

AI Live 2018

Build a Microsoft Bot Framework bot with the Bot Builder SDK v4

Using Visual Studio 2017, and ASP.NET Core

The Microsoft Bot Framework provides just what you need to build and connect intelligent bots that interact naturally wherever your users are talking, from text/SMS to Skype, Slack, Office 365 mail and other popular services. The new version 4 SDK provides a new, rich, multi-language SDK for building bots using C#, JavaScript, Python, or Java.

Bot Builder v4 helps you with your digital transformation enabling Conversational AI. You can build bots that start simple yet grow in complexity. Bot Builder V4 provides a set of AI-services-aware tools that support a rich E2E developer workflow to help you create, build, test, deploy, and manage your bots.

This walkthrough covers the tools you'll need to work on the forthcoming labs.

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Install the Supporting Tools

Follow through this document, making sure you install and configure the tools, etc.

Access to the Internet

Make sure you can access the following sites:

- www.microsoft.com
- <https://portal.azure.com>
- <https://www.nuget.org/>

Visual Studio 2017

You need version **15.9.x** (any edition) with the following workloads:

- ASP.NET and web development
- Azure development

Bot Builder V4 SDK Template

Start Visual Studio 2017 and install the **Bot Builder V4 SDK Template** from the *Visual Studio Gallery* via Visual Studio's **Extensions and Updates** dialog. You can access the dialog via **Tools | Extensions and Updates**. Then search **Online | Visual Studio Marketplace**.

ngrok

ngrok is a free non-Microsoft service that allows you to run and access your bots locally.

Install **ngrok** from <https://ngrok.com/>.

You'll need to register for a free account

Once you have your account, download the correct Windows exe.

You'll need to authorize **ngrok** on your machine (follow the ngrok instructions after you register for an account).

Bot Framework Emulator

Download the correct Windows version from GitHub: <https://bri.gd/botem41gh>

Once you have it installed, run it, and go into Settings (the cog in the lower left corner) and point the emulator to your **ngrok.exe** file's location.

Azure Subscription

In order to deploy and host your bots, you will need an Microsoft Azure Subscription.

If you do not already have a subscription, you can register for a free account at <https://azure.microsoft.com/en-us/free/>.

In addition, you get monthly Azure credits if you have a Visual Studio (formally MSDN) subscription with Azure.

Create a Master App Service Plan

Because you'll be creating a few of bots today, it will save time and effort to have a common Azure **App Service Plan** for all your bots. This can save you money for development and make it easier to keep just the bots you like.

1. Launch a modern browser like Microsoft Edge, Google Chrome, etc. But not Internet Explorer.
2. Access <https://portal.azure.com>
3. Log in using an account that has full control of an active Azure Subscription.
4. Click the **Create a resource** link in the upper left-hand portion of the portal home page.
5. In the Search the Marketplace field, type **App Service Plan** and press Enter.
6. In the list select the first item **App Service Plan**.
7. In the blade that opens, click **Create** at the bottom.
8. Use the data in the following table to configure most of the information:

Item	Value	Notes
App service plan	Enter a name like LabBotsPlan	
Subscription	Your subscription	If necessary, select the Azure subscription you want to use if you have more than one.
Resource Group	Ensure Create New is selected a name like LabBots2018 .	Create a new resource group.
Operating System	Windows	
Location	East US or East US 2	Select the geographic location for your resource group. Your location choice can be any location listed, though it's often best to choose a location closest to your customers. The location cannot be changed once the bot is created.

		For the lab at <i>Live! 360</i> , consider East US or East US 2 .
Pricing tier	S1 Standard	This will give you a VM with enough head room for a few bots and won't keep you waiting.

9. Click **Create** to build your App Service Plan.
10. Wait for it to complete.