Lab 05. Build and integrate a Bot with the search API

Objective

In this lab you are going to use a bot sample code and integrate it with the search API.

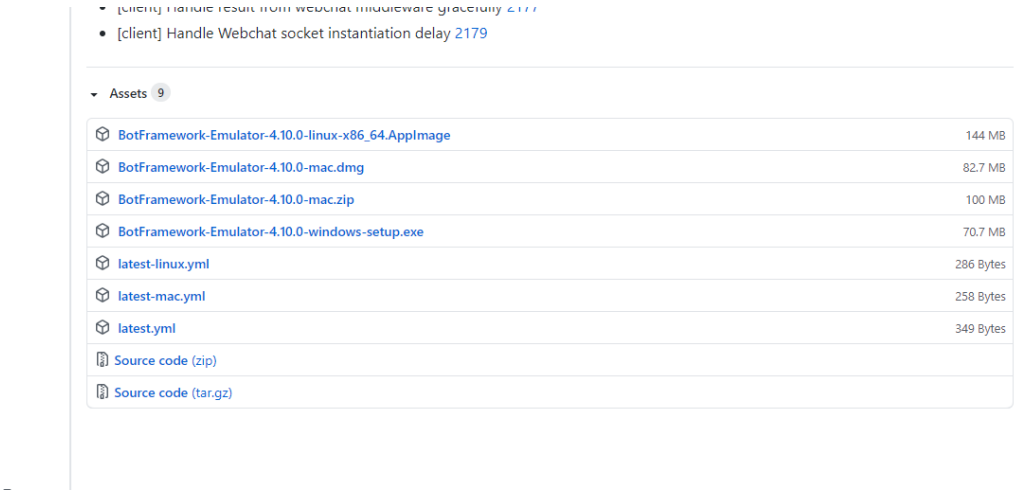
Prerequisites

- Complete **Lab 2**.
- Visual Studio Code 2017 or later.

Steps

Download bot framework emulator

1. Open a browser and navigate to the following link https://github.com/Microsoft/BotFramework-Emulator/releases , Download the most recent version of the bot emulator, (for example if you are using windows download the BotFramework-Emulaotr-4.XX.X-windows-setup.exe)



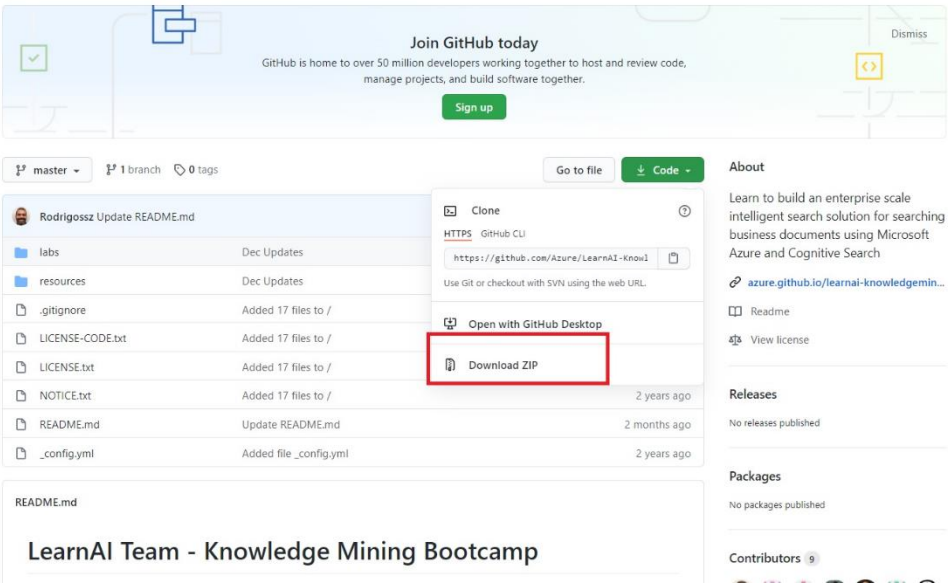
2. Proceed to install the Bot Framework Emulator. NOTE: If you already have a previous version installed, this wizard will perform an upgrade.

Clone the Repo

1.- Open a new browser window and navigate to https://github.com/Azure/LearnAI-KnowledgeMiningBootcamp.git

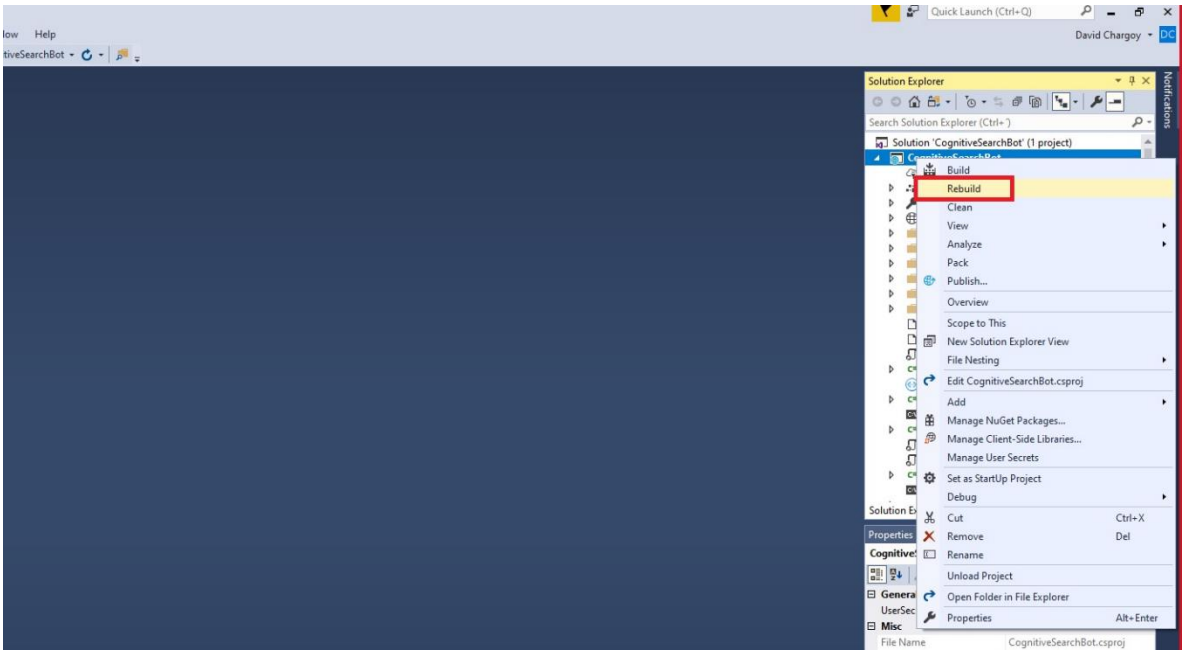
2.- Select Clone or download.

3.- Extract the zip file to your local machine.



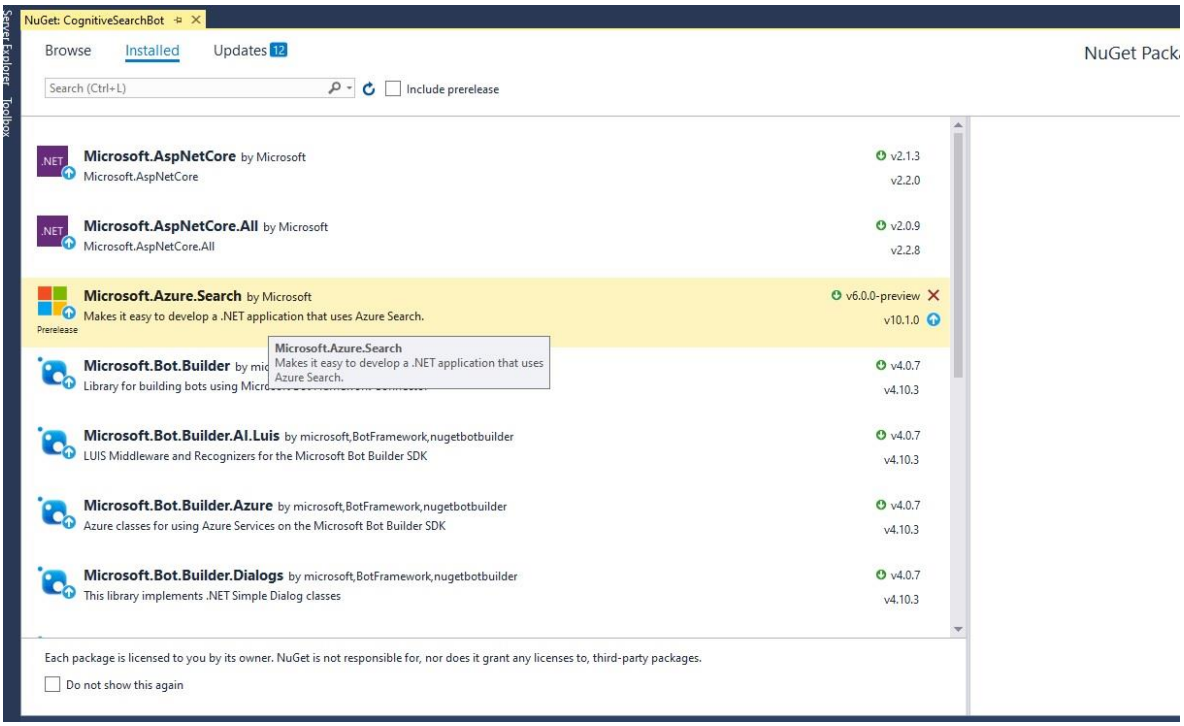
4- Navigate to your extracted folder and go to **resources>code-bot** and double click on the file **CognitiveSearchBot.sln** to open the visual studio solution

5.- in Solution Explorer, right-click on the **CognitiveSearchBot** solutions and select **Rebuild**



6.- Right-click on the solution and select **Manage NuGet Packages for Solution**

7.- Review that under **Installed** you see **Microsoft.Azure.Search** listed.



8.- Open the **Constants.cs** file

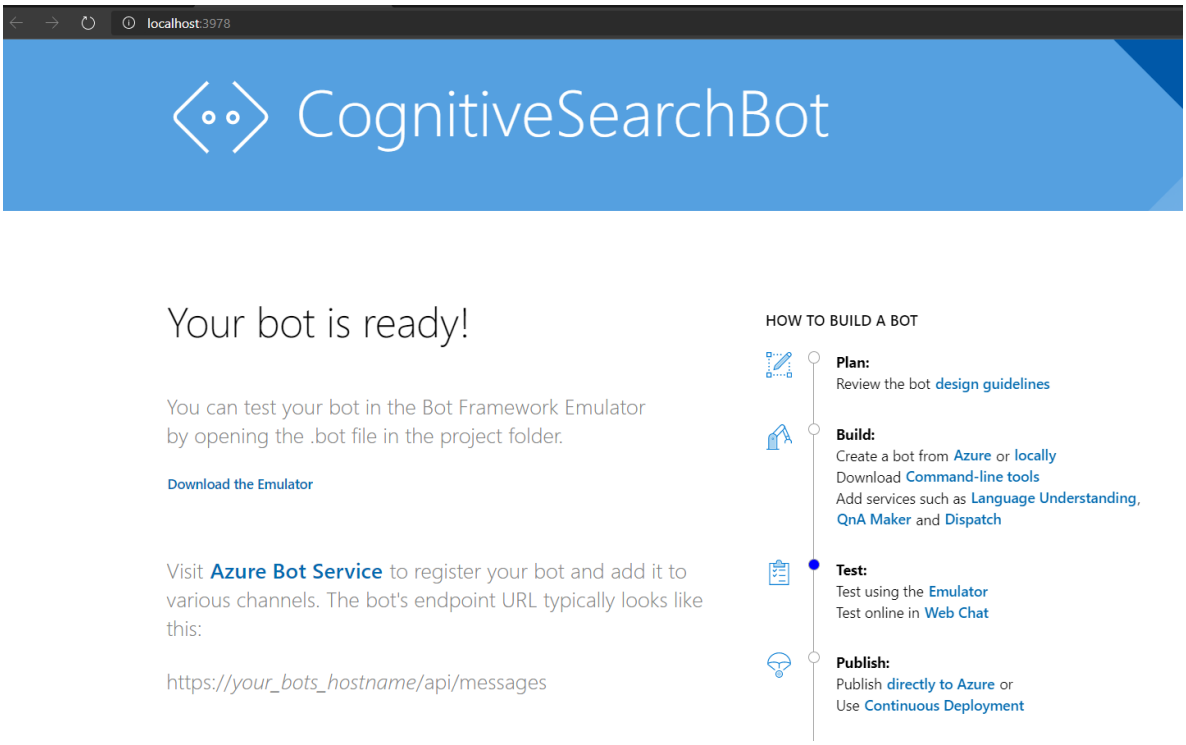
9.- Locate the Strings **SearchServiceName, SearhServiceApiKey** and **TargetIndexName** and replace them with your values. NOTE: These values are from the Lab02, in the case you do not have them you can go to the Azure Portal and obtain the values

```
namespace CognitiveSearchBot
{
    public static class Constants
    {
        // replace "Your-Azure-Search-Service-Name", "Your-Azure-Search-Service-key", and "Your-Azure-Search-I
        public static string SearchServiceName = "Your-Azure-Search-Service-Name";
        public static string SearchServiceApiKey = "Your-Azure-Search-Service-Key";
        public static string TargetIndexName = "Your-Azure-Search-Index-name";
    }
}
```

10.- Save the file

Run the project

1.- On Visual Studio press **F5** to build and run your bot locally and will open a browser window

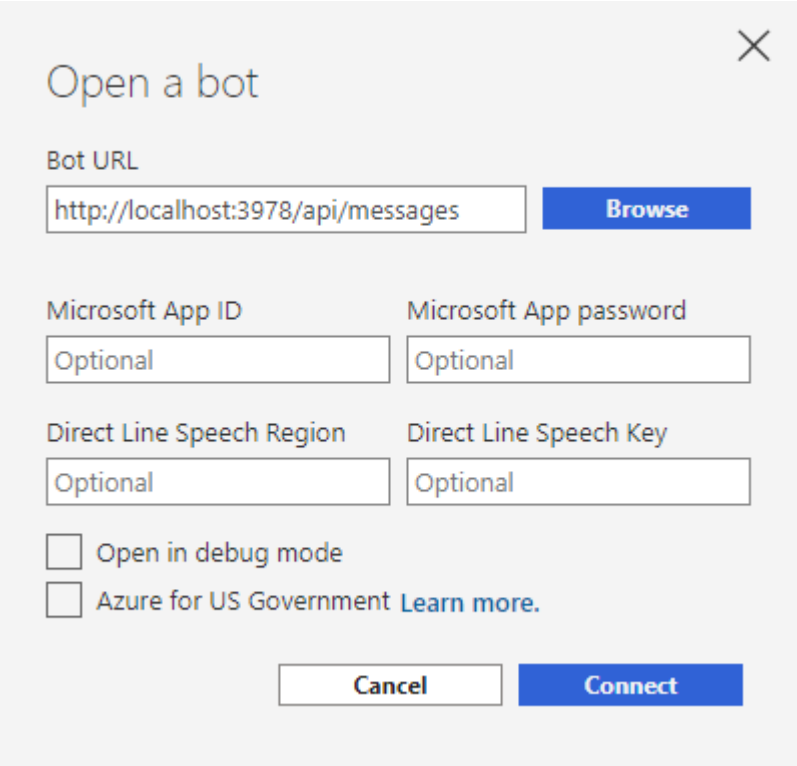


2.- Copy the URL from the browser

3.- Open the **Bot Framework Emulator**

4.- Click on **File** menu and select **Open Bot**

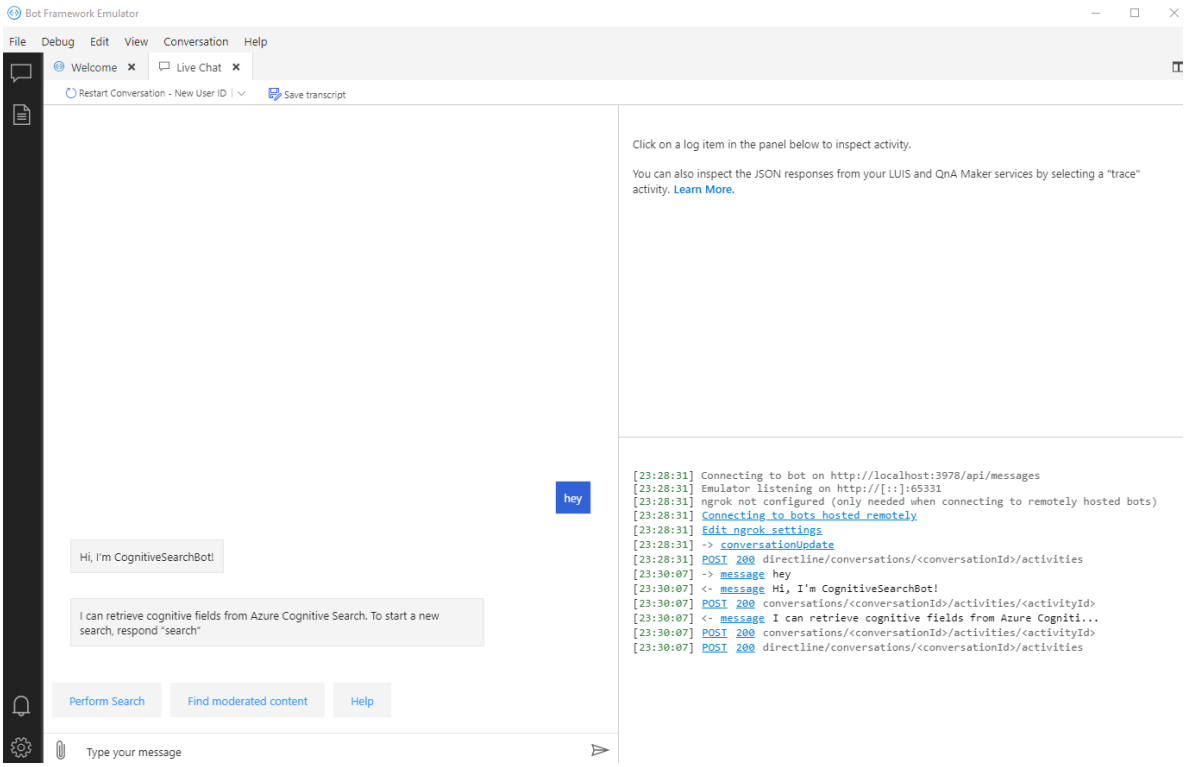
5.- On the **Bot URL** textbox, paste the URL and append **/api/messages**



6.- Click on **Connect**

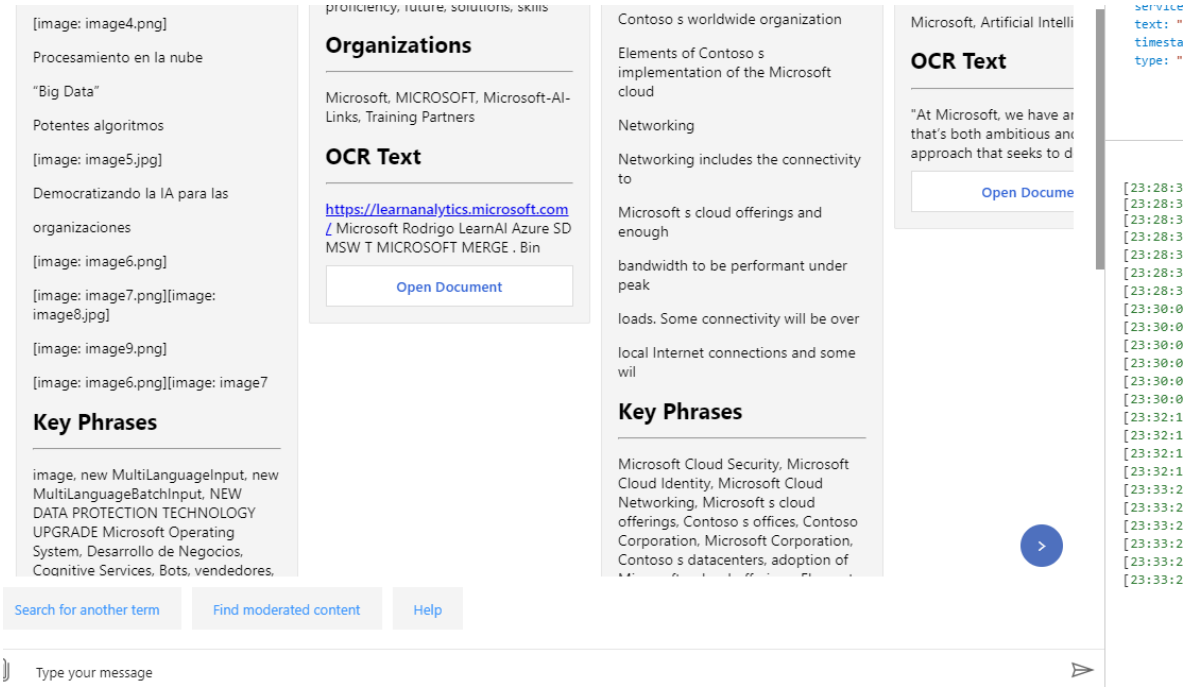
7.- This will open a chat windows with your bot, Start by saying something like Hello, Hi or Hey

8.- The bot will respond with a greeting message followed by theactions that the Bot can do for you

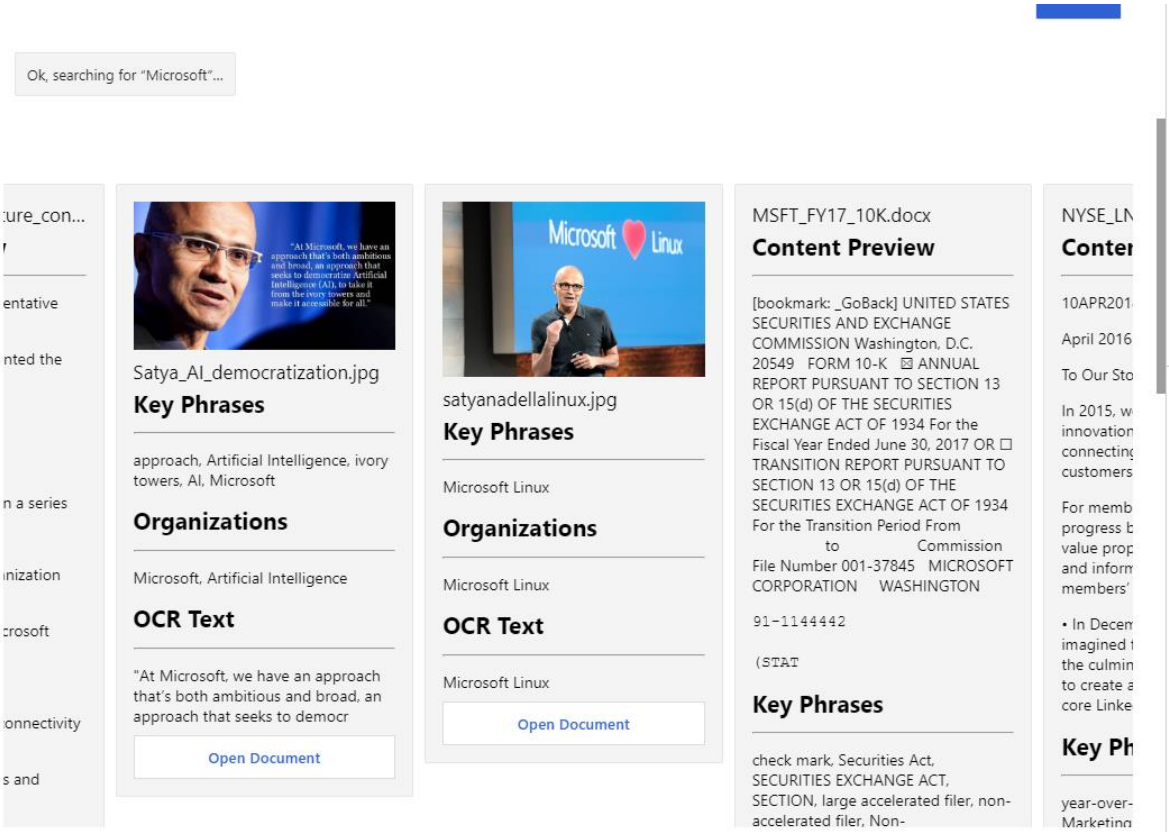


9.- Select the **Perform Search** option, and submit some searches to the bot, for example "Microsoft"

10.- Look on the results, you will see some cards with the information obtained about your search, also you could use the navigation arrows to review all the information presented



11.- Review the image named **satyanadellalinux.jpg**, notice that the search is using the OCR cognitive service and the **OCR Text** is **Microsoft Linux,** which is a text found inside the image.



12.- Click on **Open Document**, and in the confirmation popup click on **Confirm**, this will open a browser window with the image.

12.- Type **Help** and send it to the bot, the bot will answer you with the things that the bot can do for you

13.- Try another search like "Azure", "Red shirt", "cloud" and review the results

14.- Return to Visual Studio and press **Shift + F5** to stop your debugging

Create a bot framework registration

1.- Open a browser and navigate to https://ngrok.com/download

2.- Download the ngrok tool and extract the file **ngrok.exe** to your bot's folder

CognitiveSearchBot.cs	29/07/2020 05:25 p. m.	Visual C# Source F...	6 KB
CognitiveSearchBot.csproj	29/07/2020 05:25 p. m.	Visual C# Project f...	2 KB
CognitiveSearchBot.deps.json	29/07/2020 05:25 p. m.	JSON File	274 KB
CognitiveSearchBot.runtimeconfig.json	29/07/2020 05:25 p. m.	JSON File	1 KB
CognitiveSearchBot.sln	29/07/2020 05:25 p. m.	Visual Studio Solu...	2 KB
Constants.cs	09/10/2020 10:46 a. m.	Visual C# Source F...	1 KB
deploy.cmd	29/07/2020 05:25 p. m.	Script de comand...	3 KB
ngrok.exe	08/10/2019 02:53 p. m.	Aplicación	26,131 KB
ngrok-stable-windows-amd64.zip	09/10/2020 10:39 a. m.	Archivo WinRAR Z...	13,496 KB
Program.cs	29/07/2020 05:25 p. m.	Visual C# Source F...	2 KB
readme.md	29/07/2020 05:25 p. m.	Markdown File	1 KB
Startup.cs	29/07/2020 05:25 p. m.	Visual C# Source F...	9 KB
web.config	29/07/2020 05:25 p. m.	XML Configuratio...	1 KB

3.- Open a PowerShell Windows with administrative privileges and navigate to your bots folder

4.- execute the following command

./ngrok http 3978

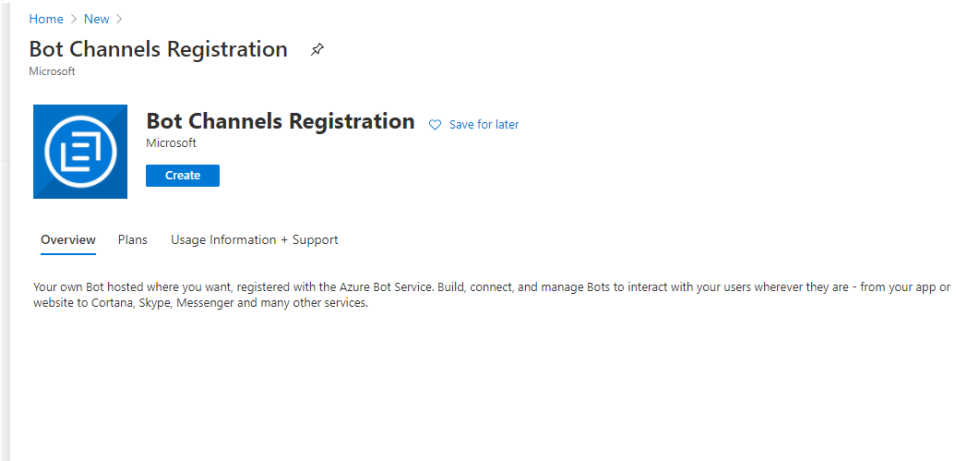
You will be presented with a windows like this

```
ngrok by @inconshreveable

Session Status                online
Session Expires               7 hours, 59 minutes
Version                       2.3.35
Region                        United States (us)
Web Interface                 http://127.0.0.1:4040
Forwarding                    http://d0aad89e20a2.ngrok.io -> http://localhost:3978
Forwarding                    https://d0aad89e20a2.ngrok.io -> http://localhost:3978

Connections                   ttl     opn     rt1     rt5     p50     p90
                              0       0       0.00    0.00    0.00    0.00
```

5.- Sign in into the Azure poral at https://portal.azure.com

6.- Select **Create a resource** from the favourites menu

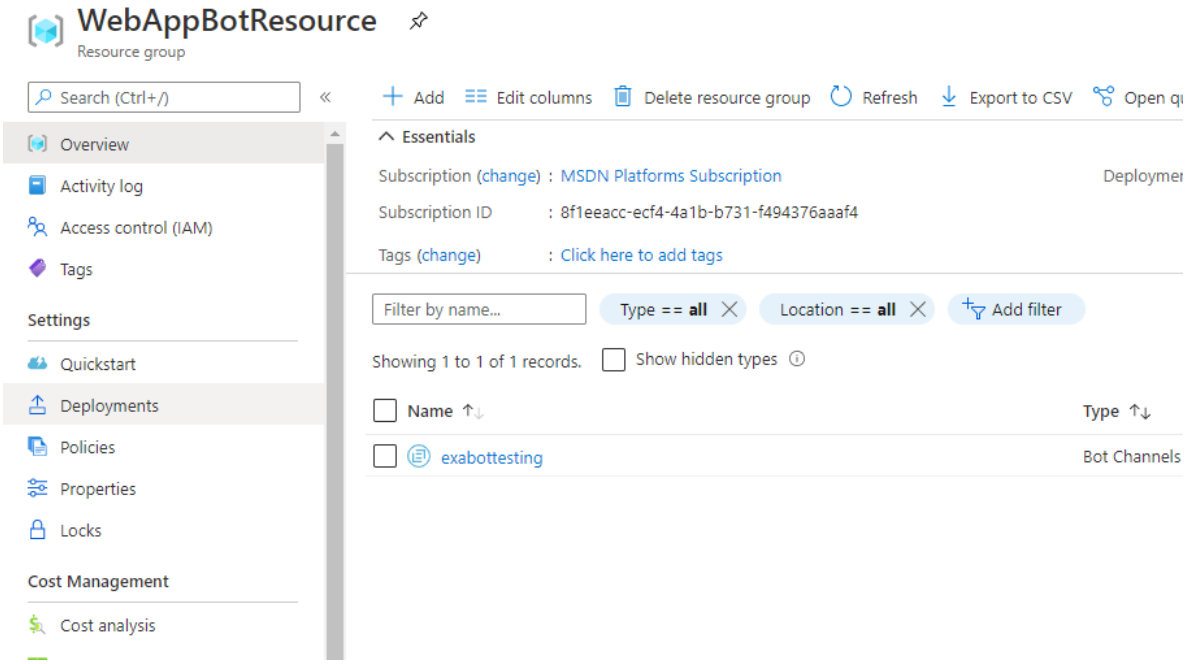
7.- Search for Bot Channel Registration and select it and then click on Create



8.- Enter the information bellow and then select create

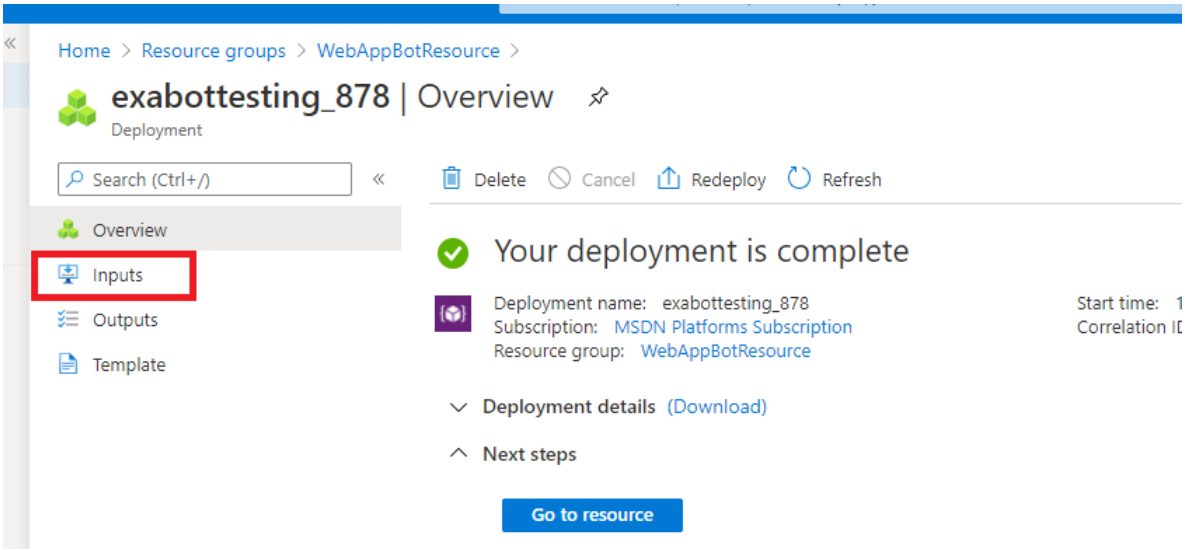
- **Bot handle**: type a name for your bot. The bot name must be unique and will give you a message when it's not.
- **Subscription**: ensure your Azure subscription is selected.
- **Resource group**: select **Create new** and give it a name such as **WebAppBotResource**.
- **Location**, will default to your current tenant location. You can leave this as the default or select a different location.
- **Pricing tier**: select **F01 (10K Premium Messages**
- **Messaging Endpoint:** type the https url that ngrok gave you and append /api/messages
- **Application Insights:** Off

9.- Once your deployment has completed navigate to the Resource Group **WebAppBotResource,** and inside Settings, select **Deployments**



10.- Select the deployment

11.- From the deployment blade, select Inputs



12.- Look for the appId and app Secret fields and copy them

13.- Go Back To Visual Studio and open the file **BotConfiguration.bot**

14.- Change the values for the appId and appPasword with the appID and appSecret and save the project

15.- Press **F5** to run your project.

16.- Go Back to the Azure Portal and, select **Resource groups** then select the groups called **WebAppBotResource**

17.- Then select the from the overview blade the Bot Channel Registration

18.- Under **Bot management** select **Test in Web Chat**

19.- Say Hi to your bot and now you will be using your local bot within the Azure portal