# Microsoft Cloud for Retail
# in a Day

## Lab 03: Dynamics 365 Commerce and Microsoft Teams integration

Step-by-Step Lab

60 minutes

March 2022

# Contents

# Overview

Retail workforce management helps you digitize managerial tasks like store scheduling.

With retail workforce management, manage shifts seamlessly, easily connect to your existing workforce, simplify task dissemination, and help your team complete tasks more easily.

With retail workforce management, offer **seamless scheduling:**

Manage shifts seamlessly – enable managers to easily create and manage their team's schedule and let employees set their availability and easily adjust schedules to fluctuating business needs

Track time & attendance with easy clock in and out with geo detection and digital time tracking sheets.

Enable Shifts connectors with workforce management systems for real-time visibility into labor scheduling, time and attendance, and store operation scheduling in a single interface—ensuring a seamless and accurate scheduling experience

Also, experience **task management made easy:**

Enable corporate employees like corporate communications and retail operations team easily create, distribute and track task assignments to targeted location.

Equip managers to manage tasks regionally and assign them to the right individuals in the store

Provide frontline workers from executing tasks locally with clear, detailed directions from HQ/Operations.




## Learning Objectives

## Retail Story


This lab will focus on the retail story of Fabrikam Retail.

In the following exercises, you will be playing the role of a **System Administrator, a Retail Communications Manager, Store Manager** and a **Retail Store Employee**:

- In Exercise 1, you will be creating an App registration and setting up the required permissions.
- In Exercise 2, you will be enabling the integration between D365 Commerce and Teams Task management app.
- In Exercise 3 – Task 1, You will then play the role of a Retail communications manager who will login into Teams and publish a task "Setup Women's Spring Lineup Display" as part of Exercise.
- Later, in Exercise 3 – Task 2, you will play the role of a Store manager who will login into D365 Commerce POS application to view the tasks and assign the new task to a store employee.
- In Exercise 3 – Task 3, you will play the role of a store employee who will view the assigned tasks and mark them as complete once the task is completed.
- And in Exercise 3 – Task 4, you will login back to teams as Retail communications manager to check the progress of the tasks across stores by using a list report

## Prerequisites

- D365 Commerce
- Microsoft Teams
- [Create an Azure Active Directory app](#)

# Exercise 1: App Registration and Permissions

**Note**: *If you are in an instructor led lab then please skip this exercise and tasks as this has been completed by your instructor.*

**Dynamics 365 Commerce** is integrating with **Microsoft Teams** to help customers and their employees improve productivity by synchronizing task management between the two applications. The seamless task management that Commerce and Teams integration provides let store managers and employees create task lists, assign tasks to multiple stores, and track the status of tasks across stores, from either application.

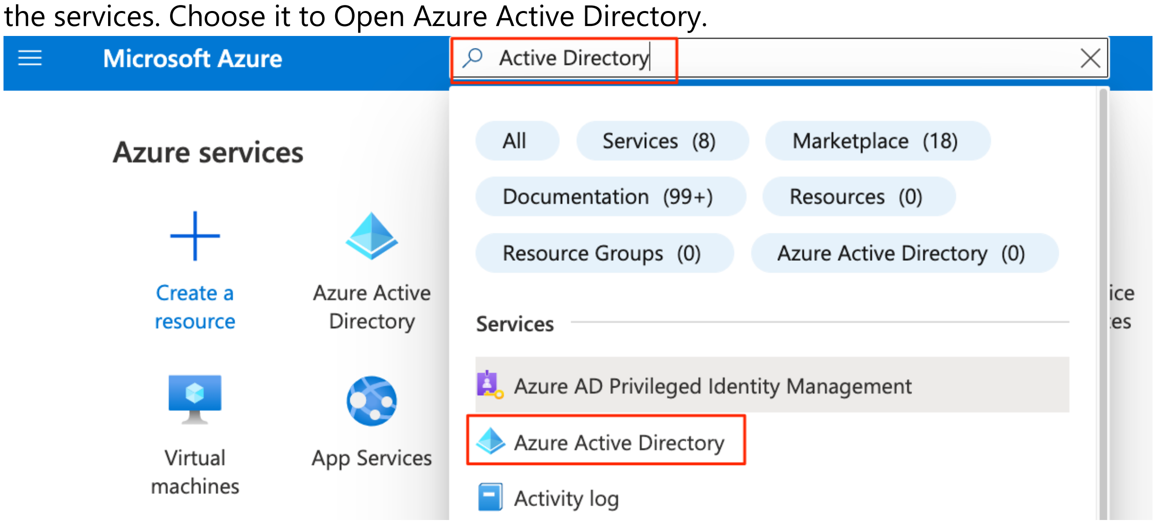
Before you can enable Microsoft Teams integration with Commerce, you must register the Teams application with your tenant in the Azure portal.

In this exercise, you will be doing the following:

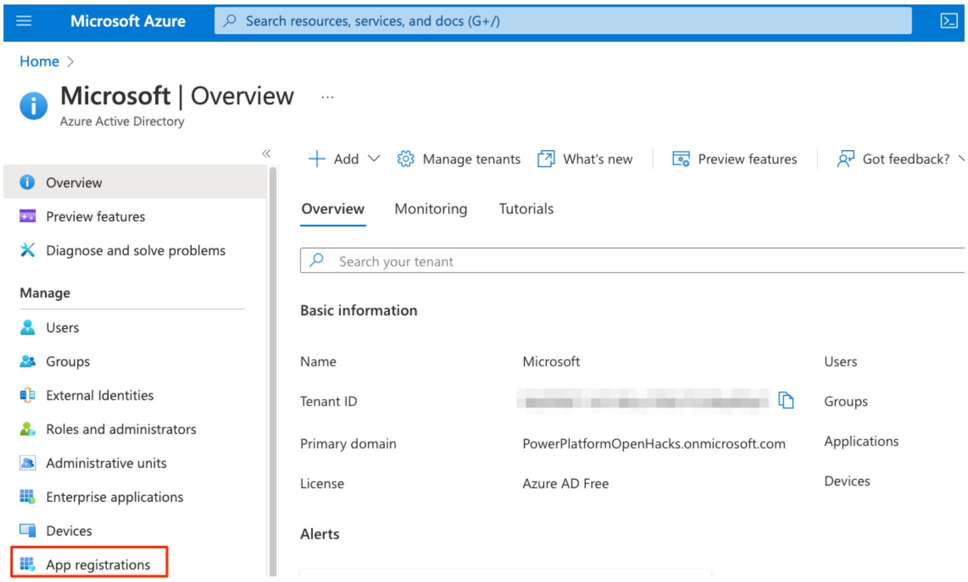
1. App Registration with Azure Active Directory
2. Add a Secret to the registered App.
3. Adding API permissions to the registered App
4. Configure registered application to expose a web API
5. Configure a client application to access a web API

### Task 1: App Registration with Azure Active Directory

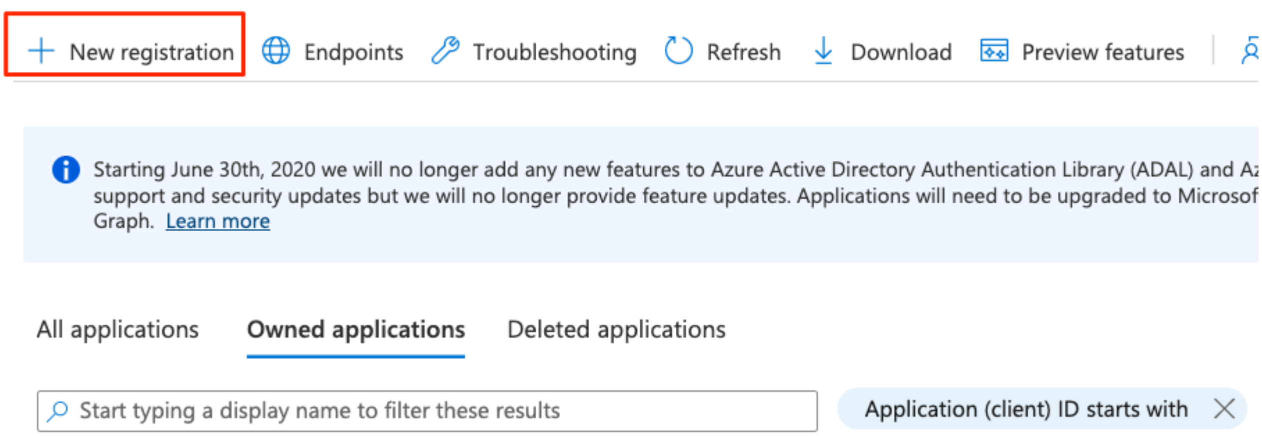
1. In the Azure Portal search bar, search for "Active Directory", the Azure Active Directory will show up in the services. Choose it to Open Azure Active Directory.



2. In the Azure Active Directory, Click on App registrations




3. In the App registrations, click on add New registration.

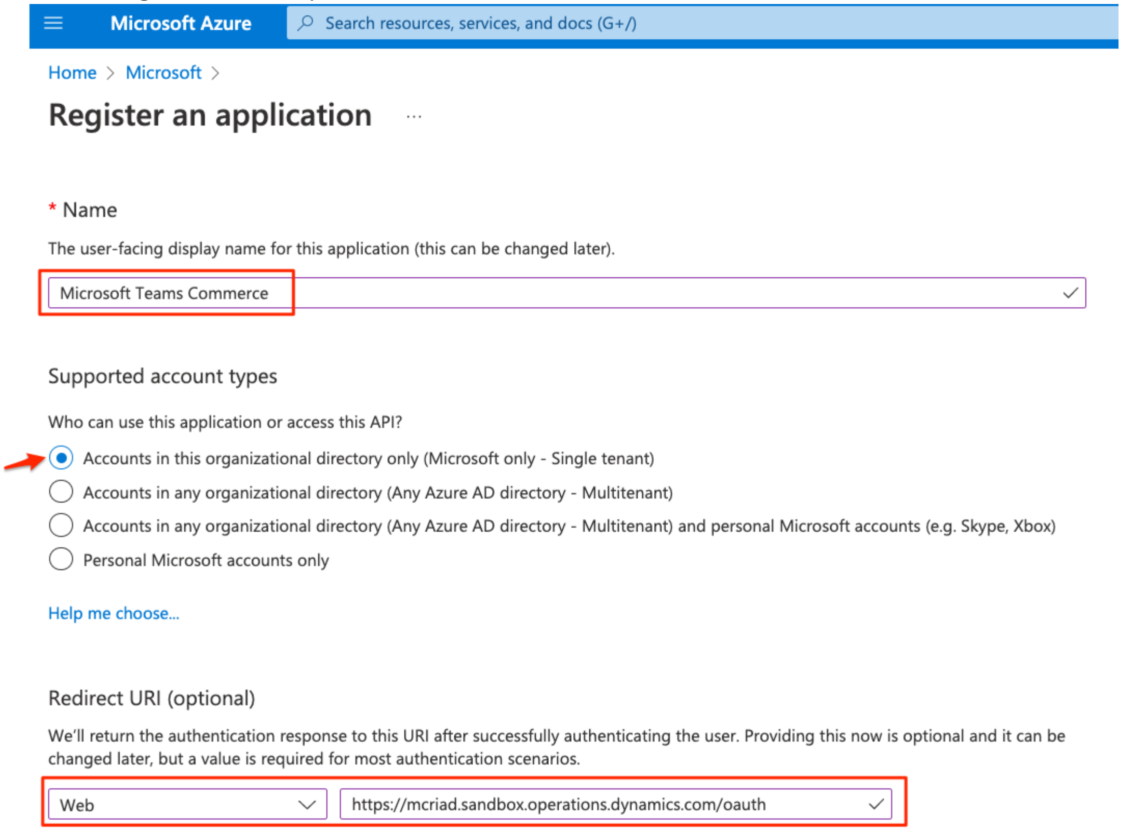



4. Name the App registration as "Microsoft Teams Commerce"

5. Under Supported account types: Choose "Accounts in this organizational directory only" (Microsoft only – Single tenant)

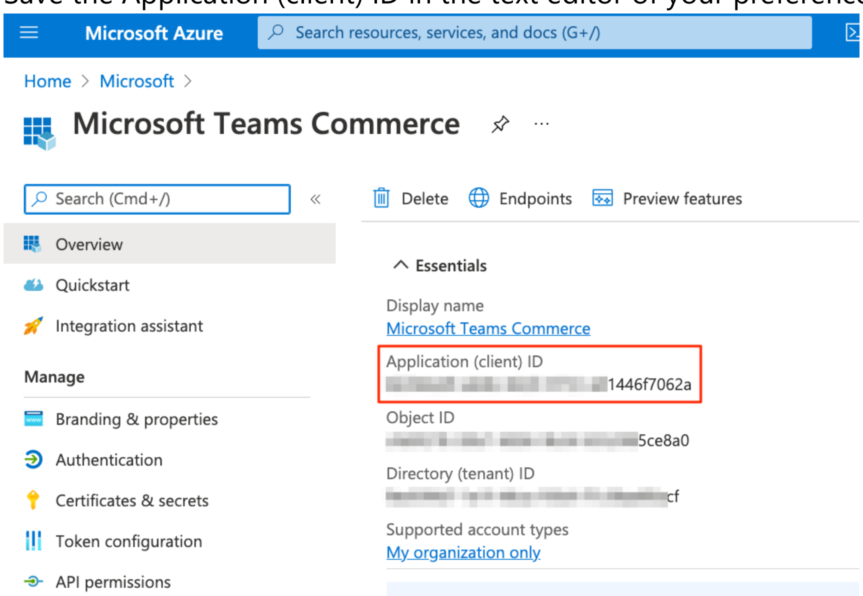
6. Under Redirect URI: Select Web and provide the Commerce Finance and Operations URL and add the "oath" suffix. The full URL should look like https://fabrikam.sandbox.operations.dynamics.com/oath

7. Click in Register to complete.



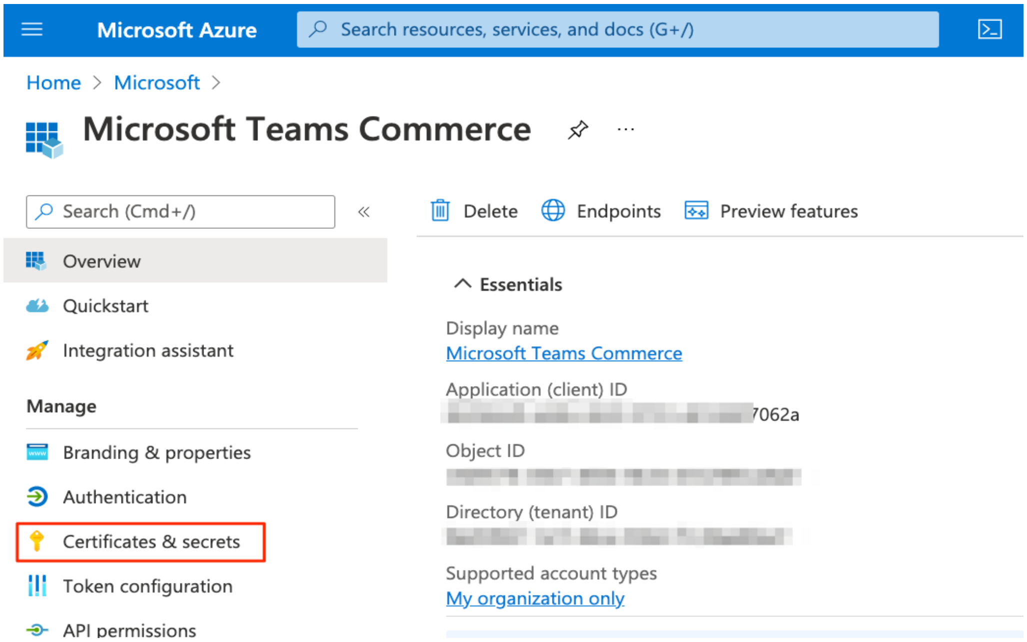

Important

8. Save the Application (client) ID in the text editor of your preference. It will be used in later steps.

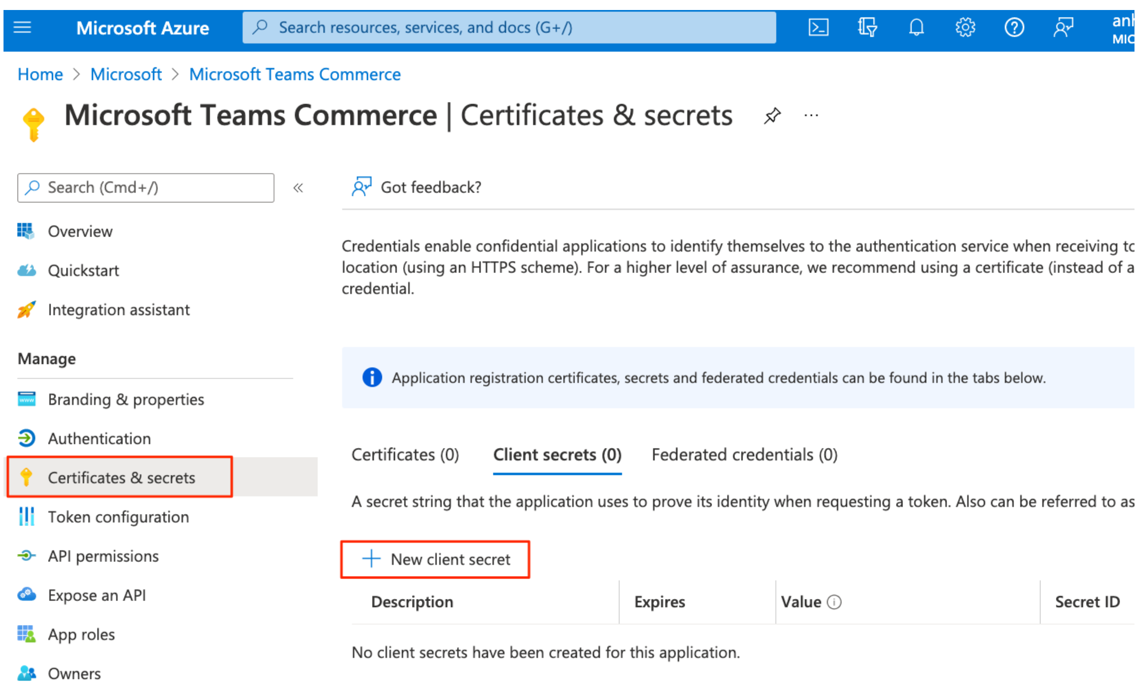



## Task 2: Add a Secret to the registered App

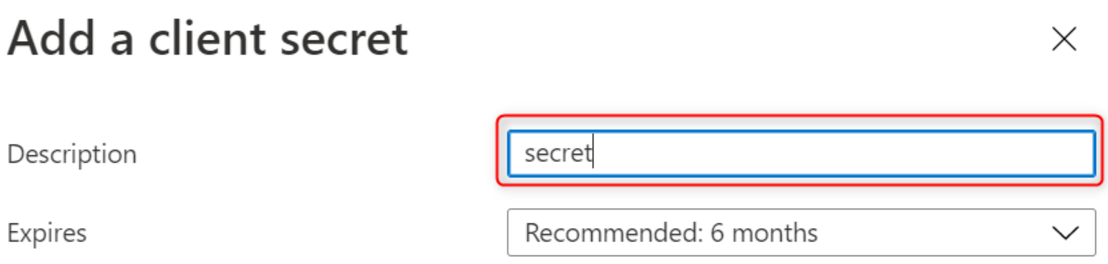
1. In the Microsoft Teams Commerce registered App. Click in Certificates & Secrets




2. Click Add New Client Secret

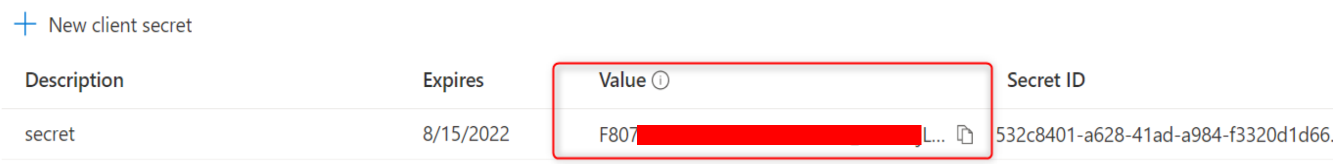



3. In the **Description**, provide a name of your choice for the client secret and click **Add**.



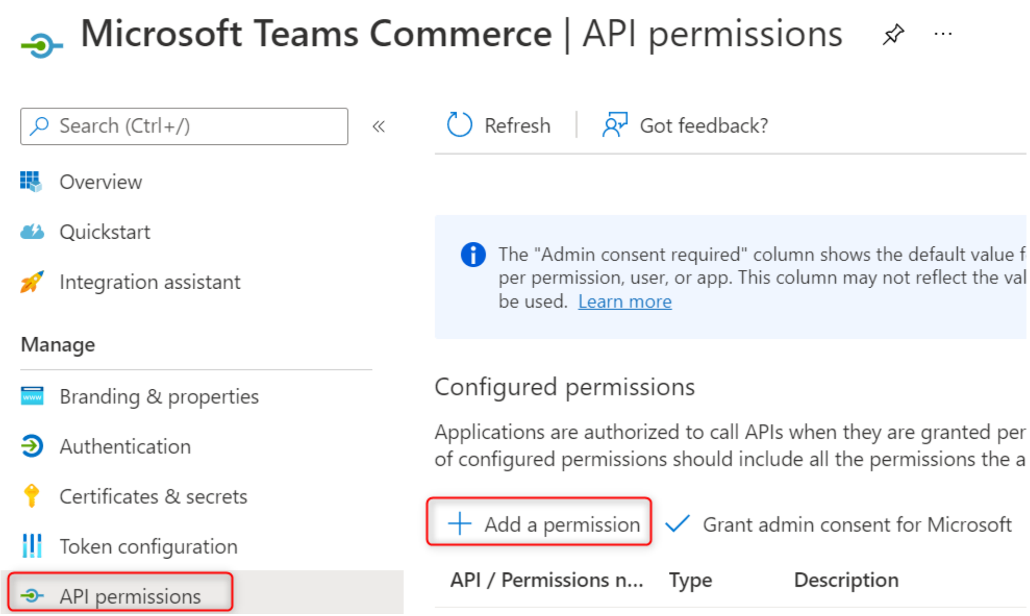

**Important**

4. Copy the key value generated for the client secret and save it in and text editor of your choice. The client secret value will be used in future steps. After closing this window, it will not be possible to retrieve the key again and it will require generating a new client secret.

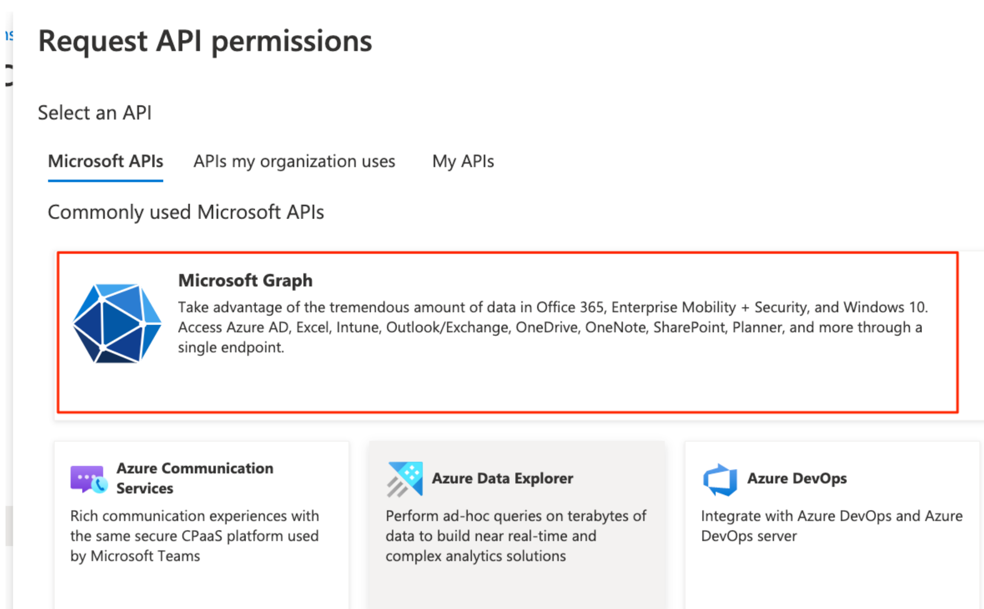


## Task 3: Adding API permissions to the registered App

1. Click on **API permissions** in the left tab, then click on + **Add a permission.**

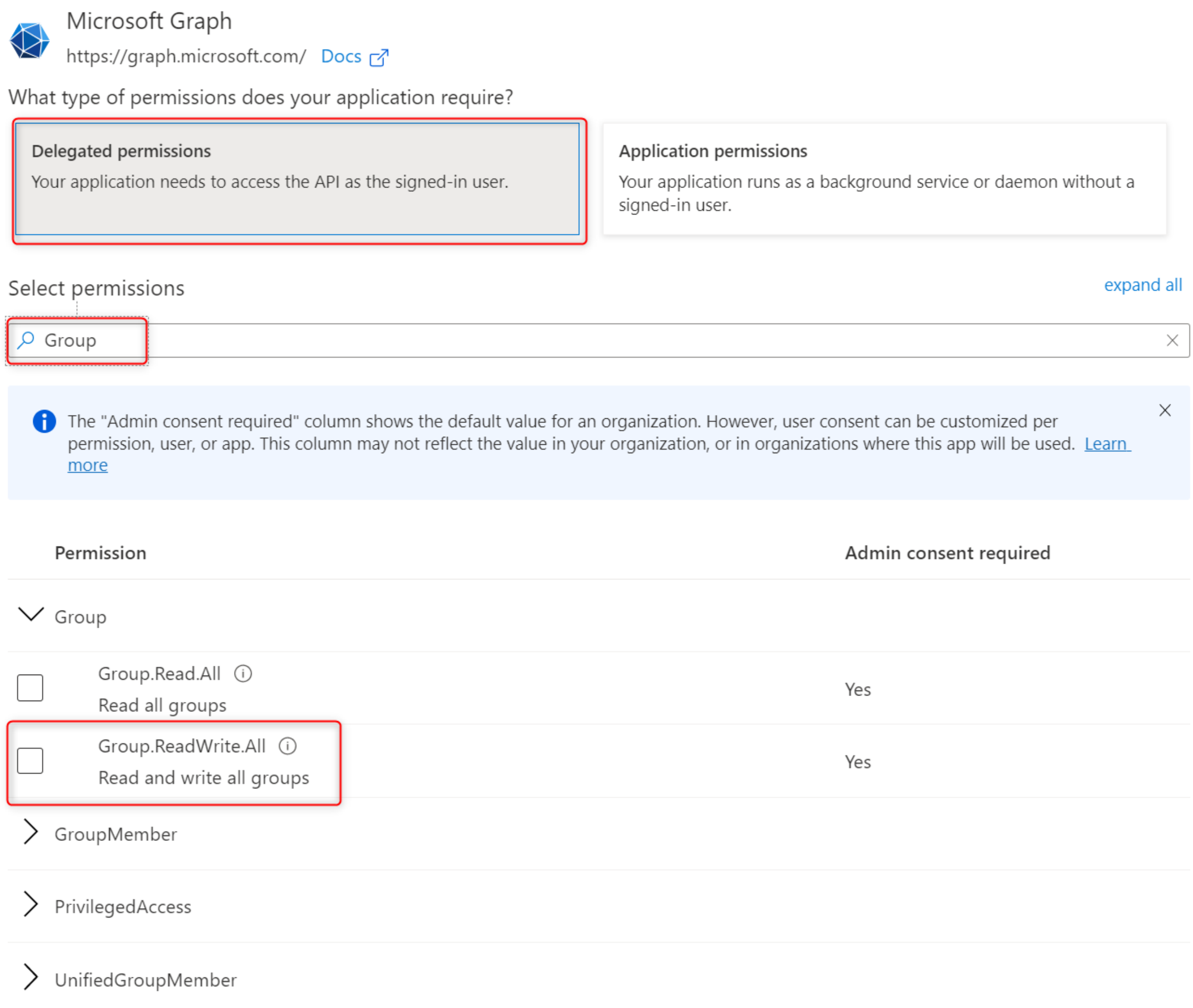



2. In the **Request API permissions** pop-up and select **Microsoft Graph**.

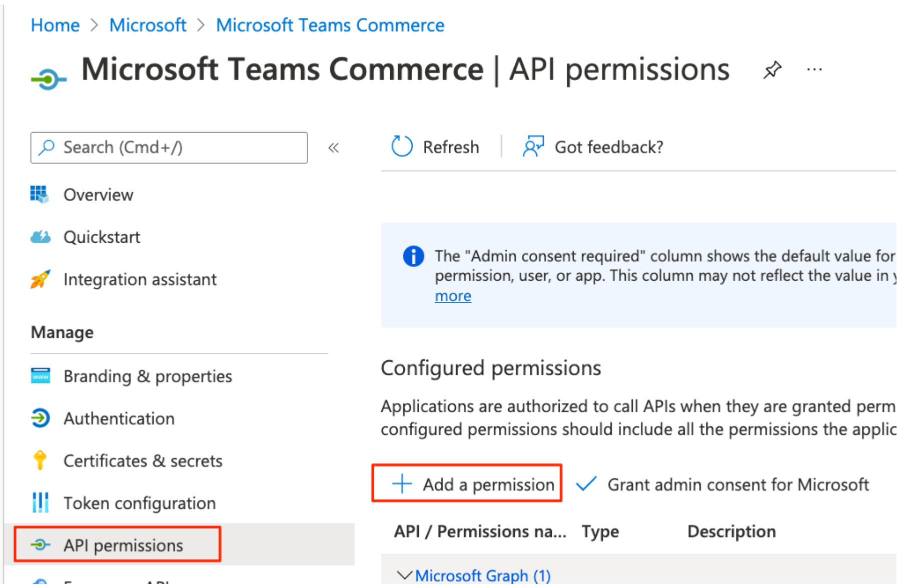



3. Select **Delegated permissions**, then in **Select permission** type **Group** to filter results.

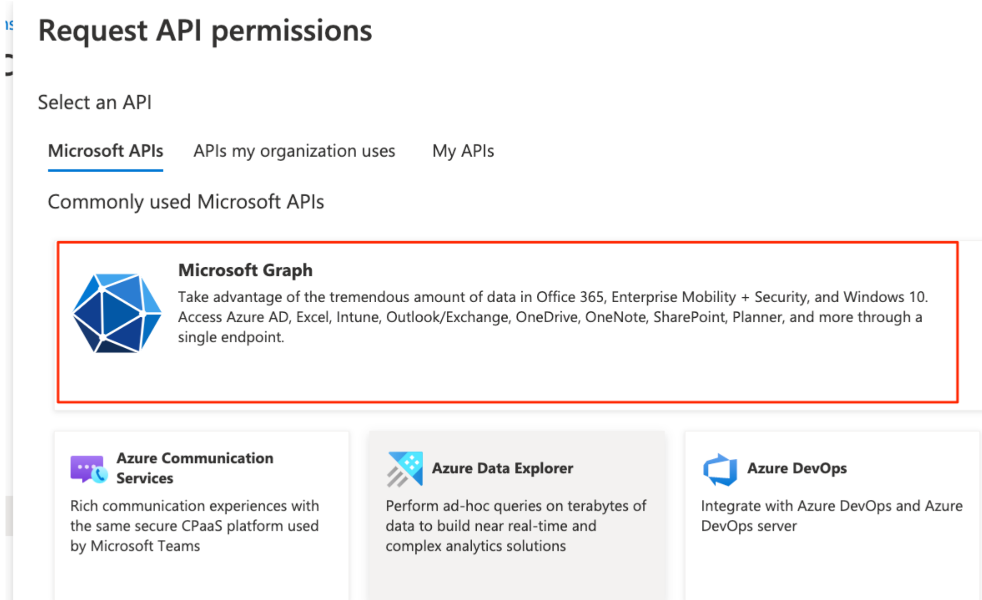
4. Under **Group** and check **Group.ReadWrite.All**, then click **Add permissions** button.



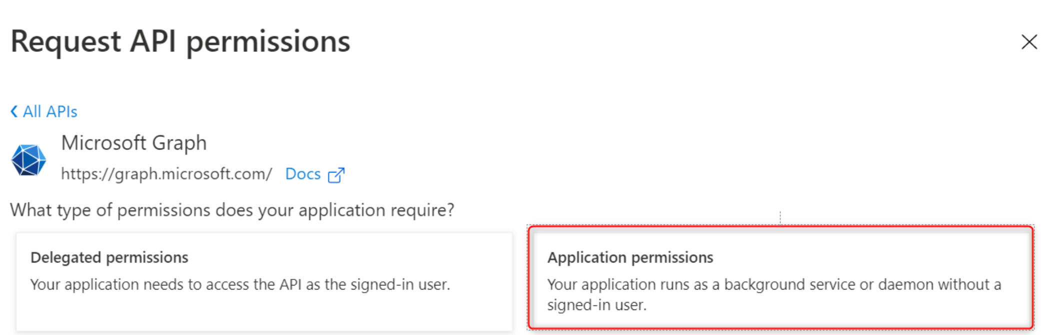

5. Click on **+ Add permission** again to add additional permissions.




6. In the Request API permissions pop-up and choose **Microsoft Graph.**

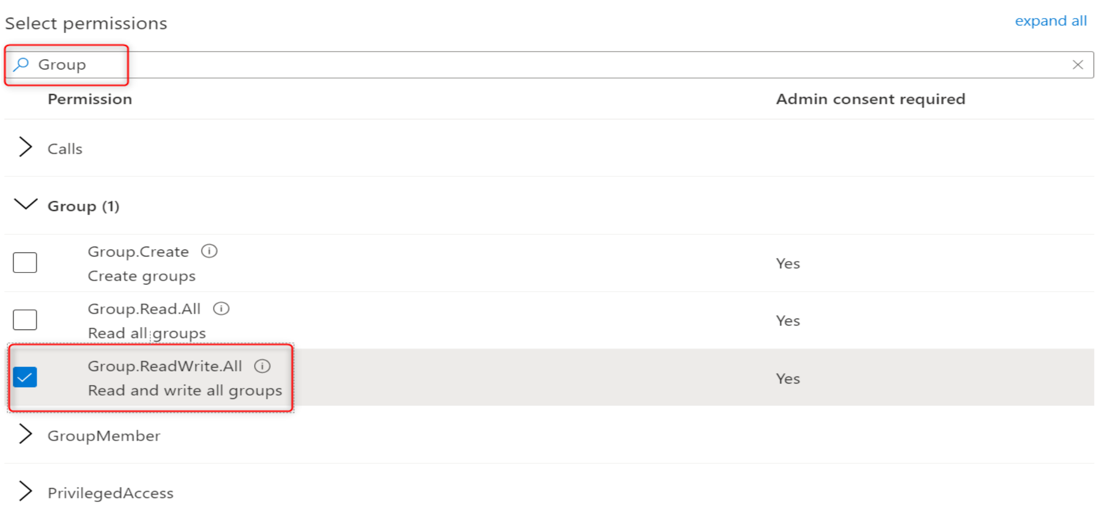



7. Select **Application permissions**

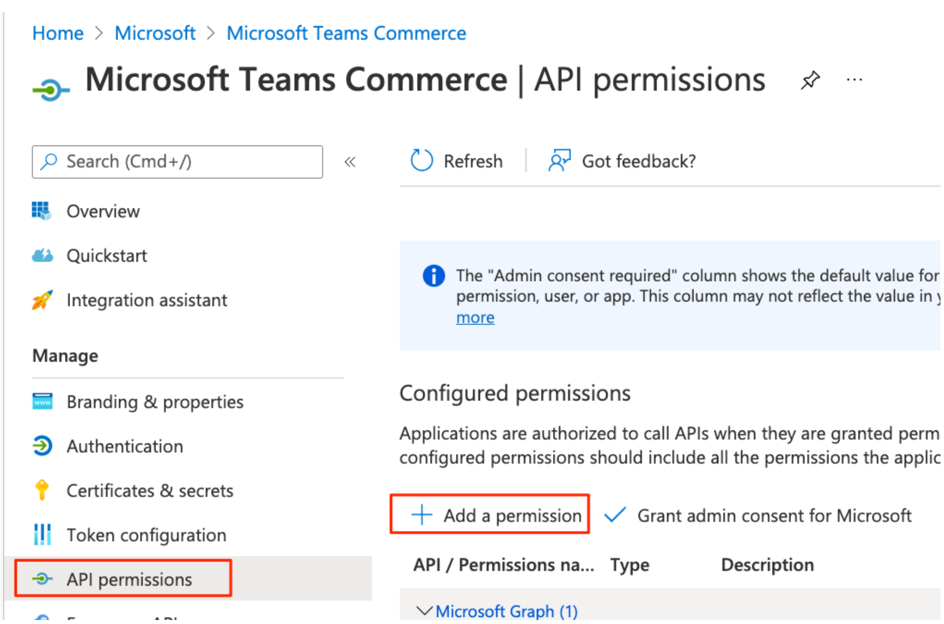


8. With **Application permissions** selected, then in **Select permissions** search field type **Group** to filter results.

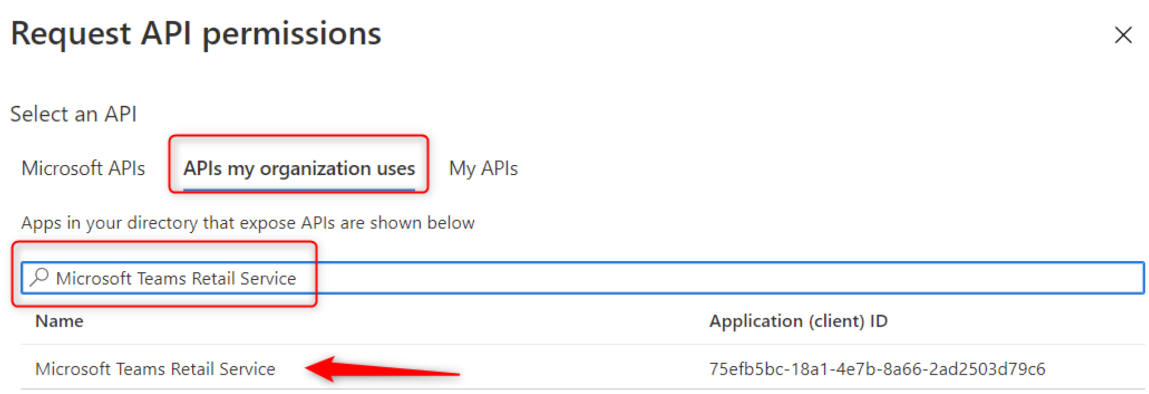
9. Click in **Group to** expand and check **Group.ReadWrite.All**, then click **Add permissions** button.



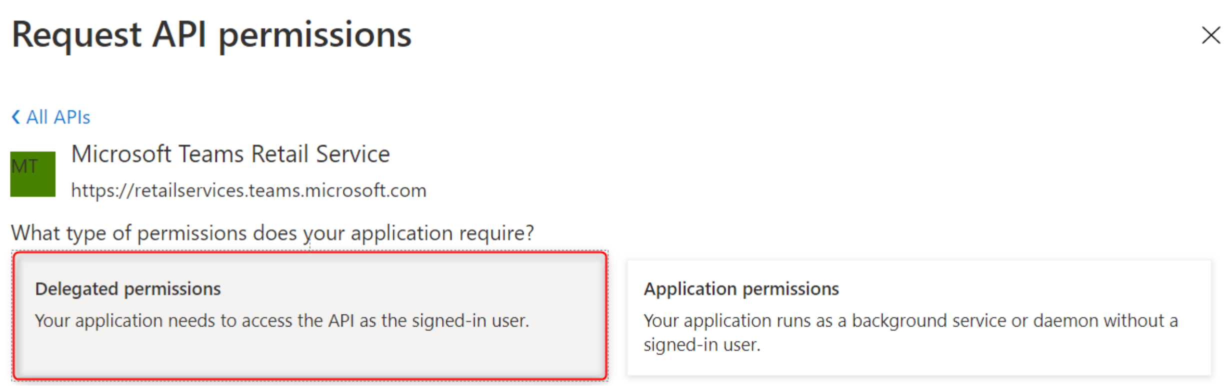

10. In API permissions, click + Add Permission.



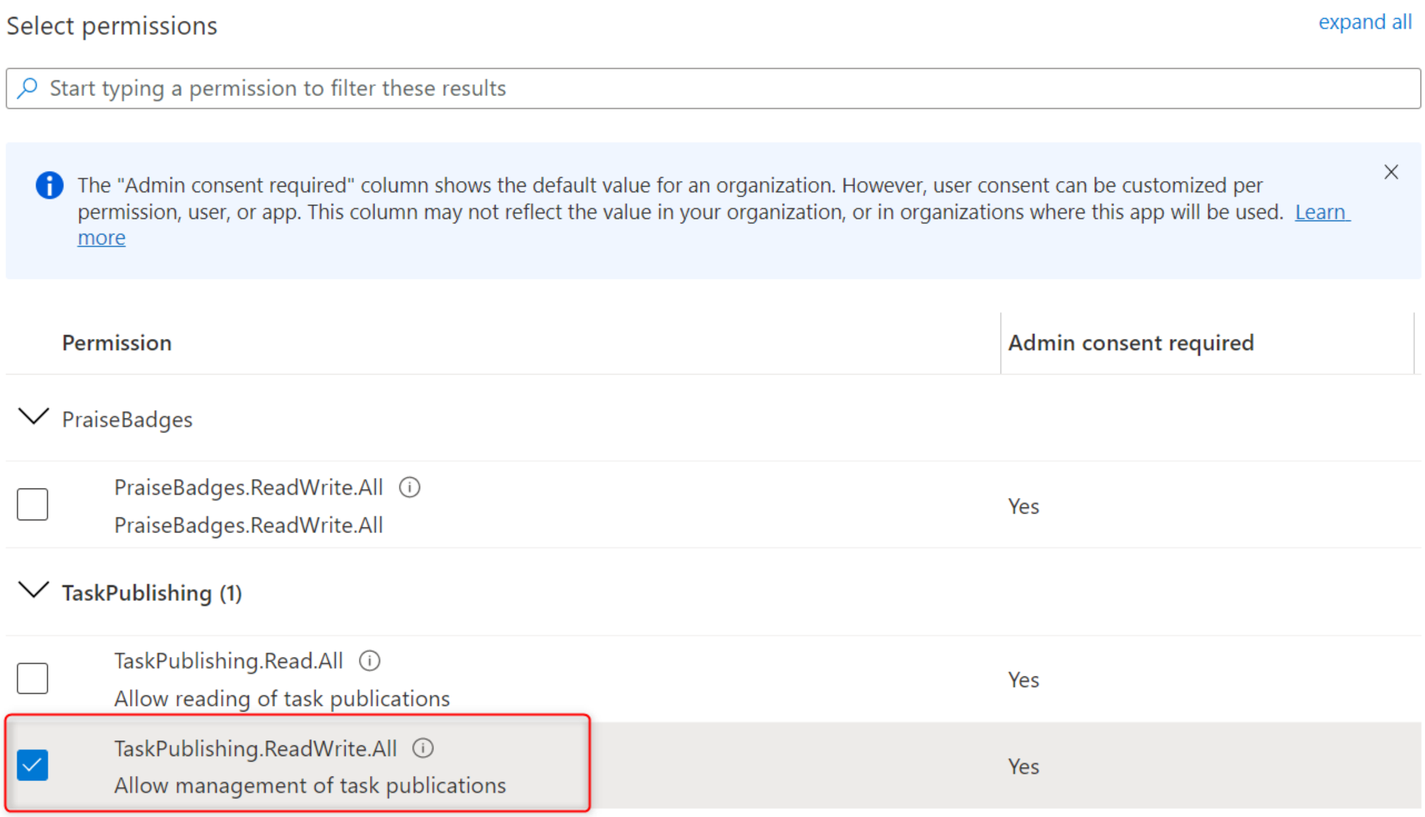
12. In the **Request API permissions** pop-up, select **APIs my organization uses** tab, then search for **Microsoft Teams Retail Service** and click on it.




13. Select **Delegated permissions**

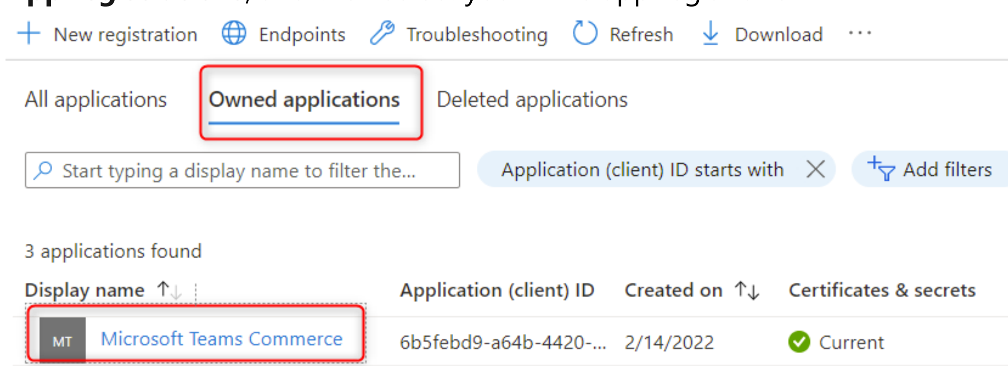



14. Click on **TaskPublishing** to expand, check **TaskPublising.ReadWrite.All**, then click **Add permissions** button.

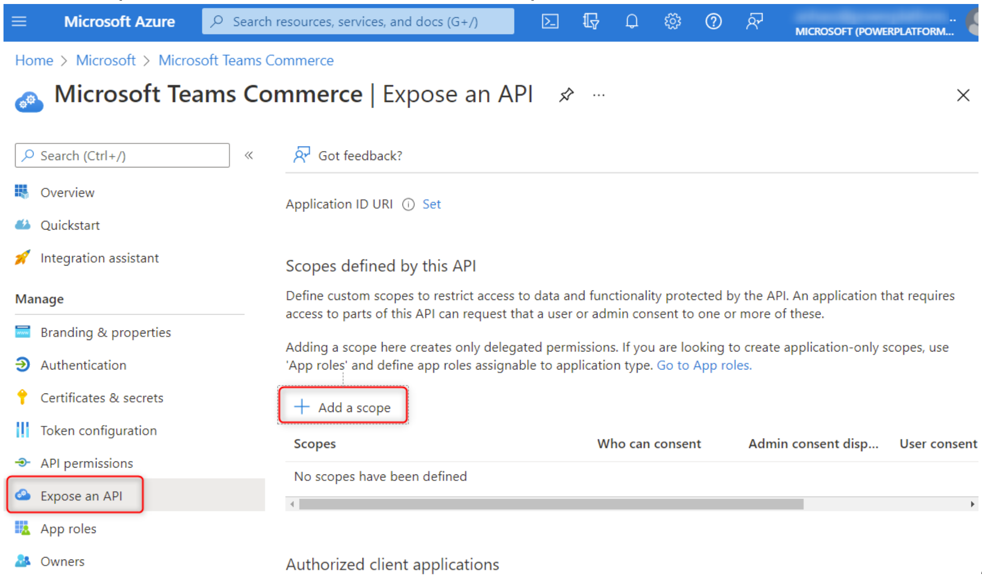



## Task 4: Configure registered application to expose a web API

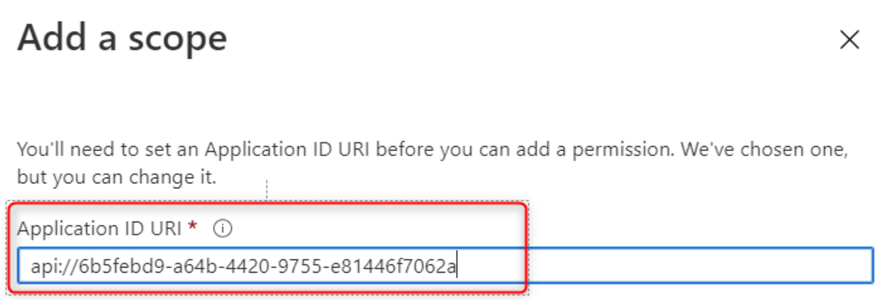
1. In Azure Portal go to **Azure Active Directory**
2. **App registrations**, and then select your API's app registration.



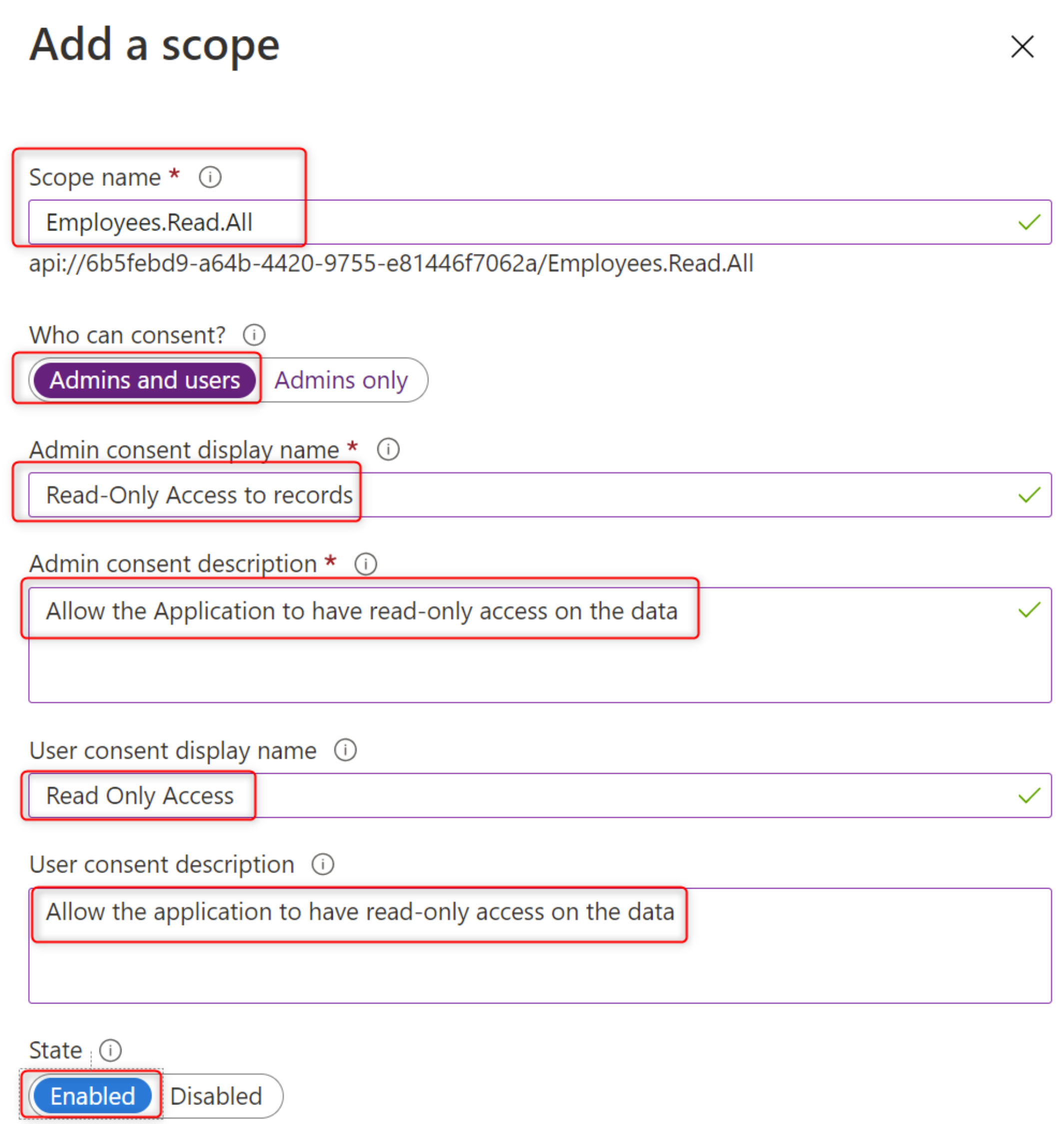
4. Select Expose an API and then Add a scope.




5. You can use the default value provided, which is in the form api://<application-client-id>, or specify a more readable URI like https://contoso.com/api.




6. Click save and Continue
7. In Add a Scope page fill the form with the following values:

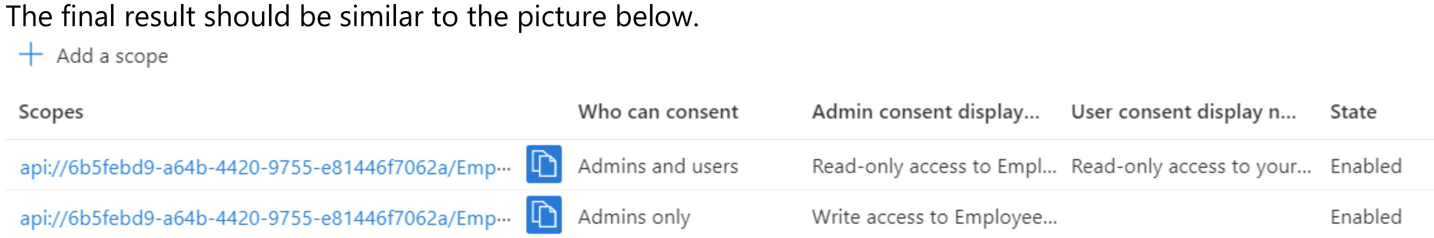



8. Add another scope by clicking in Add Scope and use the following values.

| | |
|---|---|
| **Scope name** | Employees.Write.All |
| **Who can consent** | Admins only |
| **Admin consent display name** | Write access to records |
| **Admin consent description** | Allow the application to have write access to all Employee data. |

9. Leave the remaining fields empty and make sure the state is set to Enabled.
10. Click Add Scope

11. The final result should be similar to the picture below.

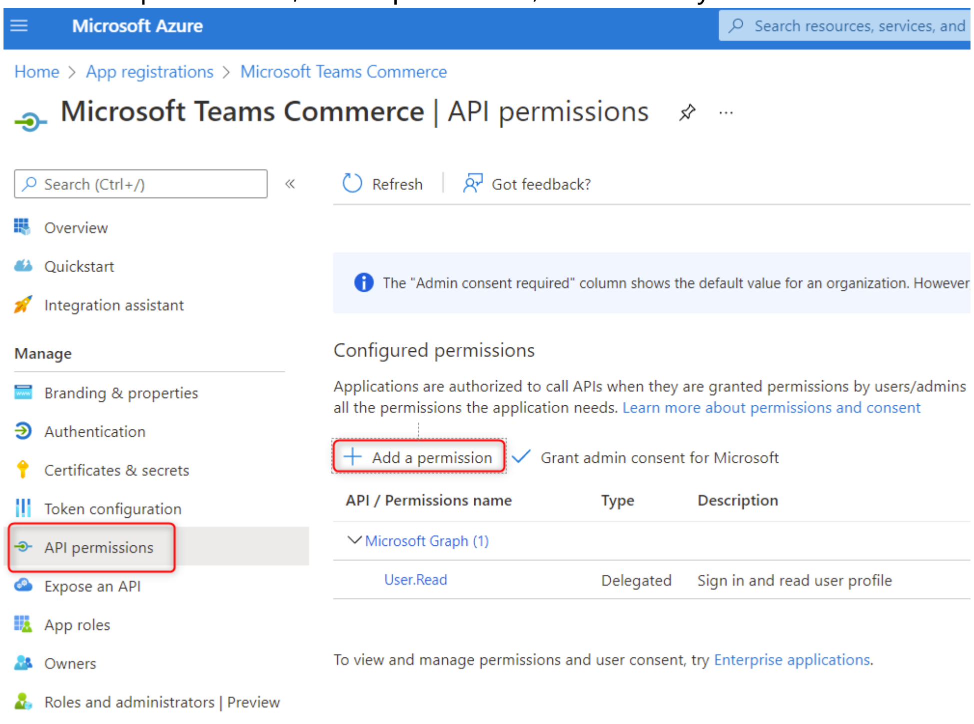


## Task 5: Configure a client application to access a web API

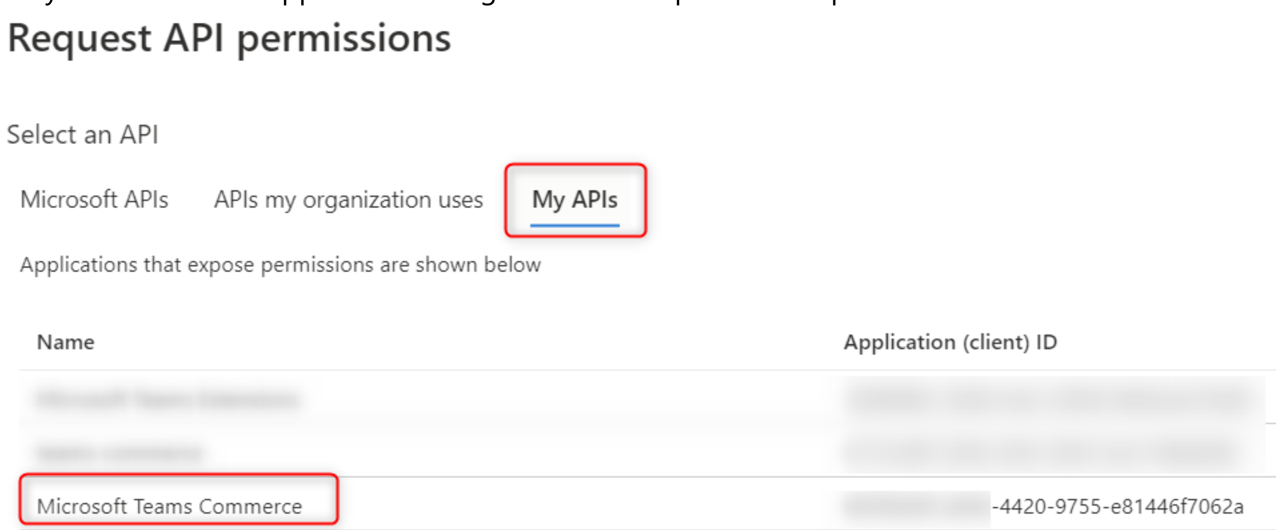
1. In Azure Portal go to **Azure Active Directory**

2. **App registrations**, and then select your API's app registration.

3. Select API permissions, Add a permission, and then My APIs.

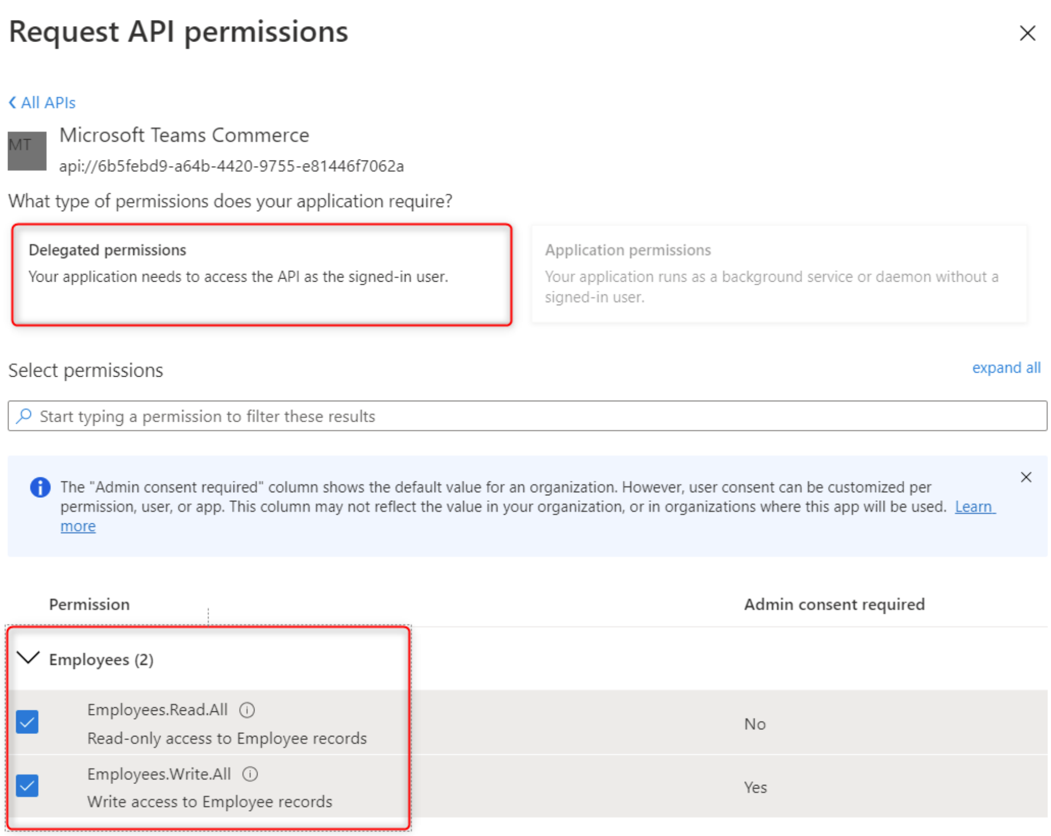



4. In My APIs select the Application ID registered in the previous step.




5. Under Select permissions, expand the resource whose scopes you defined for your web API, and select the permissions.

6. If you used the example scope names specified in the previous quick start, you should see Employees.Read.All and Employees.Write.All.

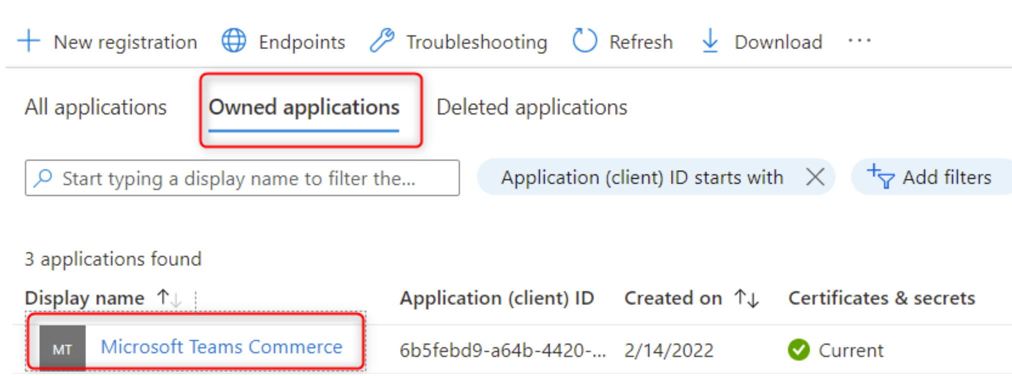



7. Click Add Permissions

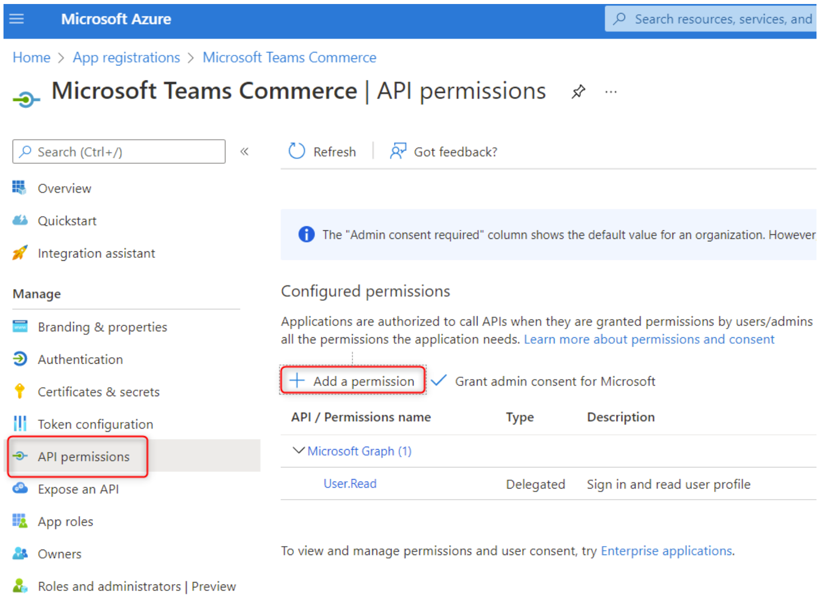
## Task 7: Add Delegated permissions to access Microsoft Graph

1. In Azure Portal go to Azure Active Directory

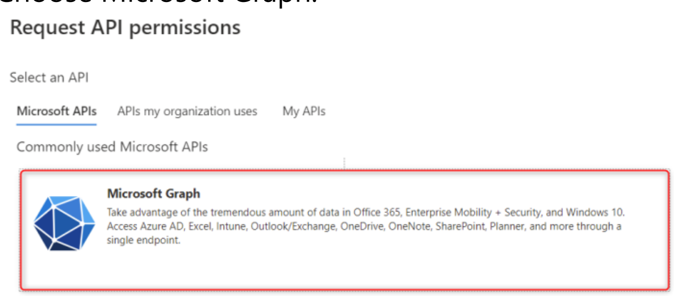
2. App registrations, and then select your API's app registration.



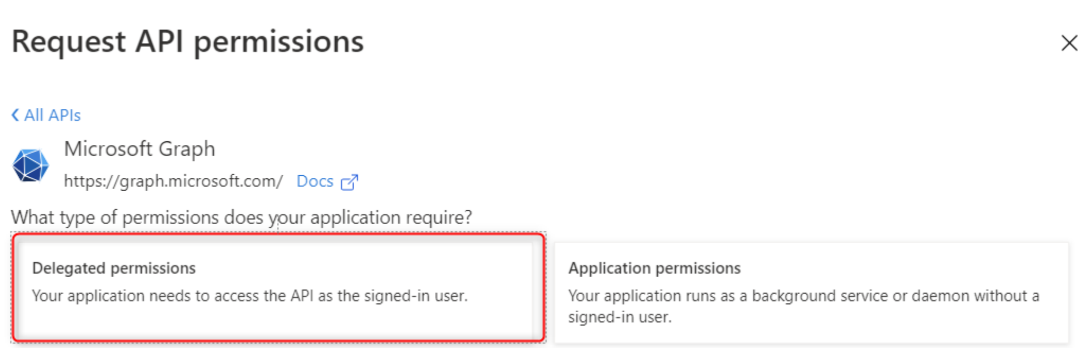

3. Select API permissions, Add a permission, and then Microsoft Graph




4. Choose Microsoft Graph.

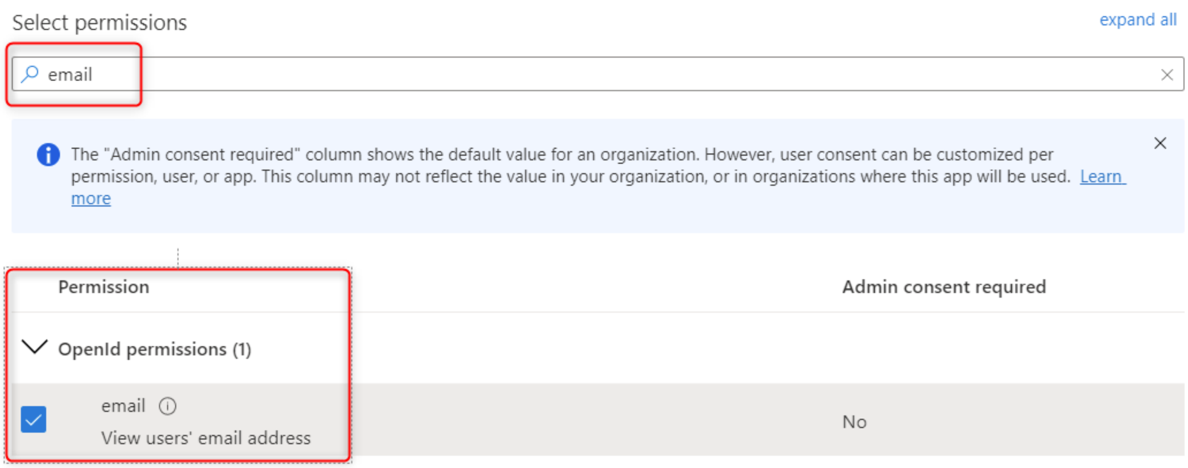



5. Select Delegated permissions.



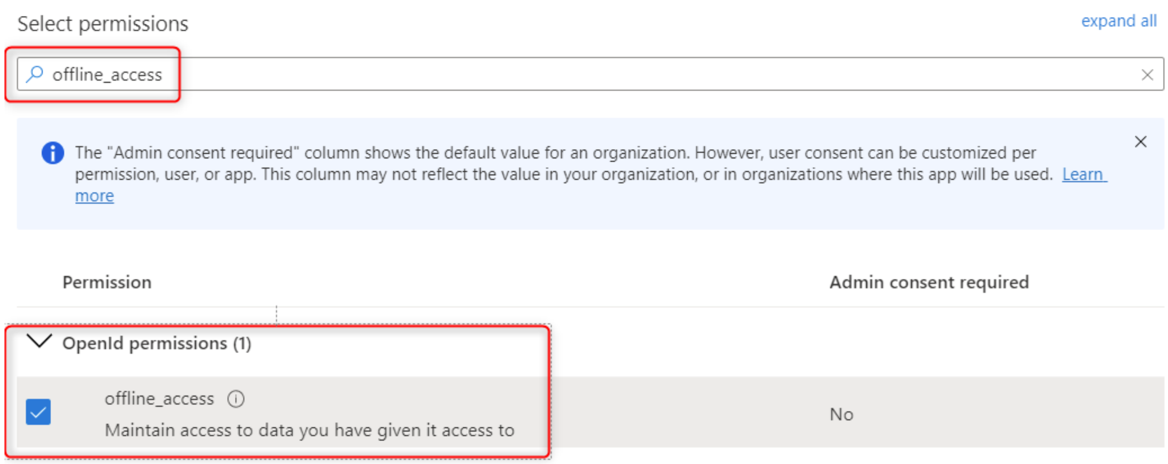

6. In Select Permissions search for email

7. Under Permission, check email



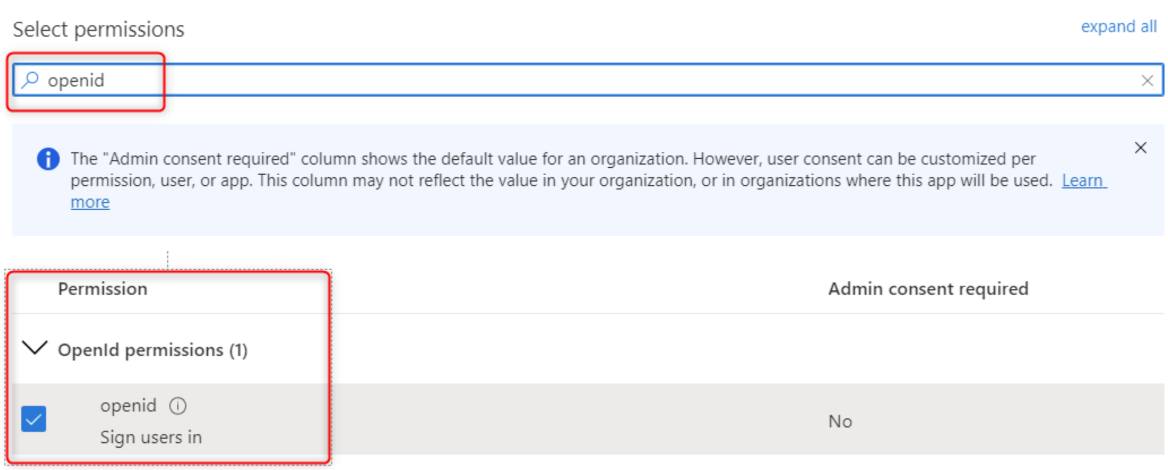

8. In Select Permissions search for offline_access

9. Under Permission, check offline_access



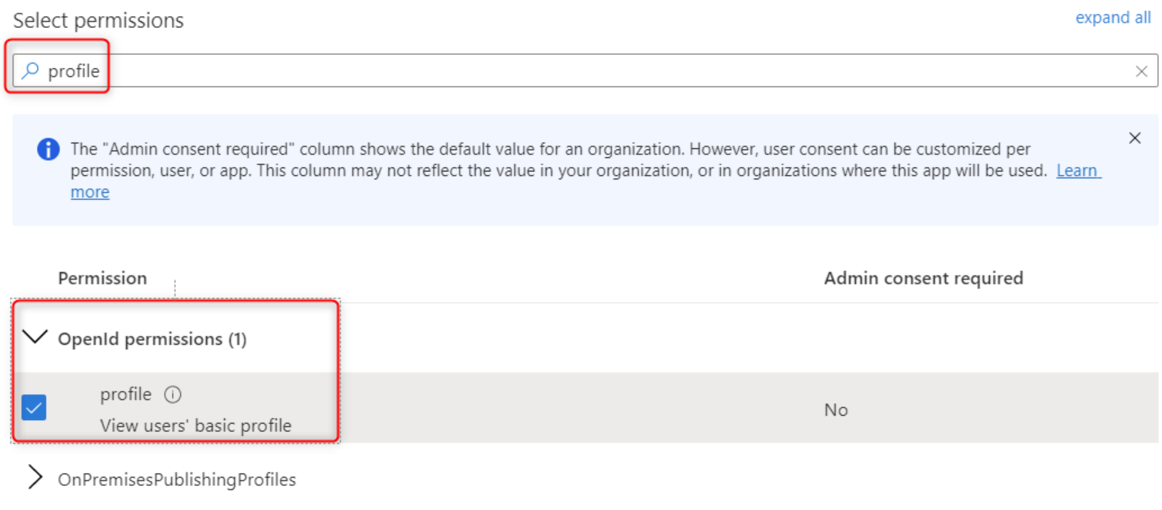

10. In Select Permissions search for openid

11. Under Permission, check openid




12. In Select Permissions search for profile

13. Under Permission, check profile

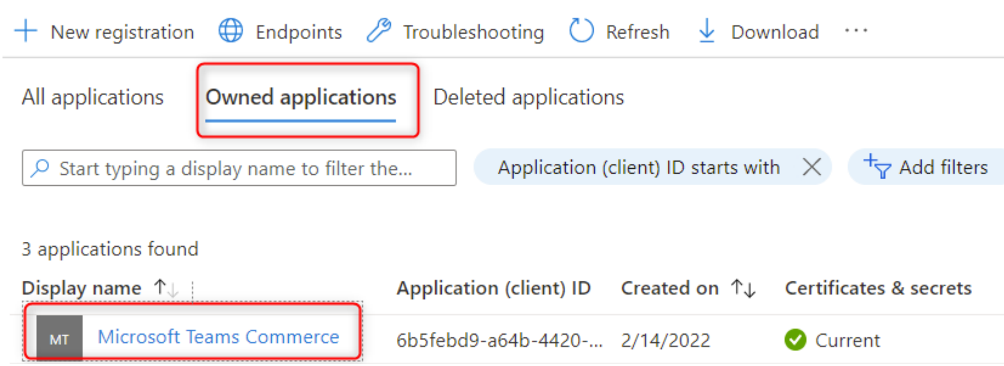



14. Select Add permissions to complete the process.

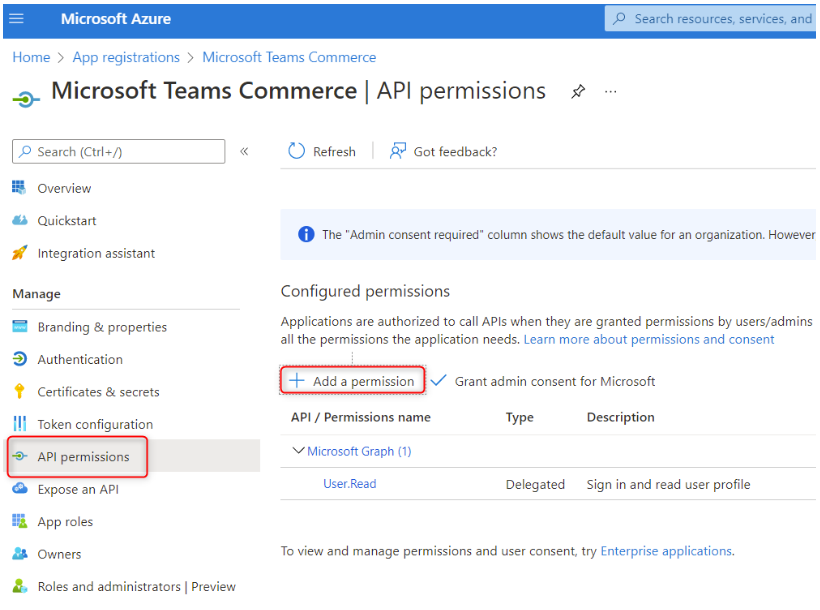
## Task 8: Add Application permissions to access Microsoft Graph

1. In Azure Portal go to Azure Active Directory

2. App registrations, and then select your API's app registration.

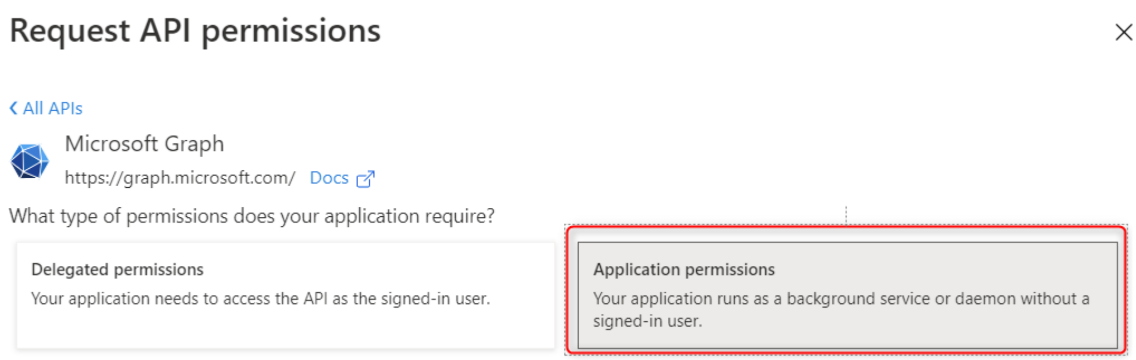



3. Select API permissions, Add a permission, and then Microsoft Graph




4. Choose Microsoft Graph.

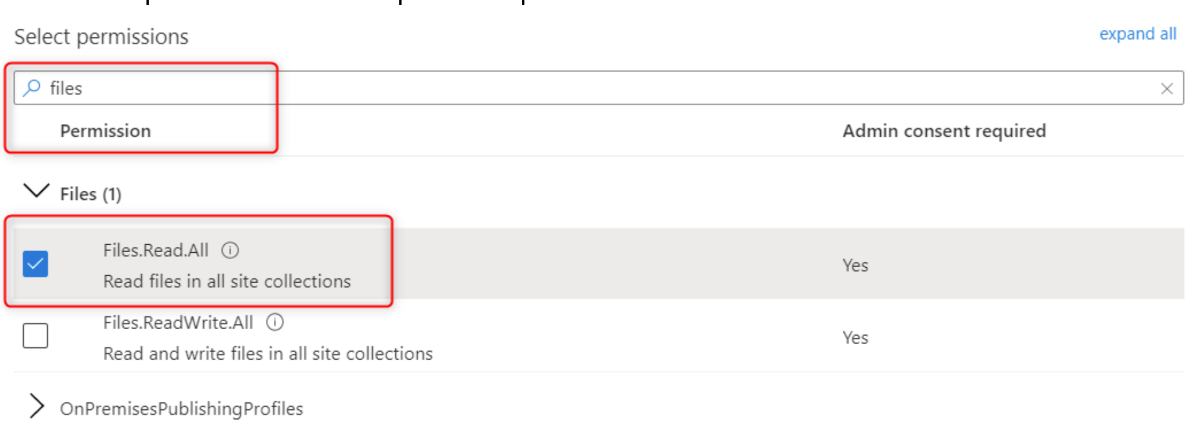
5. Under Request API permissions Select Application Permissions




6. In Select Permissions search for files

7. Under Permission, check Files.Read.All

8. Select Add permissions to complete the process.



# Exercise 2: Enable Commerce and Teams Integration

***Note**: If you are in an instructor led lab then please skip this exercise and tasks as this has been completed by your instructor.*

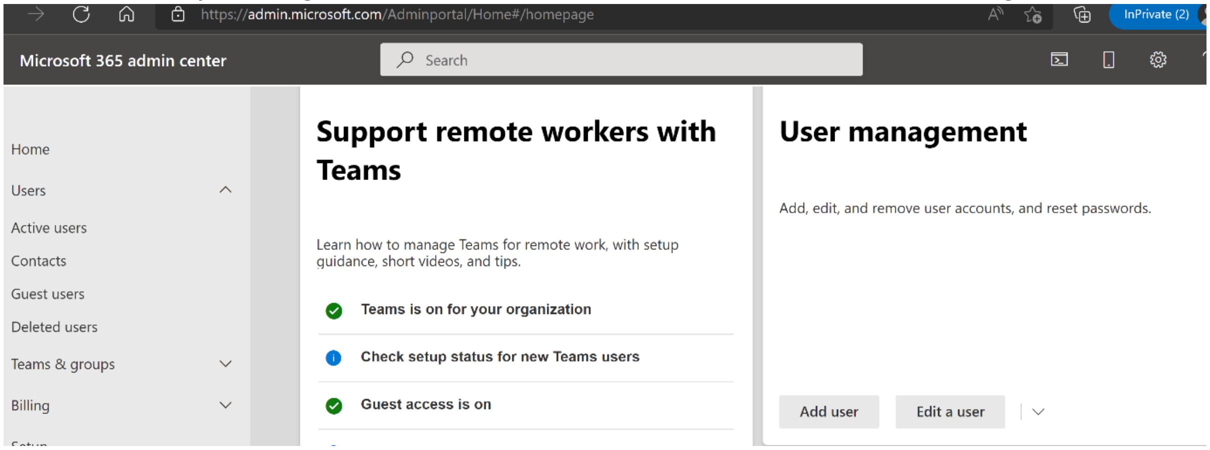
In this Lab, you learn how to enable Microsoft Dynamics 365 Commerce and Microsoft Teams integration.

In this exercise, you will be doing the following:

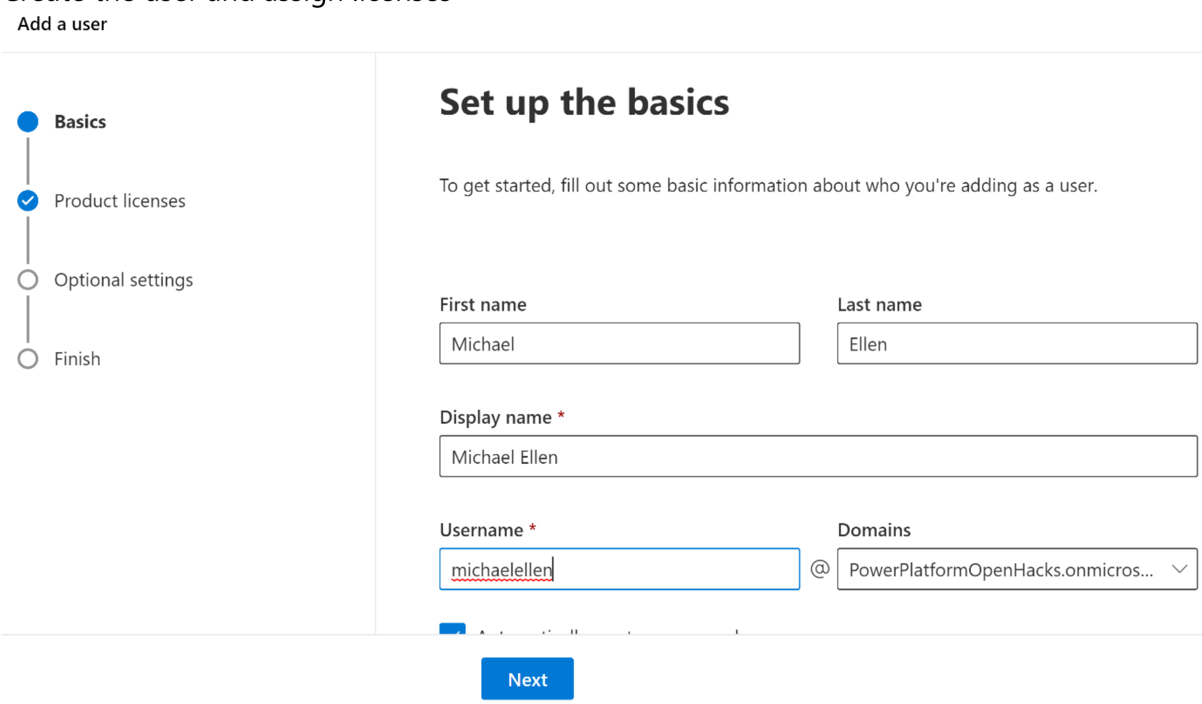
- Create an external identity for the worker in Commerce Finance and Operations.
- Add store manager to the Publisher Task Manager
- Provision Teams in Commerce Finance and Operations
- Validate Teams provisioning in the Teams admin center.
- Download Commerce organizational hierarchy to Teams.
- Install Microsoft Teams PowerShell module.
- Upload organization hierarchy to Teams
- Publish a test task list in Teams

**Task 1: Create users' roles for each of the personas -Retail communication manager, store manager and store employee**

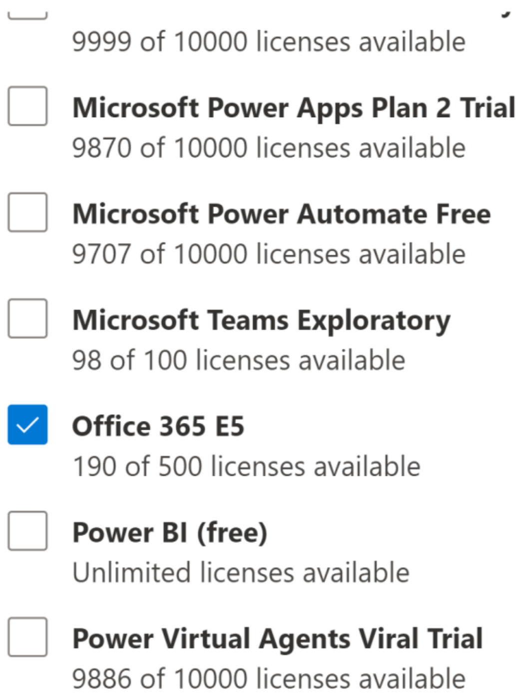
1. To perform this task, you would need an administrator access to the tenant to create users.
2. Login to https://admin.microsoft.com and create users in the tenant you are using
3. Create a user by clicking add user who will act as Retail communication manager



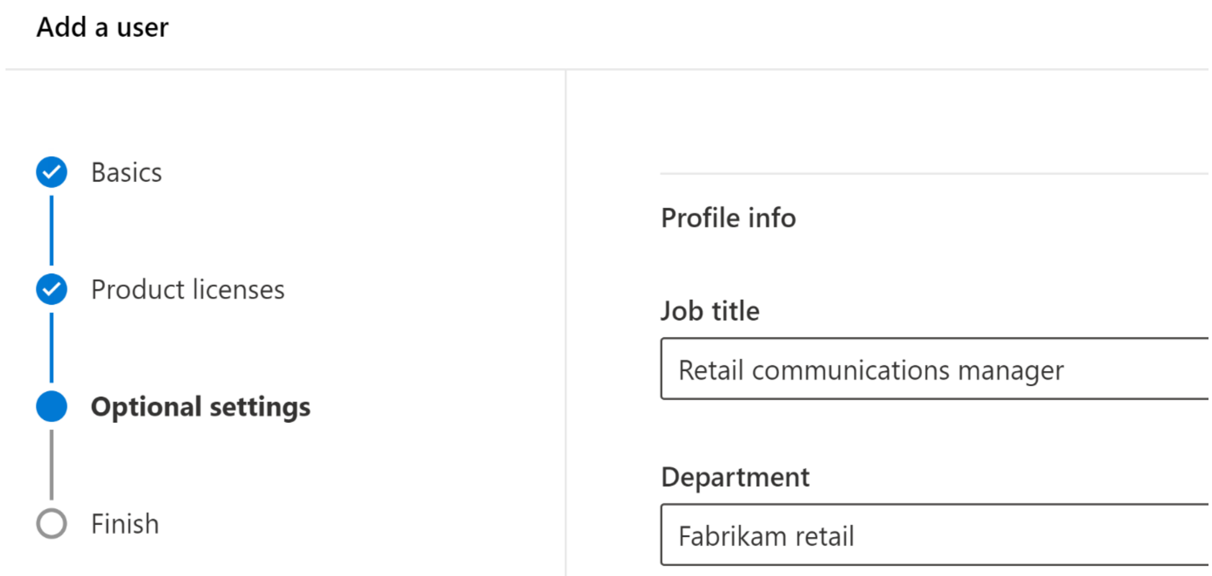

4. Create the user and assign licenses



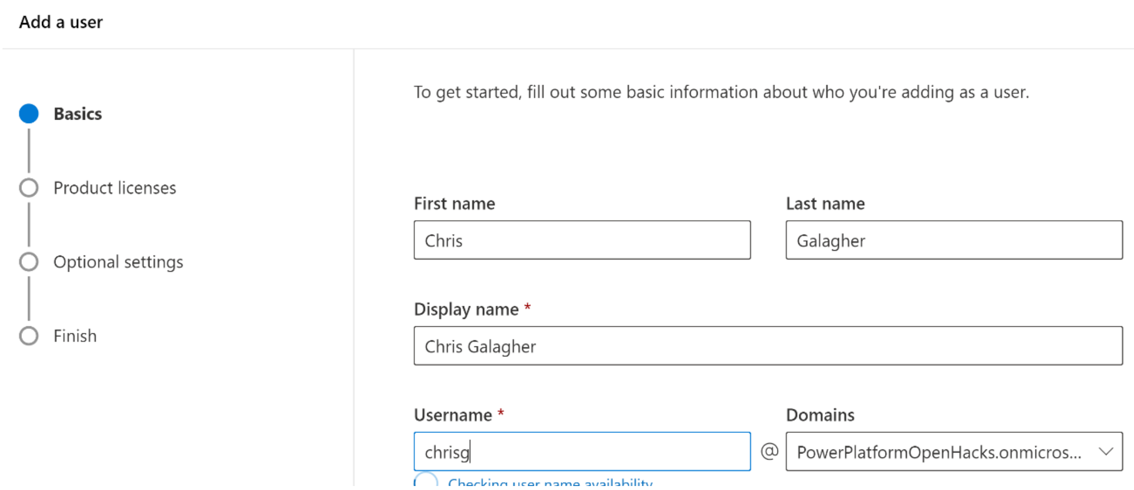

5. As the Retail communication manager will be publishing tasks for store employees using Microsoft Teams, Office 365 E5 license is assigned.



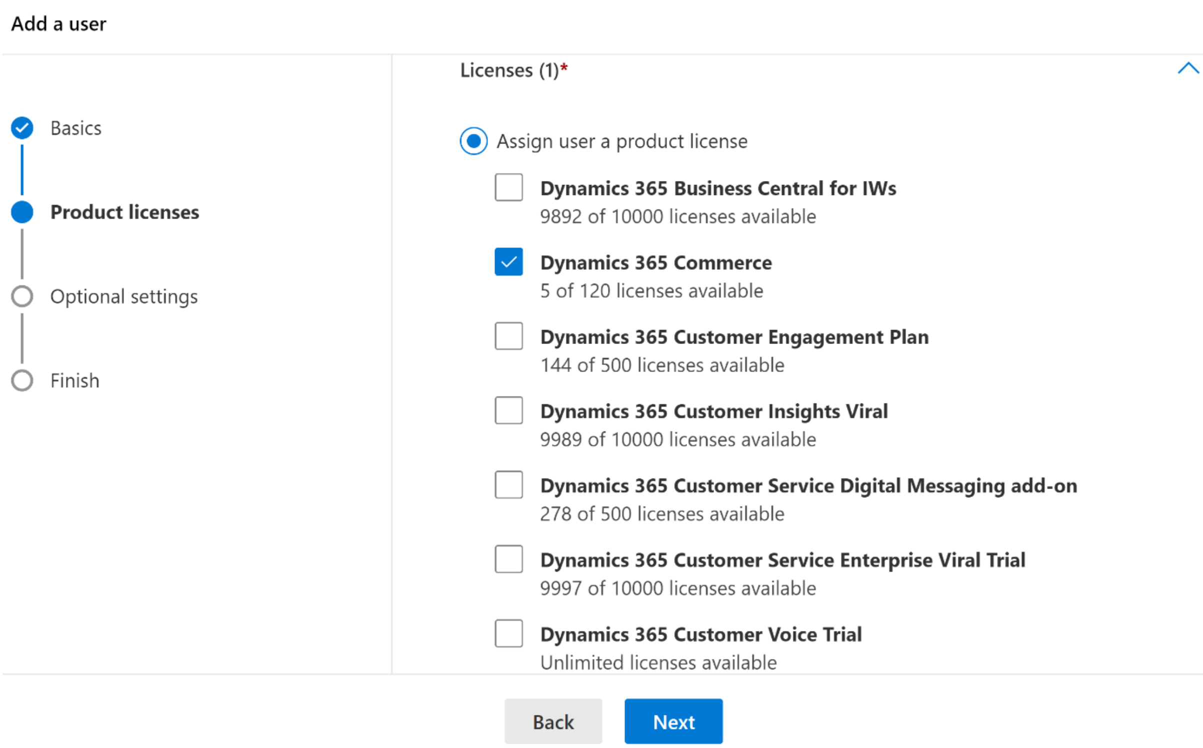

6. We would set the user profile as Retail communication manager, so that the title appears in Teams



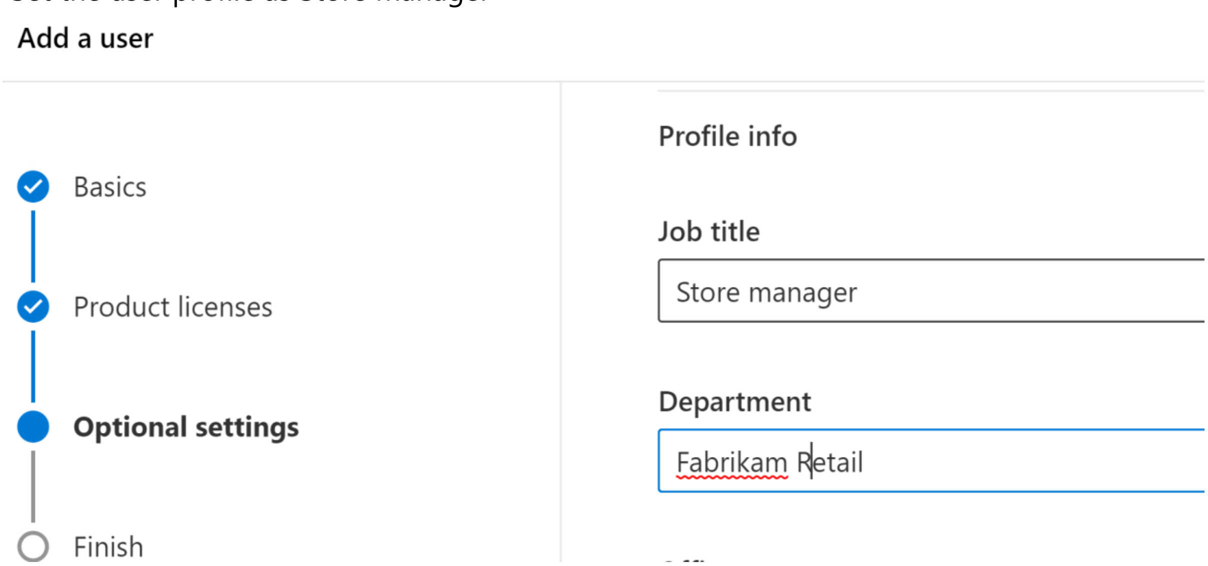

7. Next step would be to be to create a user who will act as store manager to login to POS and assign tasks to store employees



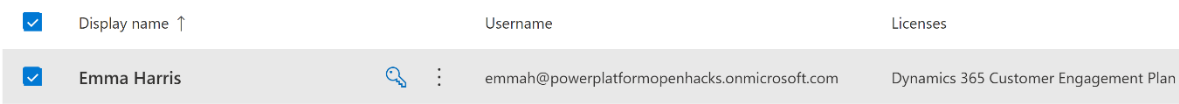

8. Assign Dynamics 365 Commerce license as the store manager will login to POS




9. Set the user profile as Store manager



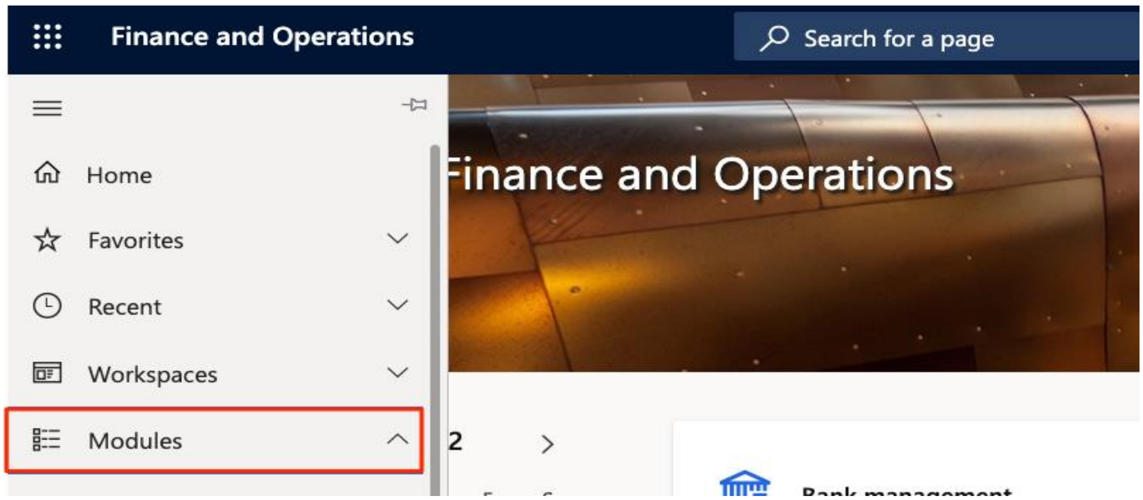

10. In the same way a user is created for a Store employee and assigned with licenses




11. The store employee is assigned Dynamics 365 Commerce and Office 365 E5 license so that he can login to Microsoft Teams and mark his tasks as completed

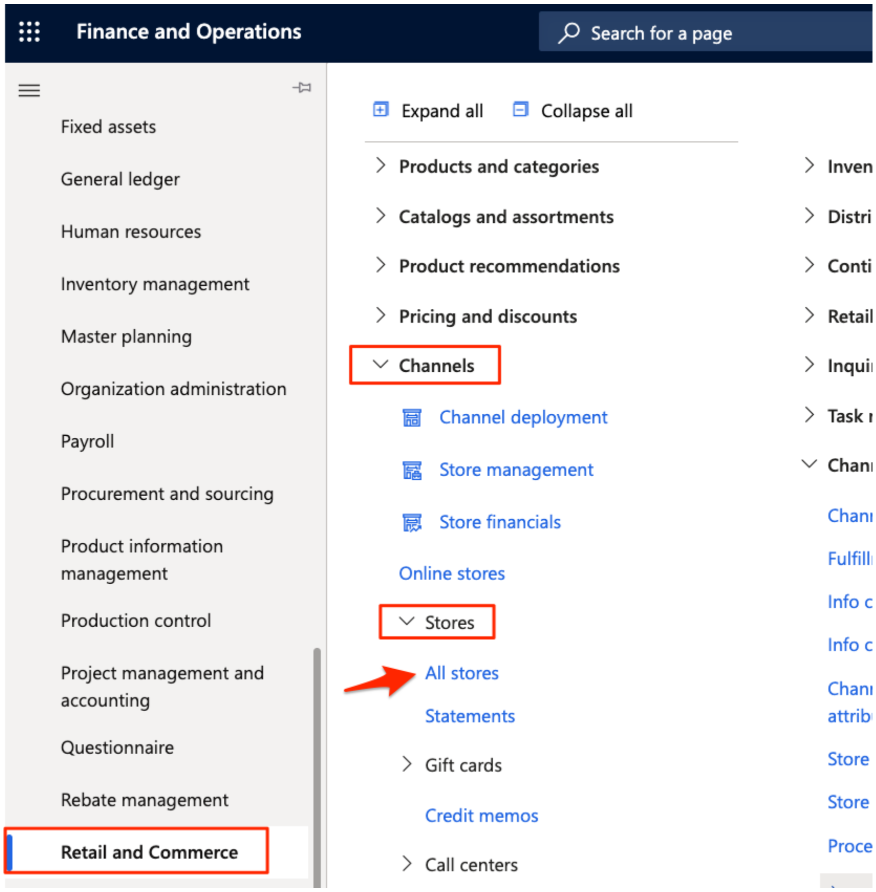
**Task 2: Create and external identity for the worker in Commerce Finance and Operations.**

1. Log into Commerce Finance and Operations.
2. On the left side menu click in Modules

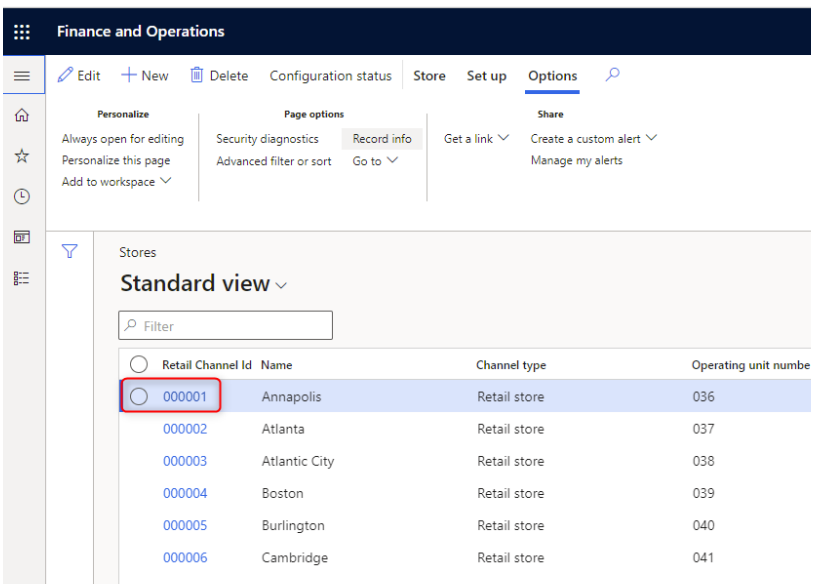



3. Scroll down in the list of options until you find **Retail and Commerce**.

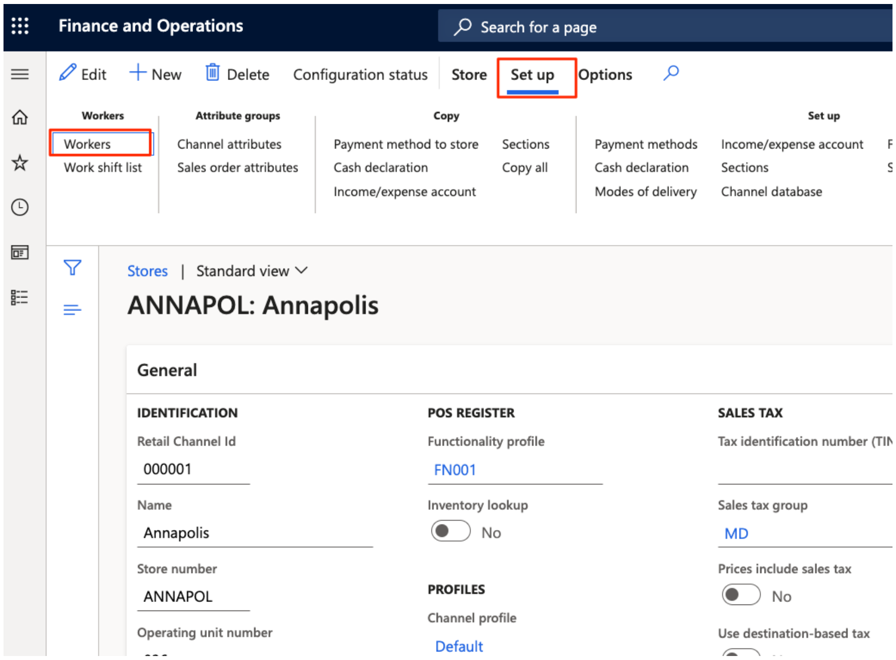
4. On the right side expand Channels, Stores, and click in All Stores.



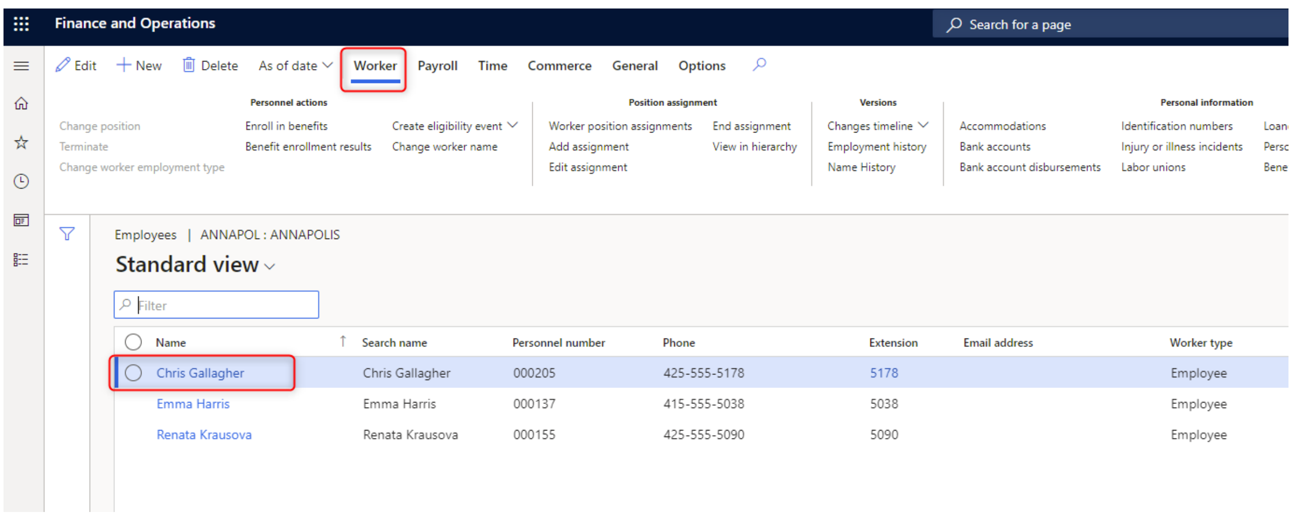

5. Click on the **Retail Channel id** for the first store on the list.



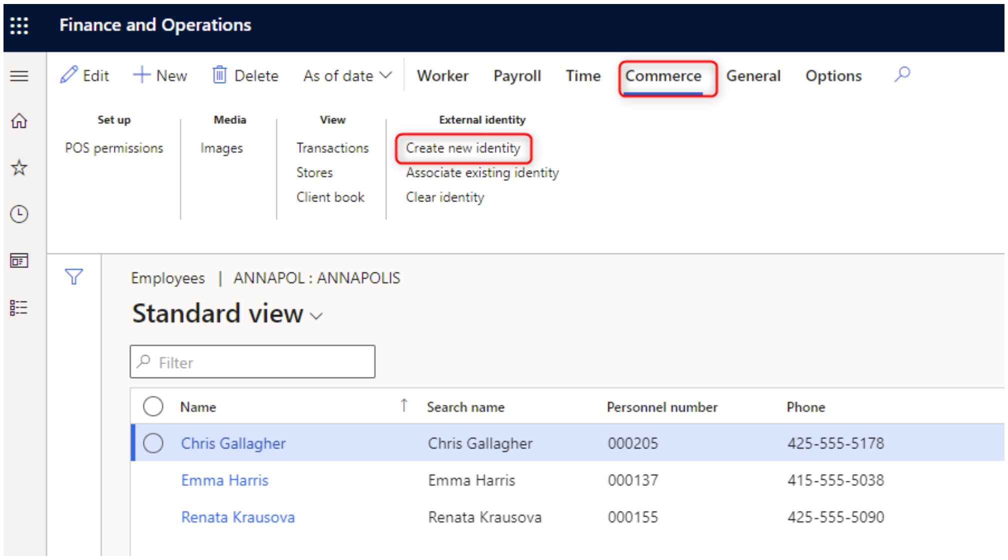

6. On the top menu, click in Set up and then Workers.




7. Find the employee who is the store manager. You can find the role details by clicking on the employee's name.




8. After identifying the store manager, create an Azure Active Directory identity for the employee to be able to log in to Microsoft Teams. Click in **Commerce** and then **Create new identity.**




9. In Alias, define a unique alias that is based on the worker's name. First letter of first name and last name is the naming conventions used in the example below.

10. The UPN will be filled automatically.

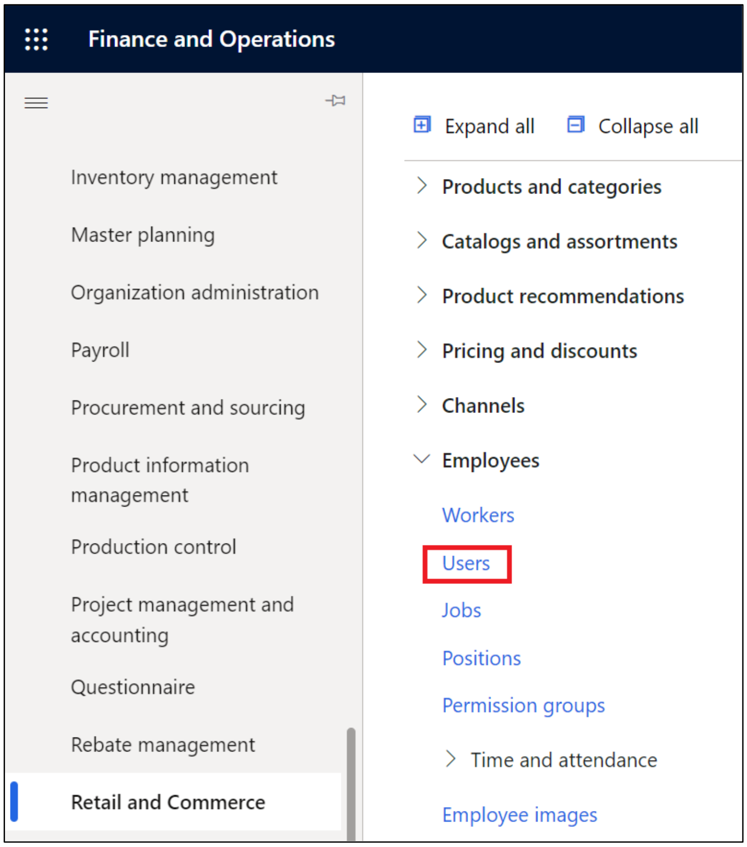
11. In the password field, define a strong password for the new identity.


12. In the password field, define a strong password for the new identity.

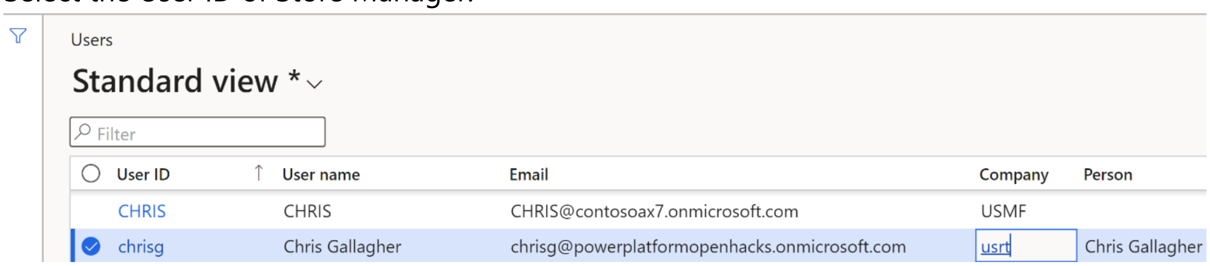
13. Repeat the same steps for all the stores you want to integrate with Microsoft Teams.

## Task 3: Assign store manager to the Retail Task Manager Role

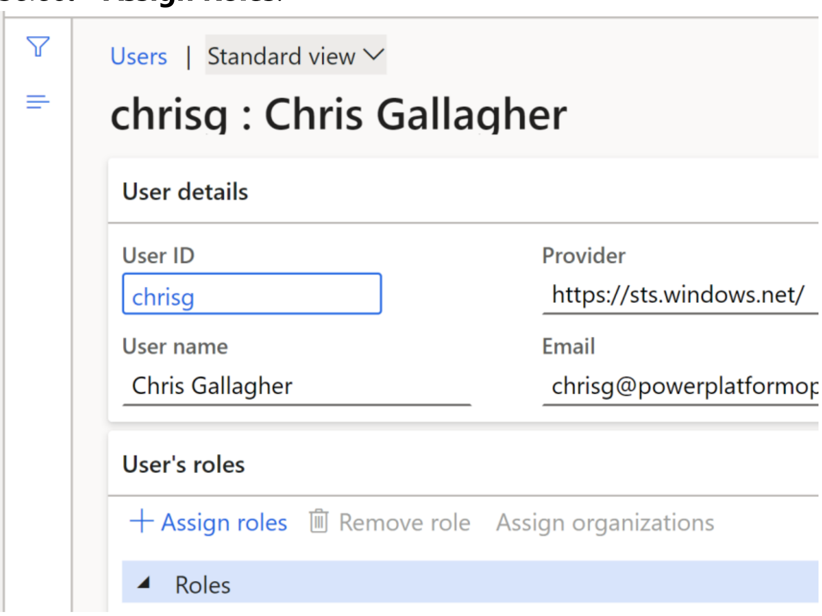
1. Navigate to Retail and Commerce>Employees>Users



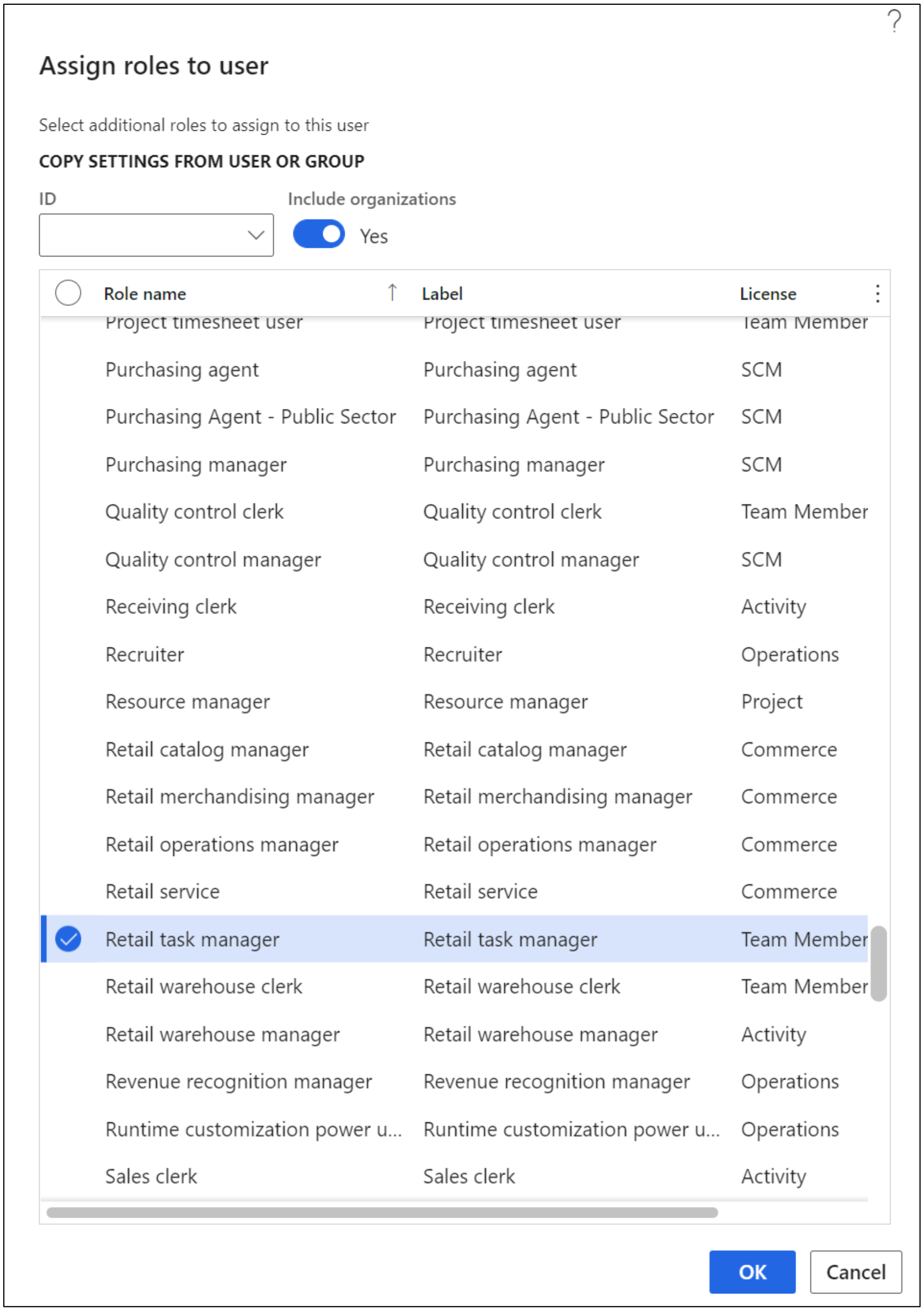

2. Select the User ID of Store Manager.




3. Select **+Assign Roles**.




4. Select **Retail Task Manager** and then select **OK** button.



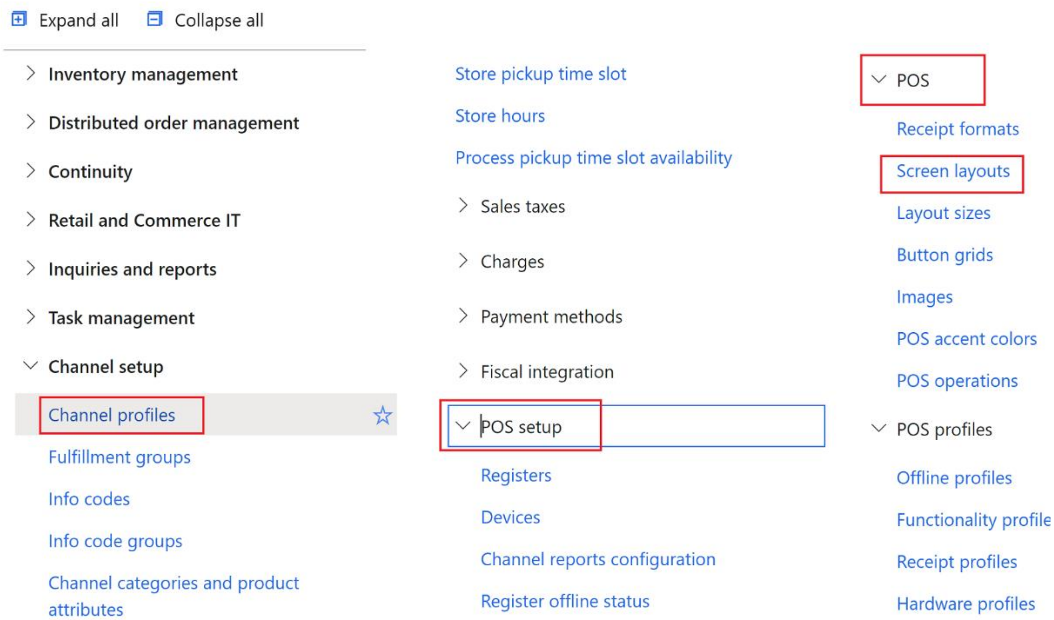

**Congratulations!** You have successfully assigned the Retail Task manager role to the task manager/store manager.

## Task 4: Customize POS screen layout to add Task management

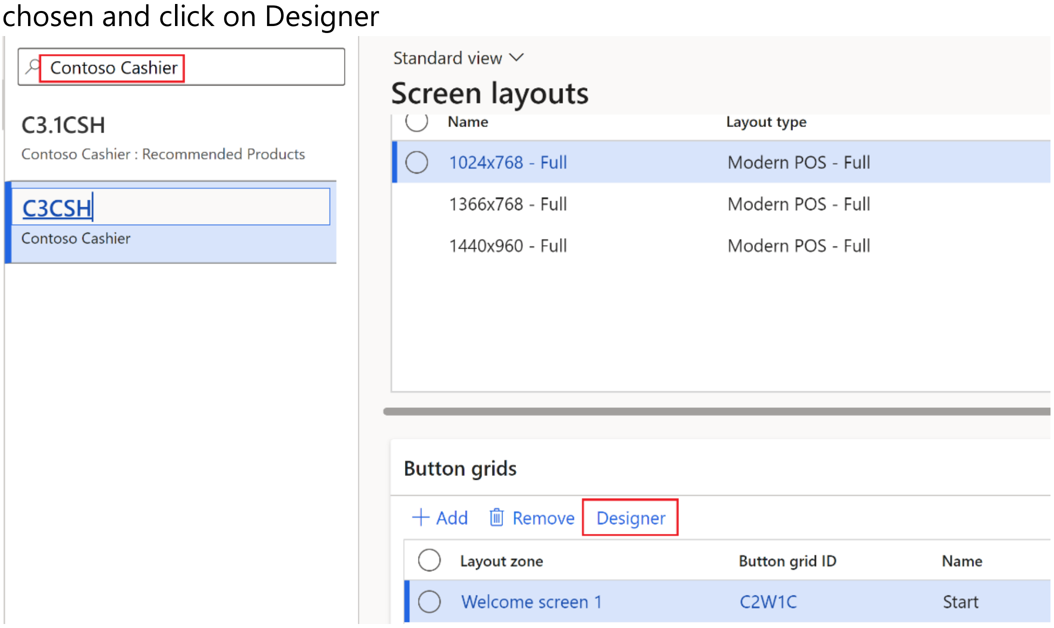
The Dynamics 365 Commerce POS application has task management features that let store managers and workers manage tasks and update task status. Store workers can access tasks either by selecting the **Tasks** tile on the POS home page or by selecting task notifications.

By default, the Task management button is not available in the POS screen layout and hence in this task you will be adding the Task management action to POS screen layout. After adding this button, the store workers are taken to the **My tasks** tab, where they can view the tasks that are assigned to them. However, they can easily switch to the **Overdue tasks**, **Open tasks**, and **Task lists** tabs.

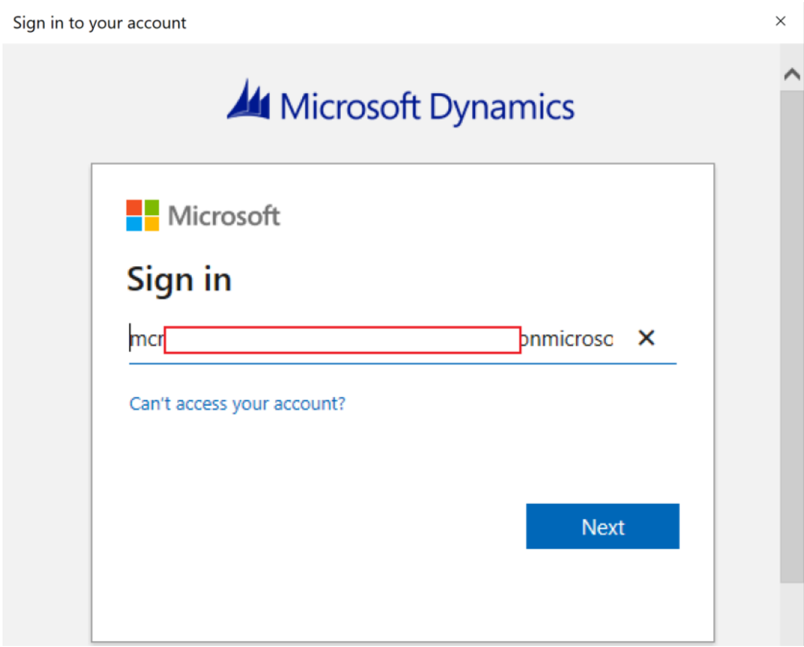
1. Navigate Dynamics Finance and operations URL and go to Retail and Commerce Module from the navigation pane. Go to **Channel setup> POS setup > POS** and go to Screen layouts



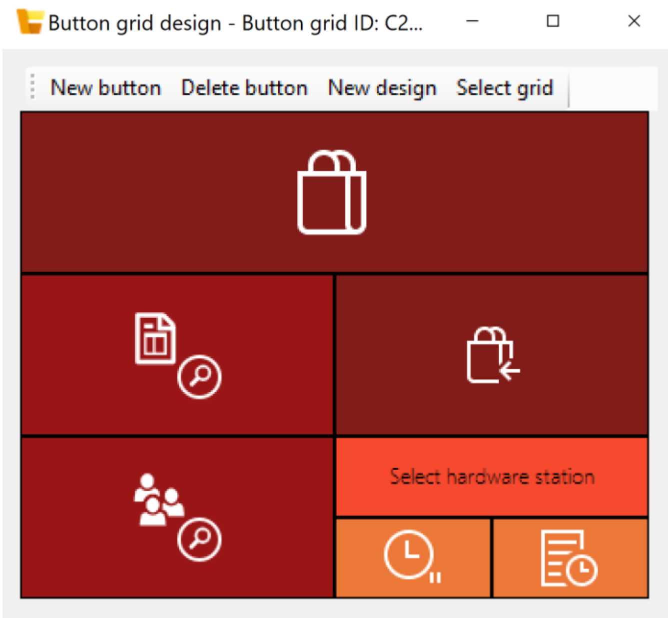

2. On Screen layout, you choose to design any screen layout and then assign it to the worker associated with your user. In this example we will choose "C3CSH" by searching for name "Contoso cashier" in the filter. Once filtered, use designer to customize the button grids. In this example," Welcome screen1" is chosen and click on Designer



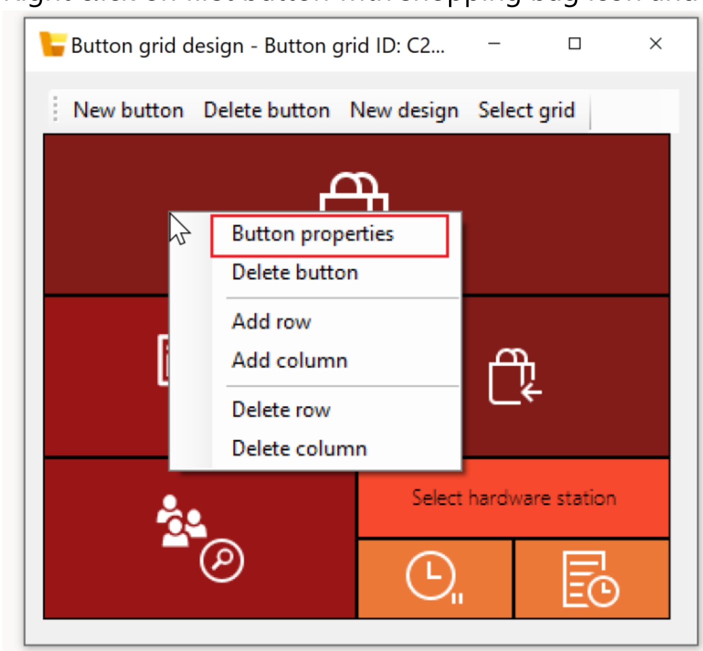

3. Once you click the designer, a pop-screen will appear asking you to sign in to access the designer. Sign in with your account that used for this training


Sign in to your account
Microsoft Dynamics
Microsoft
Sign in
Can't access your account?
Next

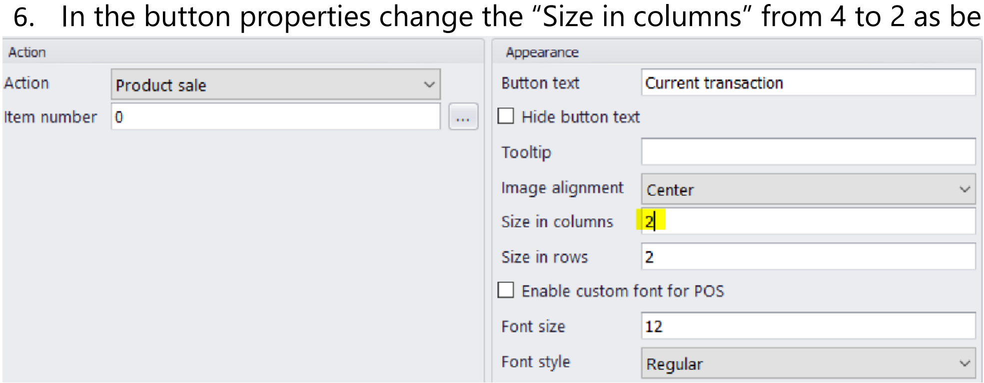
4. The designer will show the screen layout editor as below



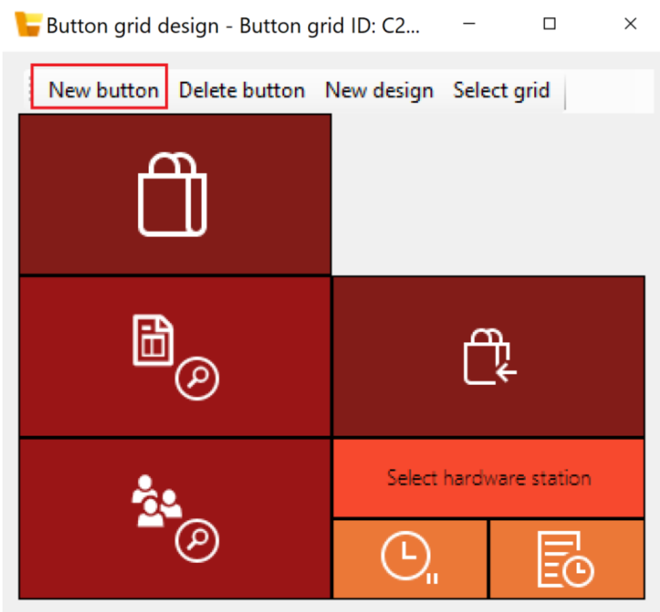

5. As part of this task we will add a button for “task management” next to the “current transaction” button. Right click on first button with shopping bag icon and click button properties



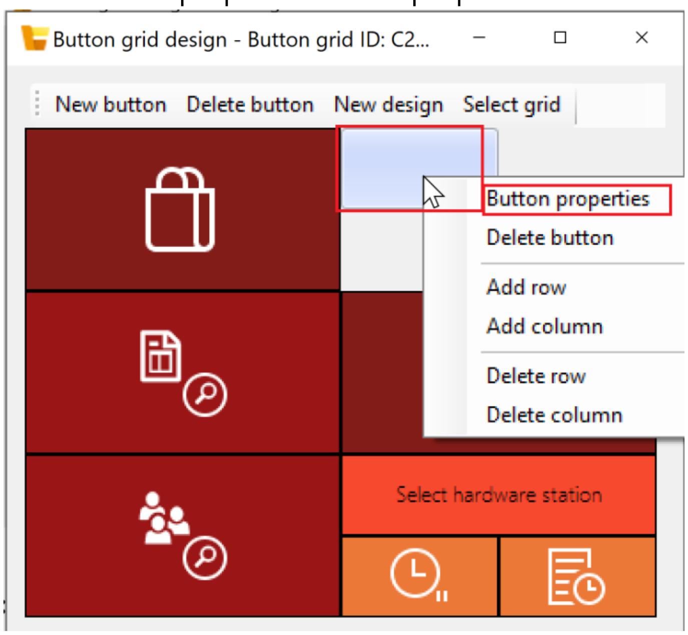

6. In the button properties change the “Size in columns” from 4 to 2 as below and save



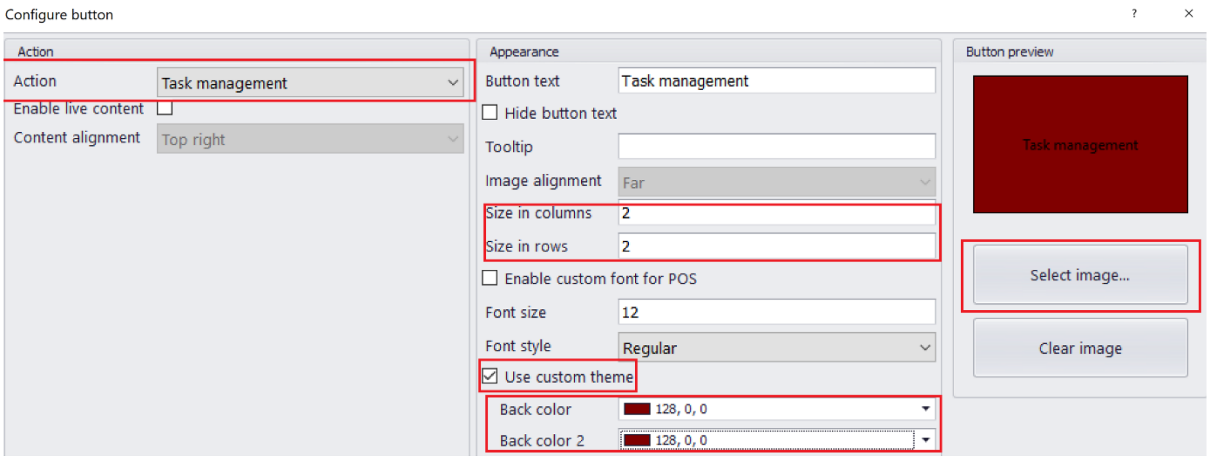

7. The screen layout will appear as below. Now add a “New button” beside the “current transaction” button



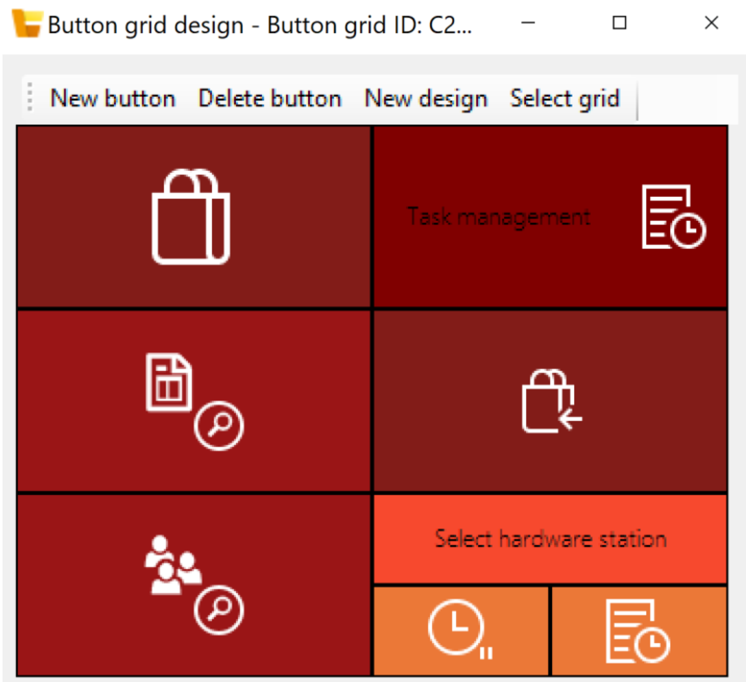

8. Click “Button properties” to set properties for the new button



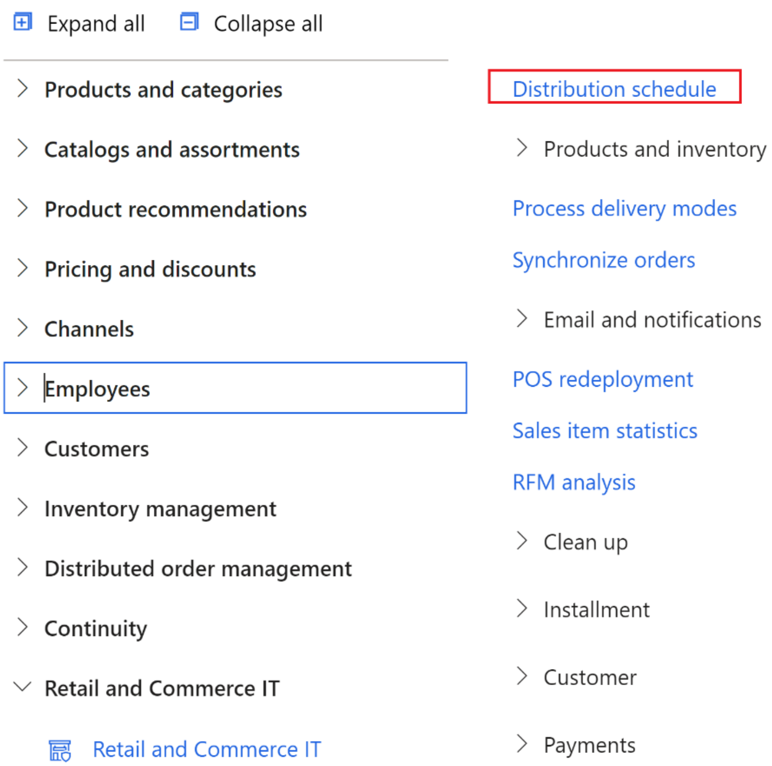

9. Click “Button properties” to set properties for the new button
   **Action** : Task management
   **Button text**: Task management
   **Size in columns**:2
   **Size in rows**:2
   **Use custom theme**: Check
   **Back colors**: Choose an appropriate color matching the screen layout
   **Select image**: Choose an image suitable for task management



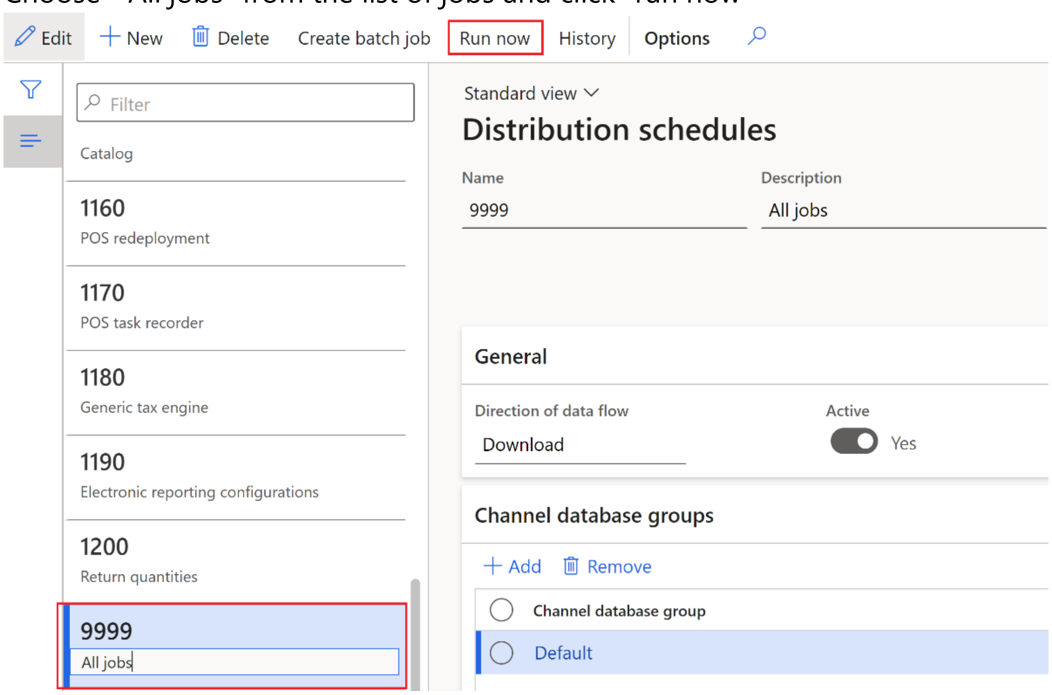

10. Once you click on the screen layout is updated as below with the new Task management button



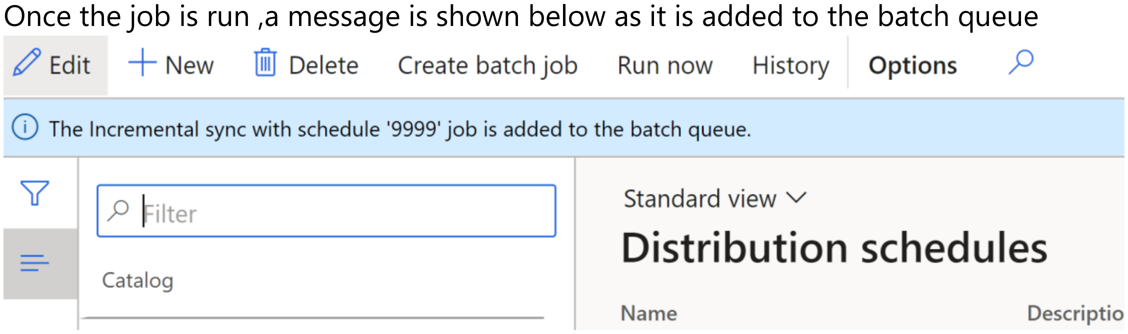

11. To publish the screen layout changes, navigate to Retail module > Retail and Commerce IT and run Distribution schedule



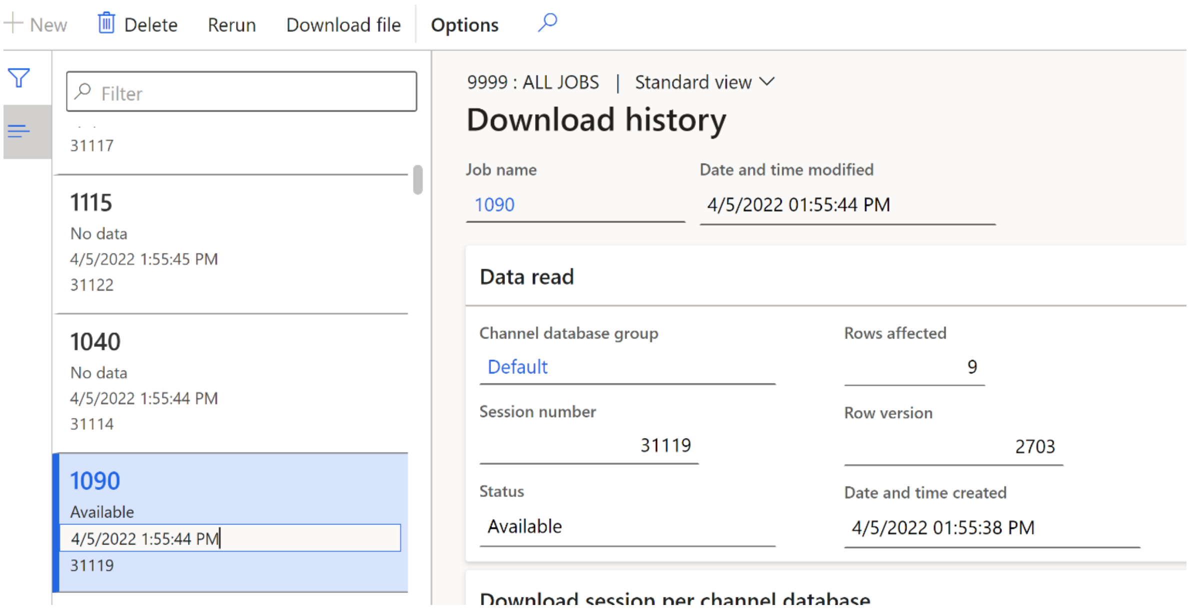

12. Choose " All jobs" from the list of jobs and click "run now"



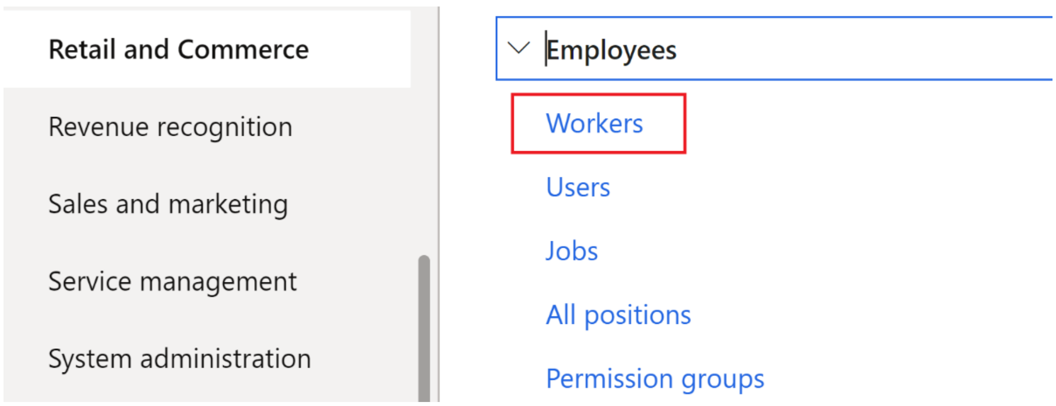

13. Once the job is run ,a message is shown below as it is added to the batch queue



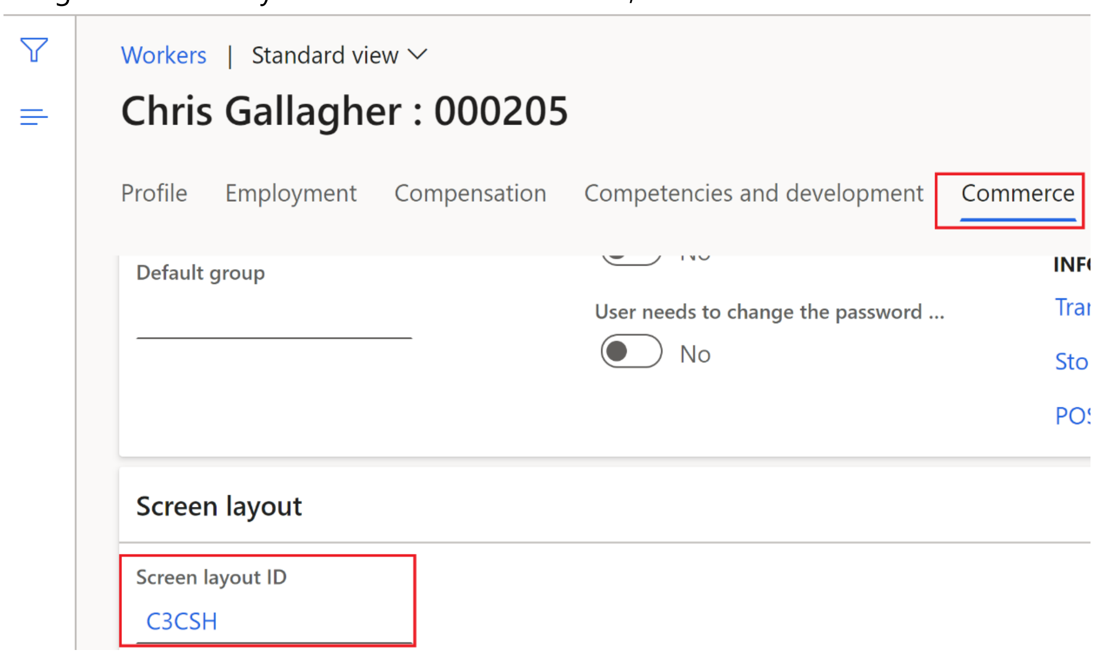

14. Once the job is run , you can click the history button to check the status of the job




15. Ensure the screen layout is assigned to the worker, associated to your user. Navigate to Retail Module>Workers form

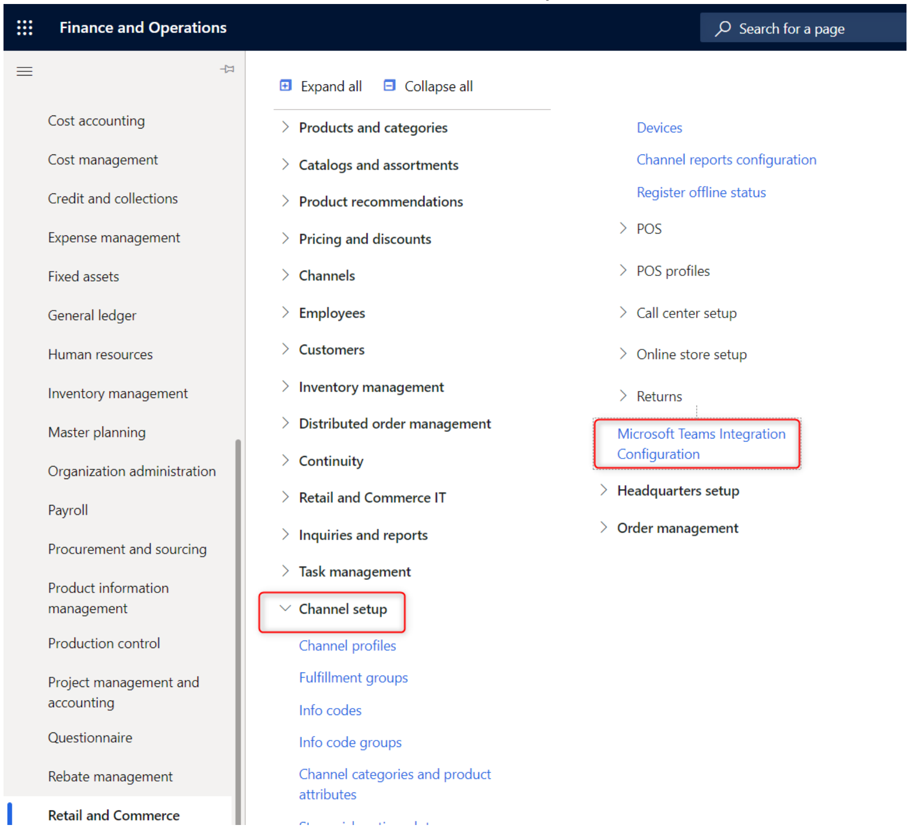



16. Assign the screen layout to the worker as below , in the commerce tab



## Task 5: Provision Teams in Commerce Finance and Operations

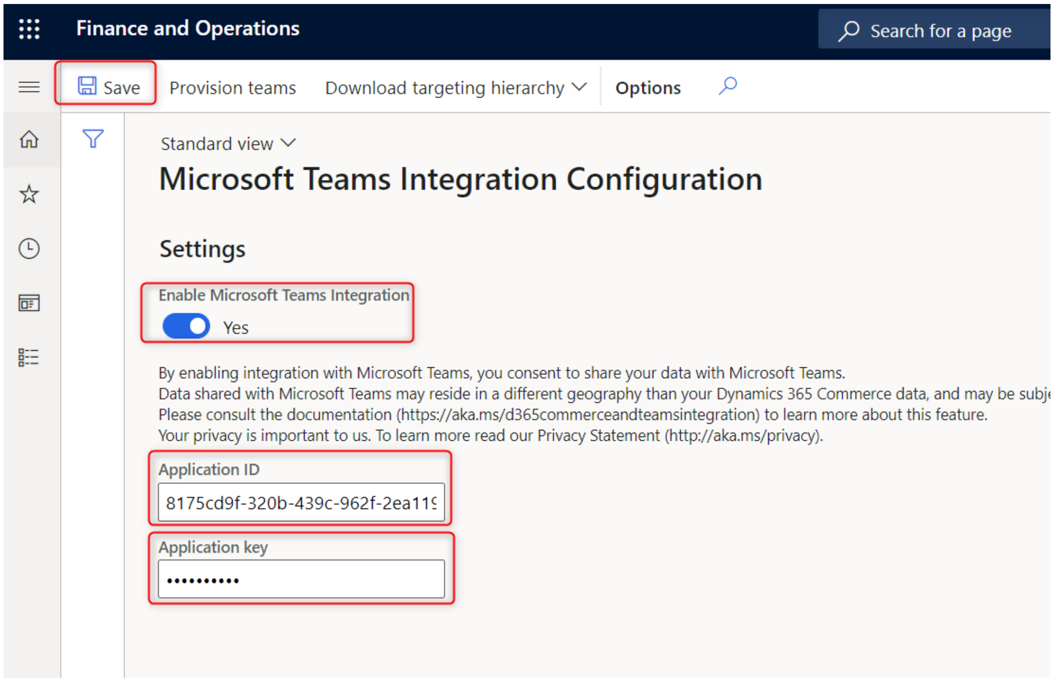
1. Go to Retail and Commerce, Channel setup, and then Microsoft Teams Integration Configuration.



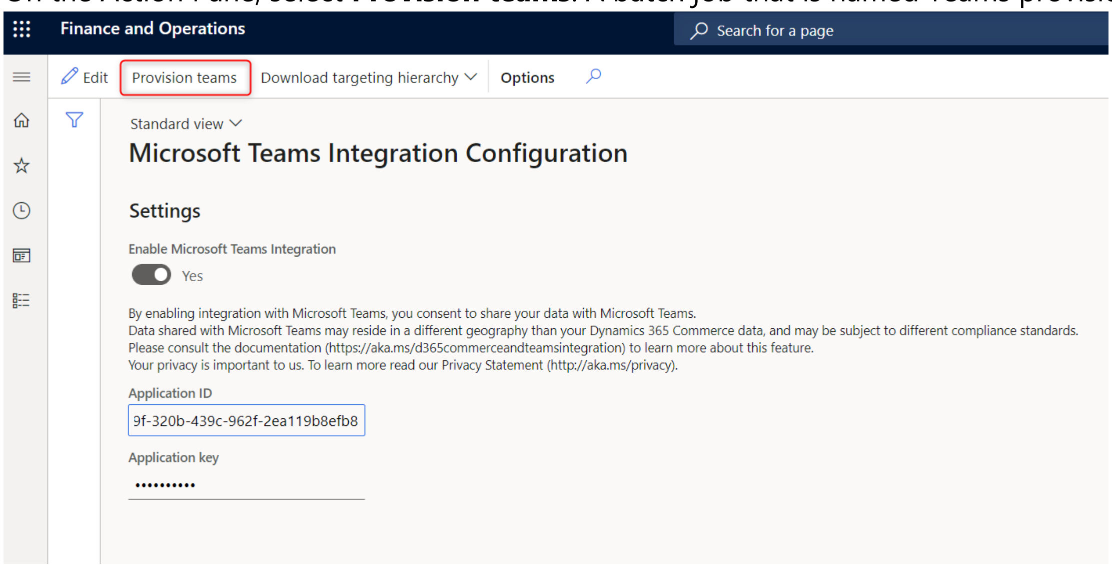

2. On the **Enable Microsoft Teams Integration** under settings, change to **Yes**.

3. Provide the **Application ID** sometimes referred to as Client ID, generated during the Application registration process.
4. Provide the **Application Key**. Application Key sometimes referred to as App Password, it is the value generated from the **Application Secret key** generated in the previous steps.

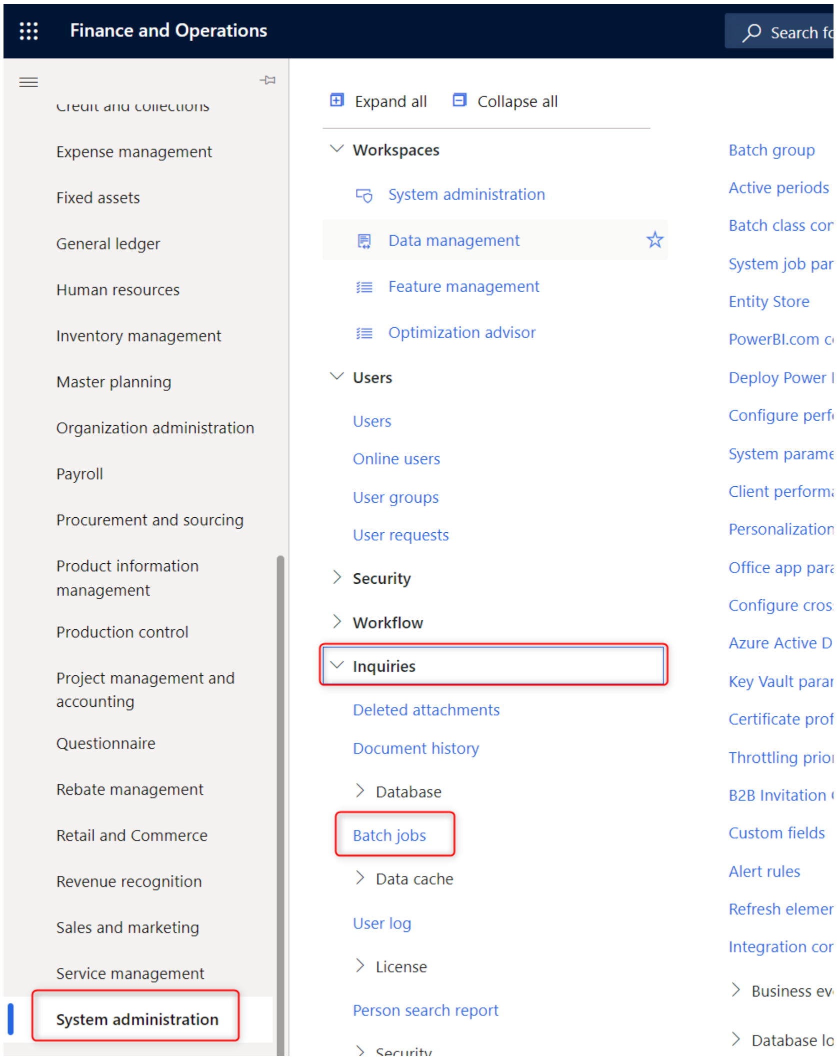
5. Click **Save** once you update all the values.



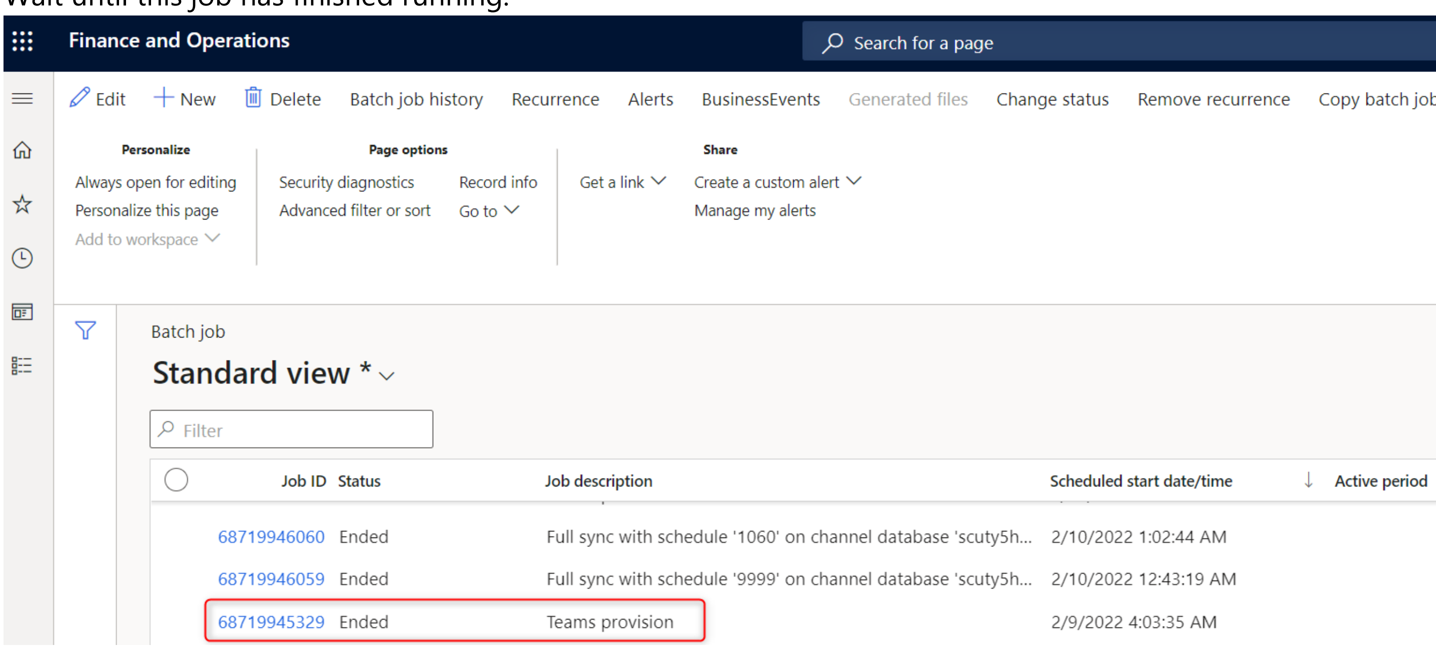

6. On the Action Pane, select **Provision teams**. A batch job that is named Teams provision is created.




7. Go to **System administration**, **Inquiries** and then **Batch jobs**, and find the most recent job that has the description **Teams provision**.

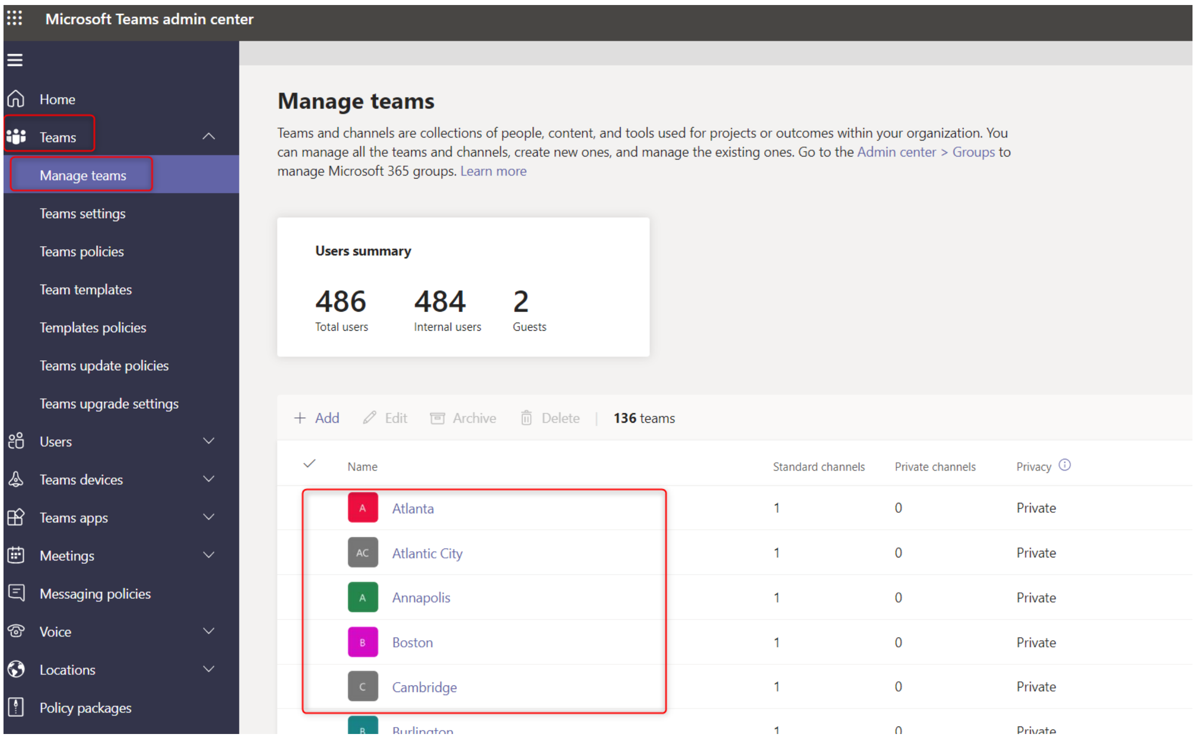



8. Wait until this job has finished running.

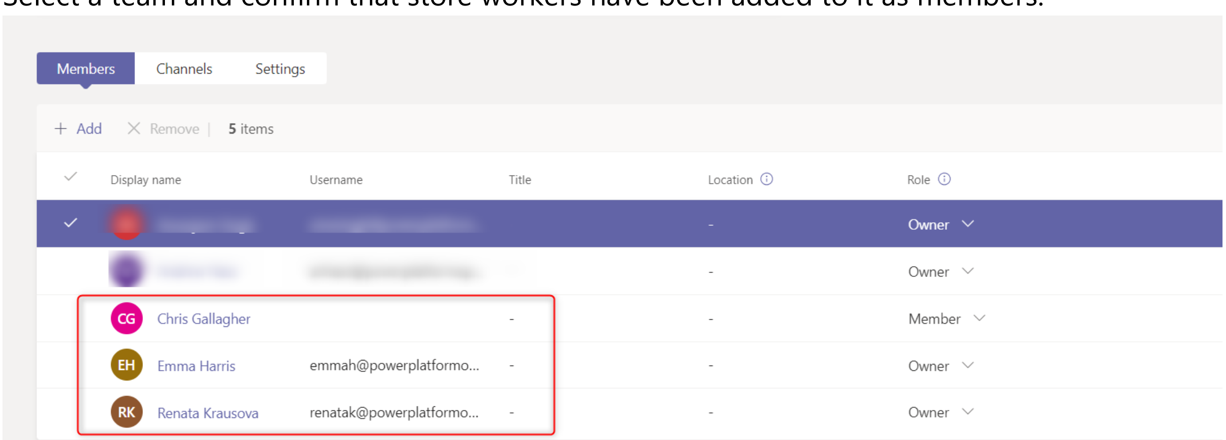


## Task 6: Validate Teams provisioning in the Teams admin center

1. Go to the Teams admin center, and sign in as the administrator of your e-commerce tenant.
2. In the left navigation pane, select **Teams** to expand it, and then select **Manage teams**.
3. Confirm that one team has been created for each Commerce retail store.

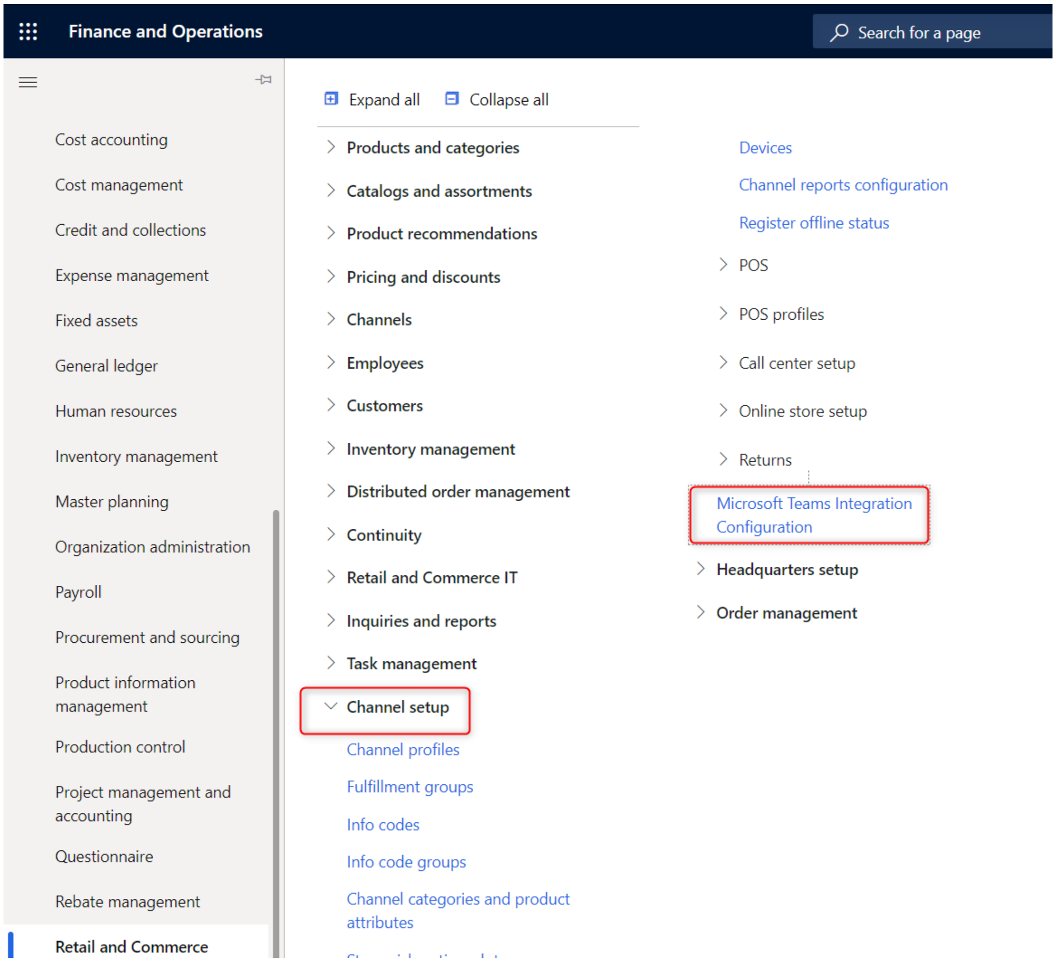



4. Select a team and confirm that store workers have been added to it as members.



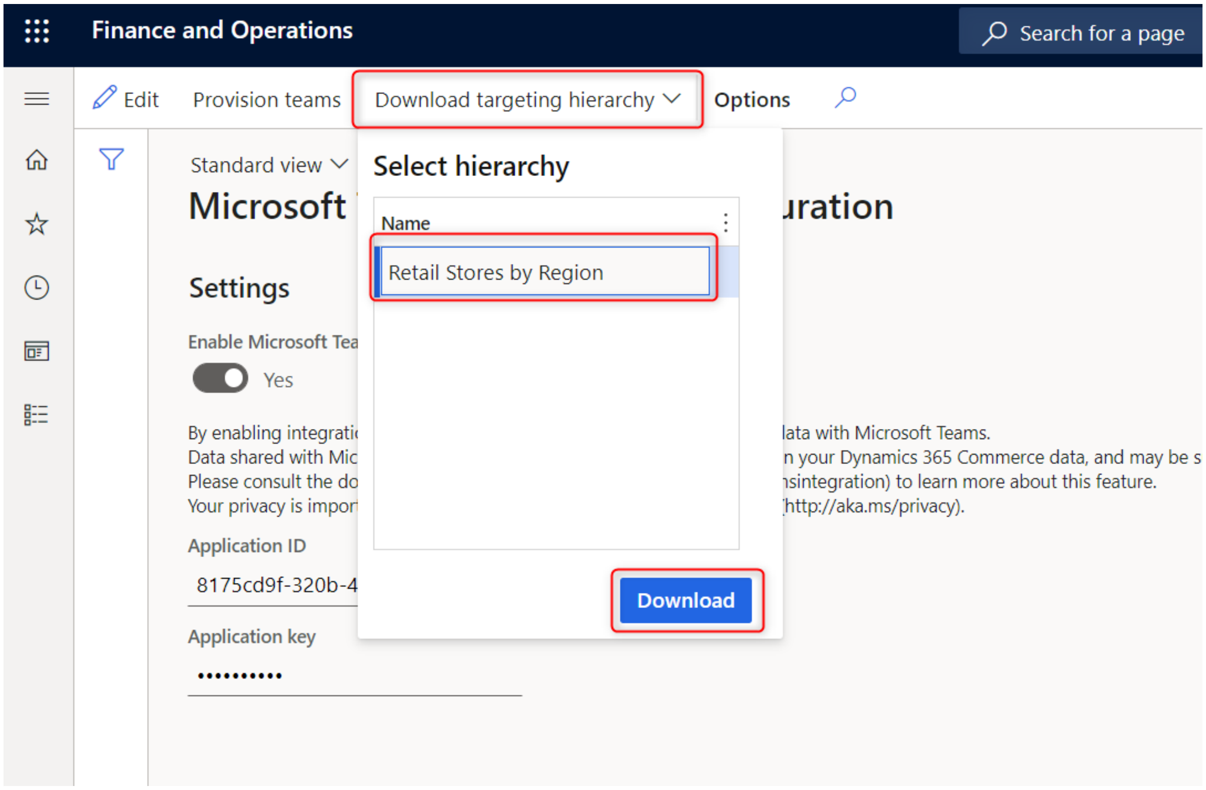

## Task 7: Download Commerce organizational hierarchy to Teams

1. In Commerce Finance and Operations, go to Retail and Commerce, Channel setup and then Microsoft Teams Integration Configuration.




2. Select Download targeting hierarchy, and then select Retail Stores by Region to download a comma-separated values (CSV) file of the organizational hierarchy.

3. Click in Download to save to a local folder in your computer.

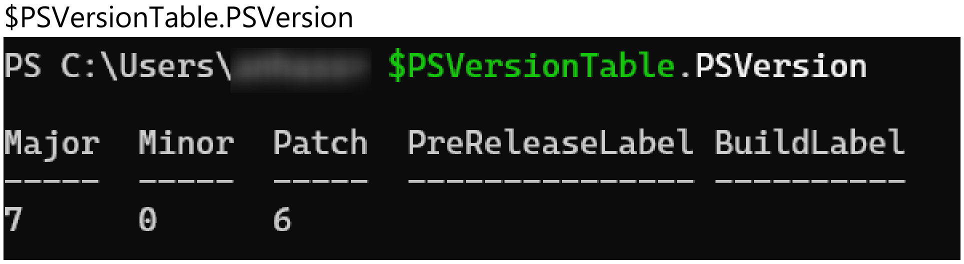



### Task 8: Install Microsoft Teams PowerShell module

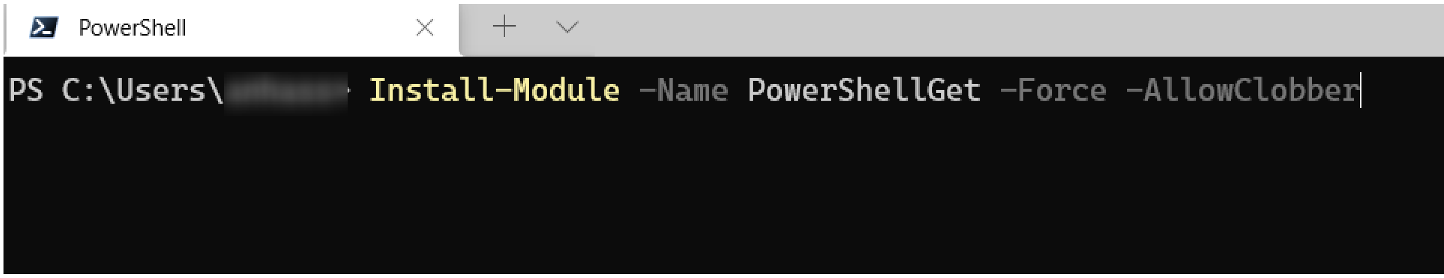
#### Requirements

Microsoft Teams PowerShell module requires PowerShell 5.1 or higher on all platforms. Install the [latest version of PowerShell]() available for your operating system.

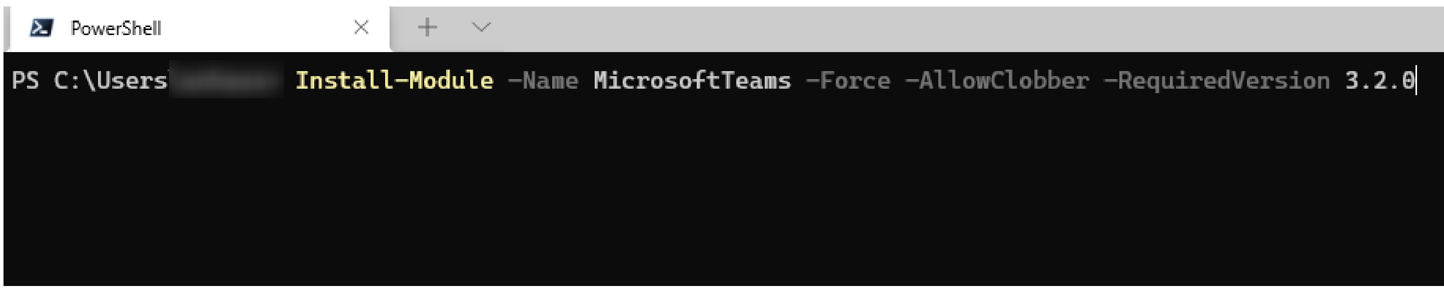
1. Check your PowerShell version. To check your PowerShell version, run the following command from within a PowerShell session:
2. $PSVersionTable.PSVersion




3. Installing using the PowerShellGallery
4. Install-Module -Name PowerShellGet -Force -AllowClobber

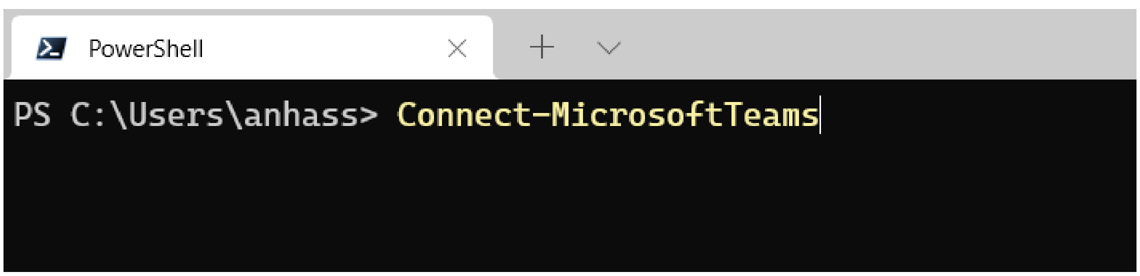



5. Install the Teams PowerShell Module.
6. **Install-Module -Name MicrosoftTeams -Force -AllowClobber**



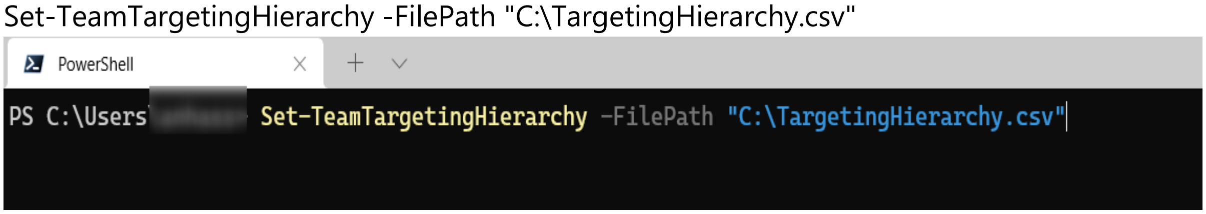

**Task 9: Upload organization hierarchy to Teams.**

1. To start working with Microsoft Teams PowerShell module, sign in with your Azure credentials.
2. **Run** the following command in PowerShell **to authenticate**.
3. Connect-MicrosoftTeams




4. Upload the TargetingHierarchy.csv to Microsoft Teams. You will use Microsoft Teams PowerShell module and cmdlet Set-TeamTargetingHierarchy installed in the previous steps.

5. Set-TeamTargetingHierarchy -FilePath "C:\TargetingHierarchy.csv"



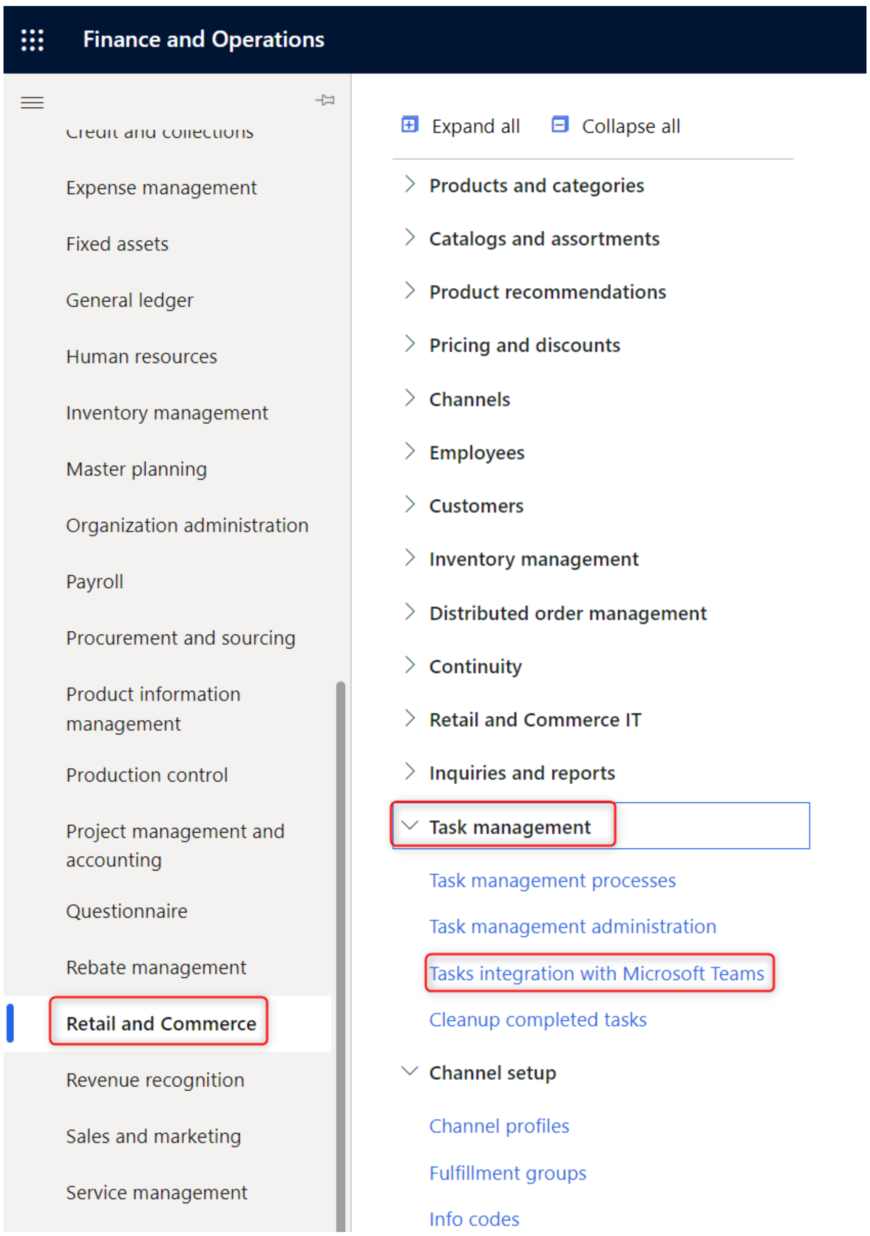

6. Run the following command to check the status of your hierarchy upload.
7. Get-TeamTargetingHierarchyStatus
8. The command will return the following fields:

| Field | Description |
|---|---|
| **Id** | The unique ID for the upload. |

| | |
|---|---|
| **Status** | Upload status. Values include **Starting**, **Validating**, **Successful**, and **Failed** |
| **ErrorDetails** | Details if there's an upload error. For more information about the error details, see the Troubleshooting section. If there's no error, this field is blank. |
| **LastUpdatedAt** | Timestamp and date of when the file was last updated. |
| **LastModifiedBy** | The ID of the last user who modified the file. |
| **FileName** | The file name of the CSV. |

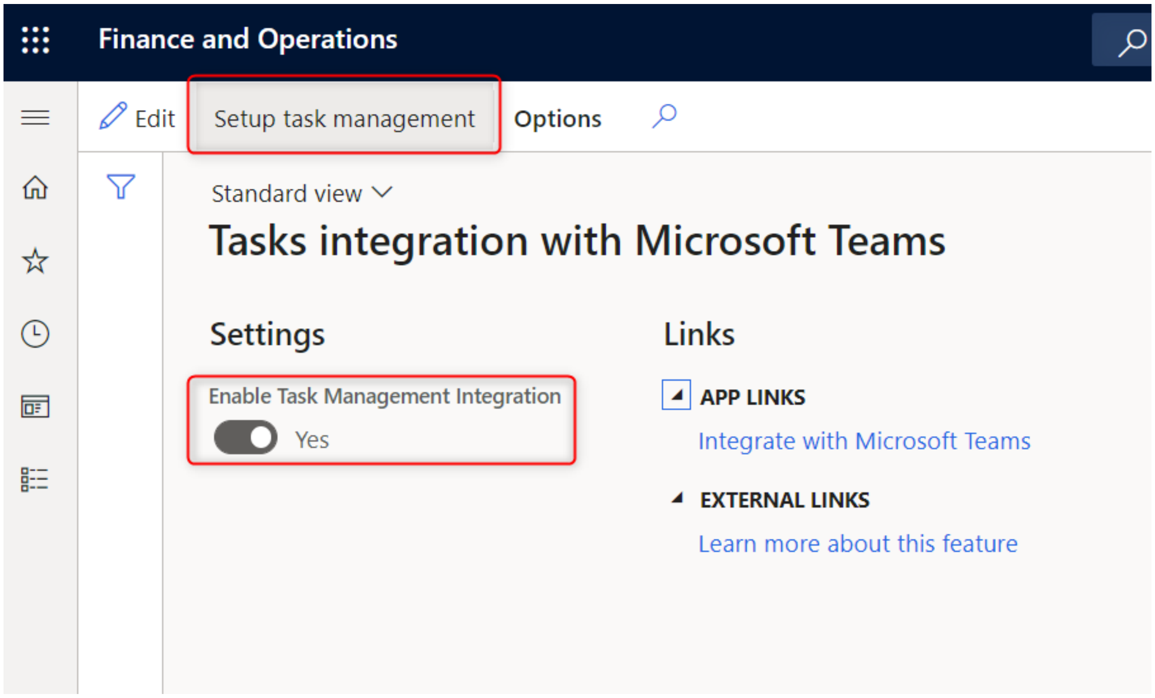
## Task 10: Link POS and Teams for task management

1. Go to Retail and Commerce, Task management, and Tasks integration with Microsoft Teams.

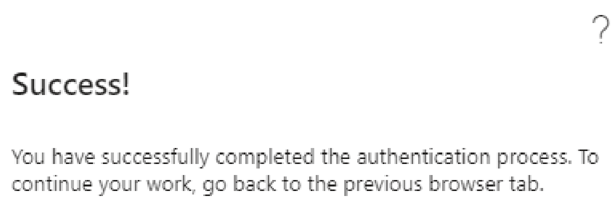



2. Flip the Enable Task Management Integration to Yes

3. On the Action Pane, select Setup task management. You should receive a notification that indicates that a batch job that is named Teams provision is being created.




4. Provide your credentials if ask for authentication. Click close to continue.




5. Go to System administration, Inquiries, and then Batch jobs, and find the most recent job that has the description Teams provision. Wait until this job has finished running.
6. Run the CDX job 1070 to publish the plan ID and store references to Retail Server.

The Dynamics 365 Commerce POS application has task management features that let store managers and workers manage tasks and update task status. Store workers can access tasks either by selecting the **Tasks** tile on the POS home page or by selecting task notifications.

By default, store workers are taken to the **My tasks** tab, where they can view the tasks that are assigned to them. However, they can easily switch to the **Overdue tasks**, **Open tasks**, and **Task lists** tabs.

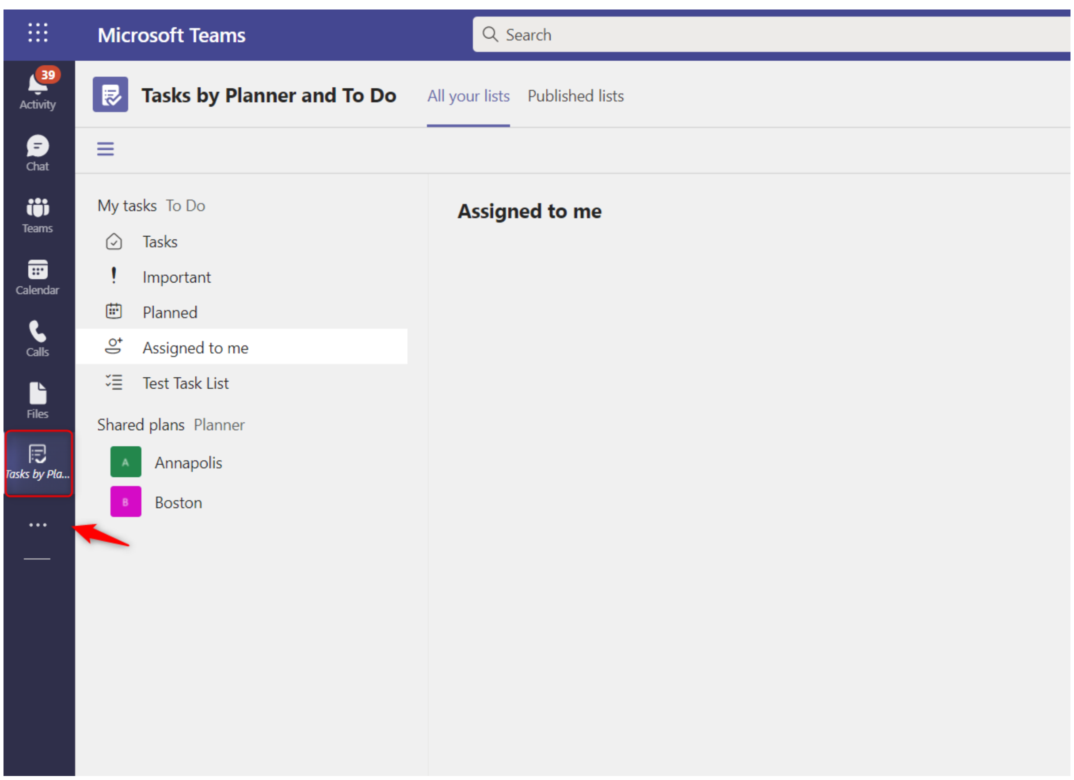
# Exercise 3: Task Management in POS

In this exercise, you will use the three users created in the previous exercise for Retail communication manager , Store manager and store employee to practice how task management works in Dynamics 365 Commerce .Firstly you will play the role of a Retail communications manager who will login into Teams and publish a task "Setup Women's Spring Lineup Display" and then you will play the role of a Store manager who will login into D365 Commerce POS application to view the tasks and assign the new task to a store employee. Finally, you will play the role of a store employee who will view the assigned tasks and mark them as complete once he completes the task.

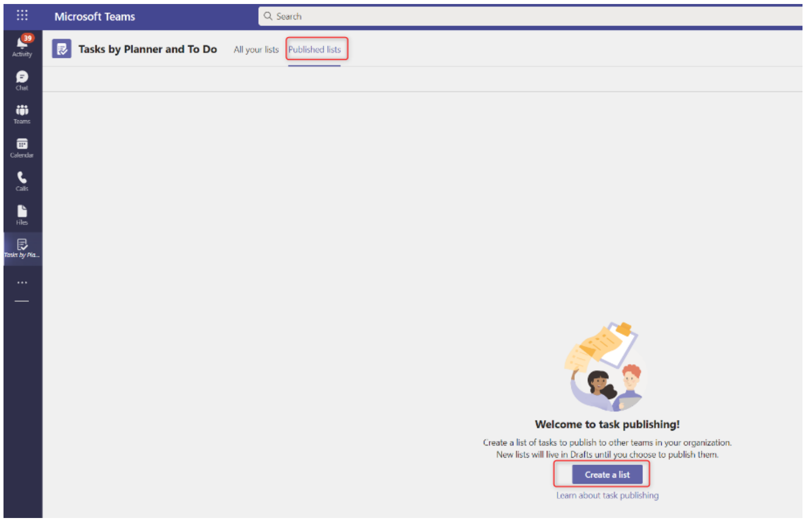
### Task 1: Publish a task list in Teams

In this task, you will login into Teams as a Retail Communications Manager, create a list of tasks and assigns it to all stores in a region.

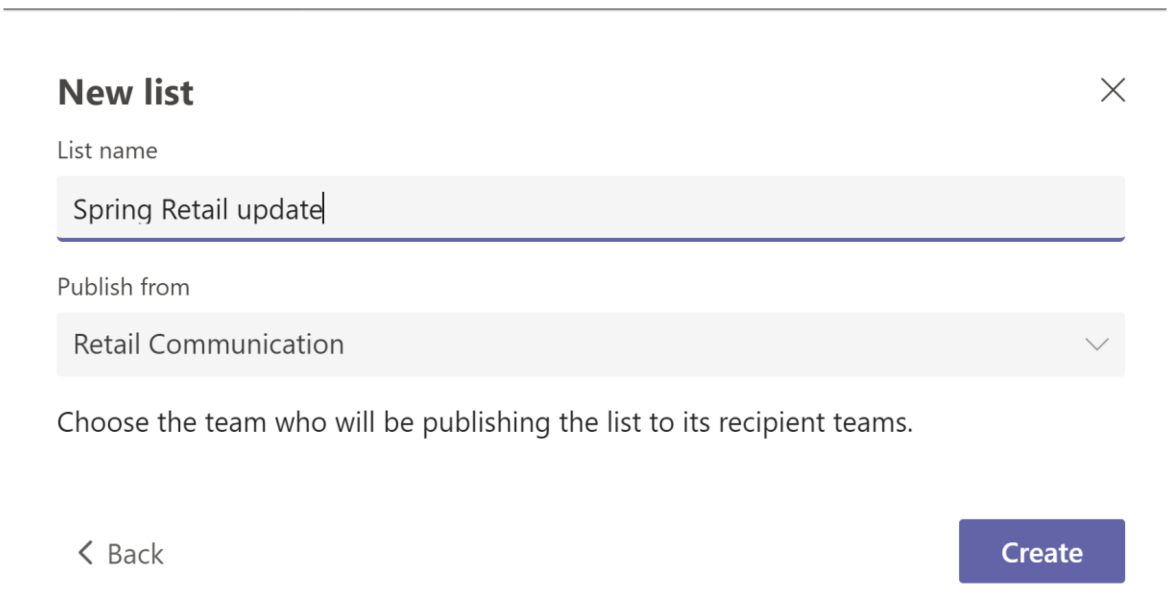
1. Sign into Teams web(https://teams.microsoft.com/) in a private browser session using the credentials created for Retail communication manager in Exercise 2 -Task 1(Example: Michael Ellen in this exercise).
2. In the left navigation pane, select **Tasks by Planner**. If it does not show up in your Teams, click on the three dots located lower in the left navigation pane.



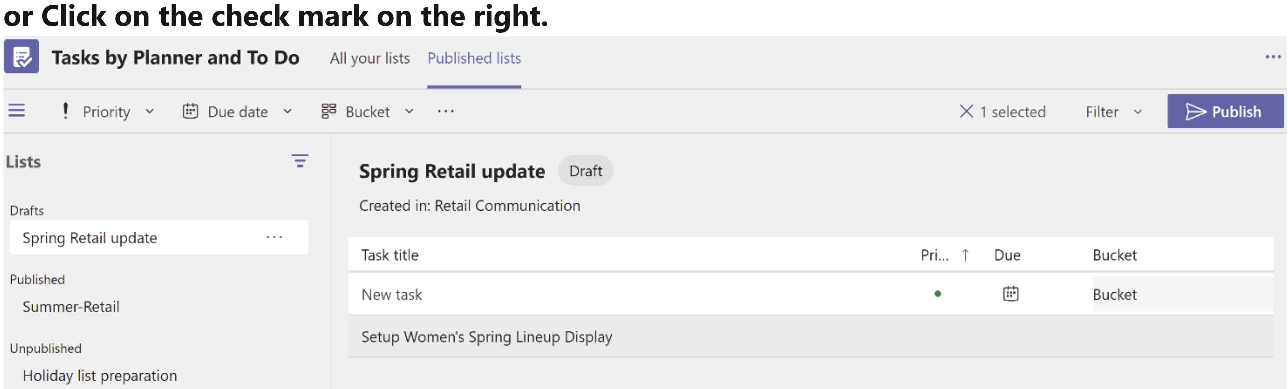
3. On the **Published lists** tab, select **Create list** in the lower right.
**Important** - If there are existing tasks, the Create a List button will be located on the left lower corner.



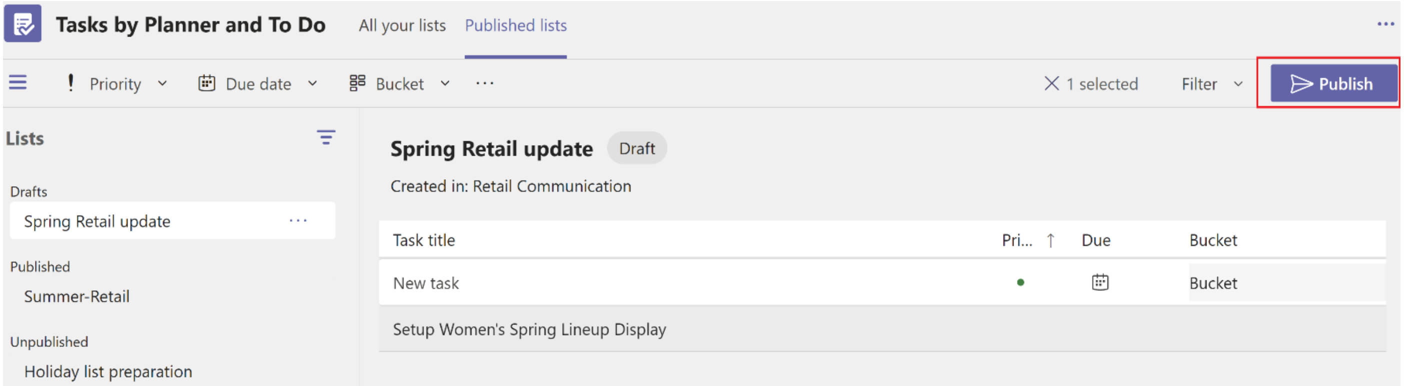

4. Name the new list **Spring Retail update** from **Retail Communication** and Click Create.



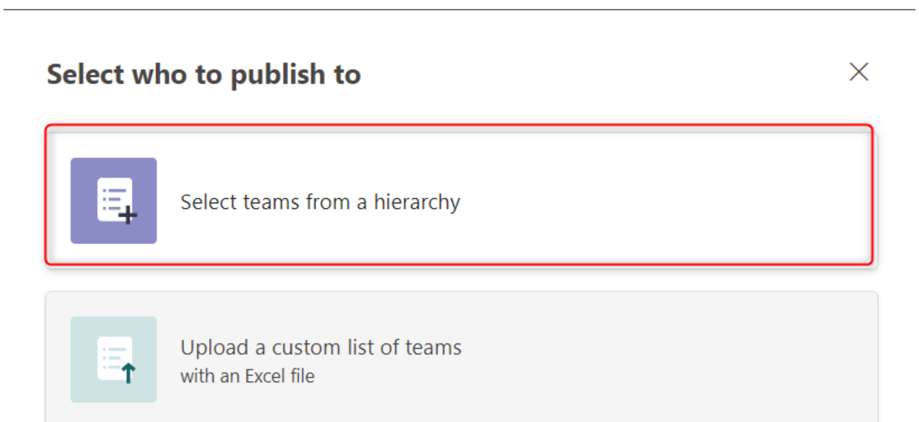

5. Under **Task title**, give the first task the title **Setup Women's spring lineup display**. Then select **Enter or Click on the check mark on the right.**



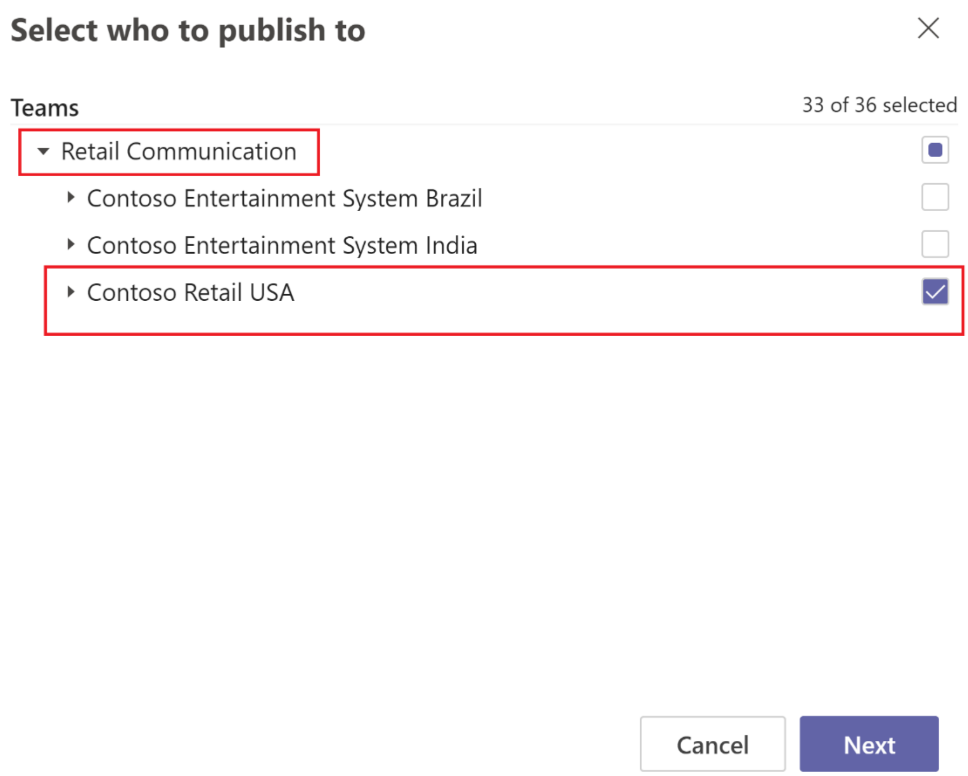
6. In the **Drafts** list, select the task list. Then select **Publish** in the upper-right corner.



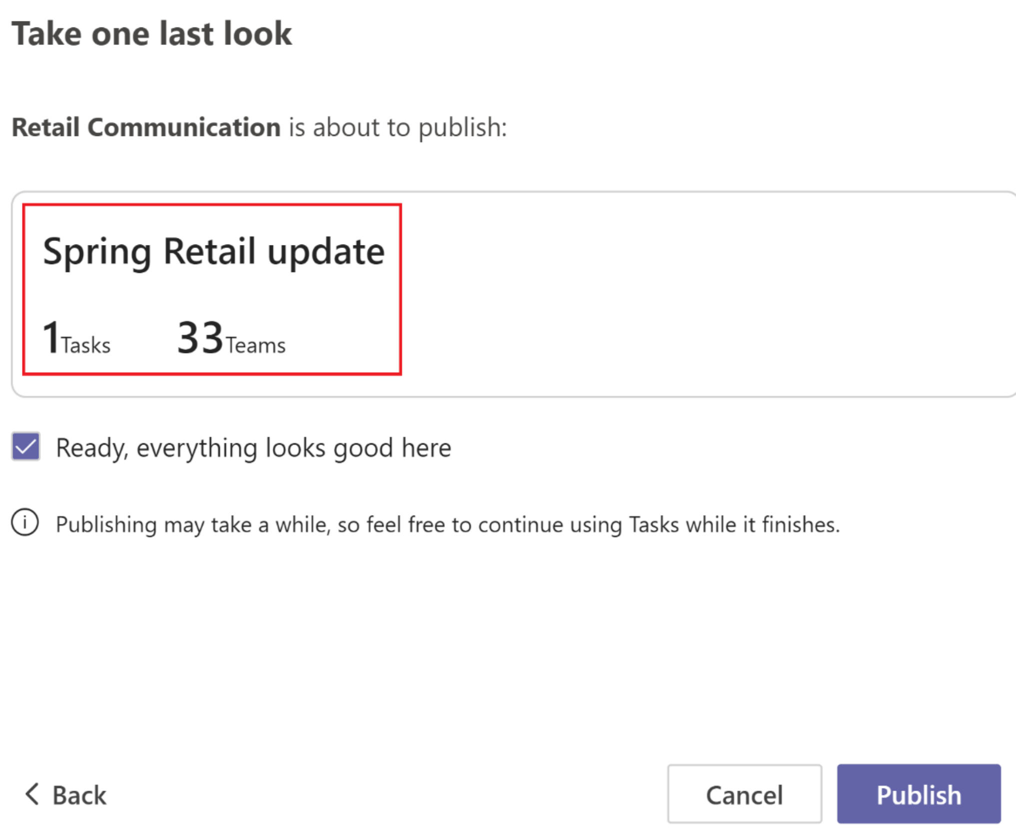

7. In the **Select who to publish to** dialog box, Click on **Select the teams from hierarchy**.




8. Expand **Retail Communication**, check the **Contoso Retail USA** box on the left side, and then click Next.

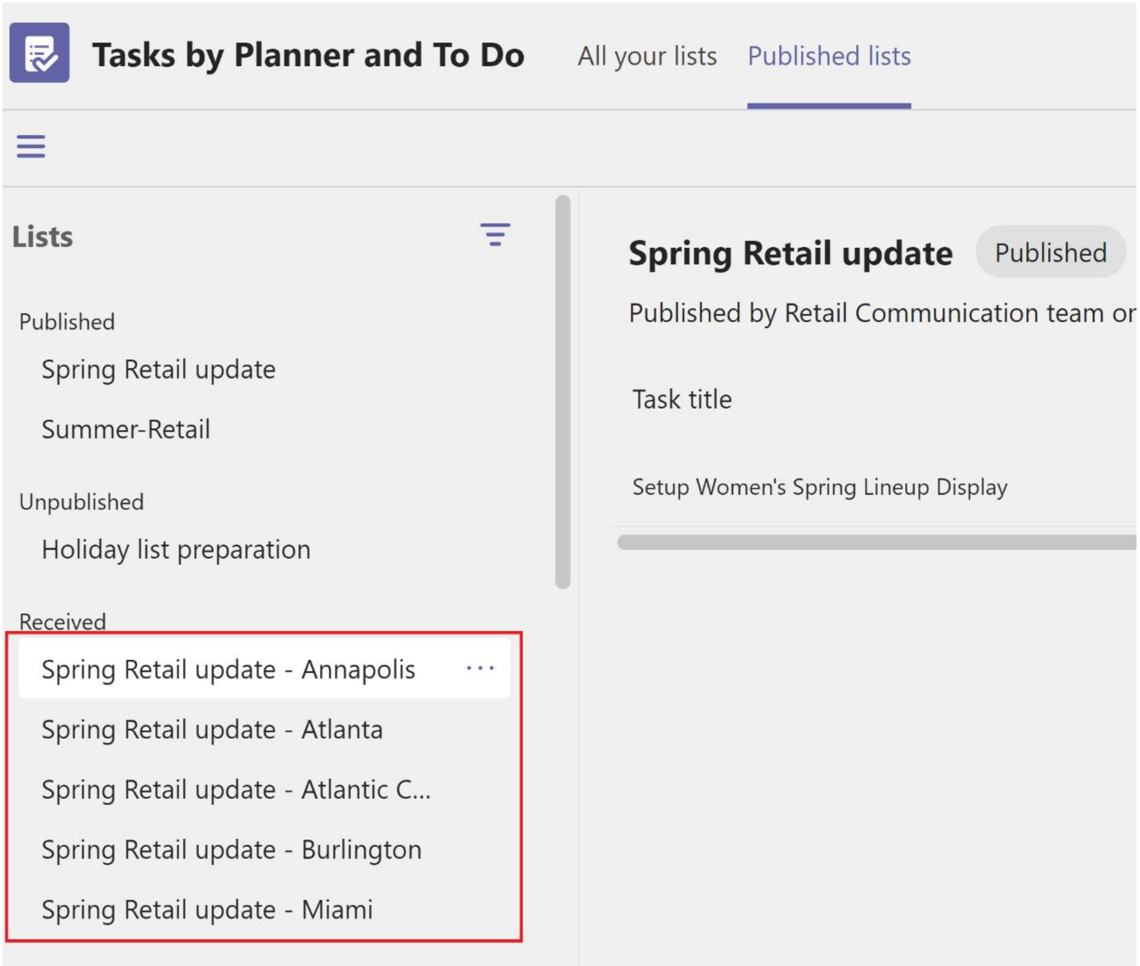



9. On the “Take One last look,” screen notice the “Spring retail update” List created in the step below is ready to be published to 33 Teams.




10. Check Ready, everything looks good here, and click Publish.

11. The Spring retail update List has been published for all 33 Teams. **It** is **now** possible to see **under** Received **that** all the Teams for each store have received the published task.

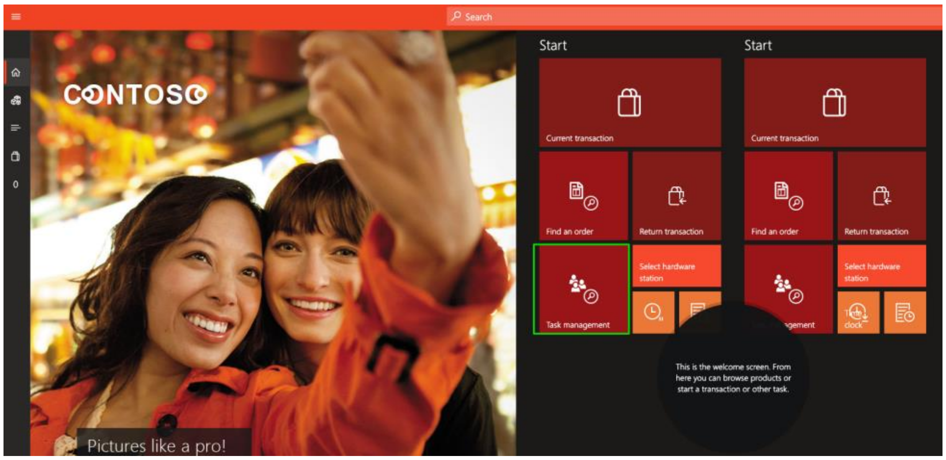



**Congratulations!** You have successfully created a list of tasks and assigned them to all stores in a region.

### Task 2: View and assign the tasks in D365 Commerce POS

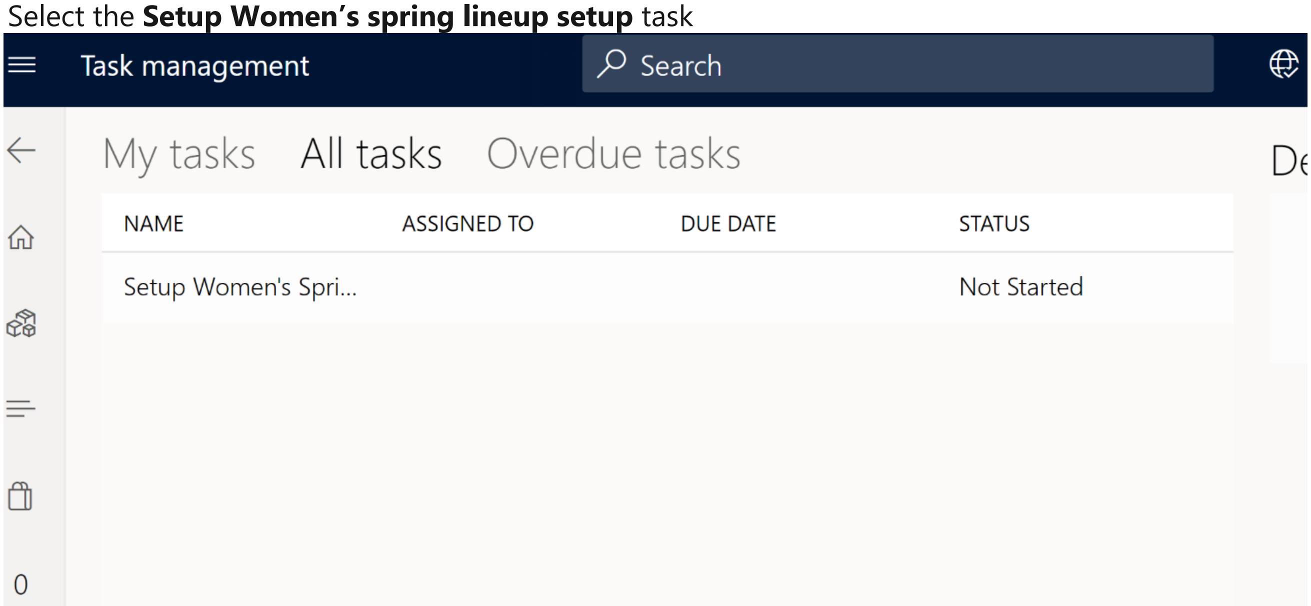
In this task, you will act as store manager and login into D365 Commerce POS store using the credentials of user Chris Gallagher (chrisg@powerplatformopenhacks.onmicrosoft.com) created in exercise 2 -task 1.After logging in to POS you will view unassigned tasks and assign it to the store employees.

1. Log into Commerce POS and Select a Store to Manage and Assign Tasks.
2. Once logged into Commerce POS Click on Task Management.

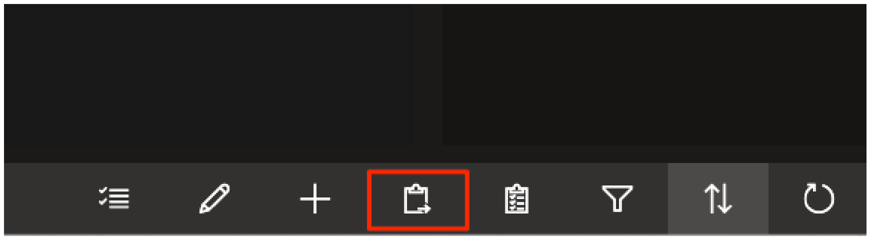



3. In **Task Management,** click on **All Tasks.** The Task created in Teams completed in previous exercise should show up in the **All-Tasks** list.

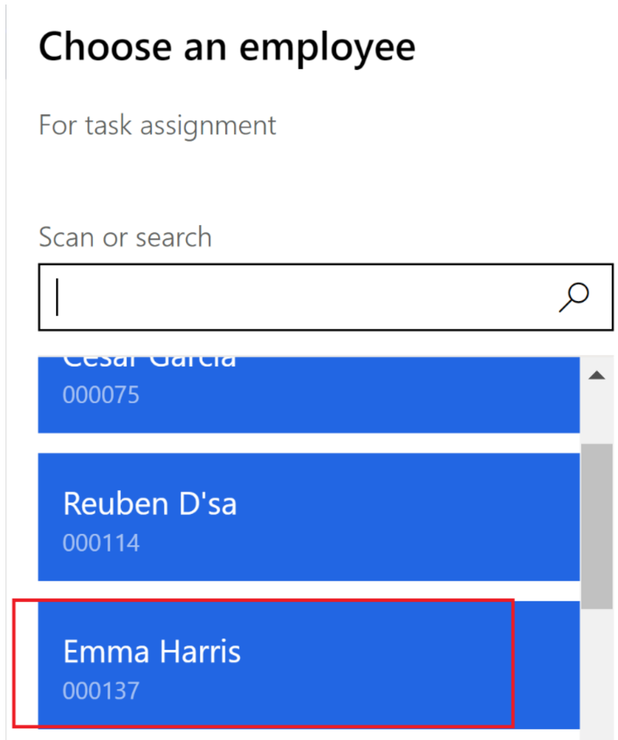
4. Select the **Setup Women's spring lineup setup** task




5. Click on **Assign a Task** at the right lower corner of the screen.



6. Choose Emma Harris (the store employee)to assign the **Task.**



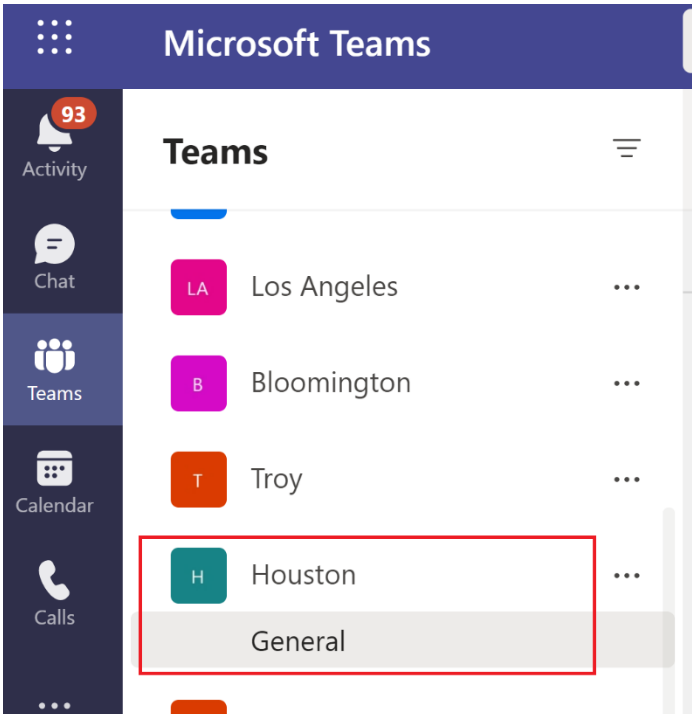

7. On the Task List **Assigned to** field, confirm the task is assigned to Emma Harris

**Congratulations!** You have successfully viewed the unassigned tasks and assigned them to store employees.

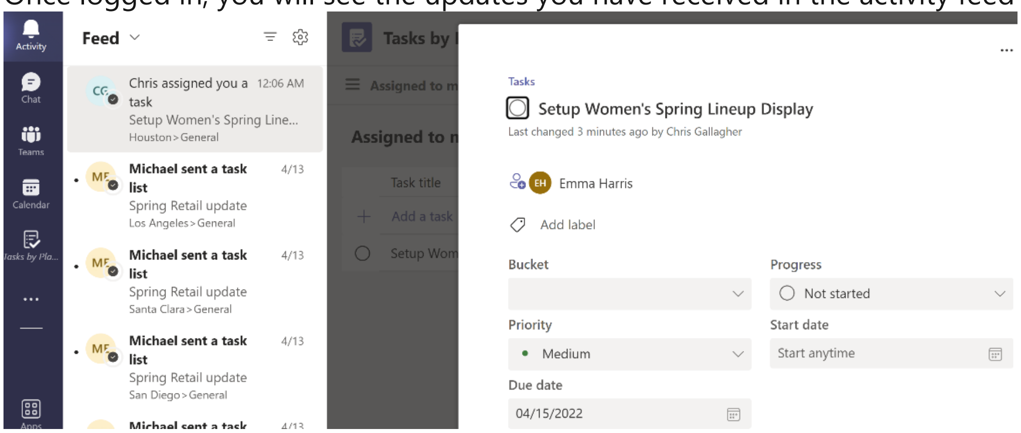
### Task 3 - Review assigned Tasks in Teams and mark them as complete

In this task, you will function as store employee (Emma Harris in this example) and review the assigned tasks in Teams and mark them as complete once the assigned task is completed.

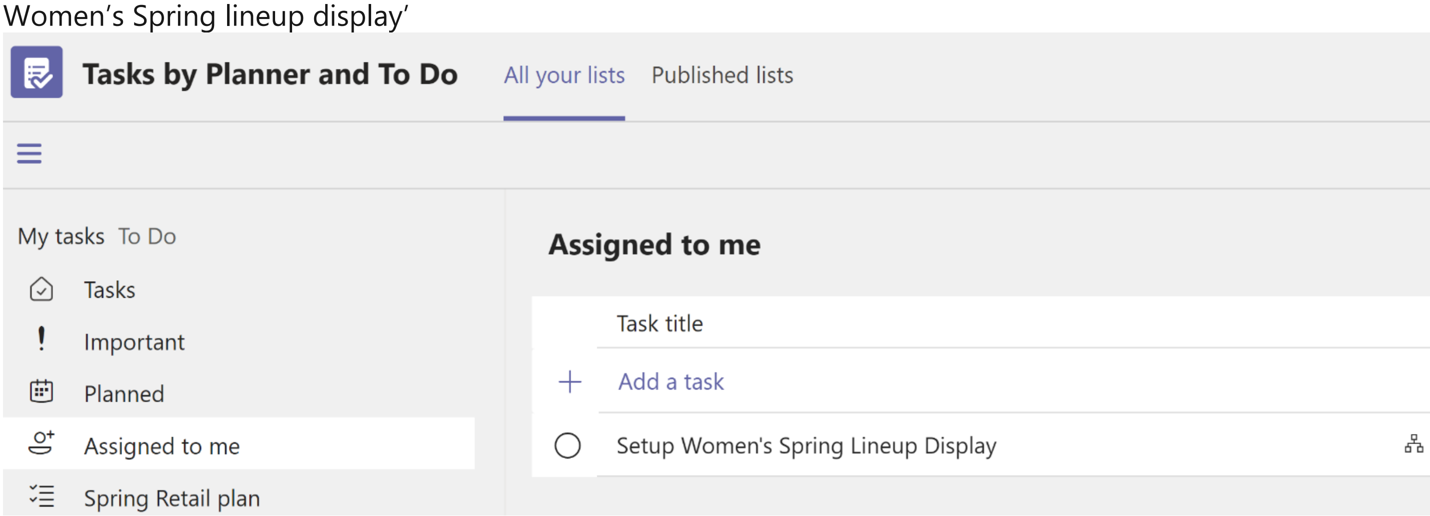
1. Log into Teams web and navigate to the assigned store(https://teams.microsoft.com/)



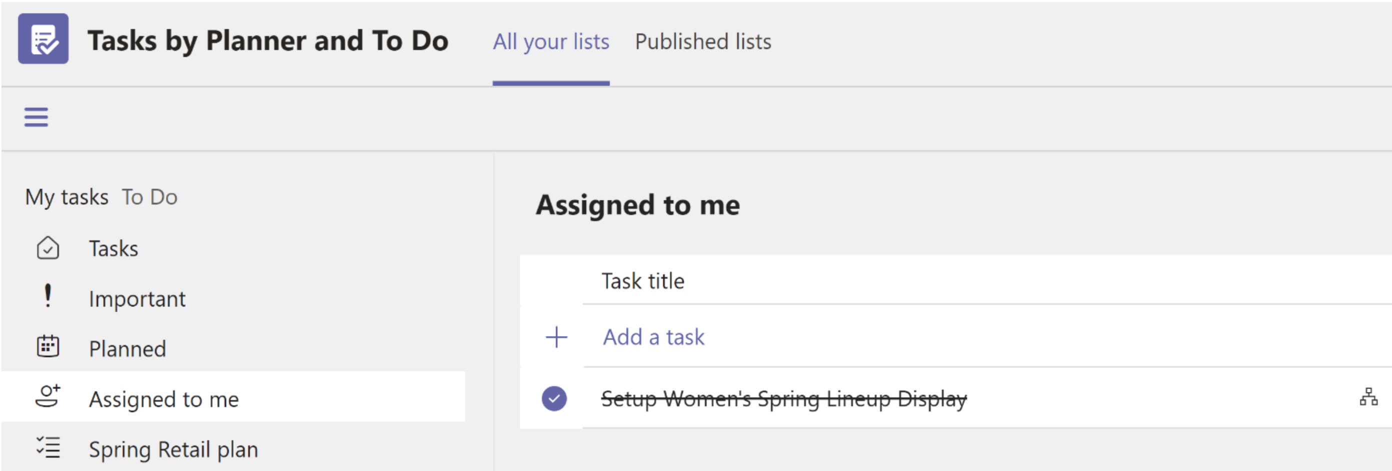

2. Once logged in, you will see the updates you have received in the activity feed




3. Navigate to task planner in Teams and view the assigned tasks under "Assigned to me", click on 'Setup Women's Spring lineup display'




4. Mark the task 'Setup women's spring lineup display' as complete.

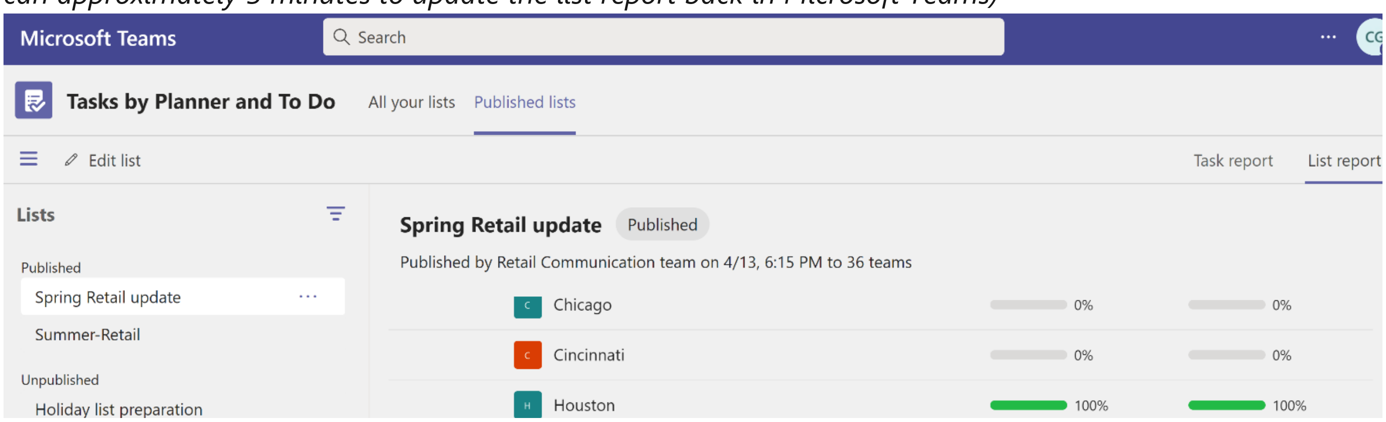



**Congratulations!** You have successfully learned the steps to view the assigned tasks and marked them as complete.

### Task 4 - Review task list report

The retail communication manager can review the progress of the tasks in the list report

1. Log into Teams web and navigate to the assigned store(https://teams.microsoft.com/). In this example you can login as Michael Ellen (the retail communication manager)
2. Once logged in, you can view the task list report and progress of each task by store *(Note: Sometimes it can approximately 5 minutes to update the list report back in Microsoft Teams)*




**Congratulations!** You have successfully learned the steps to review the progress of assigned tasks by using the list report