

# Developing Applications - Bots

## Scenario 04: Connect To QnAMaker Lab Manual

## Lab 4: Create QnA Bot With Azure Bot Service

### Introduction

In this lab, you will create a Qna Bot with Bot Framework and Azure Bot Service:

- Explore the available features and functionality.
- Create a NodeJs QnAMaker enabled bot
- Add content to the QnAMaker Service

### Objectives

After completing this lab, you will be able to:

- Create a QnA Bot with Azure Bot Service that uses the QnA Maker service

### Prerequisites

- Web Browser
- Access to Azure Subscription
- Access to Visual Studio Team Services account

### Estimated Time to Complete This Lab

30 minutes

### For More Information

Create a bot with the Azure Bot Service: <https://docs.microsoft.com/en-us/botframework/azure-bot-service-quickstart>

## Exercise 1: Create a QnAMaker Bot with the Azure Bot Service

### Introduction

After completing this exercise, you will have a functional QnAMaker Service that can be consumed by a bot

### Objectives

After completing this lab, you will be able to:

- Create QnAMaker Services
- Modify, test and publish QnAMaker knowledge base

### Prerequisites

Go to <https://qnamaker.ai> and sign up and accept license agreements **before starting exercise**.

### Scenario

This scenario will be useful when creating a straightforward question and answer style bot.

### Task 1: Create a QnA Maker Knowledge base

1. Log on to the Azure Portal and click on **Add new resource**, and type "qna maker" in search, and select the QnA Maker resource.



2. Click on **Create**
3. Fill in the required fields and spend some time familiarizing yourself with the different settings involved

The screenshot shows the 'Create QnA Maker' form in the Azure portal. The form is titled 'Create QnA Maker' and has a breadcrumb trail: Home > New > Marketplace > Everything > QnA Maker. The form contains the following fields and options:

- Name:** BotworkshopQnABot (with a green checkmark)
- Subscription:** GaboG Internal Consumption (dropdown menu)
- Management pricing tier (View full pricing details):** F0 (3 Calls per second) (dropdown menu)
- Resource group:** ☒ Create new ☐ Use existing. Below this is a text box containing 'BotworkshopQnABot' (with a green checkmark).
- Search pricing tier (View full pricing details):** B (5 Indexes, 1M Documents) (dropdown menu)
- Search location:** West Europe (dropdown menu)
- App name:** BotworkshopQnABot (with a green checkmark). Below this is the text '.azurewebsites.net'.
- Information box:** The App service plan currently defaults to standard(S1) tier. It can be modified by visiting the app service plan resource page once the resource has been created.
- Website location:** West Europe (dropdown menu)
- Pin to dashboard:** ☐
- Create:** A blue button at the bottom left.
- Automation options:** A link at the bottom right.

4. Once the deployment is done, you will see the following resources created in your subscription.

NAME	TYPE	LOCATION
BotworkshopQnABot	Cognitive Services	West US
BotworkshopQnABot	App Service plan	West Europe
BotworkshopQnABot	App Service	West Europe
BotworkshopQnABot-ai	Application Insights	West Europe
botworkshopqna-bot-asgxt	Search service	West Europe

## Task 2: Create and publish a knowledge base

1. Log in to QnAMaker.ai with your Azure credentials. Once in the QnA Maker website, select **Create new knowledge base**.
2. Scroll to Step 2 and select the subscription and service you created in Task 1

**STEP 2**

**Connect your QnA service to your KB.**  
After you create an Azure QnA service, refresh this page and then select your Azure service using the options below.

\* Microsoft Azure Directory ID  
Microsoft

\* Azure subscription name  
GaboG Internal Consumption

\* Azure QnA service  
BotworkshopQnABot

3. Name your knowledge base

**STEP 3**

**Name your KB.**  
The knowledge base name is for your reference and you can change it at anytime.

\* Name  
Bot Workshop Lab KB

4. In Step 4, enter <https://docs.microsoft.com/en-us/windows/security/information-protection/bitlocker/bitlocker-overview-and-requirements-faq> or some other FAQ page that you'd like to use as your data source.
5. Click **Create your KB** and wait for a few minutes for the process to complete.



6. Once the KB is successfully created, it opens the 'Knowledge Base' page where you can edit the contents of the knowledge base.
7. Click on **Add QnA Pair** to add a new row in the Editorial section of the Knowledge Base. Enter the following:



8. Click Save and retrain. Once that's done, you can test from the Test pane. Spend some time analyzing the result, adding alternative phrasing to existing questions or adding other manual QnA pairs.
9. Click on **Publish**.
10. The QnA Maker service has now been successfully published. The endpoint can be used in your application or bot code.

## Success! Your service has been deployed. What's next?

You can always find the deployment details in your service's settings.

Use the below HTTP request to build your bot. [Learn how.](#)

Sample HTTP request	POST /knowledgebases/614e4fa2-e5bf-453a-8d35-9e49b0cc7968/generateAnswer Host: https://botworkshopqna.azurewebsites.net/qnamaker Authorization: EndpointKey 600bcbb4-9a66-4dbc-87c2-23d2f1c696f4 Content-Type: application/json {\"question\": \"<b>Your question</b>\"}
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Need to fine-tune and refine? Go back and keep editing your service.



## Exercise 2: Create a QnAMaker Bot with the Azure Bot Service

### Introduction

After completing this exercise you will have enabled a QnAMaker bot that connects to your QnA Maker service.

### Objectives

After completing this lab, you will be able to:

- Connect your bot to the QnAMaker service

### Prerequisites

Exercise 1 complete and working

### Scenario

Many bots can be completely done with QnAMaker

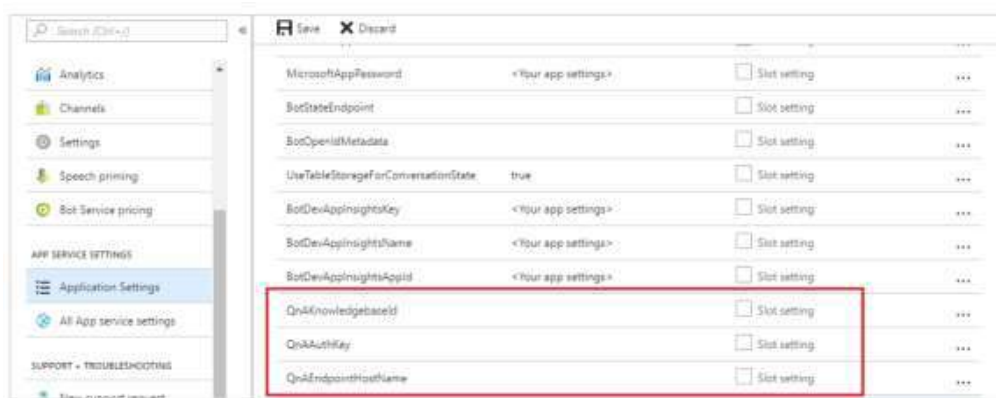
## Task 1: Create a bot with the Azure Bot Service

1. Open the Azure portal and create Web App Bot selecting the Questions and Answer Template

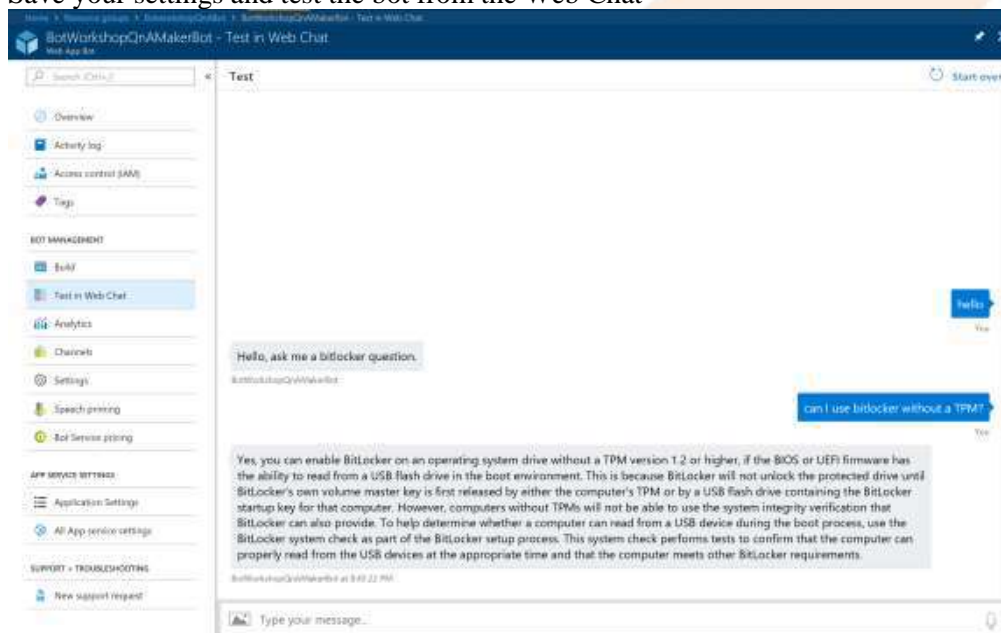
The screenshot displays the 'Web App Bot' creation interface in the Azure portal. The 'Bot template' selection screen is active, showing various templates. The 'Question and Answer' template is highlighted. The left sidebar contains configuration options for the bot, including Bot name, Subscription, Resource group, Location, Pricing tier, App name, Bot template (Basic), App service plan, Azure Storage, Application Insights, and Application Insights Location. The 'Question and Answer' template description is: 'A bot that distills information into conversational, easy-to-navigate answers.'



- While the bot service is created, get your knowledge base ID, host url, and the endpoint key from the deployment details section in settings tab of your knowledge base in <https://qnamaker.ai>
- Once your bot is created, open Application Settings and edit the **QnAKnowledgebaseId**, **QnAAuthKey**, and the **QnAEndpointHostName** fields to contain the values of your QnA Maker knowledge base.



- Save your settings and test the bot from the Web Chat



- Take some time to explore the generated code and understand how it is calling the QnAMaker service using the QnAMakerDialog class.
- Also spend some time updating, re-publishing your KB and testing it in the bot.



## For more information

See the following articles for additional information

- [Get analytics on your knowledge base](#)
- [Language support of knowledge base content for QnA Maker](#)
- [Integrate QnA Maker and LUIS to distribute your knowledge base](#)
- [Create a business continuity plan for your QnA Maker service](#)
- [Choosing capacity for your QnA Maker deployment](#)