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TEAMS BOTs

IceBreaker

https://github.com/OfficeDev/microsoft-teams-list-search-app

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MVP Microsoft® Most Valuable Professional

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Teams BOTs – Whats this ..?

Last session from Bochum

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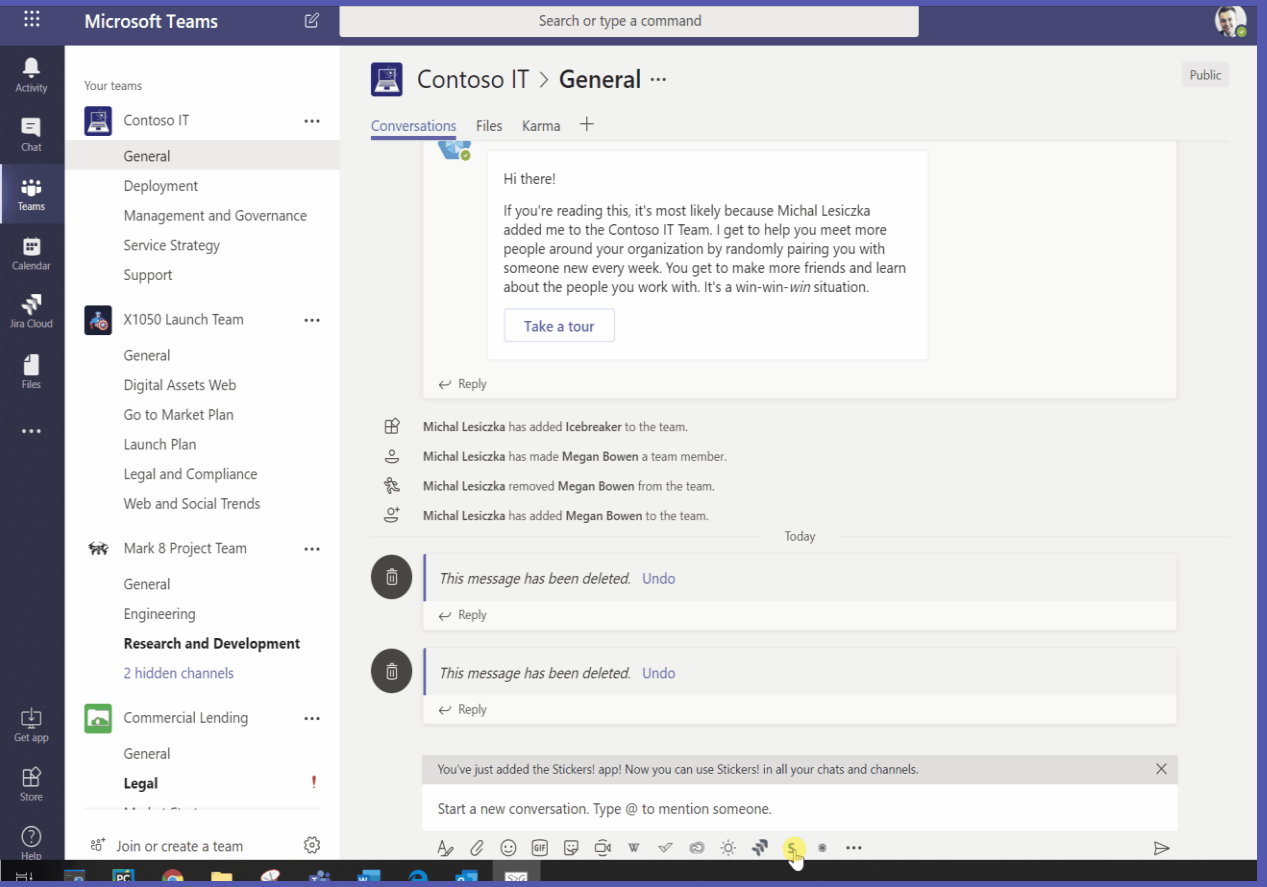
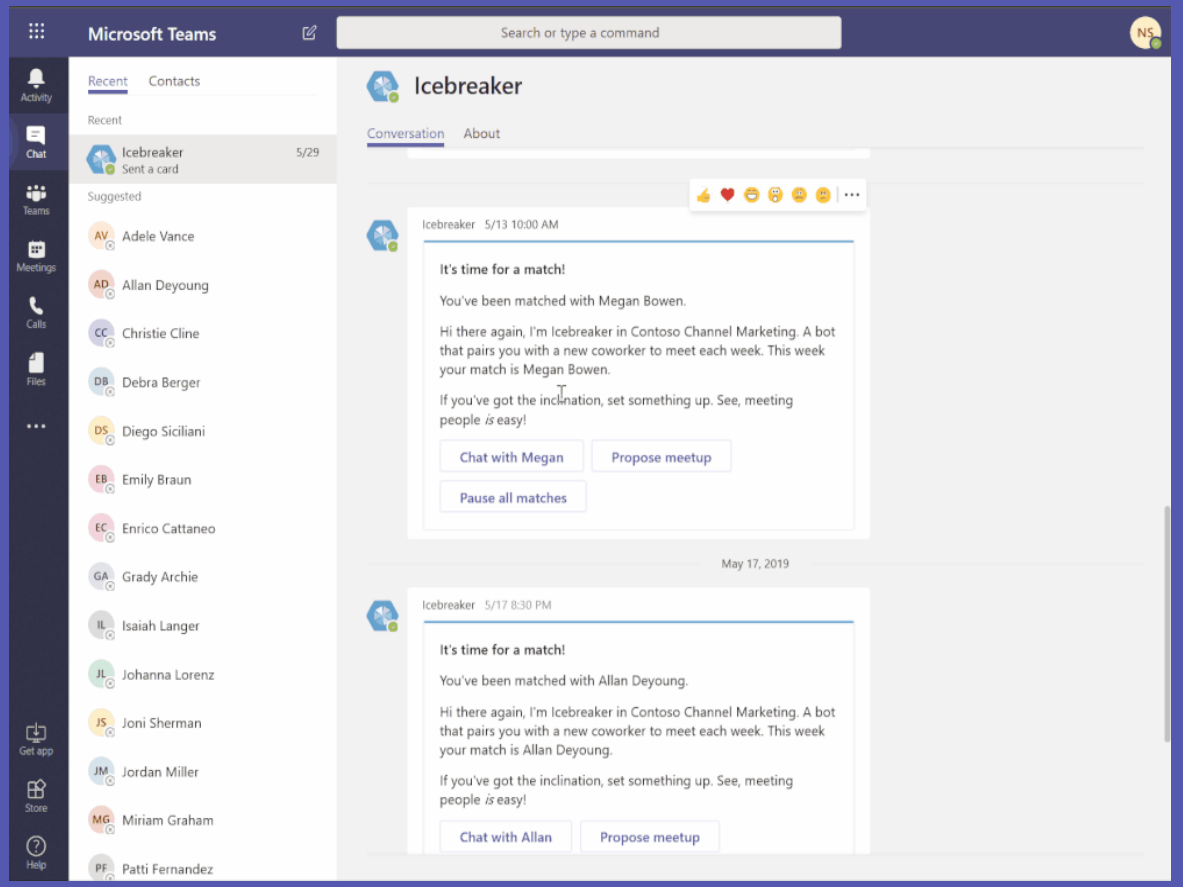
IceBreaker – a Search List App





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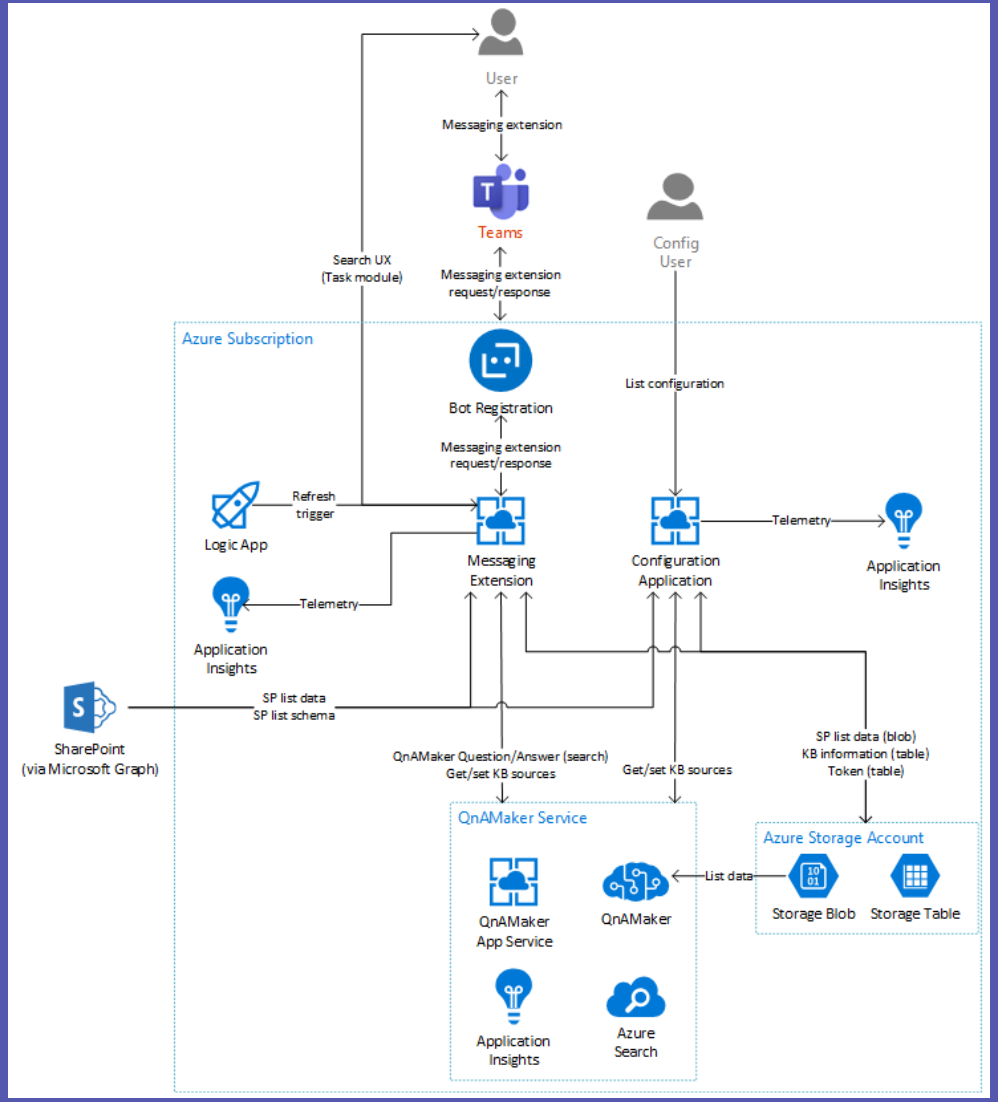
Integration of IB

The **List Search** application has main components:

QnAMaker: A set of resources that comprise the QnAMaker service that indexes the SharePoint list and returns results.

Messaging Extension: An Azure App Service web app that implements the following functionality:

Configuration Application: An Azure App Service that lets app admins configure the SharePoint lists that can be searched with the messaging extension.



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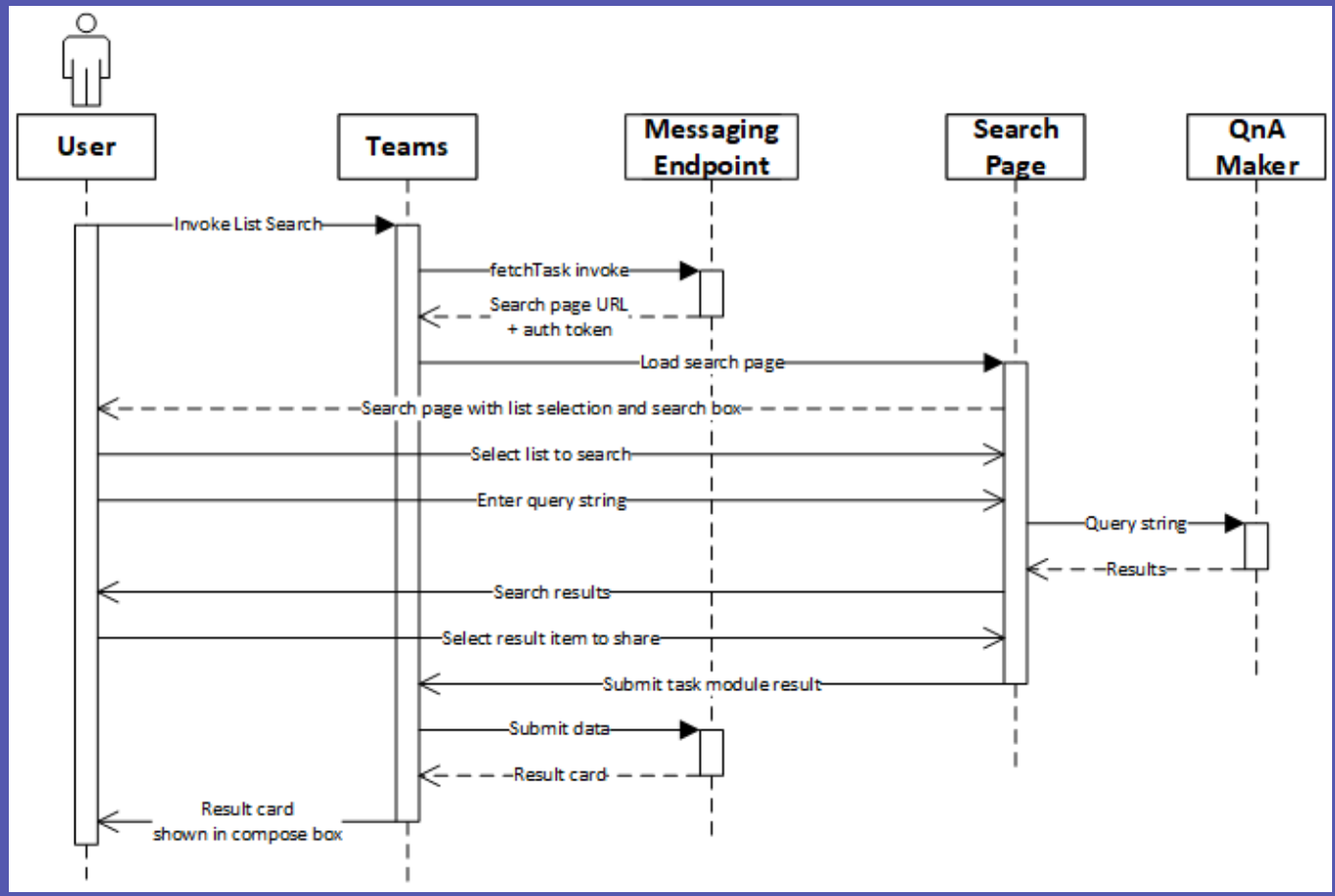
Messaging Extension

The app implements an action-based command to launch the search experience in a task module. The task module is a embedded page in which the user selects the list to search, then searches the list by entering a query string. The page sends the query string to a search endpoint on the app and then displays the current set of results. When the user has picked an item to share, the page completes the messaging extension flow by dropping a result card into the compose box.



AZURE STORAGE Used

- Azure Storage Account
  - [Blob] Temporary storage for list data
  - [Table] List information
  - [Table] Graph token for refreshing list data
- Azure Search service list item index, created and maintained by the QnAMaker cognitive service.
- Application Insights

Installing - IceBreaker

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Prerequisites

- An Azure subscription where you can create the following kinds of resources:
  - Azure Logic App
  - App service
  - App service plan
  - Bot channels registration
  - Azure storage account
  - Azure search
  - QnAMaker cognitive service
  - Application Insights
- A copy of the List Search app GitHub repo
- A service account user that List Search will use to access SharePoint
  - We strongly recommend creating a new user specifically for List Search, and grant that user access to **only** those lists that you want to be searchable with this app.

STEP 1 - IceBreaker

Register List Search Microsoft Azure AD

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Step 1

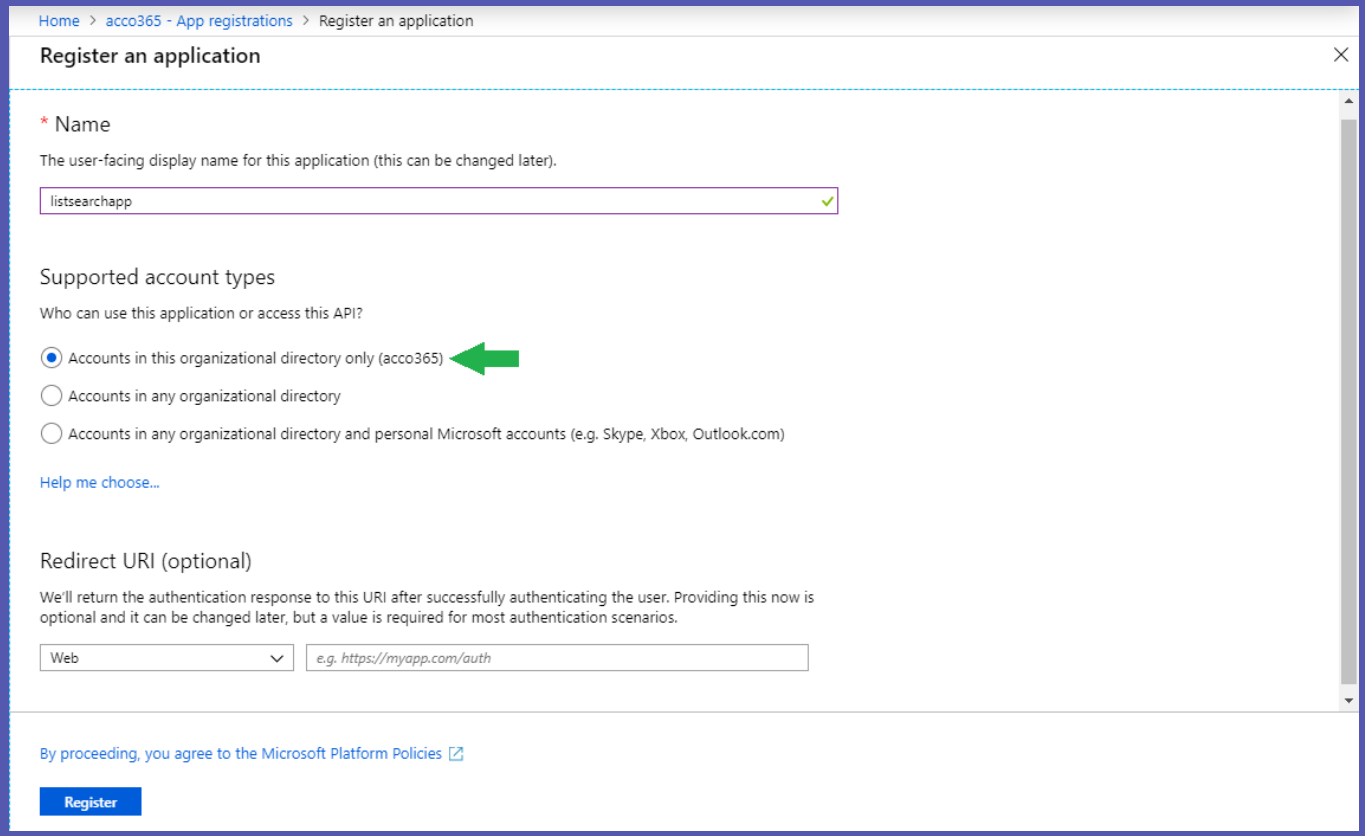
create an Azure AD application

Name: The name of your Teams app. For example, "List Search"

Supported account types: Select "Account in this organizational directory only"

Leave the "Redirect URI" field blank for now.

Register



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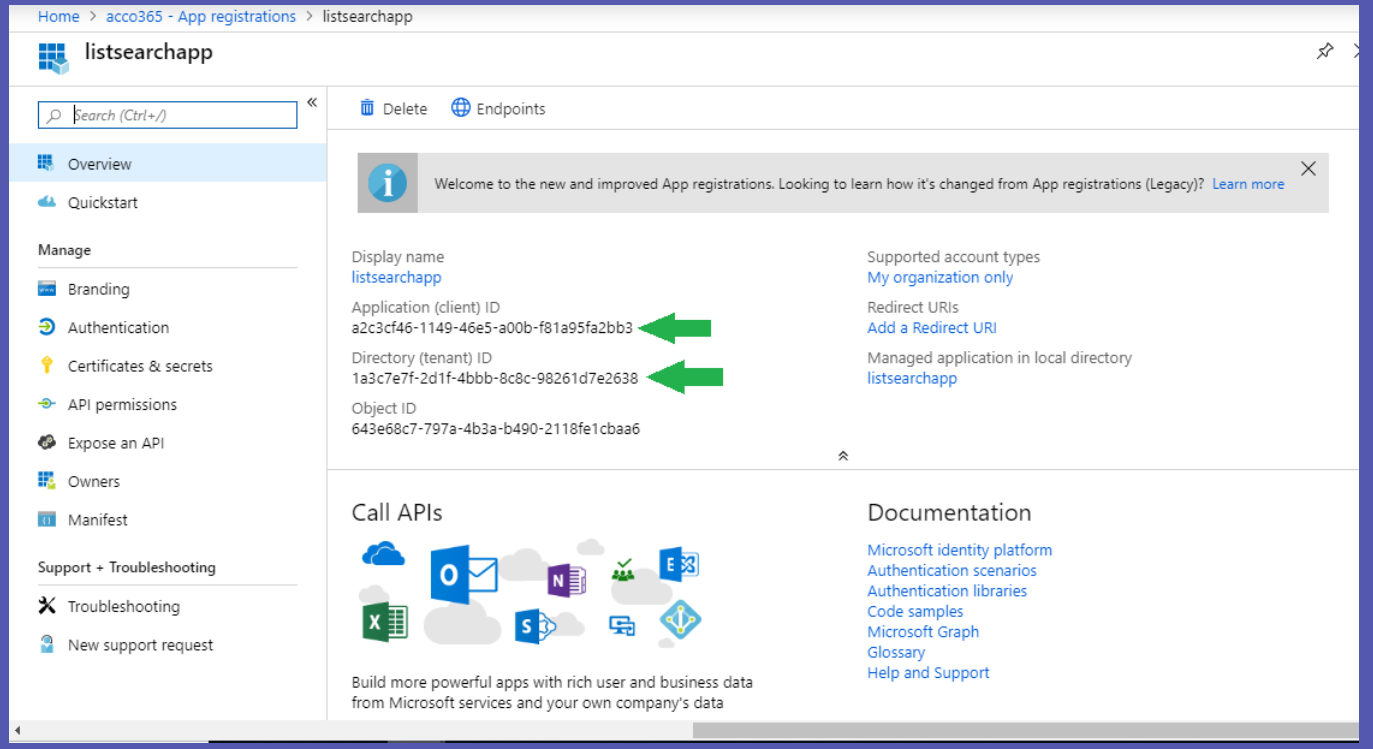
Step 1

List Search

Copy the **Application (client) ID** and the **Directory (tenant) ID**; we will need them later.



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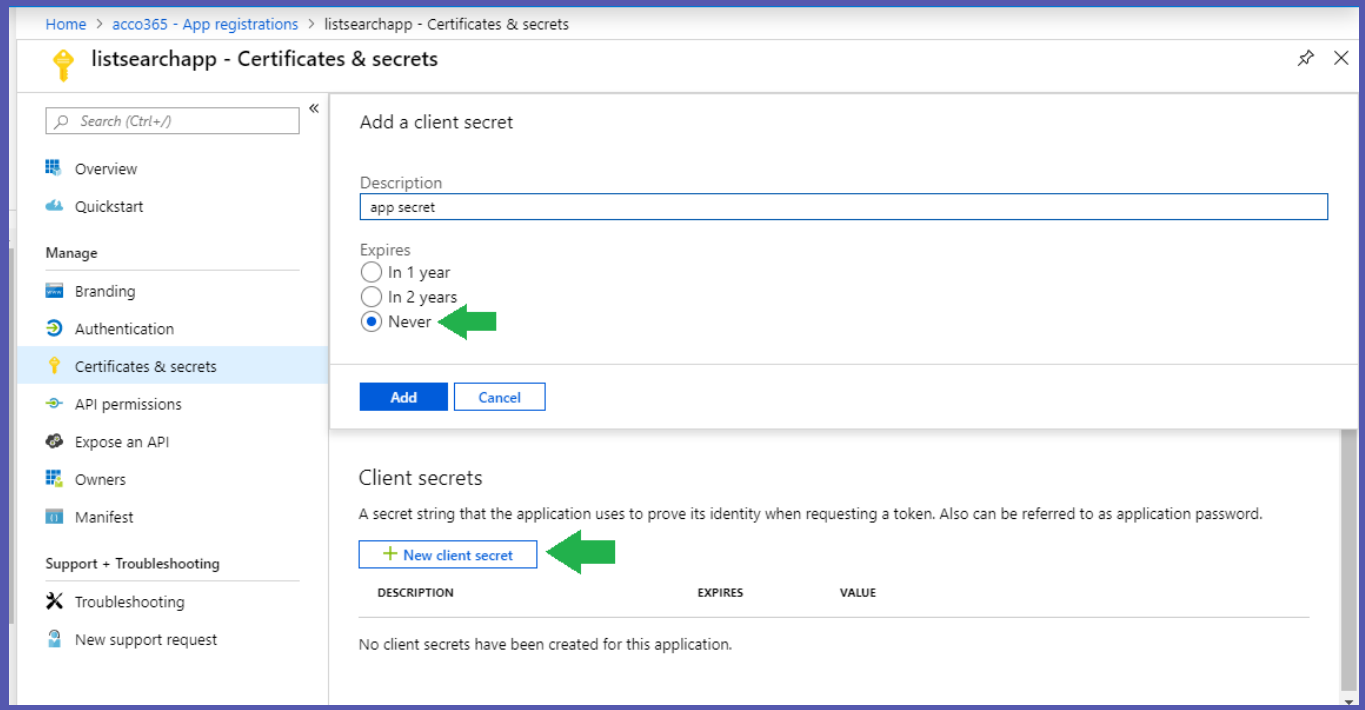
Step 1

Certificate & Secrets

Go to the "Certificates & secrets" section. In the Client secrets section, click on "+ New client secret"

Upon creation: copy its **Value**

navigate to the "API permissions"



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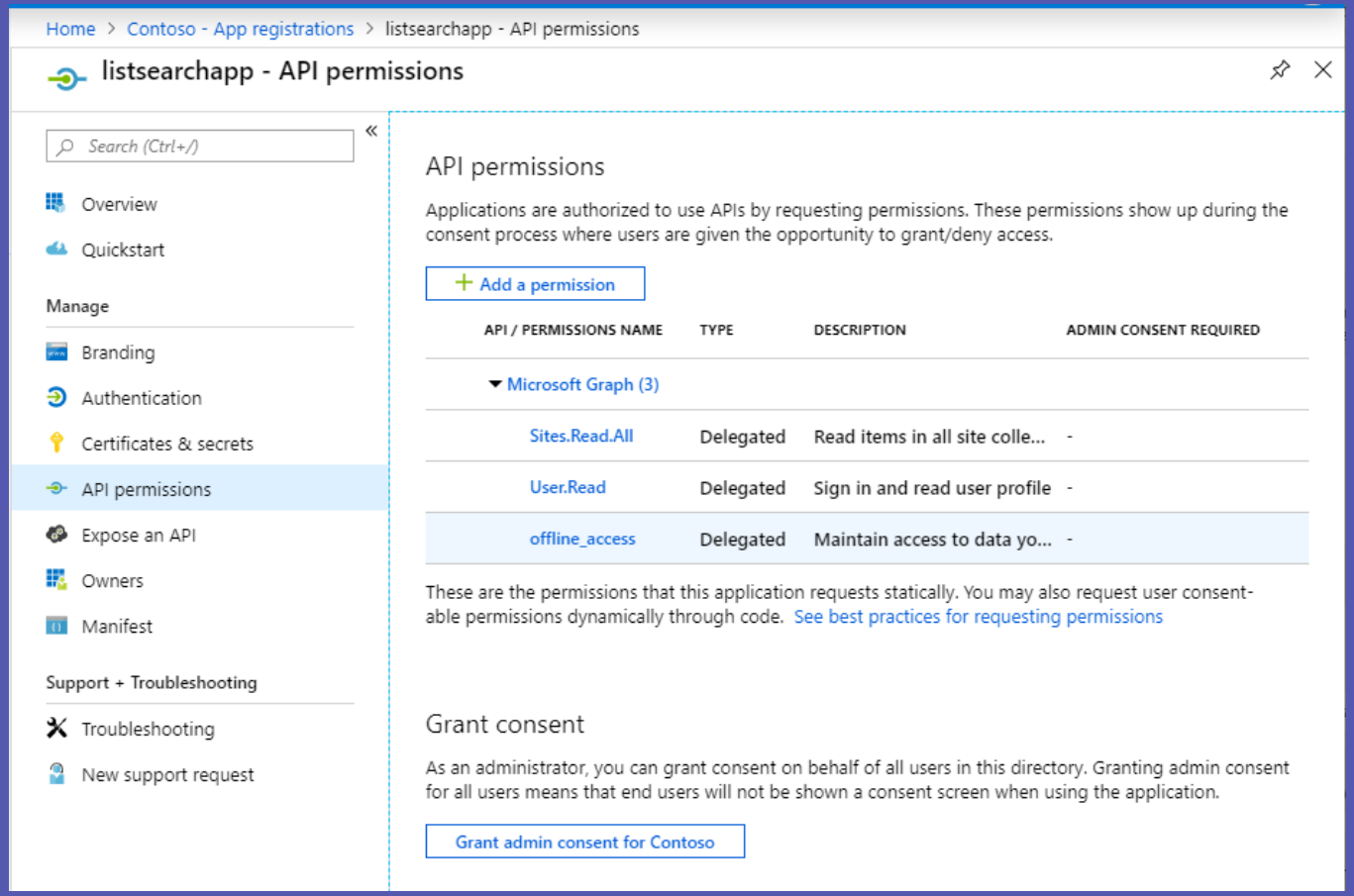
Step 1

API Permission

1. Click on the "+ Add a permission" button.
2. Select "Microsoft Graph".
3. Select "Delegated permissions".
4. Select the following permissions:
   - offline_access
   - Sites.Read.All (in the "Sites" section)

Go back to “App registrations”, then repeat steps 2-4 to create another Azure AD application for the configuration app. We advise appending “Configuration” to the name of this app; for example, “List Search Configuration”.



STEP 2 - IceBreaker

Deploy to your Azure subscription

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Step 2

Custom Deployment

Deploy to Azure" button

create a "Custom deployment" based on the ARM template

Select a subscription and resource group.

- Application Insights
- Logic Apps
- QnA Maker
- Azure Search

Enter a "Base Resource Name

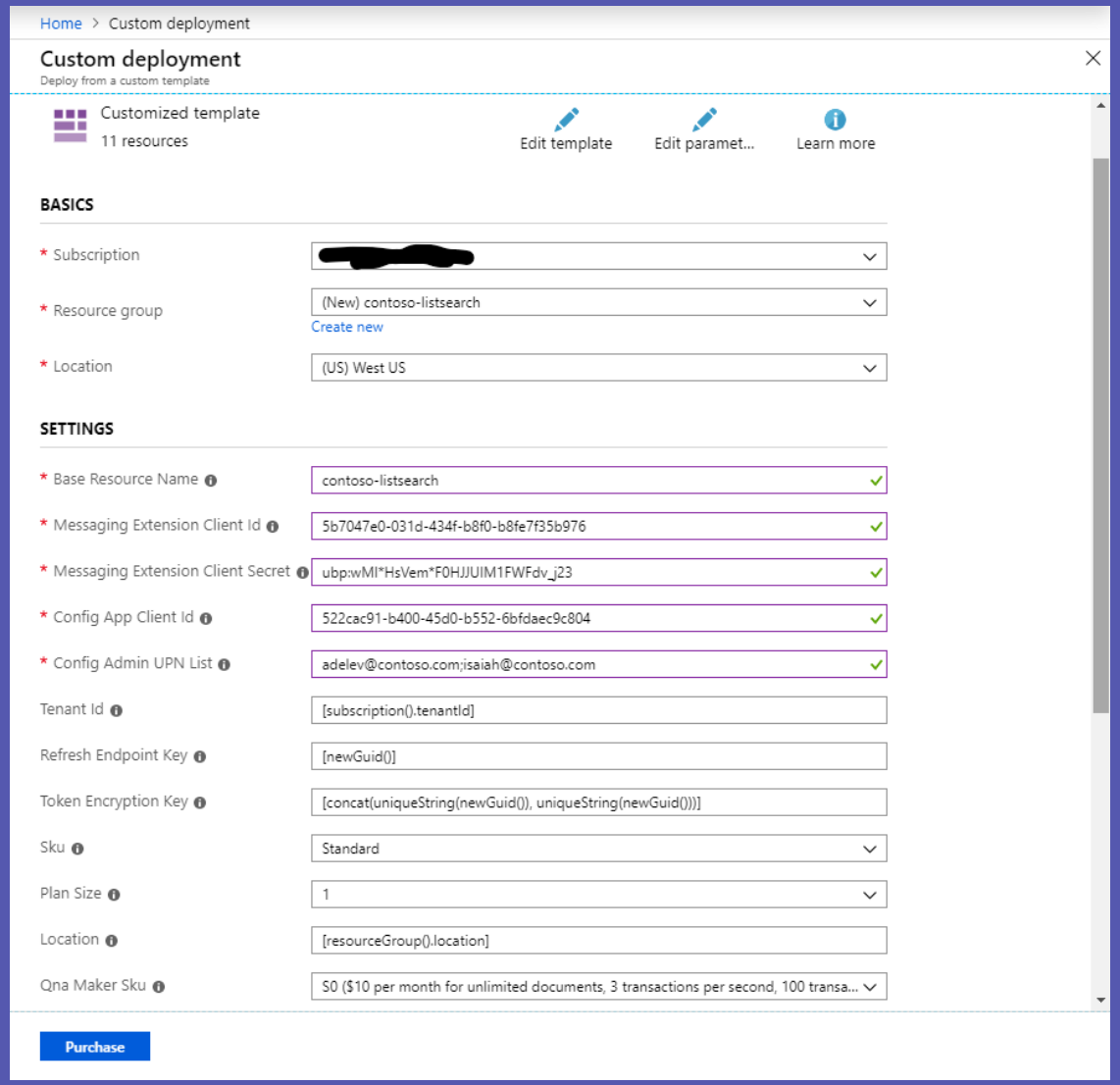
Fill in the various IDs:

- Messaging Extension Client Id:
- Messaging Extension Client Secret:
- Config App Client Id:
- Tenant Id:

Config Admin UPN List

Agree to the Azure terms and conditions

Click on “Purchase”



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STEP 3 - IceBreaker

Finish setting up the configuration app

Step 3

1.Note the location of the configuration app that you deployed, which is https://[BaseResourceName]-config.azurewebsites.net.
For example, if you chose “contosolistsearch” as the base name, the configuration app will be at https://contosolistsearch-config.azurewebsites.net.
2.Go back to the “App registrations” page at https://portal.azure.com/#blade/Microsoft_AAD_IAM/ActiveDirectoryMenuBlade/RegisteredAppsPreview.
Repeat the steps below for each of the two apps that you created.
3.Click on the application in the application list. Under “Manage”, click on “Authentication” to bring up authentication settings.

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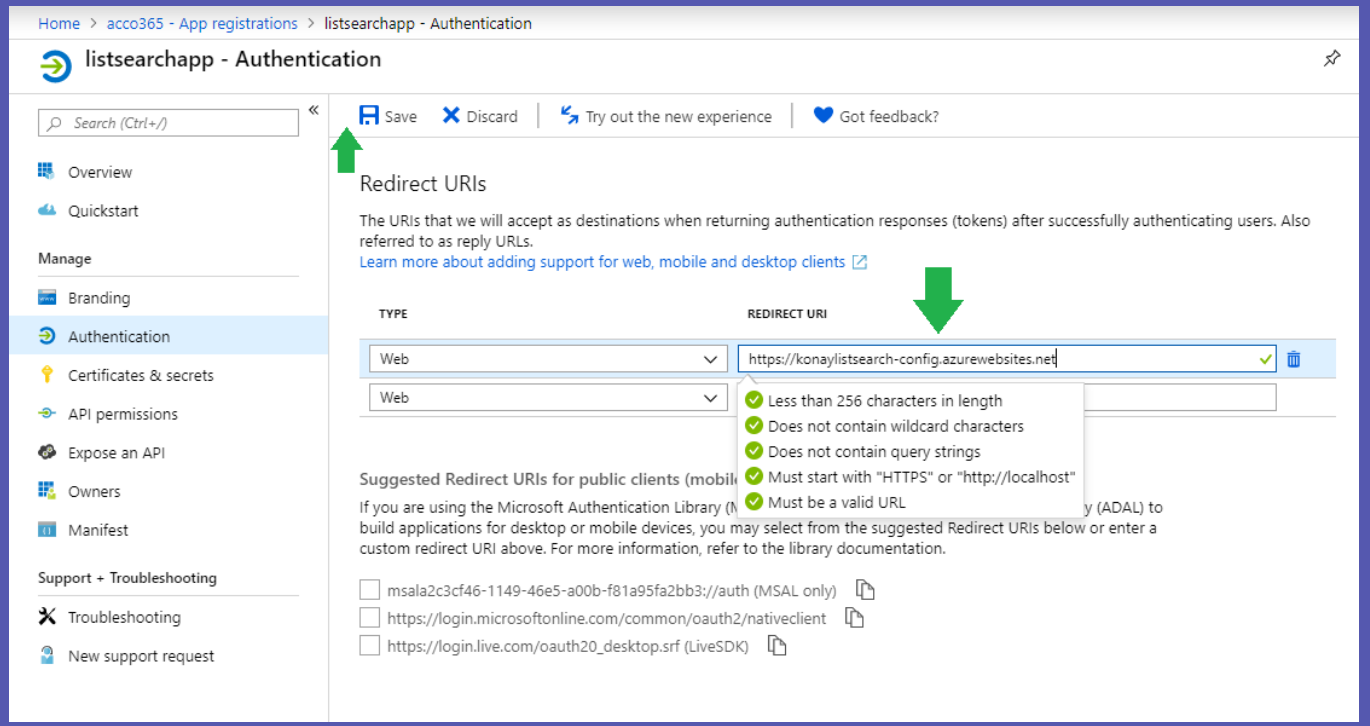
Step 3

Redirect URIs

Type: Web

Redirect URI: Location (URL) of your configuration app. This is the URL from Step 3.1.



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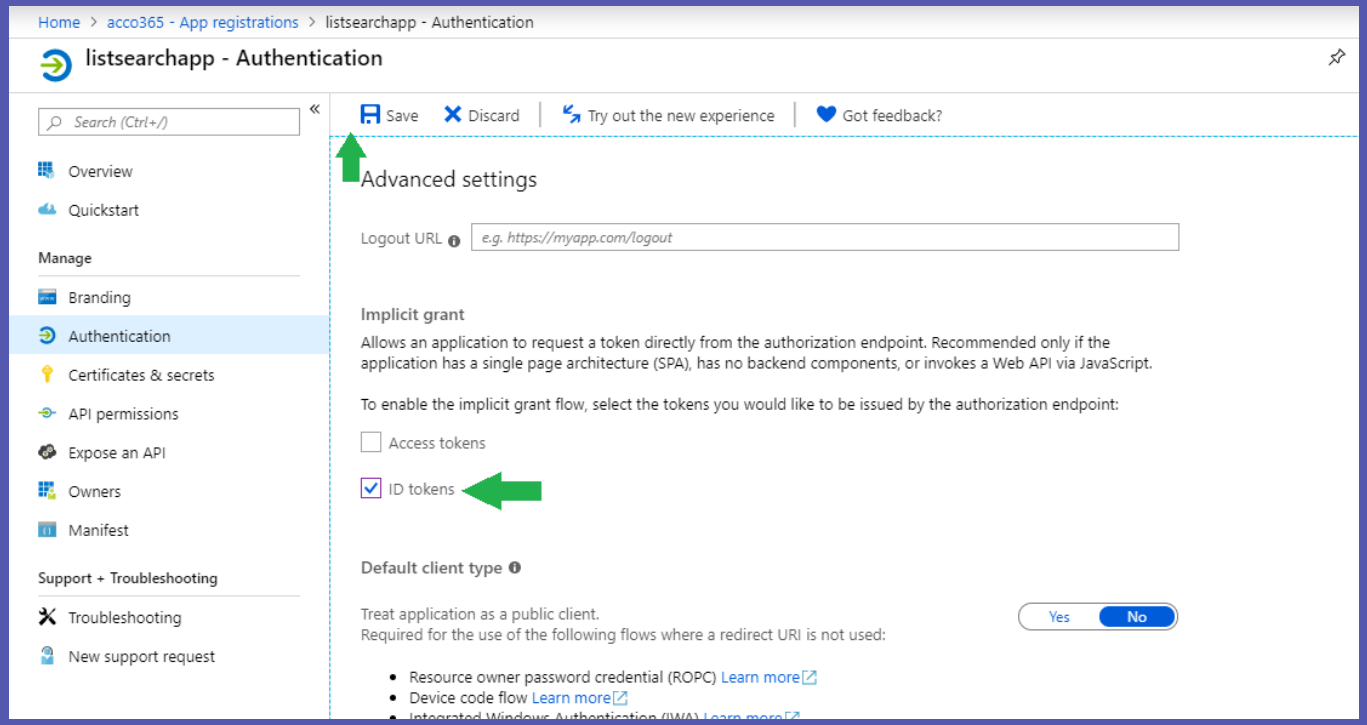
Step 3

ID tokens

Under "Implicit grant", check "ID tokens".

Click “Save” to commit your changes.



STEP 4 - IceBreaker

Add your SharePoint lists

Step 4

1. Go to the configuration app, which is at https://[BaseResourceName]-config.azurewebsites.net. For example, if you chose “contosolistsearch” as the base name, the configuration app will be at https://contosolistsearch-config.azurewebsites.net.
2. When prompted, log in as one of the users that you specified in “Config Admin UPN List”.
3. The List Search app is initially not able to access SharePoint, until it gets an access token. To begin setting the user, click on the "Set SharePoint user" button.

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Step 4

Add a new SharePoint list

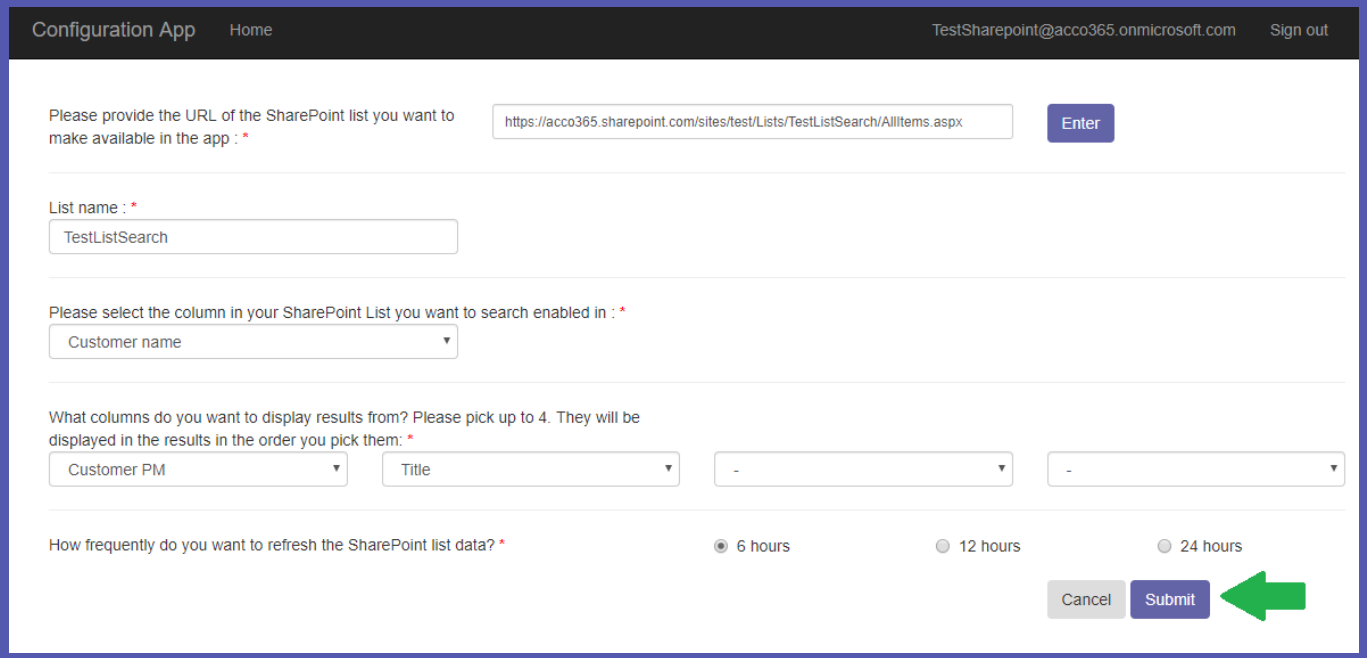
Enter the URL of the SharePoint list that you want to index,

Configure the list by selecting:

- Display name for the list
- The column that should be searchable
- Up to 4 additional columns that will be included inthe result
- How often the list data should be refreshed

Click on "Submit"

When it's done indexing the list, the app will navigate back to the home page. You can repeat the process and configure up to 4 other SharePoint lists to search.



STEP 5 - IceBreaker

Create the Teams app package

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Step 5

1. Open the Manifest\manifest.json file in a text editor.
2. Change the placeholder fields in the manifest to values appropriate for your organization.
    - developer.name (What's this?)
    - developer.websiteUrl
    - developer.privacyUrl
    - developer.termsOfUseUrl
3. Change the “botId” placeholder to your Azure AD application's ID from above. This is the same GUID that you entered in the template under “Bot App ID”.
4. In the "validDomains" section, replace the placeholder with your Messaging App Service's domain. This will be [BaseResourceName].azurewebsites.net. For example, if you chose “contosolistsearch” as the base name, change the placeholder to contosolistsearch.azurewebsites.net.
5. Create a ZIP package with manifest.json, color.png, and outline.png. The two image files are the icons for your app in Teams.

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Step 3

Add a new SharePoint list

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Configure the list by selecting:

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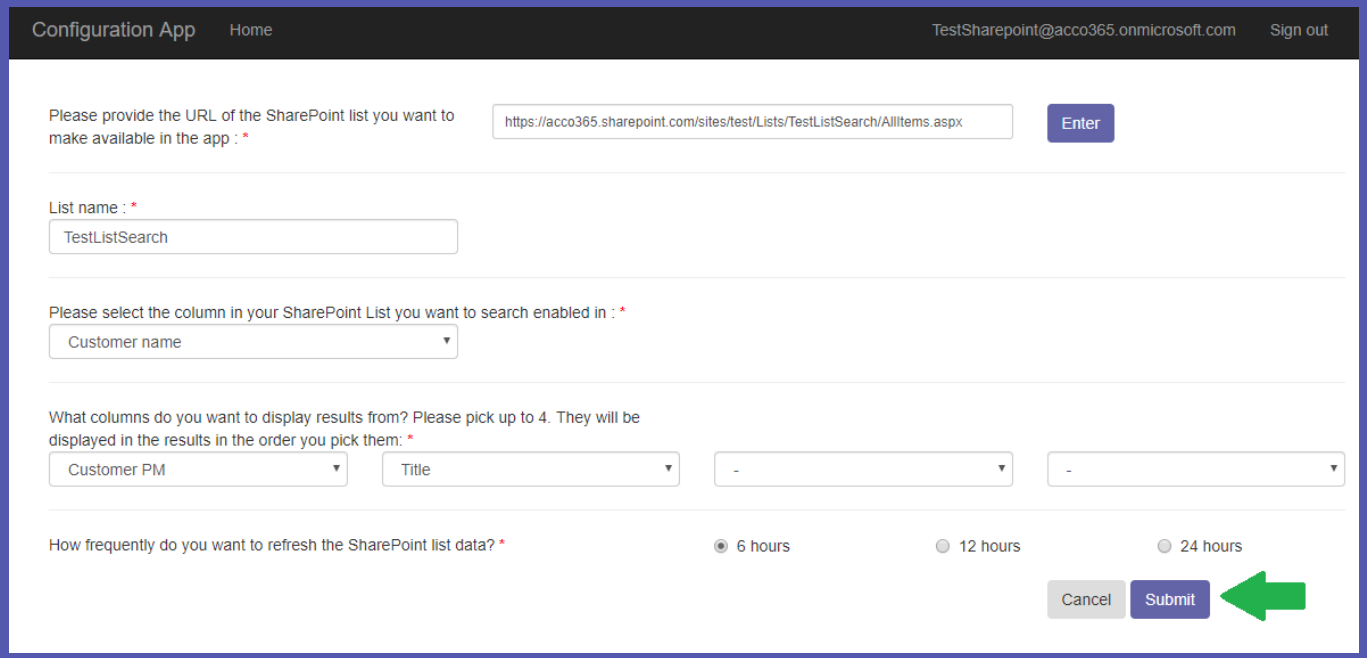

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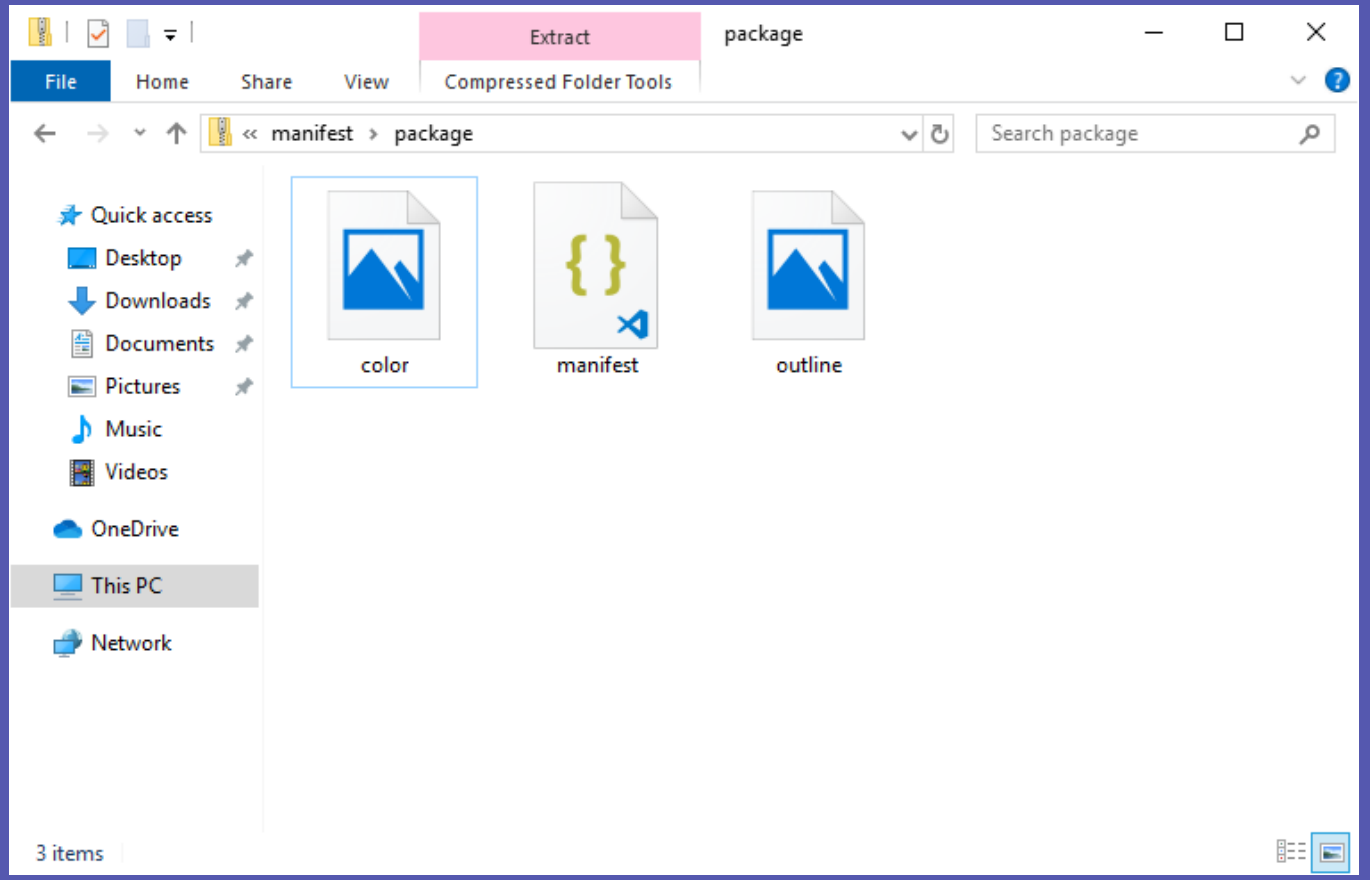
Found on GitHub

Make sure that the 3 files are the *top level* of the ZIP package, with no nested folders.



STEP 6 - IceBreaker

Run the app in Microsoft Teams

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Step 6

- If your tenant has sideloading apps enabled, you can install your app personally by following the instructions below.
  - Upload the custom app package using the Store: https://docs.microsoft.com/en-us/microsoftteams/platform/concepts/apps/apps-upload#load-your-package-into-teams
- You can also upload it to your tenant's app catalog, so that it can be available for everyone in your tenant to install: https://docs.microsoft.com/en-us/microsoftteams/tenant-apps-catalog-teams
- Run your messaging extension: https://docs.microsoft.com/en-us/microsoftteams/platform/concepts/apps/apps-upload#accessing-your-uploaded-messaging-extension

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Step 6 – Manifest File (ZIP)

manifest.json

```
{
  "$schema": "https://developer.microsoft.com/en-us/json-schemas/teams/v1.3/MicrosoftTeams.schema.json",
  "manifestVersion": "1.3",
  "version": "1.0.0",
  "id": "d55d08d9-bacb-4567-942f-afd85d632dcc",
  "packageName": "com.microsoft.teams.icebreaker",
  "developer": {
    "name": "ThoughtStuff",
    "websiteUrl": "https://thoughtstuff.co.uk",
    "privacyUrl": "https://thoughtstuff.co.uk/privacy",
    "termsOfUseUrl": "https://thoughtstuff.co.uk/tos"
  },
  "icons": {
    "color": "color.png",
    "outline": "outline.png"
  },
  "name": {
    "short": "Icebreaker"
  },
  "description": {
    "short": "Icebreaker is a bot that randomly pairs team members up to build team unity.",
    "full": "Icebreaker is a cute little bot that randomly pairs team members up every week to help the team build trust and personal connections."
  },
  "accentColor": "#64A2CC",
  "bots": [
    {
      "botId": "439d20a4-f939-4e80-81f0-62b6c4b29352",
      "scopes": [
        "personal",
        "team"
      ],
      "supportsFiles": false,
      "isNotificationOnly": true
    }
  ],
  "permissions": [
    "identity",
    "messageTeamMembers"
  ],
  "validDomains": [
    "icebreaker-qxqm2jkkeaqsm.azurewebsites.net"
  ]
}
```

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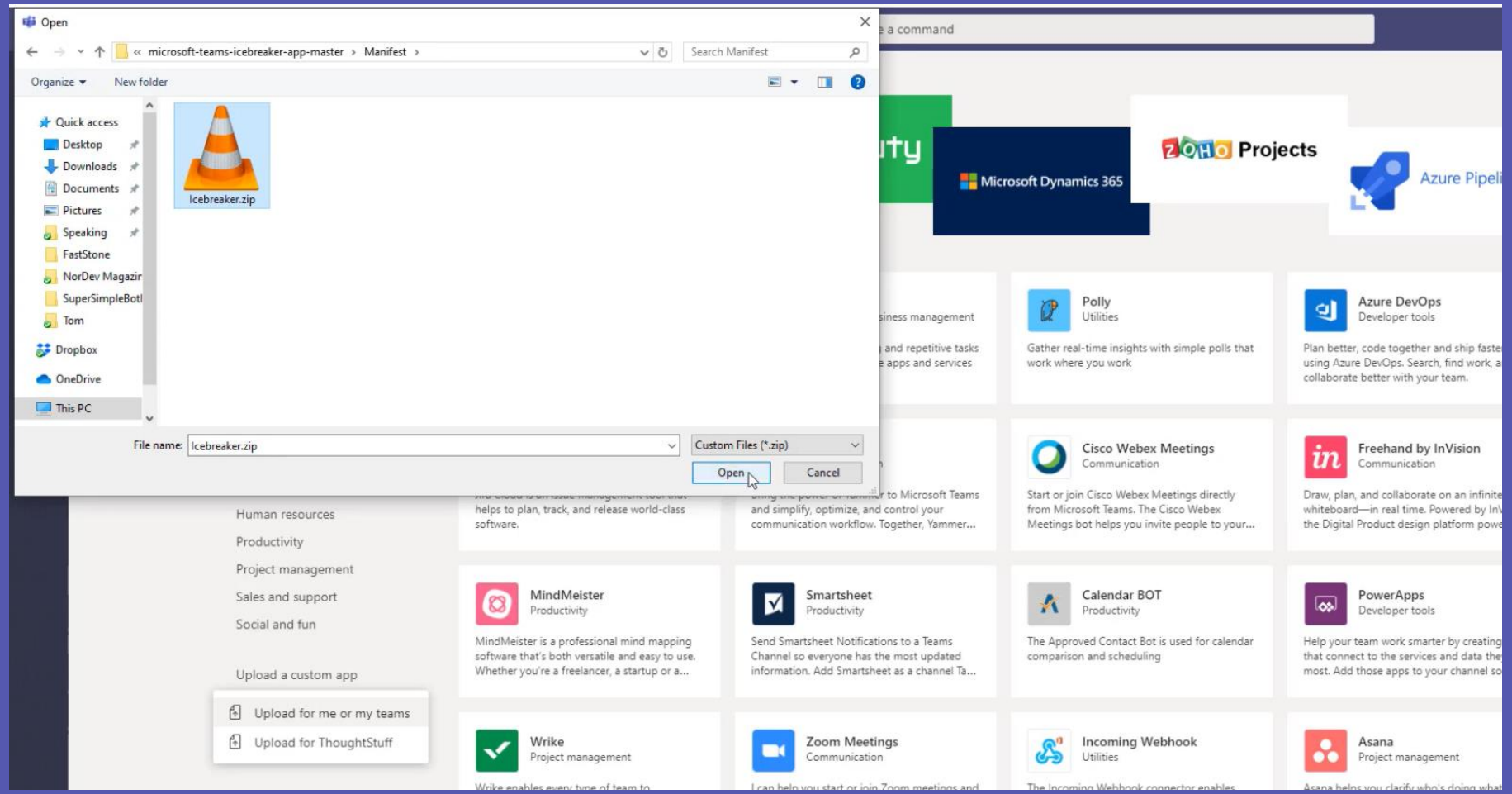
Step 6 – Upload the IceBreaker App



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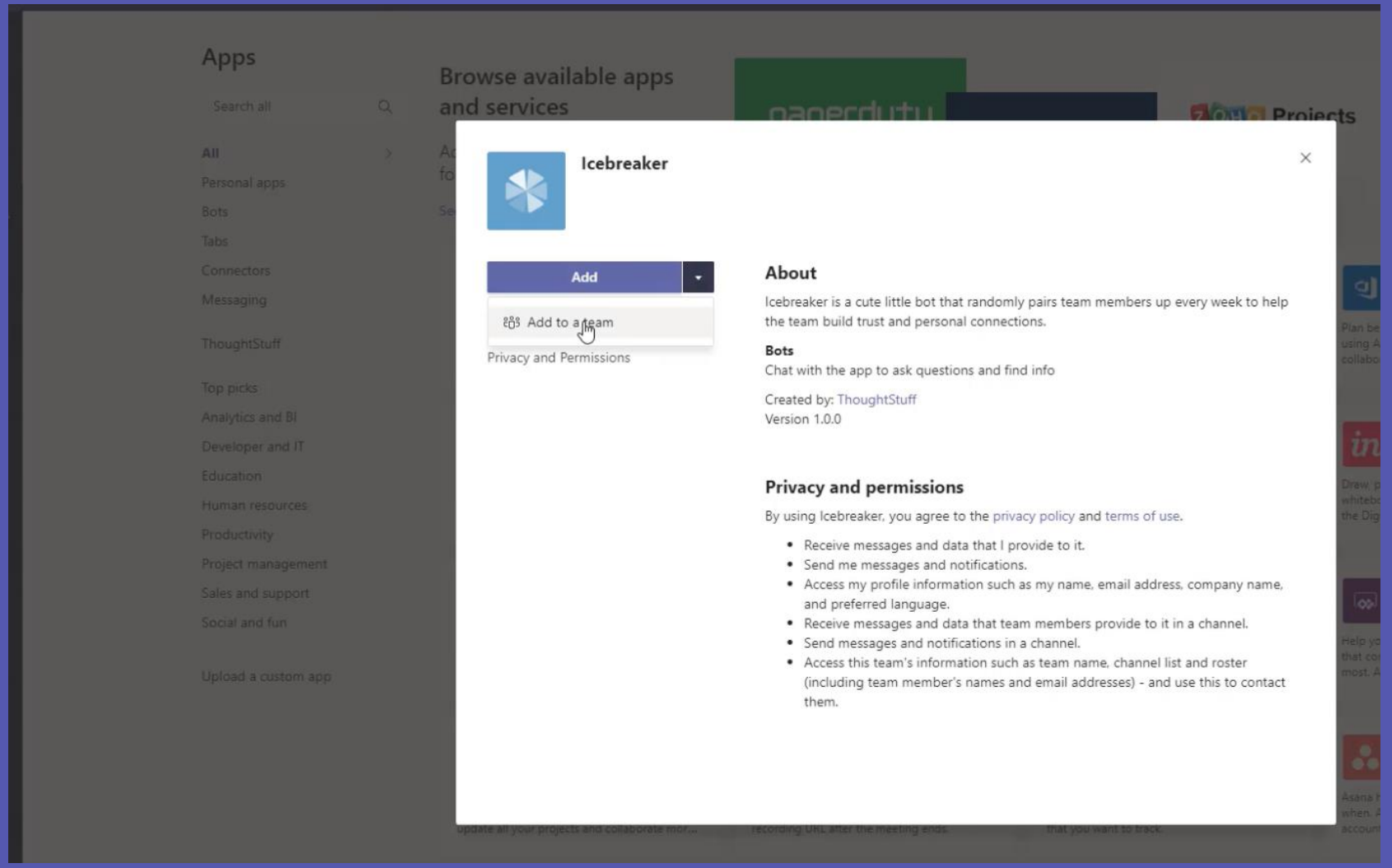
Step 6 – Add to a TEAM



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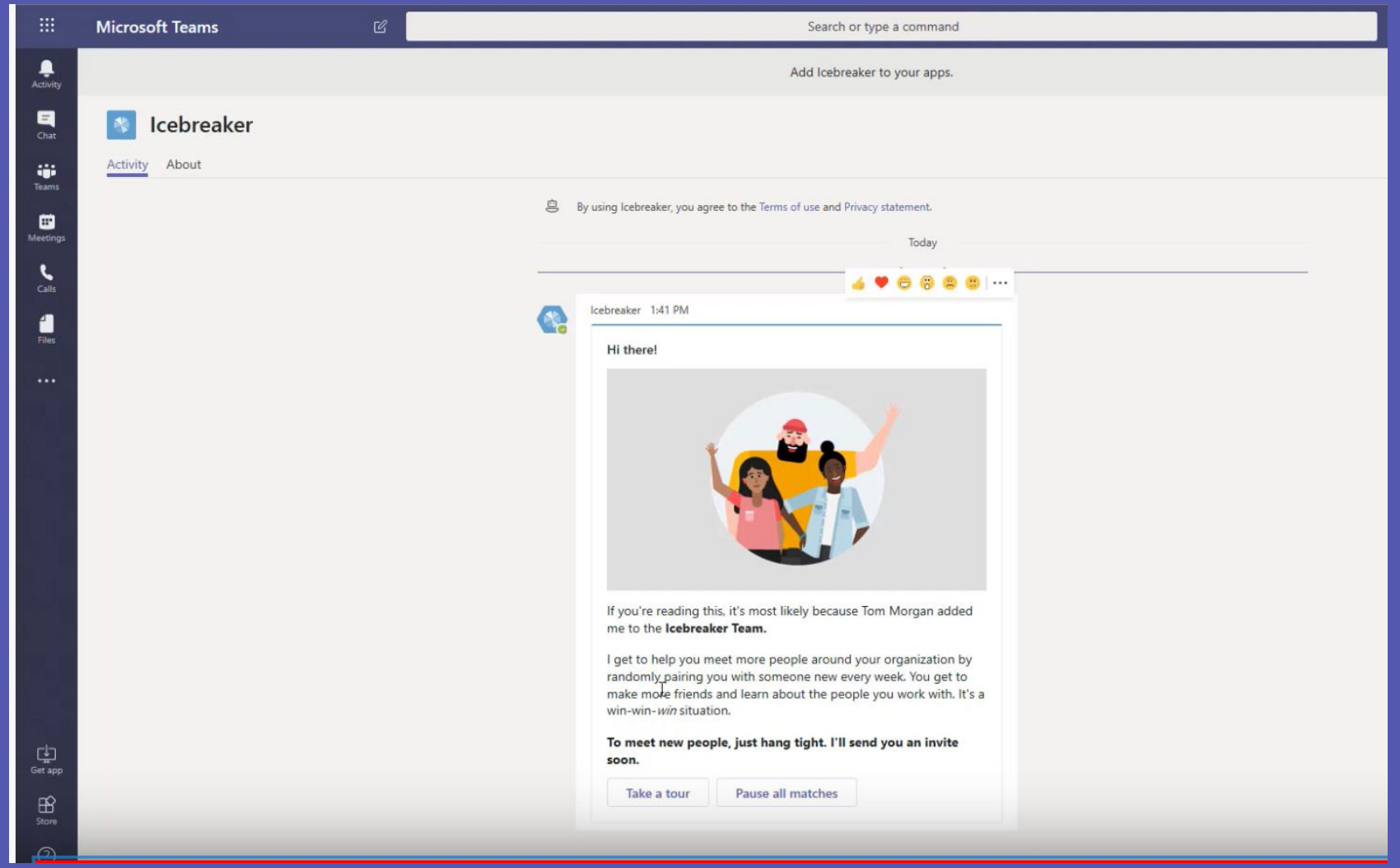
Step 6 – Ready



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Thank you for your participation

Thomas Poett

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Meetups

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