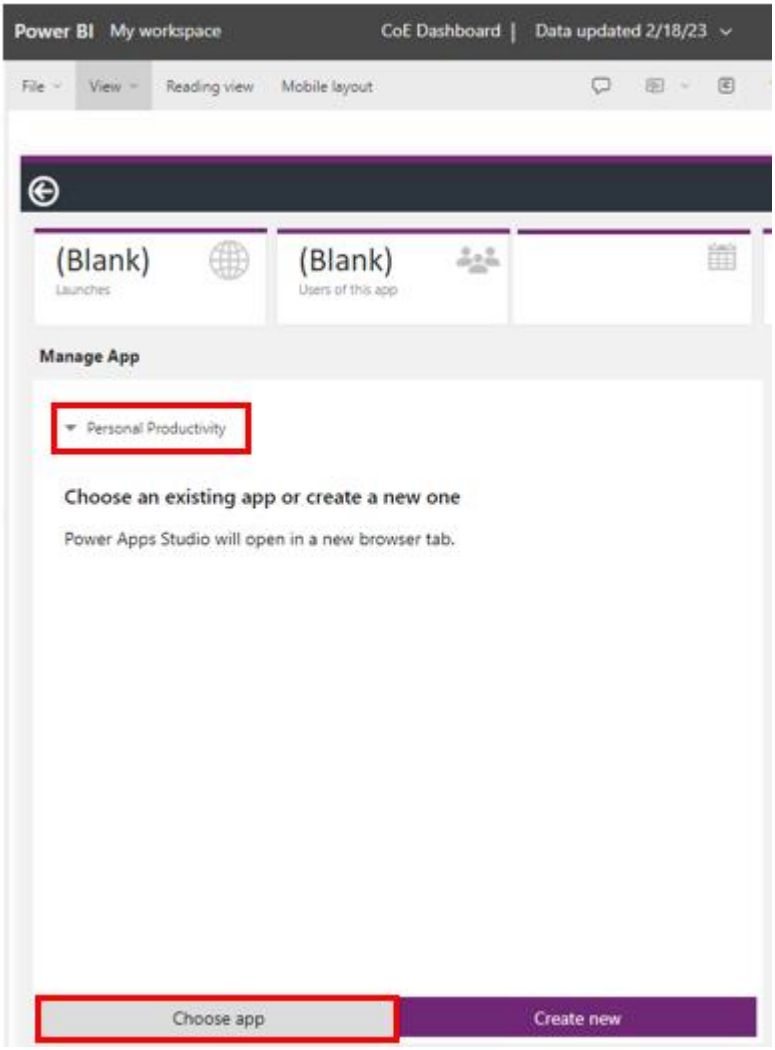


5. In the visual select environment, where embedded apps were imported, click **Choose App**.

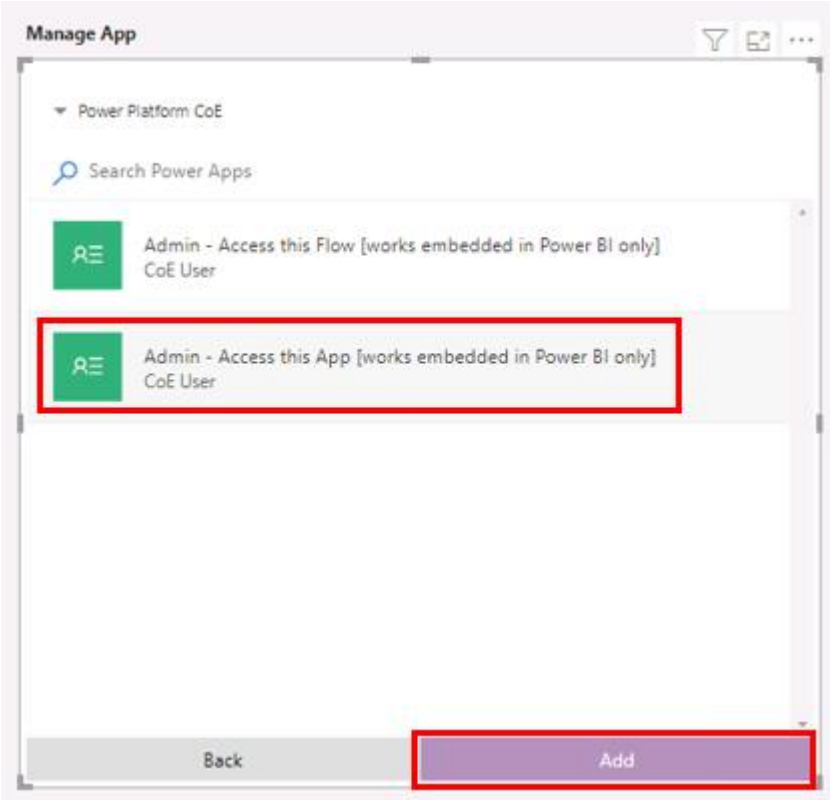


NOTE! If you do not see the environment and app selection then you need to **publish** the report to **powerbi.com** and select the all there

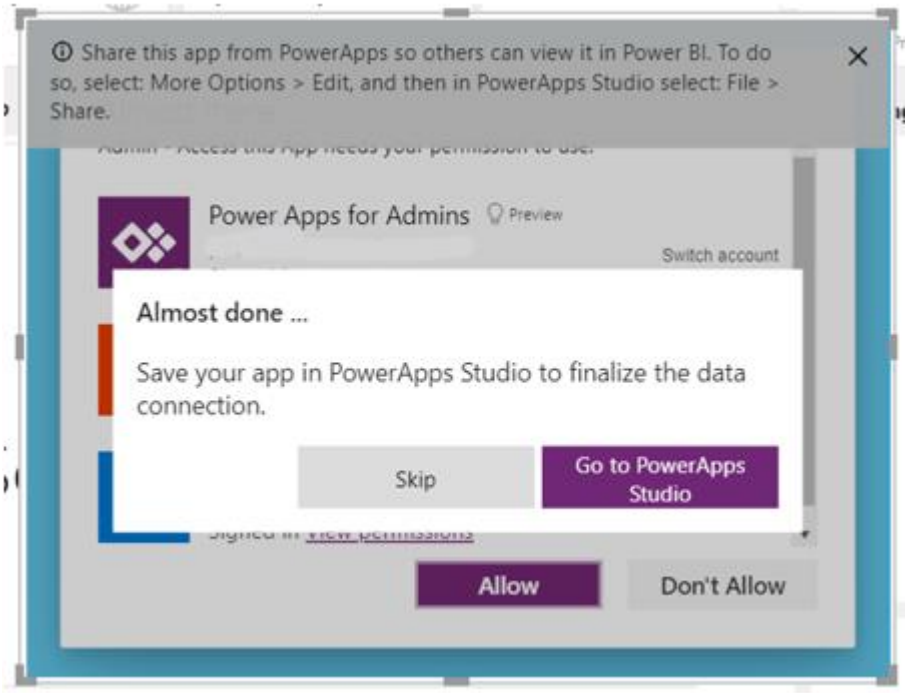




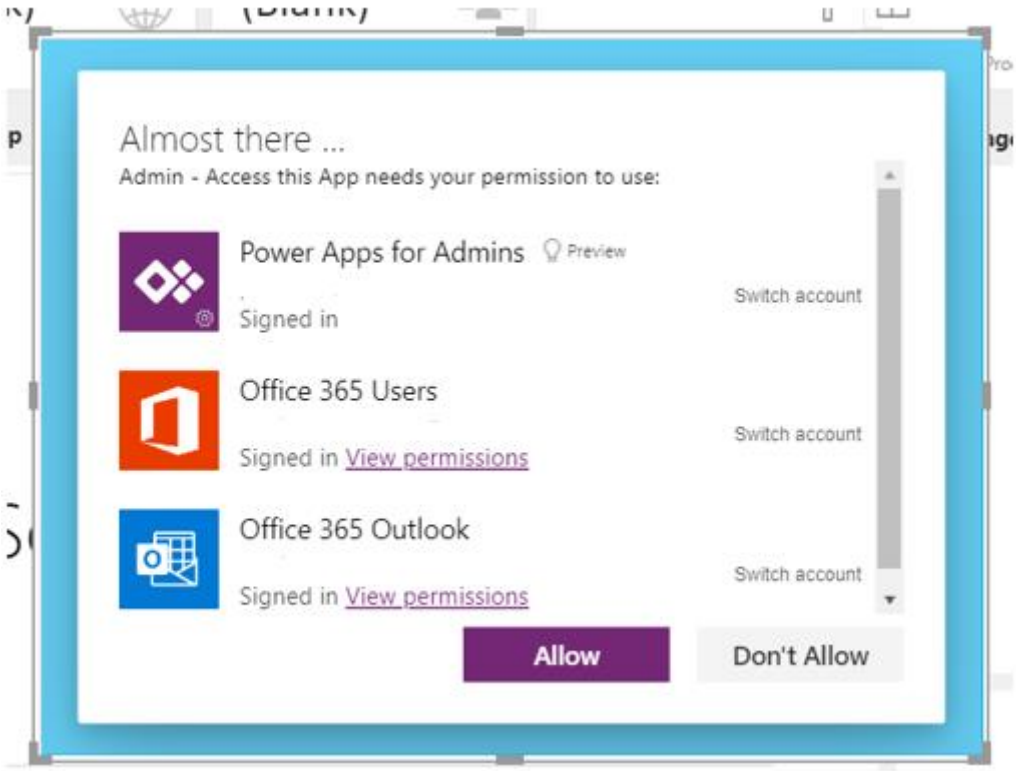
6. Choose **Admin – Access this App [works embedded in Power BI only]** and click **Add**.



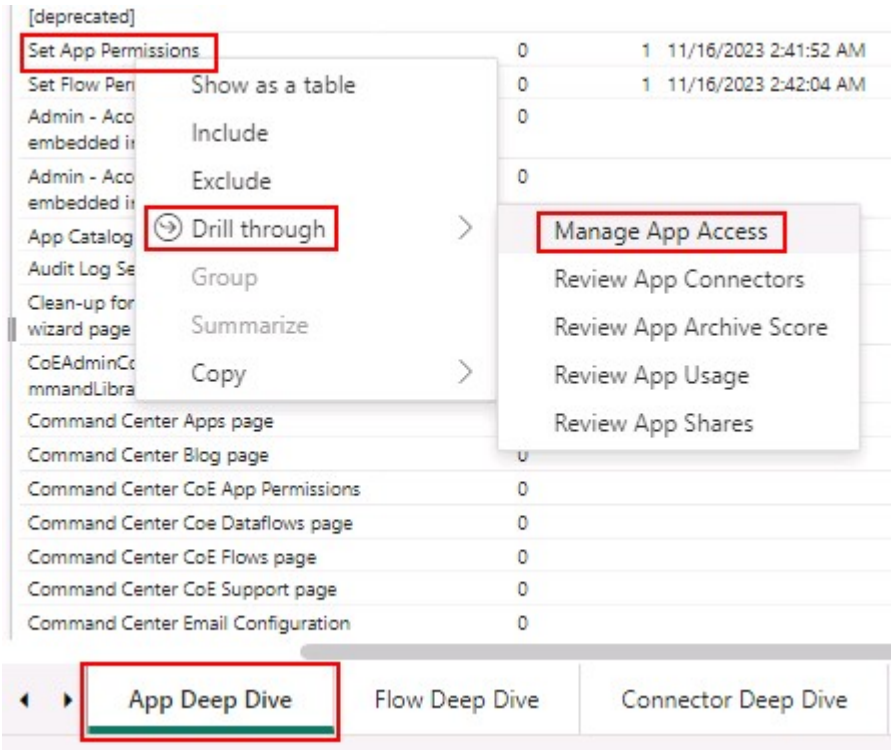
7. Click **Skip**.



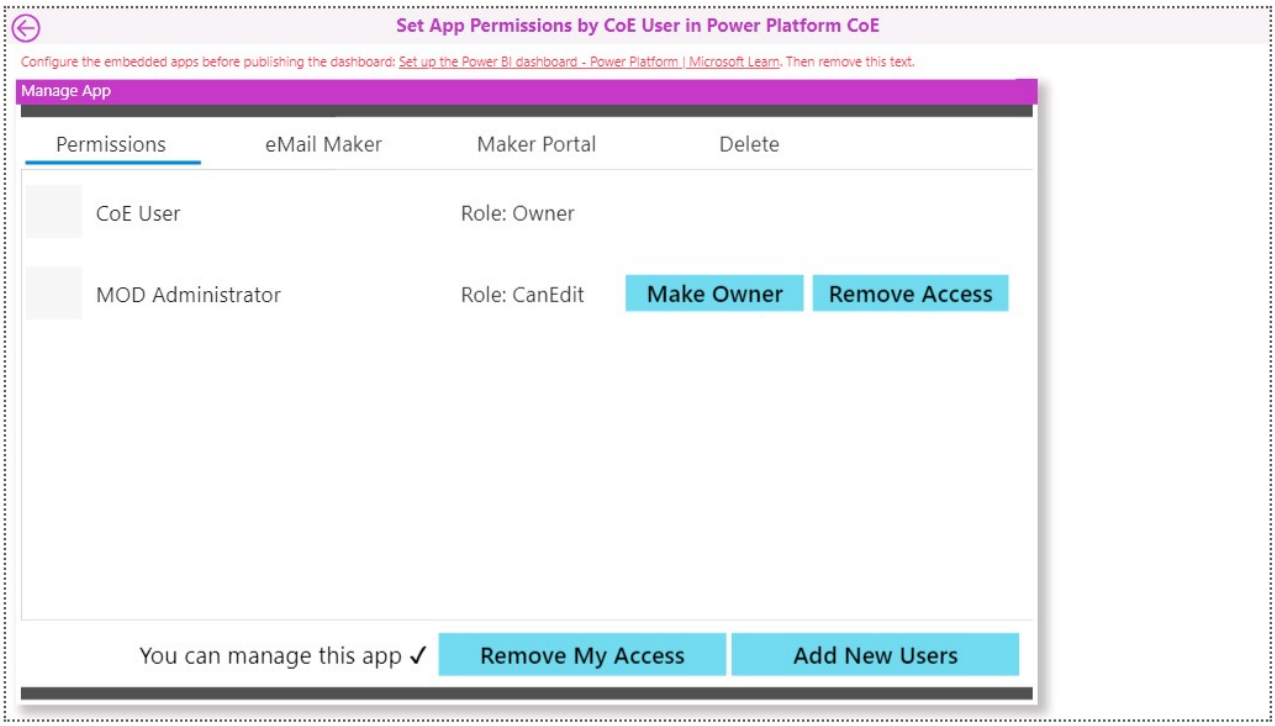
8. Click **Allow** to consent to all connections of the App.



9. Go to **App Deep Dive** page and test drill-through by right clicking some of the Apps in the list and select **Drill through > App detail**



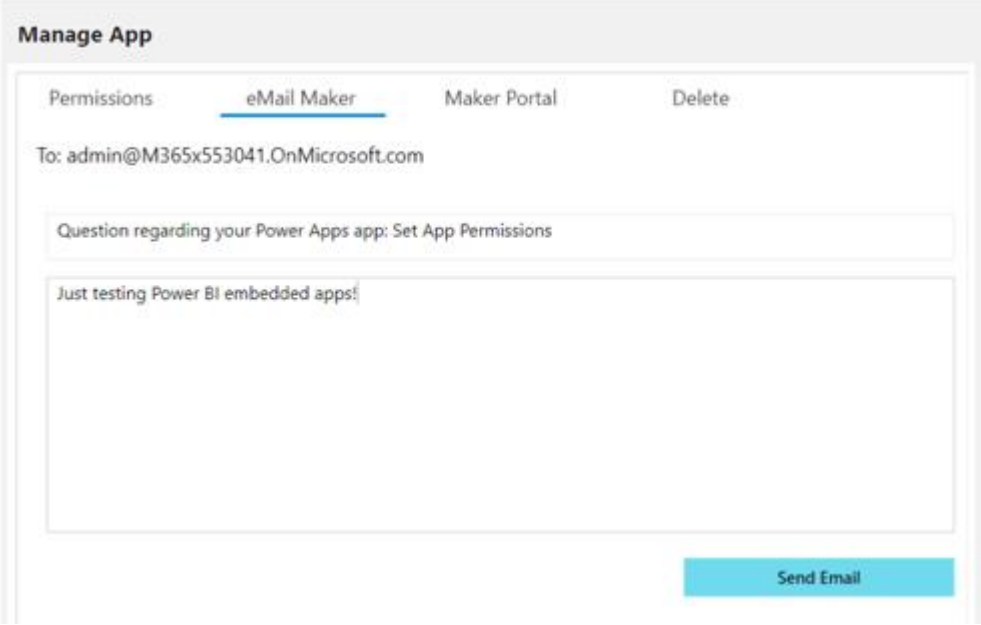
10. App detail page will open with details of the selected Apps and possibility to use embedded Power App



11. Republish dashboard to your Power BI Workspace and test how embedded App works

    Test **Add New Users**

Test **eMail Maker**



12. (**Optional**) Do the same steps for Flow detail page.

> [!KNOWLEDGE] For more information about Center of Excellence (CoE) Starter Kit, review the Microsoft document **here**.

Congratulations

You have now completed the lab. Check if any of your colleagues need help with completing the lab.