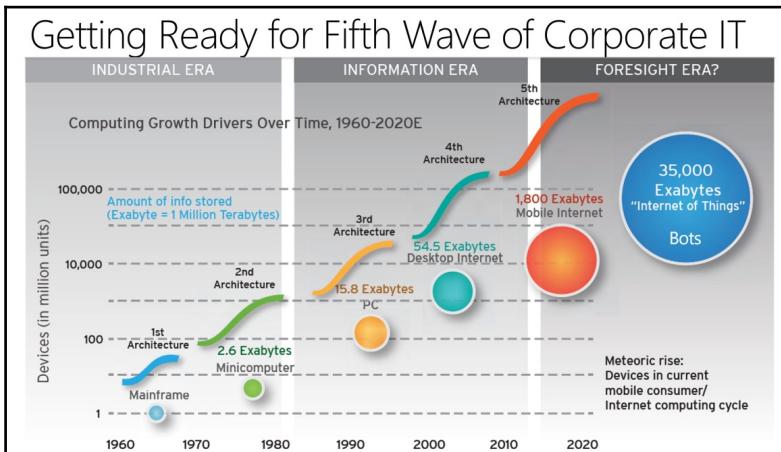


Chapter 1: Setting up Microsoft Bot Framework Dev Environment



CaaS

Conversation as a Service

Human language is the new UI

Bots are the new apps;

Digital Assistants are meta apps

Intelligence infused into all interactions

@moviesbot
active MoviesBot

kishoreismac 9:58 AM book tickets

MoviesBot BOT 9:58 AM Welcome to BookMyShow

Please select a cityname

NewYork Phoenix Houston LosAngels SanAntonio

SanDiego

kishoreismac 9:58 AM NewYork

MoviesBot BOT 9:58 AM Please select a moviename

Jason Bourne The Land Yoga Hosers Suicide Squad

kishoreismac 9:58 AM The Land

MoviesBot BOT 9:58 AM Please select a theatername

AtlantaCivicCenter FoxTheatre GeorgiaShakespeare

kishoreismac 9:59 AM FoxTheatre

MoviesBot BOT 9:59 AM Please select a show timings

Your Bot Framework Bot



Bot Builder

Tools and services to build great bots that converse wherever your users are.

- Open source SDK on Github for Node.js, .NET and REST
- From simple built-in prompts and command dialogs to simple to use yet sophisticated 'FormFlow' dialogs
- Support for rich attachments (image, card, video, doc, etc.); support for calling (Skype)
- Online/offline chat Emulator
- Add bot smarts with Cognitive Services for language understanding and more



Developer Portal

Connect your bots to text/sms, Skype, Slack, Facebook Messenger, Office 365 mail and other channels.

- Register, connect, publish and manage your bot through your bot's dashboard
- Automatic card normalization across channels
- Skype channel auto-configured
- Embeddable Web chat control
- Host your bot in your app via the Direct Line API
- Fast, scalable message routing
- Diagnostic tools



Bot Directory

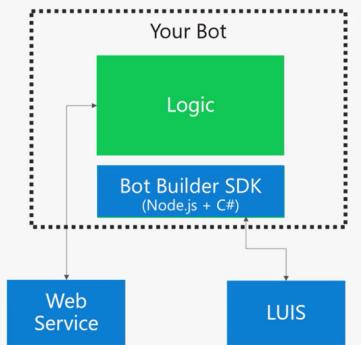
Try, use, and add published bots to the world's top conversation experiences.

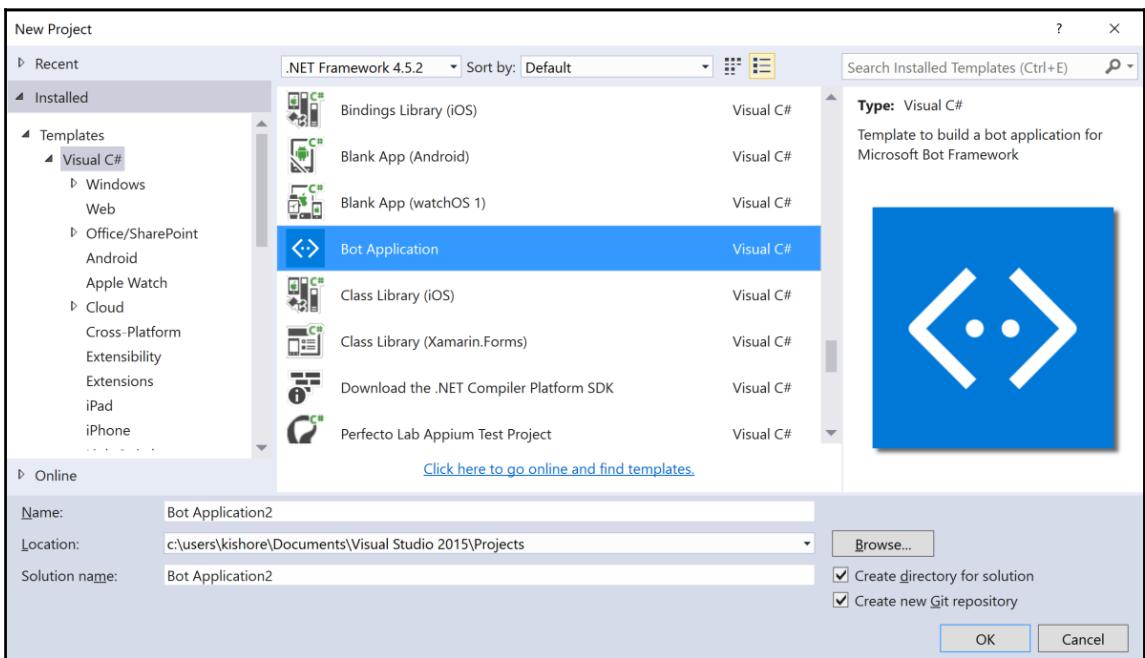
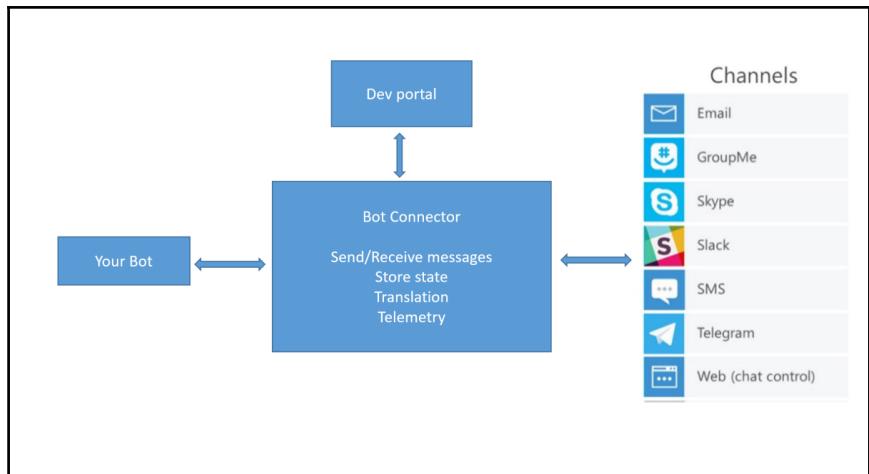
- Public directory of bots registered and published with Microsoft Bot Framework
- Users can try your bot from the directory via the Web chat control
- Users can discover and add your bot to the channels on which it is configured when the Directory is made public to end users

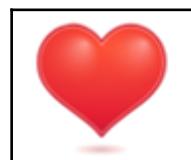
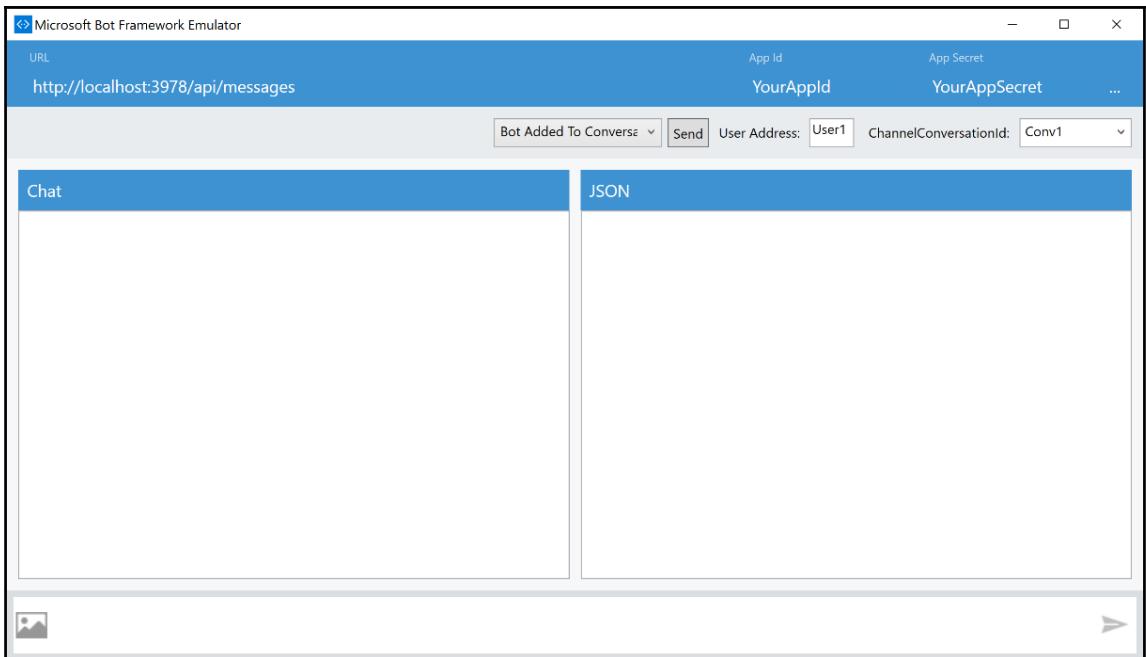


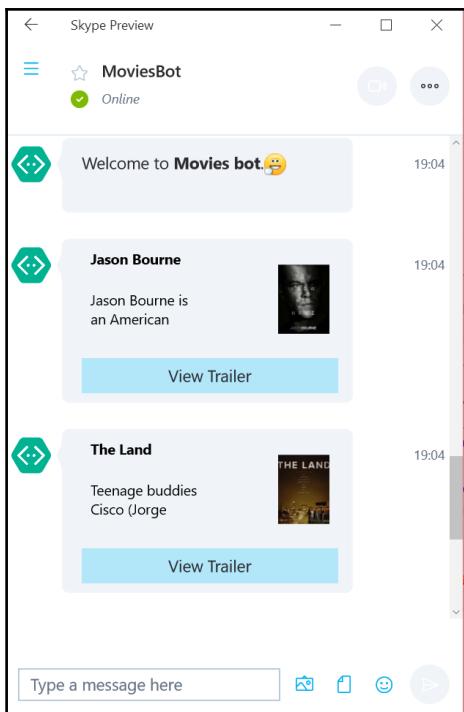
Your Bot

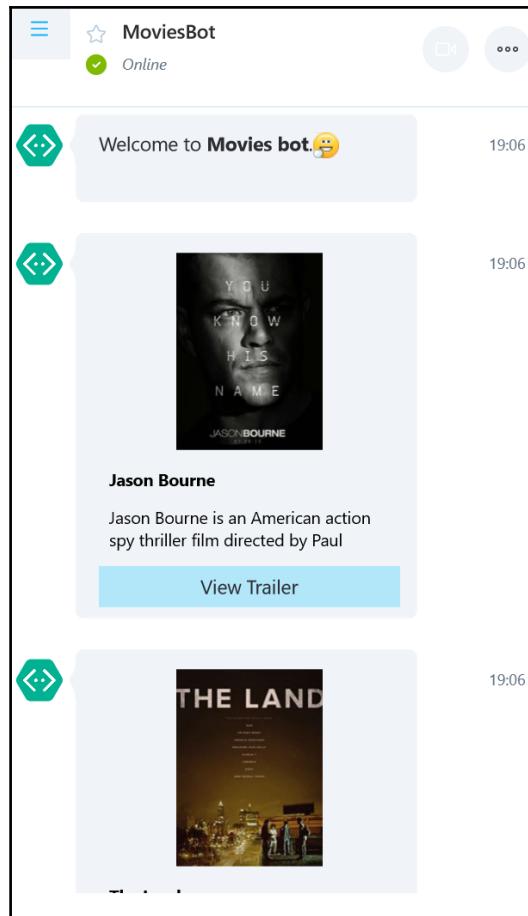
- Build with C# or Node.js
- You host your bot
- Dialogs to model a conversation
- Many types of dialog
- Natural Language Understanding (LUIS)

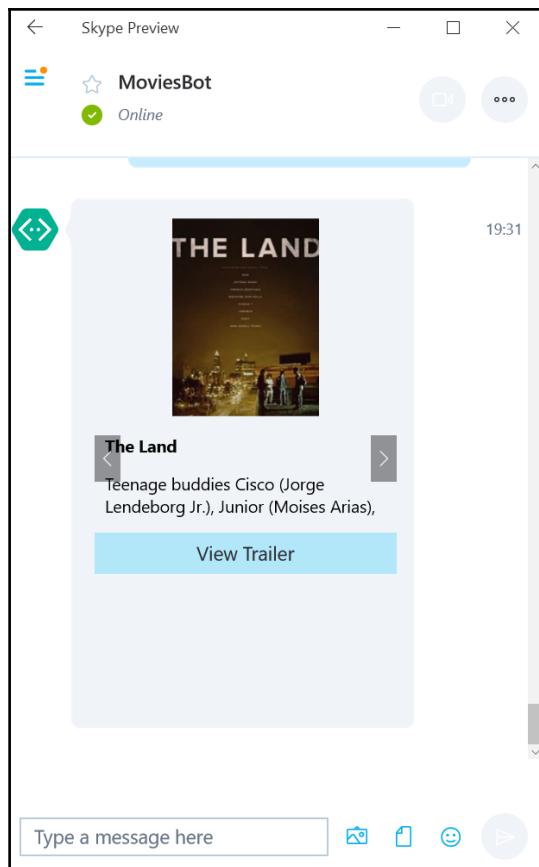


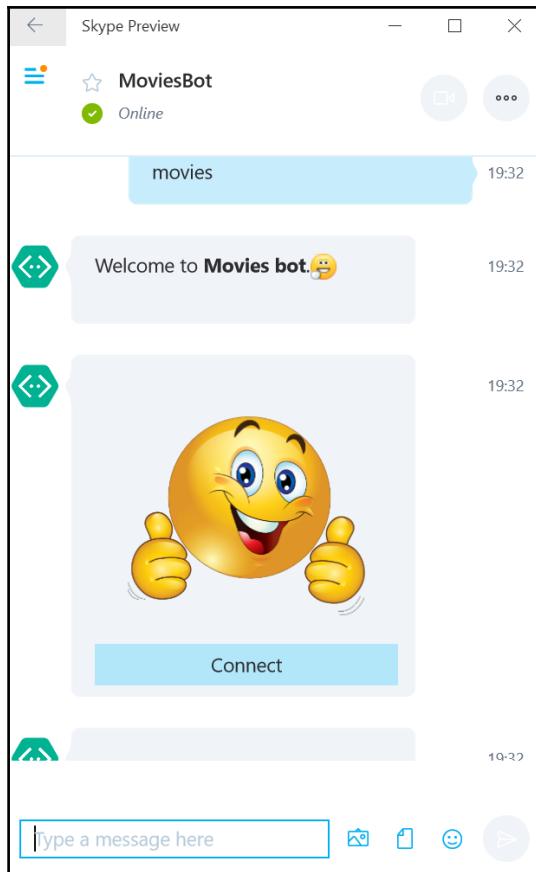












Jason Bourne

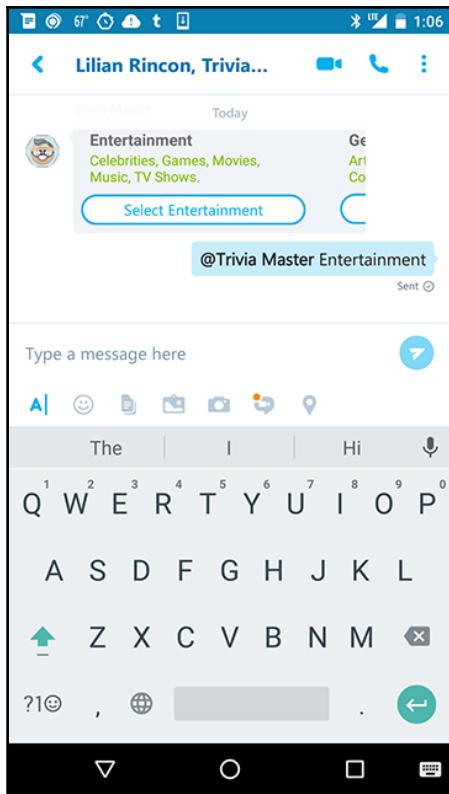
Fox Theater

Morning Show
270



Tax 27.55
Total 297.55

Confirmed



Groups. [Learn more](#)

Group messaging

On

Chapter 2:

Developing Your First Bot Using the Connector and Builder SDK

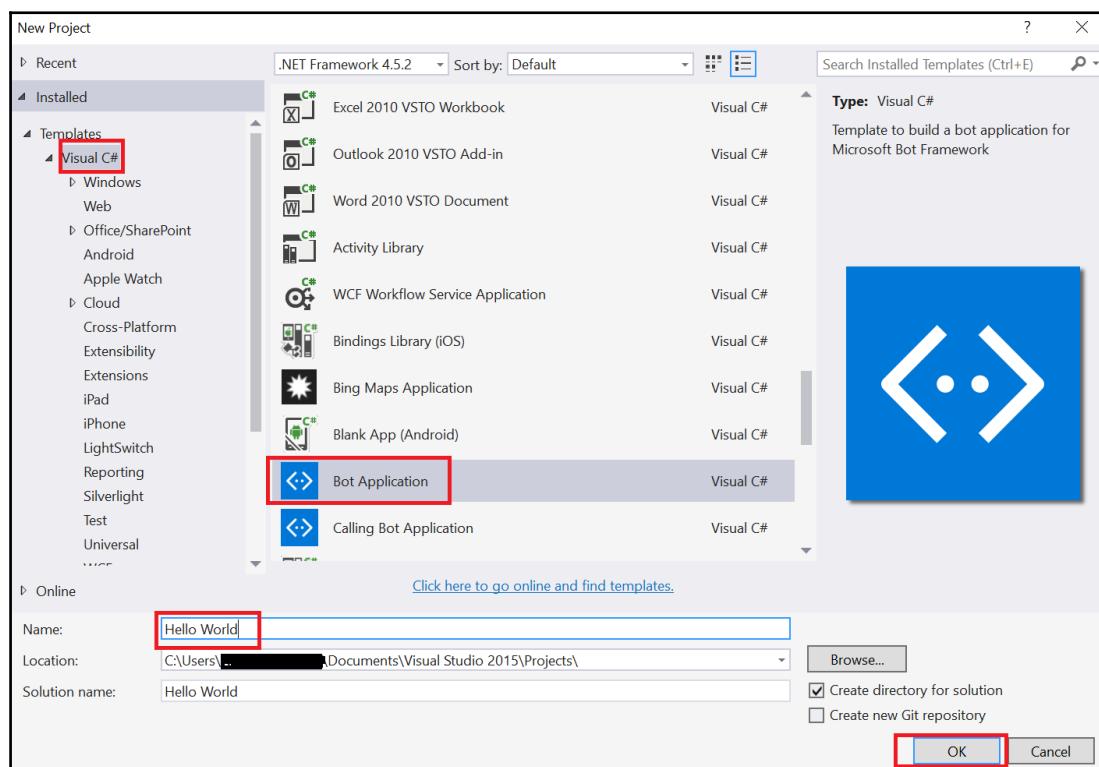
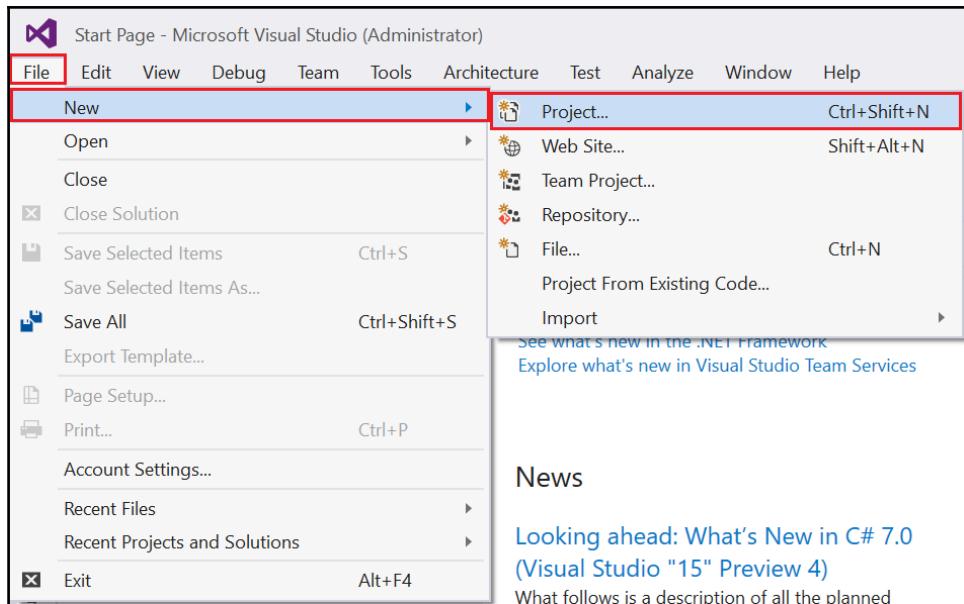
Channels

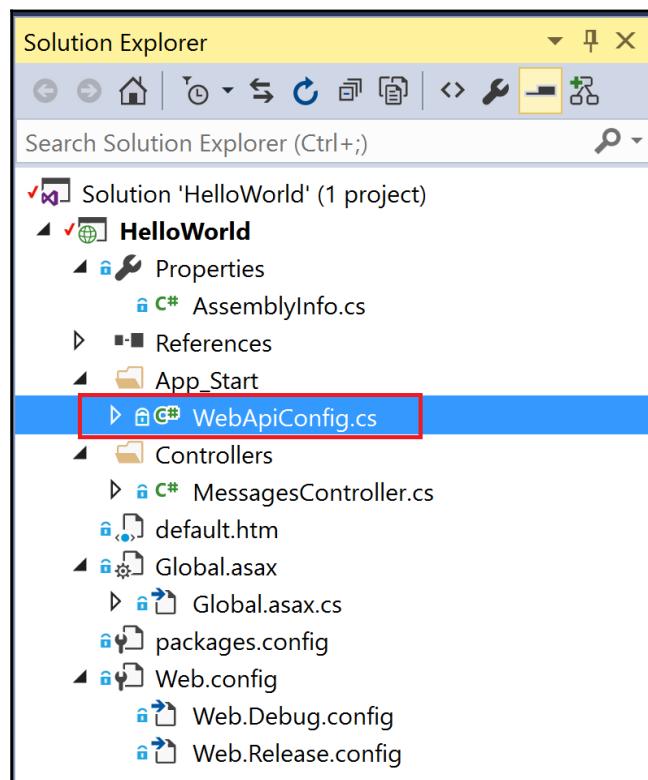
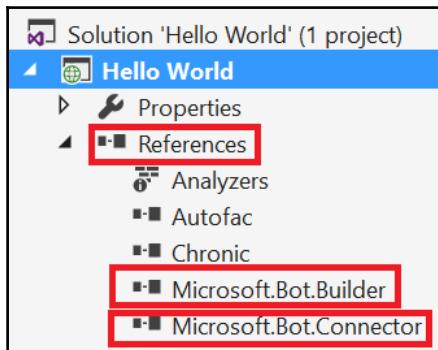
	Test link	Status	Published	
 Facebook Messenger		Running	<input checked="" type="checkbox"/> On	Edit
 Web Chat		Disabled	<input checked="" type="checkbox"/> On	Edit

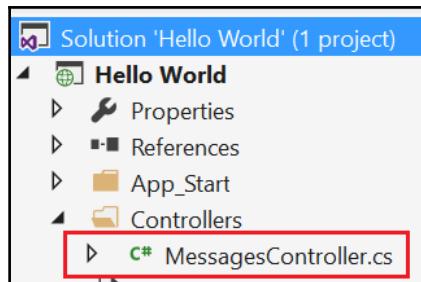
[Get bot embed codes](#)

Add another channel

 Direct Line	Add
 Email	Add
 GroupMe	Add
 Kik	Add
 Skype	Add
 Slack	Add
 SMS	Add
 Telegram	Add







```
<configuration>
  <appSettings>
    <!-- update these with your BotId, Microsoft App Id and your Microsoft App Password-->
    <add key="BotId" value="YourBotId" />
    <add key="MicrosoftAppId" value="" />
    <add key="MicrosoftAppPassword" value="" />
  </appSettings>
```

localhost:3979

Hello_World

Describe your bot here and your terms of use etc.

Visit [Bot Framework](#) to register your bot. When you register it, remember to set your bot's endpoint to
`https://your_bots_hostname/api/messages`

localhost:3979

Hello_World

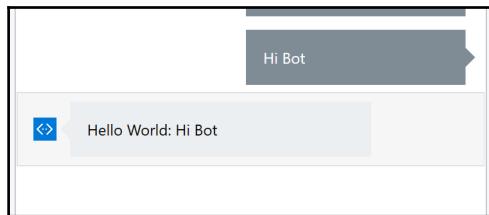
Describe your bot here and your terms of use etc.

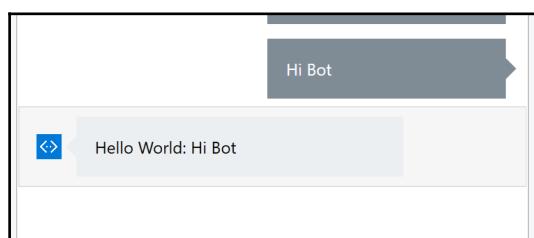
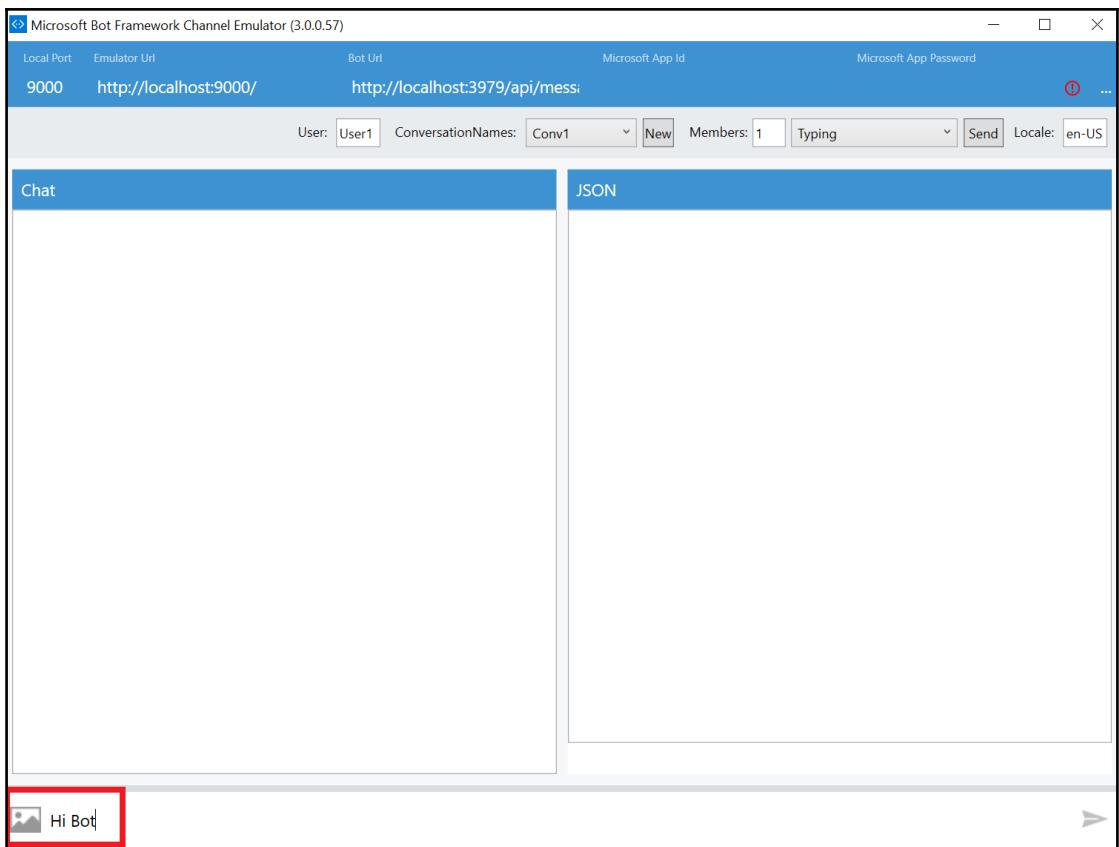
Visit [Bot Framework](#) to register your bot. When you register it, remember to set your bot's endpoint to
`https://your_bots_hostname/api/messages`

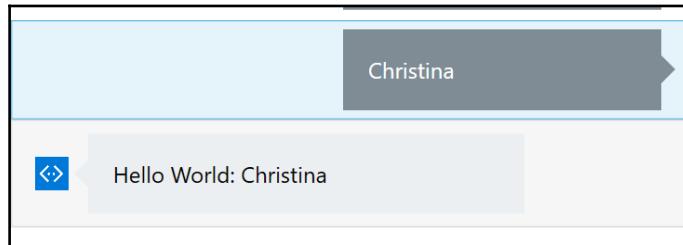
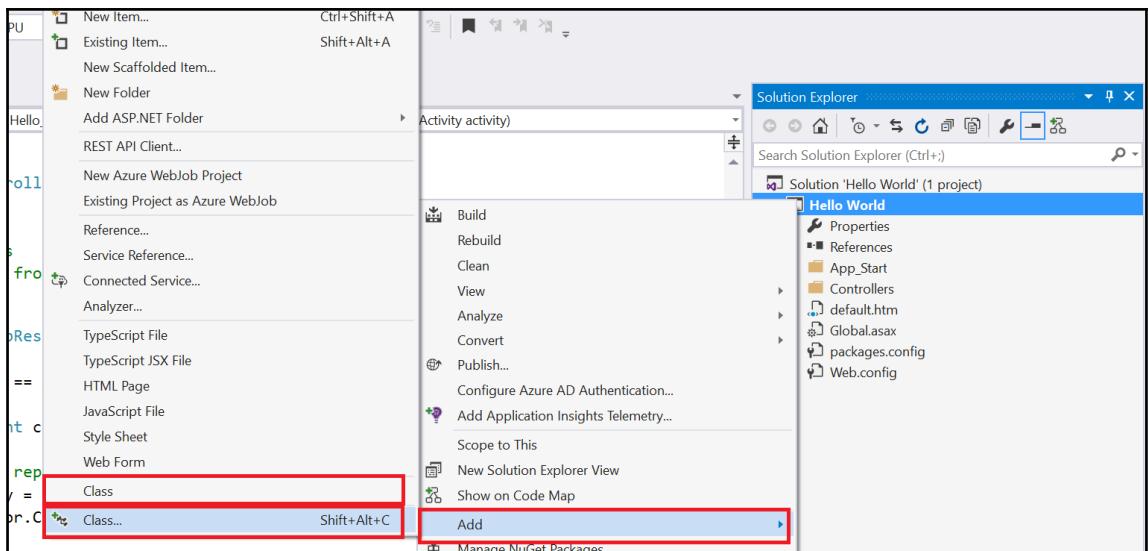


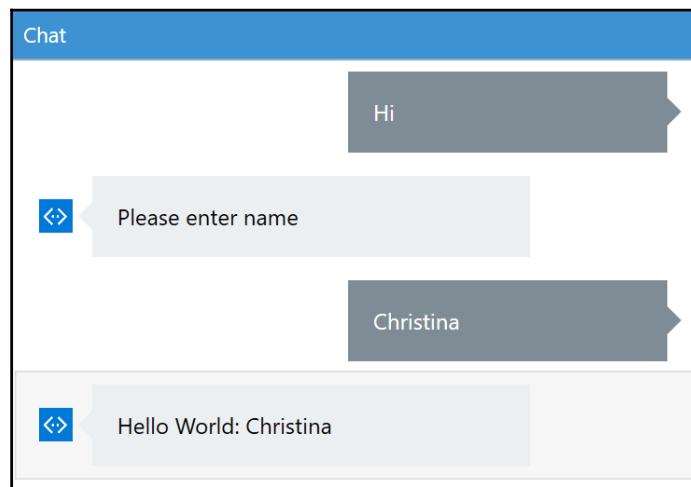
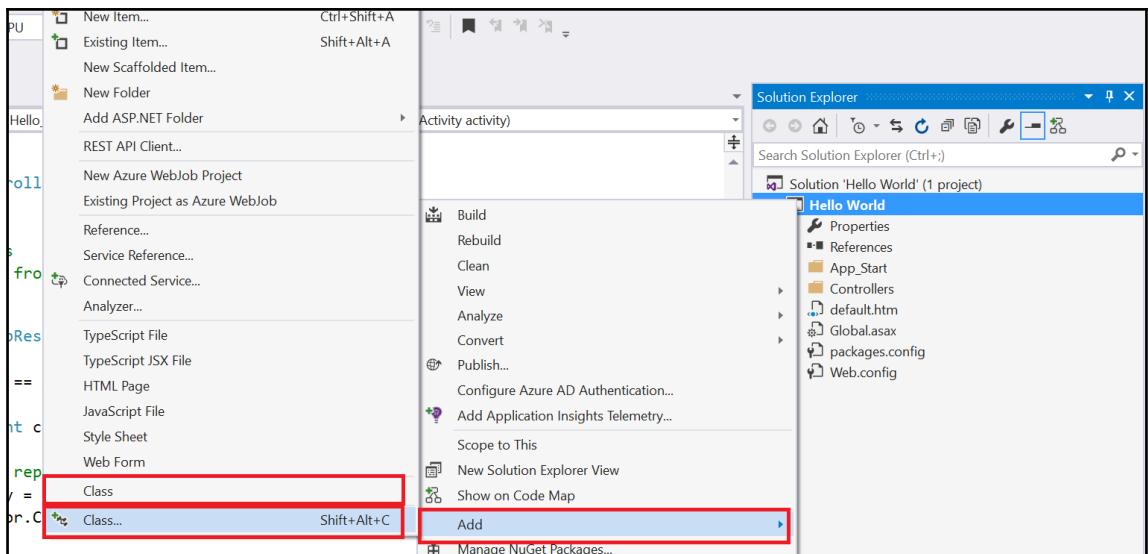
```
0 references
public async Task<HttpResponseMessage> Post([FromBody]Activity activity)
{
    if (activity.Type == ActivityTypes.Message)
    {
        ConnectorClient connector = new ConnectorClient(new Uri(activity.ServiceUrl));

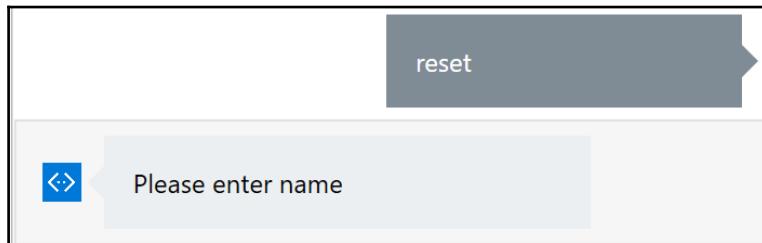
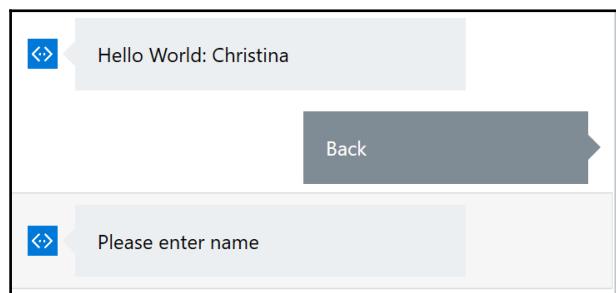
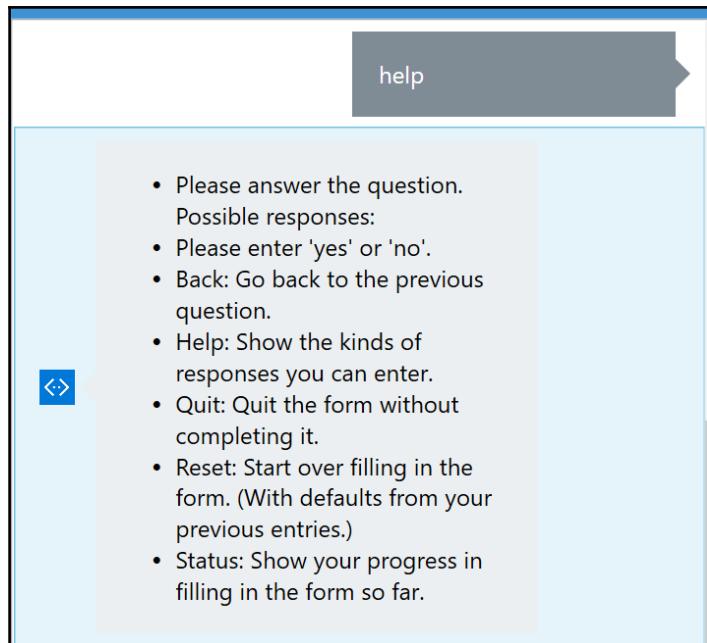
        // return our reply to the user
        Activity reply = activity.CreateReply($"Hello World: {activity.Text}");
        await connector.Conversations.ReplyToActivityAsync(reply);
    }
    else
    {
        HandleSystemMessage(activity);
    }
    var response = Request.CreateResponse(HttpStatusCode.OK);
    return response;
}
```











Chapter 3:

Developing WeatherBot Using Dialogs and LUIS

Language Understanding (LUIS)

- Create language understanding models
- Add conversational intelligence
- Pre-built, world class models (Bing & Cortana)
- Action fulfillment capabilities
- Deploy to HTTP
- Activate on any device
- Maintain with ease

[Home](#)[APIs](#) ▾[Applications](#)[Developers](#) ▾[Pricing](#)

Cognitive Services APIs

Tap into the power of machine learning with easy-to-use REST APIs.

[Get started for free](#)

Put intelligence APIs to work

Microsoft Cognitive Services let you build apps with powerful algorithms using just a few lines of code. They work across devices and platforms such as iOS, Android, and Windows, keep improving, and are easy to set up.

See just one of the many insights we can infer from your data with this demo of the

Microsoft Cognitive Services

My account

Home APIs Applications Developers Pricing

Vision	Speech	Language	Knowledge	Search
Computer Vision	Bing Speech	Bing Spell Check	Academic	Bing Autosuggest
Emotion	Custom Recognition	Language Understanding	Entity Linking	Bing Image Search
Face	Speaker Recognition	Linguistic Analysis	Knowledge Exploration	Bing News Search
Video		Text Analytics	Recommendations	Bing Video Search
		WebLM		Bing Web Search

Still looking for the right API? See the entire collection >

Put intelligence APIs to work

Microsoft Cognitive Services let you build apps with powerful algorithms using just a few lines of code. They work across devices and platforms such as iOS, Android, and Windows, keep improving, and are easy to set up.

See just one of the many insights we can infer from your data with this demo of the <https://www.microsoft.com/cognitive-services/en-us/language-understanding-intelligent-service-lab>.
COMING SOON! We don't keep any images uploaded to this demo.

The screenshot shows a Microsoft Edge browser window displaying the Microsoft Cognitive Services website. The URL in the address bar is microsoft.com/cognitive-services. The page features a navigation menu with links for Home, APIs, Applications, Developers, and Pricing. Below the menu is a grid of service categories. The 'Language Understanding' service under the 'Language' column is highlighted with a red box. A call-to-action section below the grid encourages users to put intelligence APIs to work and provides a demo link. The bottom of the screen shows the Windows taskbar with various pinned icons and the system tray indicating the date and time as 13-10-2016 at 13:43.



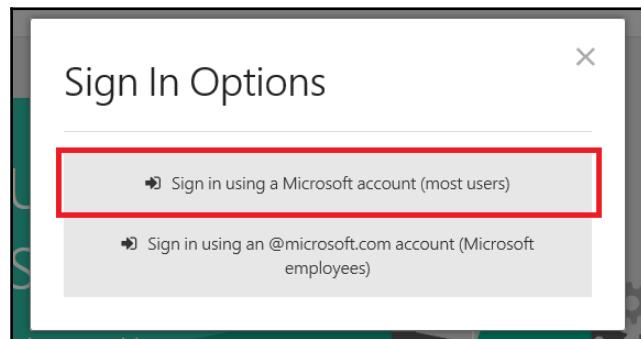
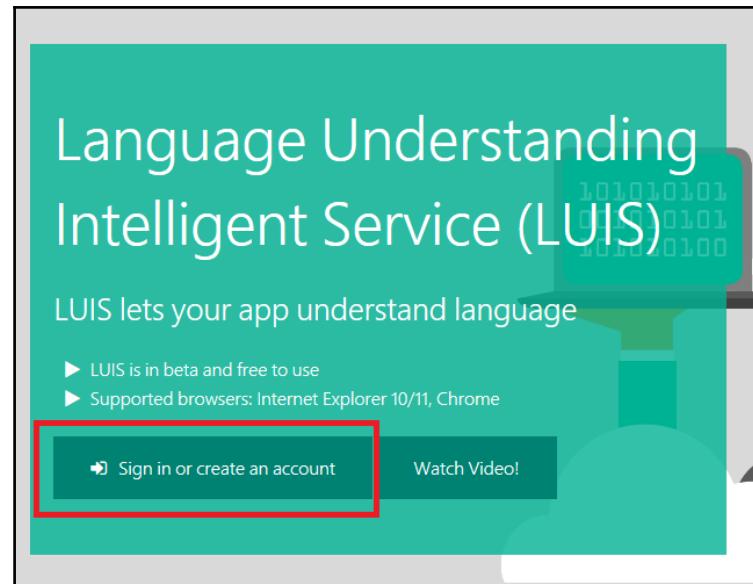
Language Understanding Intelligent Service (LUIS)

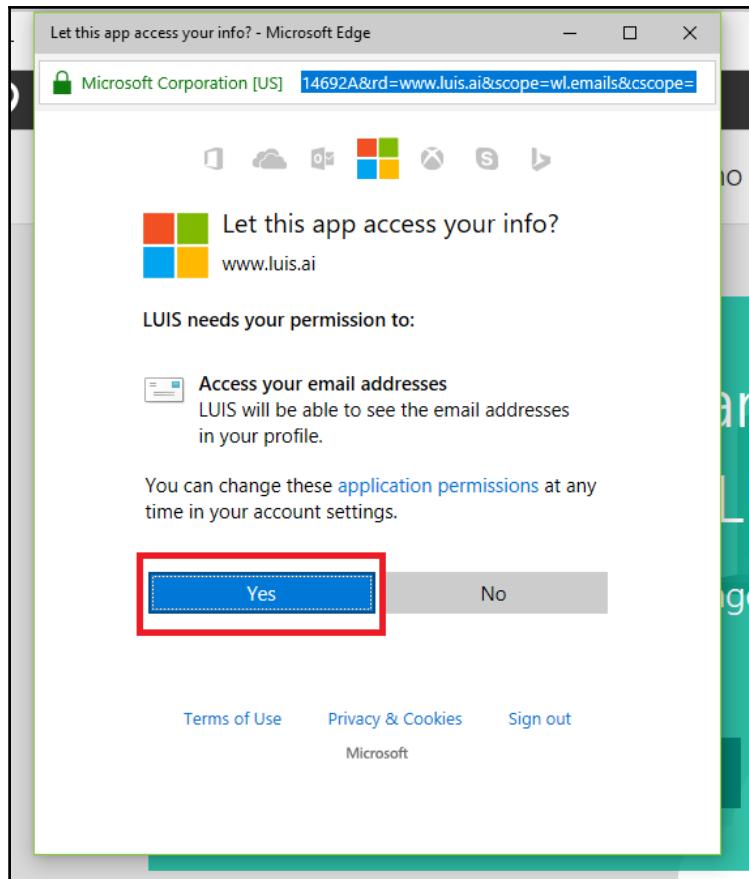
Understand language contextually, so your app communicates with people in the way they speak.

[Get started for free](#)[Documentation](#)[SDK](#)[Language Understanding \(Beta\)](#)

Create language understanding models

One of the key problems in human-computer interactions is the ability of the computer to understand what a person wants, and to find the pieces of information that are relevant to their intent. LUIS is designed to provide you with an easy way to create models, which allow





 Additional Info and Terms of use, Privacy, and Cookies

To help serve our users better, we need you to fill in the following details

Country*
Afghanistan

Organization/Company*
Enter Organization Here ...

How did you hear about us? *
Choose an option ...

Contact me with promotional offers and updates about Cognitive Services.

agree to the "Microsoft Cognitive Services" Preview – Online Services Agreement and the [Privacy & Cookies statement](#).



[Privacy & Cookies](#) [Terms of use](#) [Developer Code of Conduct](#) [Trademarks](#) © 2016 Microsoft

 My Applications About Help Docs Support 

The programmatic API keys will no longer be used in the endpoint starting 31/12/2016! 

My Applications

[+ New App](#) [Cortana pre-built apps](#) [Start Tutorial](#) Sort by Application Name

Let's get started

Build a new language understanding application...

[Privacy & Cookies](#) [Terms of use](#) [Developer Code of Conduct](#) [Trademarks](#) © 2016 Microsoft
<https://www.luis.ai/application/list>

The programmatic API keys will no longer be used in the endpoint starting 31/12/2016!

My Applications

+ New App ▾ Cortana pre-built apps ▾ Start Tutorial Sort by Application Name

Let's get started
Build a new language understanding application...

Privacy & Cookies Terms of use Developer Code of Conduct Trademarks © 2016 Microsoft

<https://www.luis.ai/application/list>

LUIS: My Applications +
luis.ai/application/list

My Applications

+ New App ▾ Cortana pre-built apps ▾ Start Tutorial Sort by Application Name

New Application Import Existing Application

Privacy & Cookies Terms of use Developer Code of Conduct Trademarks © 2016 Microsoft

Add a new application

Enter application name

WeatherBot

Enter application usage scenario

Bot

Choose application domain(s)

Booking &

Business

Comics

Reference

Education

Finance

Communication
 Gaming

Entertainment

Health &

Home

Media &

Video

News &

Magazines

Social

Network

Medical

Personalization

Sports

Transportation

Fitness

Music &

Productivity

Scheduler

Telecom

Translation

Automation

Navigation &

Maps

Real Estate

Shopping

Tools

Travel &

Local

Weather

Others

Enter application description (optional)

Weather Bot

Choose Application Culture

English

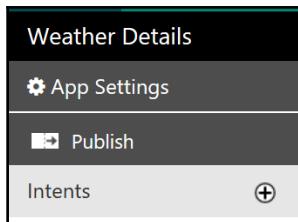
Enter application description (optional)

Application description (optional) ...

Choose Application Culture

English

Add App



Add a new intent

Intent name:

+ Add Action

Delete Save Cancel

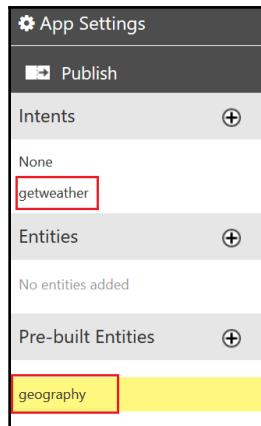


Pre-built entities

Which Bing entity do you want to add?

- Monetary amounts, including currency
1000.00 US dollars, £20.00, \$ 67.5 B
- age
Age of a person or thing
10-month-old, 19 years old, 58 year-old
- geography
Continents, Countries, Cities, Post codes, and other points of interest
Antarctica, Portugal, Dubai, Sanjiang County, Lake Pontchartrain, CB3 0DS
- encyclopedia
People, organizations, products, and hundreds of other types found in an encyclopedia
Acer Aspire, Harvard Business School, Jagiellonian Rowing Club, Steve Miller Band, Beijing Capital International Airport, Amsterdam Light Festival, Microsoft

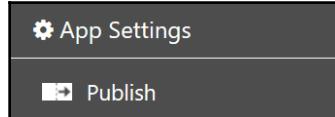
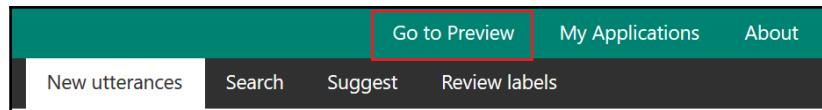
OK



The screenshot shows the 'New utterances' interface. At the top is a navigation bar with tabs: 'New utterances' (highlighted), 'Search', 'Suggest', and 'Review labels'. Below the navigation bar is a text input field containing the placeholder 'Please, enter an utterance.' To the right of the input field is a yellow arrow button. The main area is currently empty.

The screenshot shows the 'New utterances' interface after entering an utterance. The text input field now contains 'What is the current weather in Ashburn, Virginia'. To the right of the input field is a yellow arrow button. Below the input field, a message states: 'This utterance has already been labeled. You can make changes to the label, or type in a different utterance.' Below this message, the utterance is shown again with two red boxes highlighting the words 'ashburn' and 'virginia'. To the right of the utterance is a dropdown menu showing 'getweather(1)' with a downward arrow. Below the dropdown is a large green 'Submit' button, which is also highlighted with a red border.





HTTP service

Publish Current Application to URL for access via HTTP

Status: Published on 22/9/2016, 2:29:52 PM

Update published application

Query:

URL: [https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=\[REDACTED\]](https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=[REDACTED])

Note: To enable bot integration, enable action fulfillment in one of your intents.

Enable Action Binding using Microsoft Bot Framework

Note: The Slack bot integration feature will be discontinued. Please migrate any slack bots you created to Microsoft Bot Framework

Enable Action Binding using Slack

[Download web service usage logs](#) [Download logs](#)

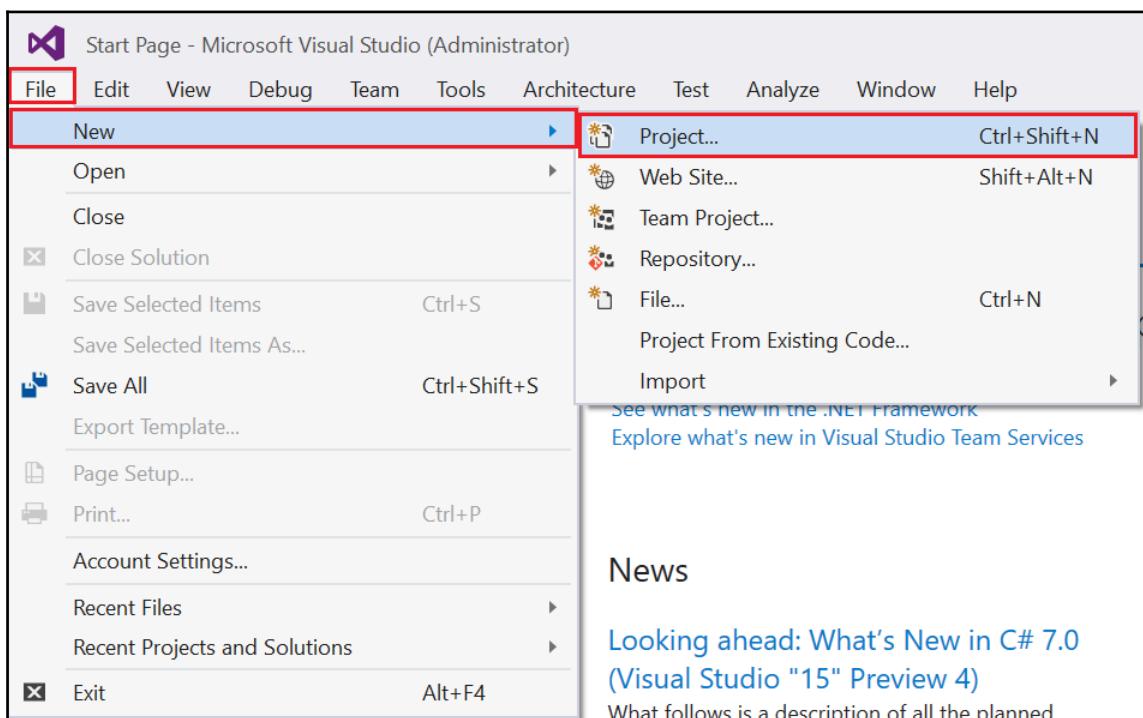
Query:

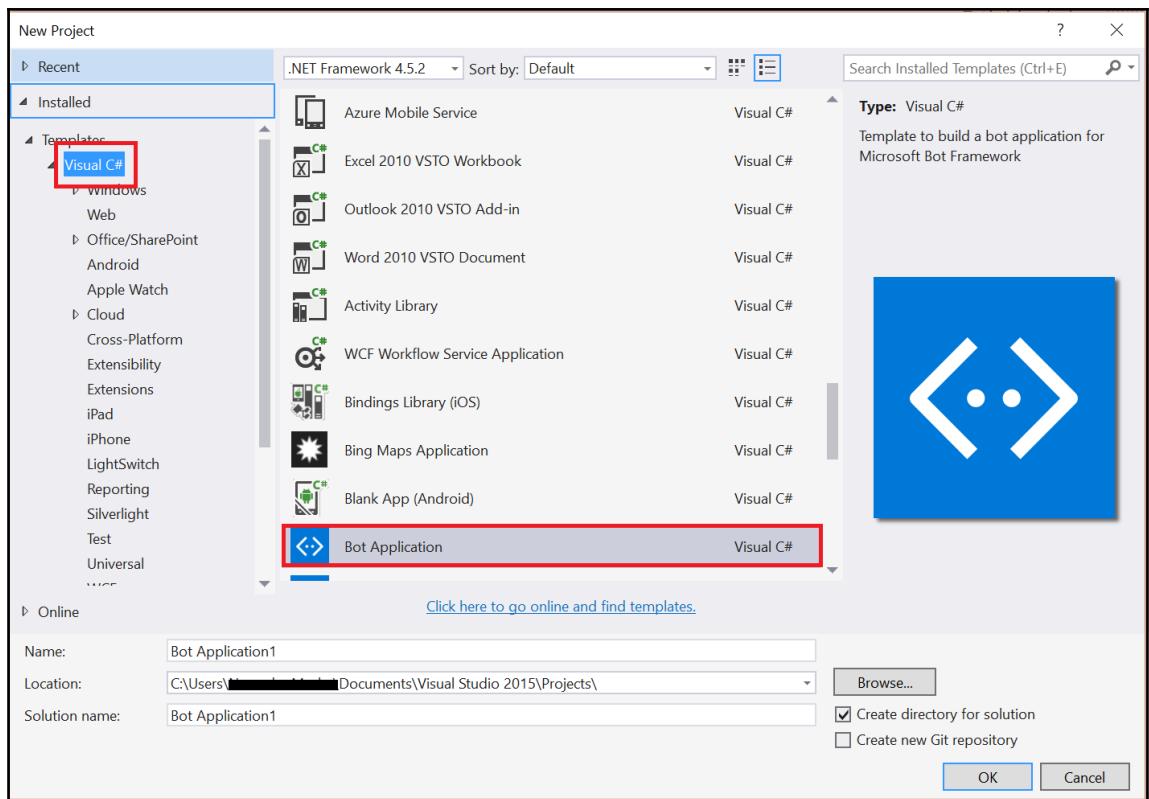
Get weather in Seattle

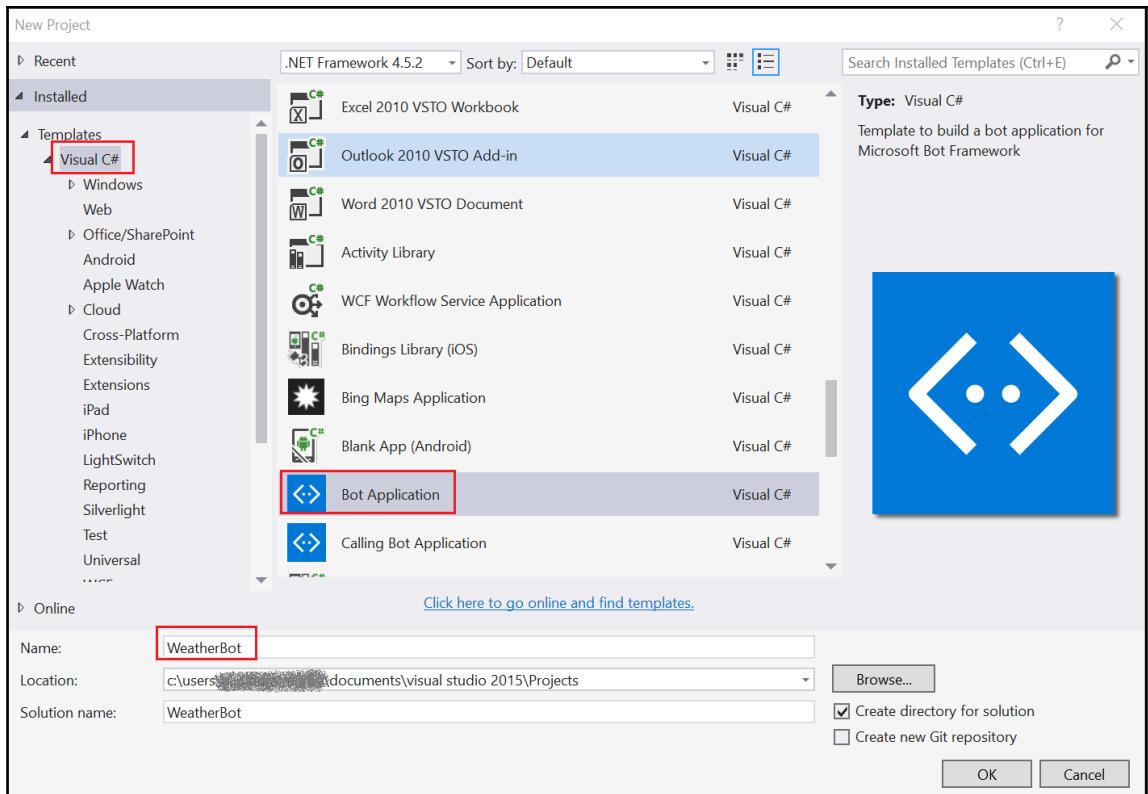
A screenshot of a web browser displaying a JSON response from the LUIS API. The URL in the address bar is <https://api.projectoxford.ai/luis/v1/application>. The JSON data shows a query "Get weather in Seattle" with a top-scoring intent "getweather" and an entity "seattle" of type "builtin.geography.city".

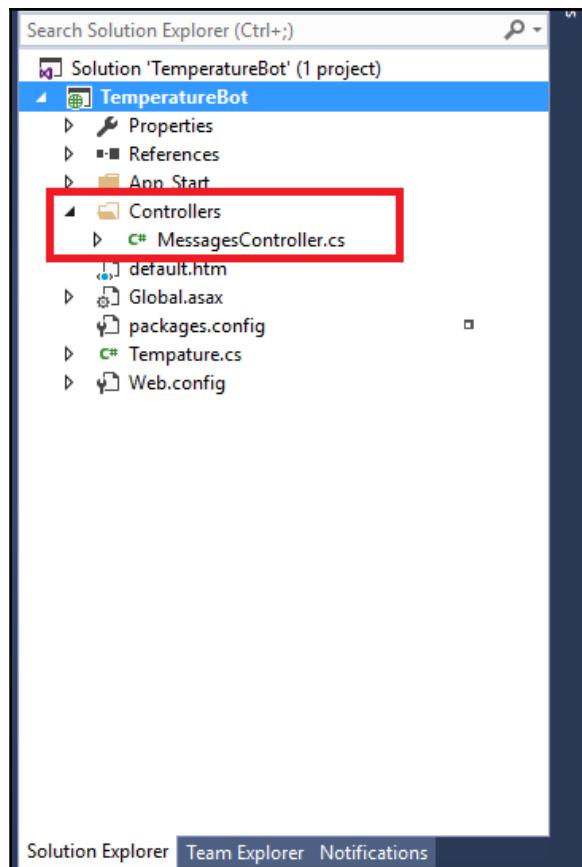
```
{  
    "query": "Get weather in Seattle",  
    "topScoringIntent": {  
        "intent": "getweather",  
        "score": 0.999995  
    },  
    "entities": [  
        {  
            "entity": "seattle",  
            "type": "builtin.geography.city",  
            "startIndex": 15,  
            "endIndex": 21,  
            "score": 0.9073885  
        }  
    ]  
}
```

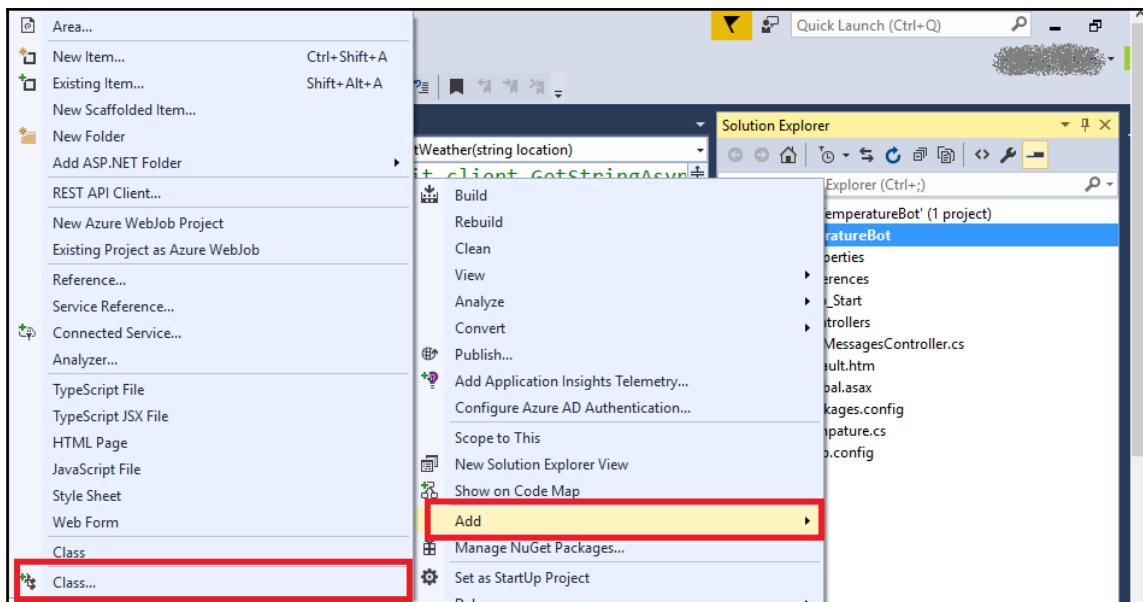
URL: [https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=\[REDACTED\]&version=2015-09-01&timezoneOffset=-300&q=](https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=[REDACTED]&version=2015-09-01&timezoneOffset=-300&q=)











[[Serializable](#)]

1 reference | Kishoreismac, 17 hours ago | 1 author, 1 change

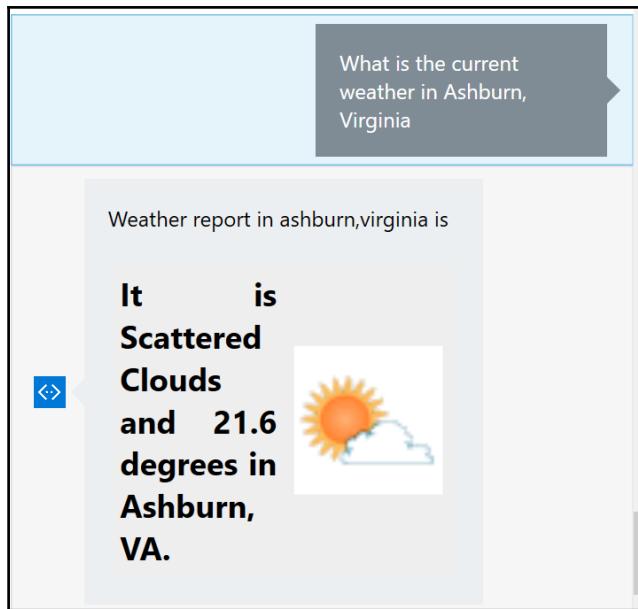
```
public class WeatherDialog: IDialog<object>
{
    0 references | Kishoreismac, 17 hours ago | 1 author, 1 change
    public async Task StartAsync(IDialogContext context)
    {
        context.Wait(MessageReceivedAsync);
    }
}
```

0 references | Kishoreismac, 17 hours ago | 1 author, 1 change

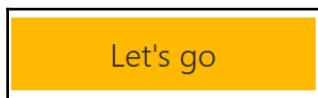
```
public async Task StartAsync(IDialogContext context)
{
    context.Wait(MessageReceivedAsync);
}
```

0 references | Kishoreismac, 17 hours ago | 1 author, 1 change

```
public async Task StartAsync(IDialogContext context)
{
    context.Wait(MessageReceivedAsync);
}
```



The image shows the Microsoft Cognitive Services homepage. At the top, there is a navigation bar with the Microsoft logo, followed by the text "Cognitive Services" and links for "Home", "APIs", "Applications", "Developers", and "Pricing". Below the navigation bar, the main heading is "Cognitive Services APIs" with the subtext "Tap into the power of machine learning with easy-to-use REST APIs.". A prominent yellow button with the text "Get started for free" is located in the center. The background of the page is dark with a blurred image of a person working at a computer.

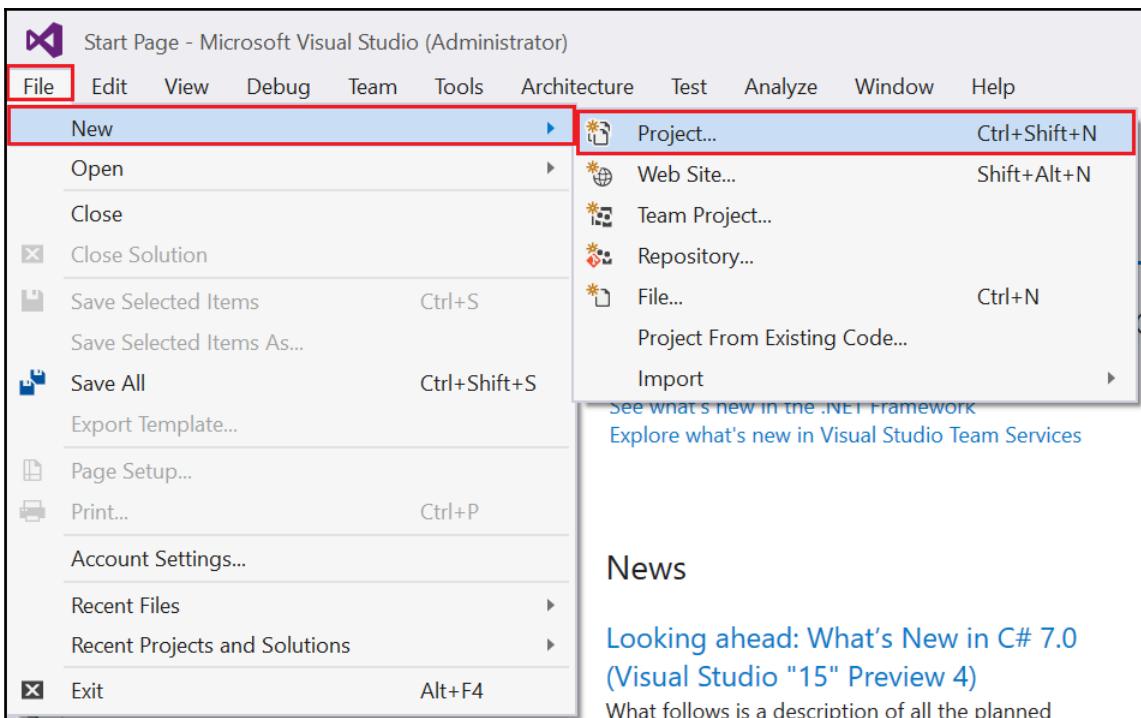


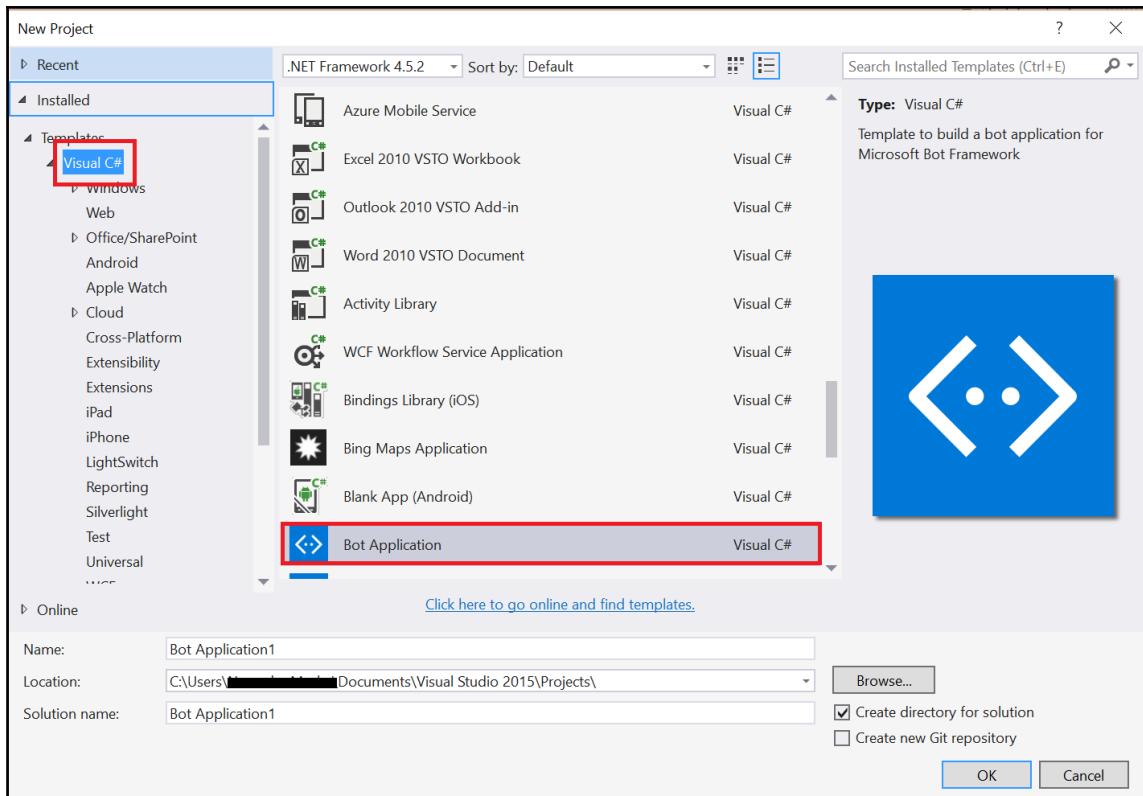
My account

My free subscriptions (15)

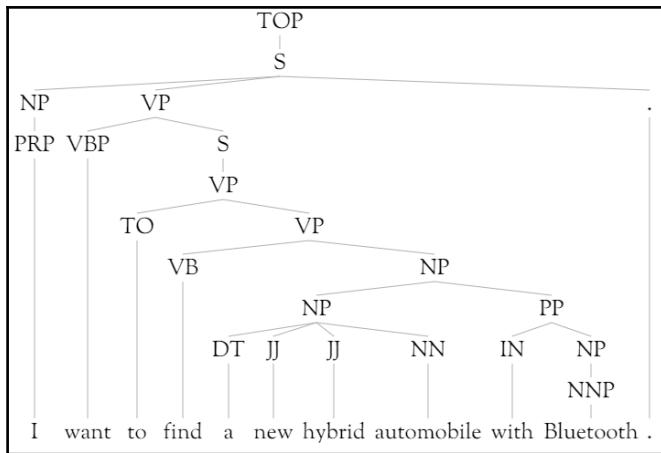
[Request new trials](#)

Product	Description	Keys	State	Created	Quota	
Recommendations - Preview	10,000 transactions per month.	Key 1: XXXXXXXXXXXXXXXXXXXX Regenerate Show Copy Key 2: XXXXXXXXXXXXXXXXXXXX Regenerate Show Copy	active	6/4/2016 7:01:59 PM	Show Quota	Buy On Azure  Cancel
Text Analytics - Preview	5,000 transactions per month.	Key 1: XXXXXXXXXXXXXXXXXXXX Regenerate Show Copy Key 2: XXXXXXXXXXXXXXXXXXXX Regenerate Show Copy	active	6/4/2016 7:01:59 PM	Show Quota	Buy On Azure  Cancel
Academic - Preview	10,000 transactions per month, 3 per second for interpret, 1 per second for evaluate, 6 per minute for calcHistogram.	Key 1: XXXXXXXXXXXXXXXXXXXX Regenerate Show Copy Key 2: XXXXXXXXXXXXXXXXXXXX Regenerate Show Copy	active	6/4/2016 7:01:58 PM	Show Quota	Buy On Azure  Cancel





This screenshot shows a 'Linguistic Analysis' configuration page. On the left, there's a section for 'Linguistic Analysis' with a 'Preview' link. The main area displays a quota: '5,000 transactions per month, 2 per second.' To the right, there are two keys: 'Key 1:' and 'Key 2:', each consisting of a long string of XXXXXXXXX characters. Below each key are 'Regenerate', 'Show', and 'Copy' buttons. To the right of the keys, status information is shown: 'active 6/4/2016 7:01:58 PM' and 'Quota Show Quota'. At the bottom right is a 'Cancel' button.



The screenshot shows the Microsoft App Studio interface. The title bar says "My Applications". Below it are three buttons: "+ New App", "Cortana pre-built apps", and "Start Tutorial".

The screenshot shows the "Add a new application" form. It includes fields for "Enter application name" (containing placeholder text), "Enter application usage scenario" (set to "Bot"), and "Enter application description (optional)" (containing placeholder text). A large section titled "Choose application domain(s)" lists various categories with checkboxes. The checked categories are: Reference, Entertainment, Personalization, Sports, and Transportation.

Add a new application

Enter application name
[Placeholder]

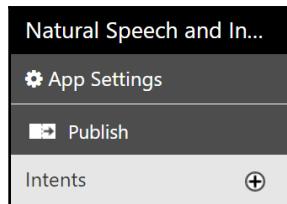
Enter application usage scenario
Bot

Choose application domain(s)

<input type="checkbox"/> Booking &	<input type="checkbox"/> Business	<input type="checkbox"/> Comics	<input type="checkbox"/>
<input type="checkbox"/> Reference	<input type="checkbox"/>	<input type="checkbox"/> Finance	<input type="checkbox"/> Communication
<input type="checkbox"/> Education	<input type="checkbox"/>	<input type="checkbox"/> Health &	<input type="checkbox"/> Gaming
		<input type="checkbox"/> Fitness	<input type="checkbox"/> Home
		<input type="checkbox"/> Music &	<input type="checkbox"/> Automation
<input type="checkbox"/> Media &	<input type="checkbox"/> Medical	<input type="checkbox"/> Productivity	<input type="checkbox"/> Navigation &
<input type="checkbox"/> Video	<input type="checkbox"/>	<input type="checkbox"/> Scheduler	<input type="checkbox"/> Maps
<input type="checkbox"/> News &	<input type="checkbox"/>	<input type="checkbox"/> Telecom	<input type="checkbox"/> Real Estate
Magazines	Personalization	<input type="checkbox"/> Translation	<input type="checkbox"/> Shopping
<input type="checkbox"/> Social	<input type="checkbox"/> Sports	<input type="checkbox"/>	<input type="checkbox"/> Tools
Network	<input type="checkbox"/>	<input type="checkbox"/> Others	<input type="checkbox"/> Travel &
<input type="checkbox"/> Weather			<input type="checkbox"/> Local

Enter application description (optional)
[Placeholder]

Choose Application Culture
English



Add a new intent

Intent name:
NaturalProcessing

Add a new Entity

Name

Delete Save Cancel

Add a new Entity

Company

Delete Save Cancel



Pre-built entities



Which Bing entity do you want to add?

monetary amounts, including currency

1000.00 US dollars, £20.00, \$ 67.5 B

age

Age of a person or thing

10-month-old, 19 years old, 58 year-old

geography

Continents, Countries, Cities, Post codes, and other points of interest

Antarctica, Portugal, Dubai, Sanjiang County, Lake Pontchartrain, CB3 0DS

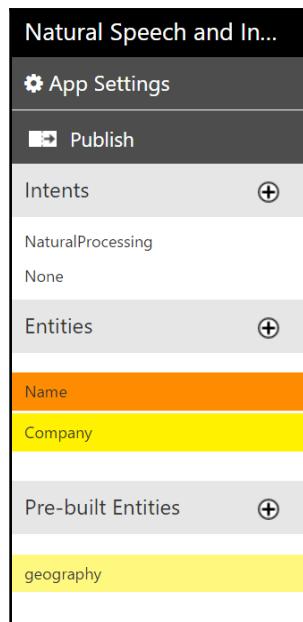
encyclopedia

People, organizations, products, and hundreds of other types found in an encyclopedia

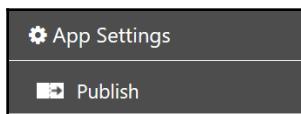
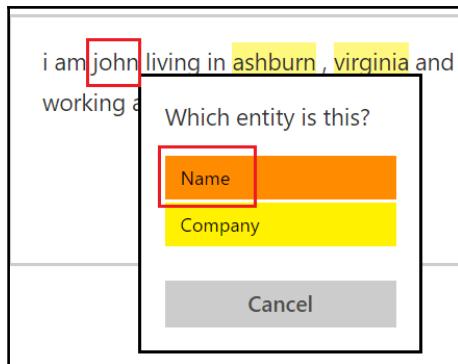
Acer Aspire, Harvard Business School, Jagiellonian Rowing Club, Steve Miller Band, Beijing Capital

International Airport, Amsterdam Light Festival, Microsoft

OK



The screenshot shows the Microsoft Bot Framework's utterance labeling interface. At the top, there are tabs: "New utterances", "Search", "Suggest", and "Review labels". The "Search" tab is active. Below the tabs, there is a text input field containing the sentence "I am John living in Ashburn, Virginia and working at Microsoft". To the right of the input field is a yellow "→" button. The sentence is then shown in a list with entities highlighted: "i am **john** living in **Ashburn**, **Virginia** and working at **microsoft**". To the right of the entities is a dropdown menu labeled "NaturalProcessing(1)". At the bottom right is a green "Submit" button.



HTTP service

(X)

Publish Current Application to URL for access via HTTP

Status: Published on 22/9/2016, 2:29:52 PM

Update published application

Query:

URL: [https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=\[REDACTED\]](https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=[REDACTED])

Note: To enable bot integration, enable action fulfillment in one of your intents.

Enable Action Binding using Microsoft Bot Framework

Note: The Slack bot integration feature will be discontinued. Please migrate any slack bots you created to Microsoft Bot Framework

Enable Action Binding using Slack

Download web service usage logs

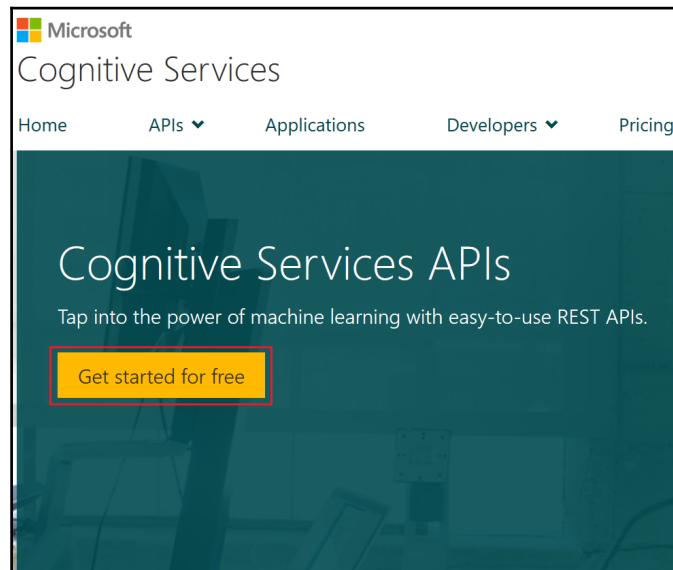
Download logs

URL: <https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=00000000000000000000000000000000&q=>

I am Kishore living in Ashburn, Virginia and working at Microsoft

 Speech and Natural Language Processing
Kishore is Noun
living is Verb
in is Preposition
Ashburn is Noun
Virginia is Noun
working is Verb
at is Preposition
Microsoft is Noun
Intent and Language Understanding Intelligence Service
Processing results are
Name: kishore
Company: microsoft
us_state : virginia
city : ashburn

Chapter 4: Natural Speech and Intent Processing Bot U sing Microsoft Cognitive Services



Let's go

My account 

Home APIs Apps Docs + Help Pricing Get started for free Sign out

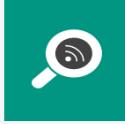
Hello, Kishore Gaddam! kishoreismac@outlook.com verified

you have already subscribed all products

 [Subscribe to new free trials](#)
Tap into the power of machine learning with easy to use REST APIs

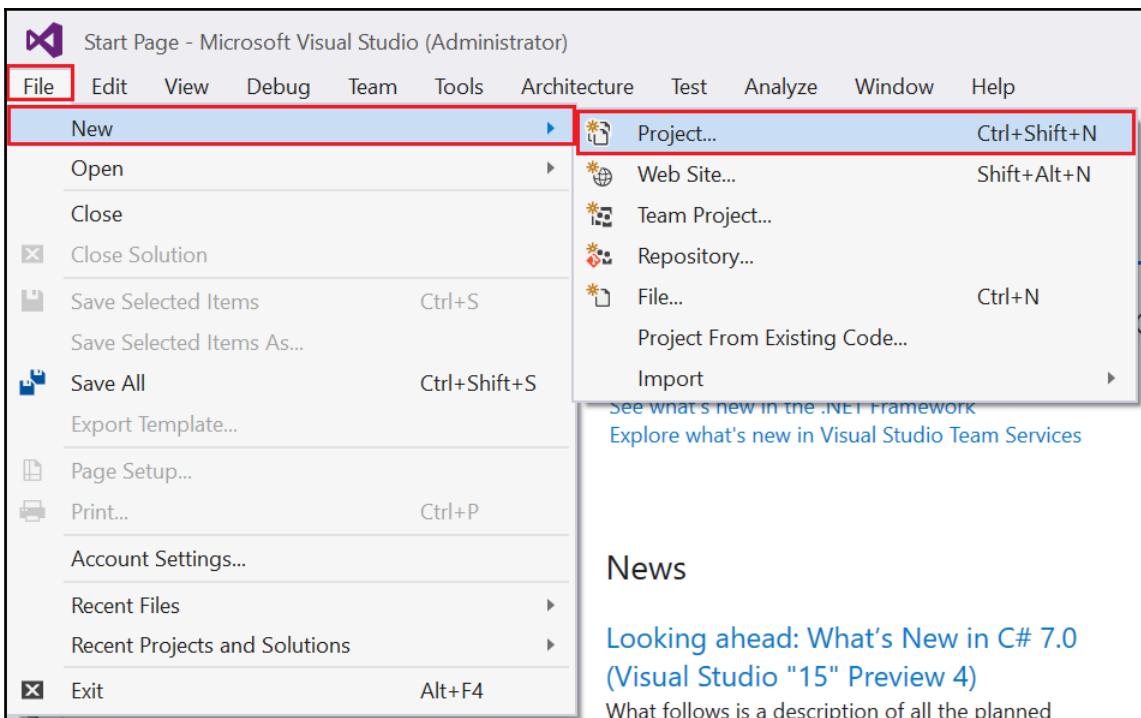
 **Bing Autosuggest - Free** Created on 6/4/2016 1:31:57 PM
10,000 transactions per month, 10 per second.
State: active
Key 1:XXXXXXXXXXXXXXXXXXXXXX
Key 2:XXXXXXXXXXXXXXXXXXXXXX [Regenerate](#) | [Show](#) | [Copy](#)
[Regenerate](#) | [Show](#) | [Copy](#)
[Show Quota](#)

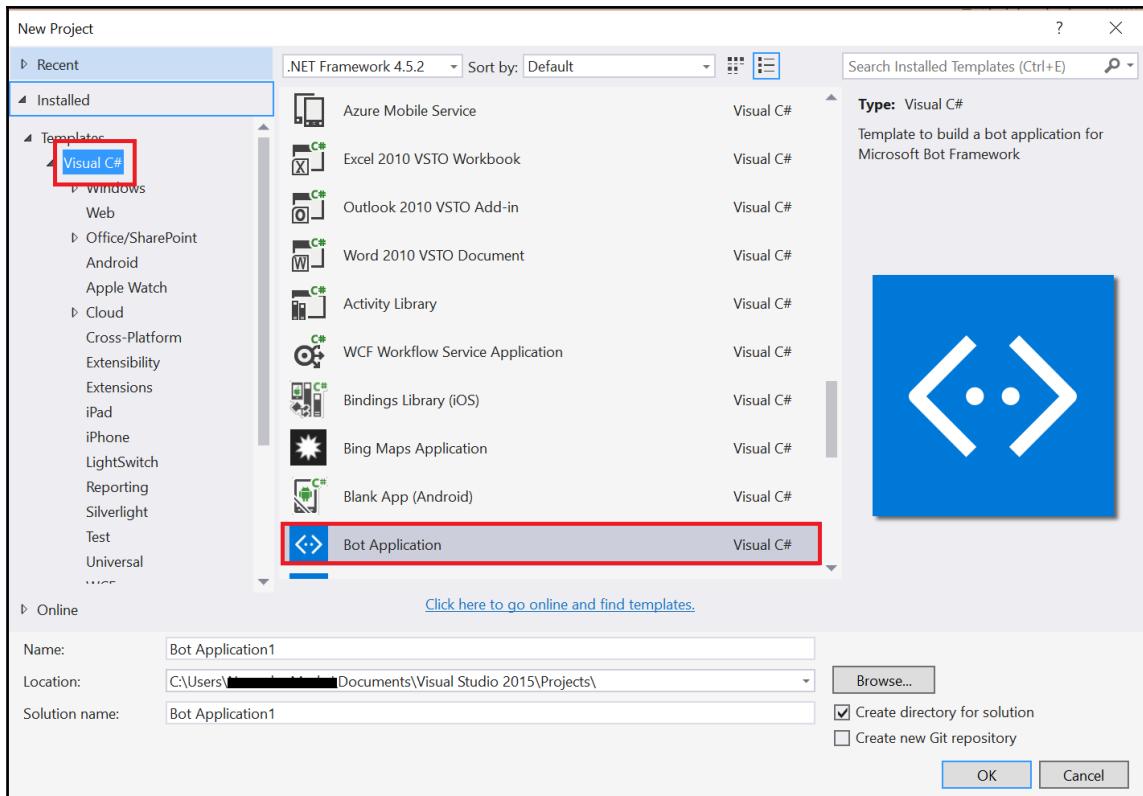
[Buy On Azure](#) [Cancel](#)

 **Bing Search - Free** Created on 6/4/2016 1:31:57 PM
Across all Bing Search APIs (Web, Image, Video, News): 1,000 transactions per month, 5 per second. Trial keys expire after a 90 day period, after which a subscription may be purchased on the Azure portal.
State: expired
Key 1:XXXXXXXXXXXXXXXXXXXXXX
Key 2:XXXXXXXXXXXXXXXXXXXXXX [Regenerate](#) | [Show](#) | [Copy](#)
[Regenerate](#) | [Show](#) | [Copy](#)
[Show Quota](#)

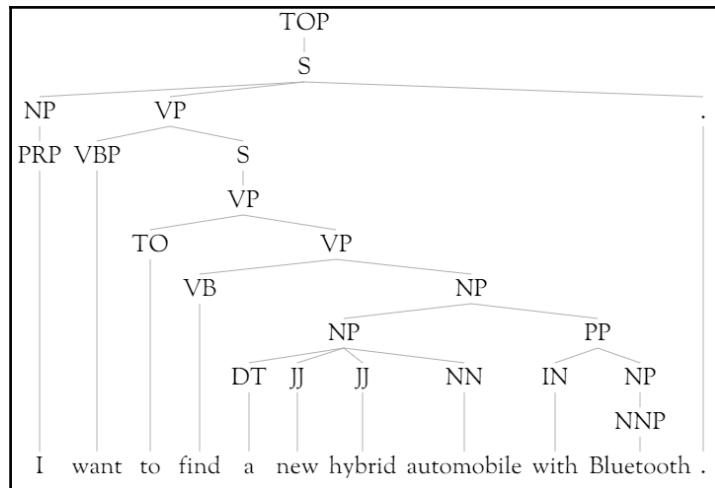
[Buy On Azure](#)

 **Bing Spell Check - Free** Created on 6/4/2016 1:31:57 PM
5,000 transactions per month, 7 per minute.
State: active
Key 1:XXXXXXXXXXXXXXXXXXXXXX
Key 2:XXXXXXXXXXXXXXXXXXXXXX [Regenerate](#) | [Show](#) | [Copy](#)
[Regenerate](#) | [Show](#) | [Copy](#)





This screenshot shows a 'Linguistic Analysis' configuration page. On the left, there's a section for 'Linguistic Analysis' with a 'Preview' link. The main area displays a quota: '5,000 transactions per month, 2 per second.' To the right, there are two keys: 'Key 1:' and 'Key 2:', each consisting of a long string of XXXXXXXXX characters. Below each key are 'Regenerate', 'Show', and 'Copy' buttons. To the right of the keys, status information is shown: 'active 6/4/2016 7:01:58 PM' and 'Quota Show Quota'. At the bottom right is a 'Cancel' button.



My Applications

+ New App



Cortana pre-built apps



Start Tutorial



Add a new application

Enter application name

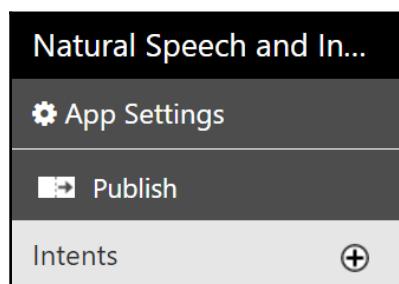
Enter application usage scenario

Choose application domain(s)

<input type="checkbox"/> Booking &	<input type="checkbox"/> Business	<input type="checkbox"/> Comics	<input type="checkbox"/>
Reference			Communication
<input type="checkbox"/> Education	<input type="checkbox"/>	<input type="checkbox"/> Finance	<input type="checkbox"/> Gaming
	Entertainment	<input type="checkbox"/> Health &	<input type="checkbox"/> Home
<input type="checkbox"/> Media &	<input type="checkbox"/> Medical	<input type="checkbox"/> Fitness	<input type="checkbox"/> Automation
Video		<input type="checkbox"/> Music &	<input type="checkbox"/> Navigation &
<input type="checkbox"/> News &	<input type="checkbox"/>	<input type="checkbox"/> Audio	<input type="checkbox"/> Maps
Magazines	Personalization	<input type="checkbox"/> Productivity	<input type="checkbox"/> Real Estate
<input type="checkbox"/> Social	<input type="checkbox"/> Sports	<input type="checkbox"/> Scheduler	<input type="checkbox"/> Shopping
Network	<input type="checkbox"/>	<input type="checkbox"/> Telecom	<input type="checkbox"/> Tools
		<input type="checkbox"/> Translation	<input type="checkbox"/> Travel &
<input type="checkbox"/> Weather	<input type="checkbox"/> Others		Local

Enter application description (optional)

Choose Application Culture



Add a new intent

Intent name:

NaturalProcessing

Add a new Entity

Name

Delete

Save

Cancel

Add a new Entity

Company

Delete

Save

Cancel

Pre-built Entities



Pre-built entities



Which Bing entity do you want to add?

monetary amounts, including currency

1000.00 US dollars, £20.00, \$ 67.5 B

age

Age of a person or thing

10-month-old, 19 years old, 58 year-old

geography

Continents, Countries, Cities, Post codes, and other points of interest

Antarctica, Portugal, Dubai, Sanjiang County, Lake Pontchartrain, CB3 0DS

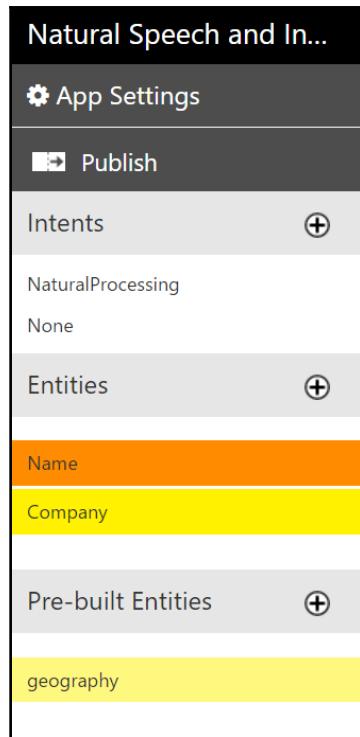
encyclopedia

People, organizations, products, and hundreds of other types found in an encyclopedia

Acer Aspire, Harvard Business School, Jagiellonian Rowing Club, Steve Miller Band, Beijing Capital

International Airport, Amsterdam Light Festival, Microsoft

OK



This screenshot shows a search interface for utterances. At the top, there is a dark header bar with four buttons: "New utterances", "Search", "Suggest", and "Review labels". Below the header is a search input field containing the placeholder text "Please, enter an utterance.". To the right of the input field is a yellow arrow button.

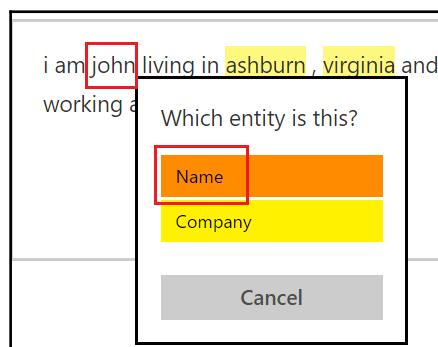
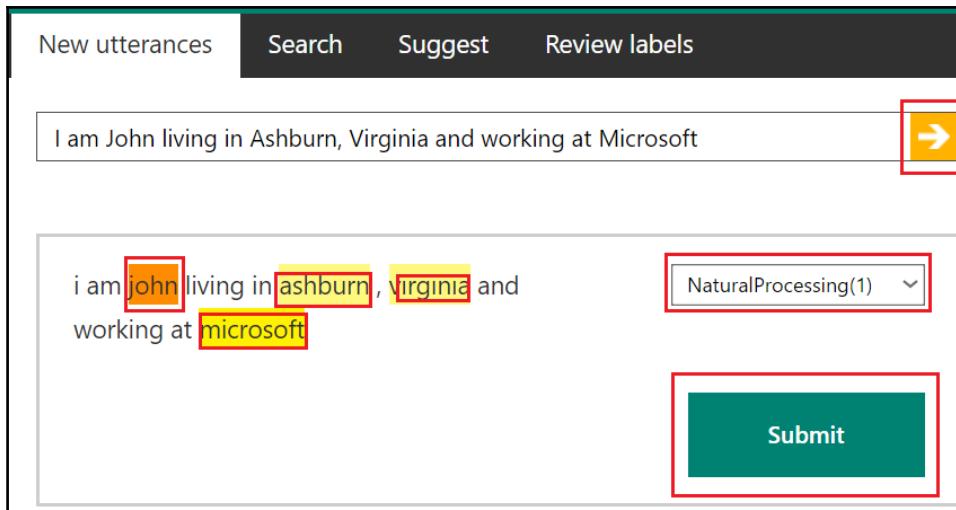
New utterances Search Suggest Review labels

I am John living in Ashburn, Virginia and working at Microsoft 

i am **john** living in **ashburn**, **virginia** and
working at **microsoft**

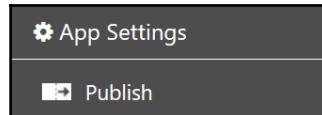
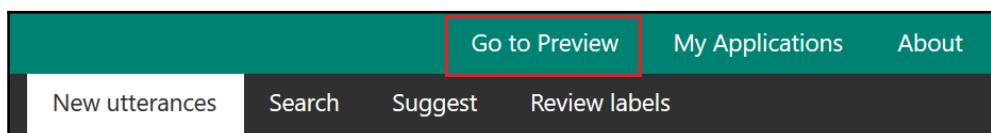
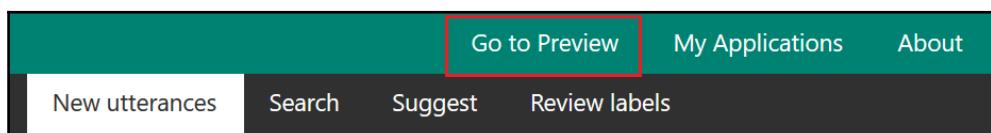
NaturalProcessing(1) 

Submit



Go to Preview My Applications About

New utterances Search Suggest Review labels



HTTP service



Publish Current Application to URL for access via HTTP

Status: Published on 22/9/2016, 2:29:52 PM

Update published application

Query:

URL: [https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=\[REDACTED\]](https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=[REDACTED])

Note: To enable bot integration, enable action fulfillment in one of your intents.

Enable Action Binding using Microsoft Bot Framework

Note: The Slack bot integration feature will be discontinued. Please migrate any slack bots you created to Microsoft Bot Framework

Enable Action Binding using Slack

Download web service usage logs

Download logs

```
{  
  "query": "John lives in Princeton, NewJersy and works at Microsoft",  
  "intents": [  
    {  
      "intent": "NaturalProcessing",  
      "score": 0.995691538  
    },  
    {  
      "intent": "None",  
      "score": 0.008353699  
    }  
  ],  
  "entities": [  
    {  
      "entity": "newjersy",  
      "type": "builtin.geography.us_state",  
      "startIndex": 25,  
      "endIndex": 32  
    },  
    {  
      "entity": "princeton",  
      "type": "builtin.geography.city",  
      "startIndex": 14,  
      "endIndex": 22,  
      "score": 0.752777755  
    },  
    {  
      "entity": "microsoft",  
      "type": "Company",  
      "startIndex": 47,  
      "endIndex": 55,  
      "score": 0.999907  
    },  
    {  
      "entity": "john",  
      "type": "Name",  
      "startIndex": 0,  
      "endIndex": 3,  
      "score": 0.996062934  
    }  
  ]  
}
```

URL: <https://api.projectoxford.ai/luis/v1/application/preview?id=d4f4be3e-1d98-4080-b0a7-d9cb3afeb720&subscription-key=REDACTED&verbose=true&q=John%20lives%20in%20Princeton%2C%20NewJersy%20and%20works%20at%20Microsoft>

I am Kishore living in Ashburn, Virginia and working at
Microsoft



Speech and Natural Language Processing

Kishore is Noun

living is Verb

in is Preposition

Ashburn is Noun

Virginia is Noun

working is Verb

at is Preposition

Microsoft is Noun

Intent and Language Understanding Intelligence Service

Processing results are

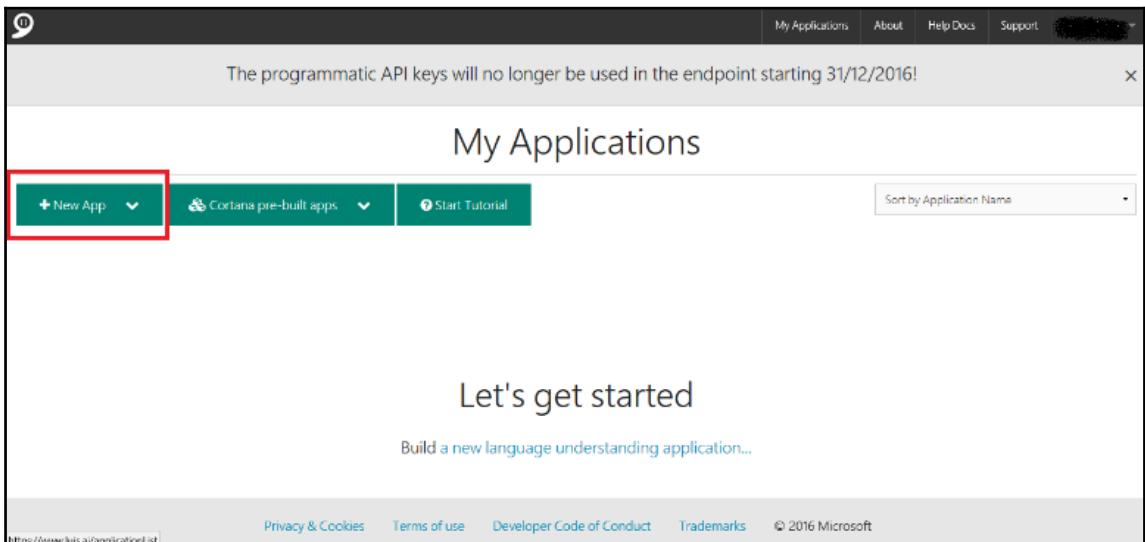
Name: kishore

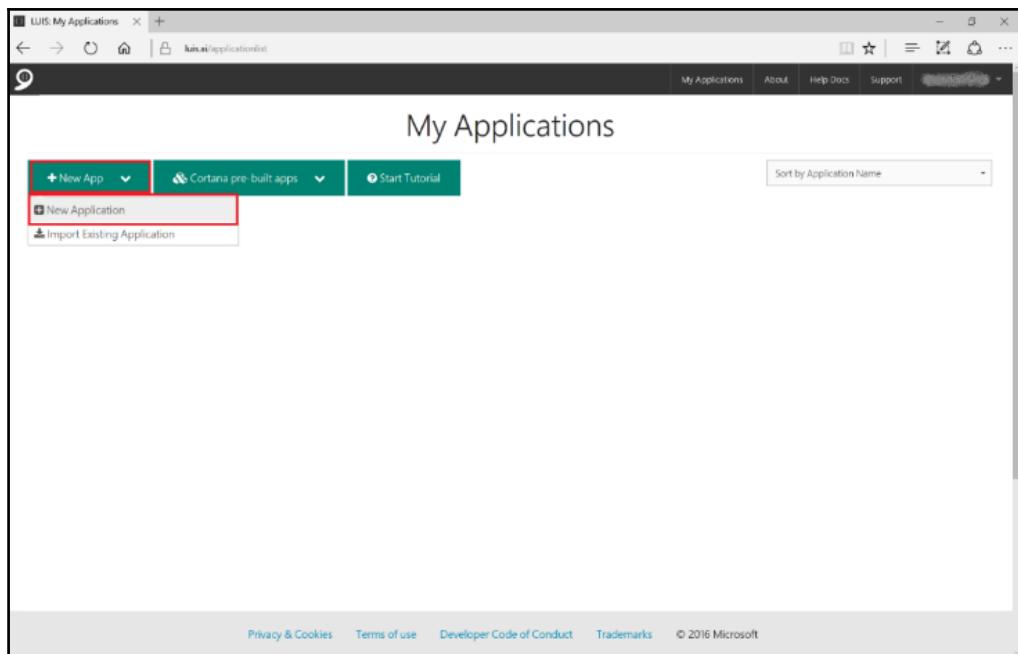
Company: microsoft

us_state : virginia

city : ashburn

Chapter 5: Developing Bots Using LUIS Prompt Dialogs with State and Nearby Bot Using Custom AP Is





Add a new application

Enter application name
Employee Enroll

Enter application usage scenario
Bot

Choose application domain(s)

<input type="checkbox"/> Booking &	<input type="checkbox"/> Business	<input type="checkbox"/> Comics	<input type="checkbox"/> Communication
Reference	<input type="checkbox"/> Education	<input type="checkbox"/> Entertainment	<input type="checkbox"/> Finance
<input type="checkbox"/> Gaming	<input type="checkbox"/> Health & Fitness	<input type="checkbox"/> Home	<input type="checkbox"/> Media & Video
		Automation	<input type="checkbox"/> Medical
<input type="checkbox"/> Music & Audio	<input type="checkbox"/> Navigation &	<input type="checkbox"/> News &	<input type="checkbox"/> Personalization
	Maps	Magazines	<input type="checkbox"/> Productivity
<input type="checkbox"/> Real Estate	<input type="checkbox"/> Scheduler	<input type="checkbox"/> Shopping	<input type="checkbox"/> Social Network
<input type="checkbox"/> Sports	<input type="checkbox"/> Telecom	<input type="checkbox"/> Tools	<input type="checkbox"/> Transportation
<input type="checkbox"/> Translation	<input type="checkbox"/> Travel & Local	<input type="checkbox"/> Weather	<input checked="" type="checkbox"/> Others

Enter application description (optional)
Employee Enrollment

Choose Application Culture
English

Add App

Luis

Employee Enroll Intelligent Service (beta)

New utterances Search Suggest Review labels

Please, enter an utterance. 

- App Settings**
 - Publish**
 - Intents 
 - None
 - Entities 
 - No entities added
 - Pre-built Entities 
 - No pre-built entities added
 - Regex Features 
 - No patterns added
 - Phrase List Features 
 - No phrase list features added

Entities 

Add a new Entity

Employee Name

Include children
 Hierarchical
 Composite

Entity Children 

Children can not be edited or deleted once added.

Save **Cancel**

Add a new Entity

Employee Name

Include children
 Hierarchical
 Composite

Entity Children 

Children can not be edited or deleted once added.

Save **Cancel**

Add a new Entity

Employee Name

Include children
 Hierarchical
 Composite

Entity Children 

Children can not be edited or deleted once added.

First Name  Last Name 

.

Save **Cancel**

Entities

Employee Name

First Name

Last Name

Entities

Designation

Department

Employee Name

First Name

Last Name

LUIS

New utterances Search

App Settings

Publish

Intents

None

Entities

No entities added

Pre-built Entities

Phrase List Features

Please, enter an utterance.

Phrase List Features

Departments
IT, Testing, Information Technology, Finance, HR, Human Resources, Development

Exchangeable
 Not exchangeable (advanced)

Save **Cancel**

Intents **(+)**

Add a new intent

Intent name: **Enrol**

Enter an example of a command that triggers this intent: **Enrol Christina Ruther as Architect in Information Technology**

- Delete Action

- Action Info

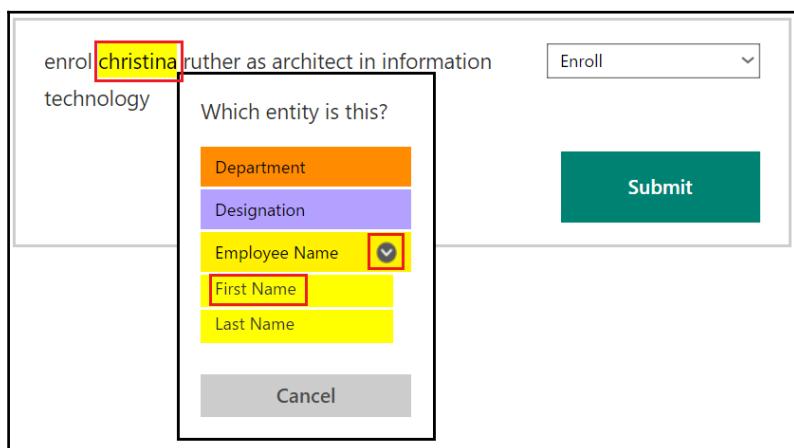
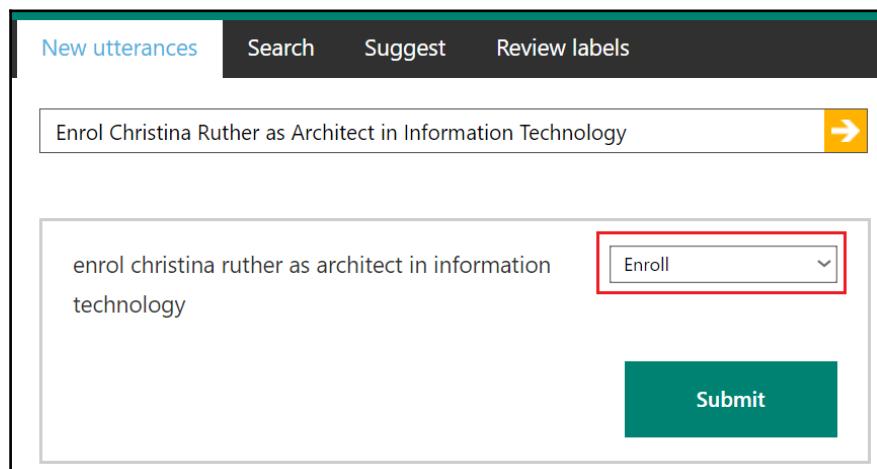
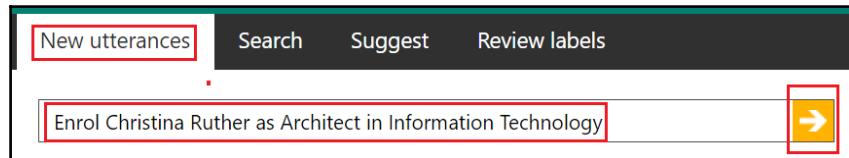
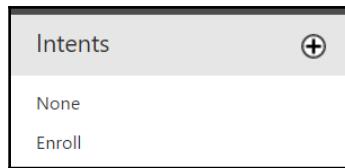
Fulfillment Action Type: **Select Action ...**

- Action Parameters

+ Add Parameter

Required	Name	Type	Value	Prompt	Edit
<input checked="" type="checkbox"/>	First Name	Employee Name::F1	Choose Phrase	What is the First Name	<input type="checkbox"/> <input type="button" value="Delete"/>
<input checked="" type="checkbox"/>	Last Name	Employee Name::La	Choose Phrase	What is the Last Name	<input type="checkbox"/> <input type="button" value="Delete"/>
<input checked="" type="checkbox"/>	Designation	Designation	Designation	What is the Designation	<input type="checkbox"/> <input type="button" value="Delete"/>
<input checked="" type="checkbox"/>	Department	Department	Department	What is the Department	<input type="checkbox"/> <input type="button" value="Delete"/>

Delete **Save** **Cancel**



enrol christina ruther as architect in information
technology

Which entity is this?

Enroll

Submit

Cancel

The screenshot shows a user interface for enrolling an employee. On the left, there's a text input field containing "enrol christina ruther as architect in information technology". To the right is a dropdown menu labeled "Enroll". A modal dialog box is open, asking "Which entity is this?". Inside the dialog, there are five input fields: "Department" (orange), "Designation" (purple), "Employee Name" (yellow with a dropdown arrow), "First Name" (yellow), and "Last Name" (yellow with a red border). A "Submit" button is on the right, and a "Cancel" button is at the bottom.

enrol christina ruther as architect in information
technology

Which entity is this?

Enroll

Submit

Cancel

The screenshot shows the same user interface as the first one, but with a change. The "Designation" field is now highlighted with a purple background and a red border, while the other fields ("Department", "Employee Name", "First Name", and "Last Name") have returned to their original yellow state. The rest of the interface remains the same, with the "enrol" text, "Enroll" dropdown, "Submit" button, and "Cancel" button.

enrol christina ruther as architect in information technology

Enroll

Which entity is this?

Department

Designation

Employee Name

First Name

Last Name

Cancel

Submit

enrol christina ruther as architect in information technology

Enroll

Submit

New utterances Search Suggest Review labels

Please, enter an utterance. ➔

Utterance added successfully

New utterances Search Suggest **Review labels**

Show all labeled utterances

Select text in an utterance to label an entity, or click to clear.

Model prediction

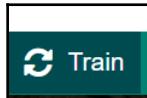
enroll chris henry as manager in finance Enroll (1)

enroll chris henry as manager in finance Enroll(1) ▾

Model prediction

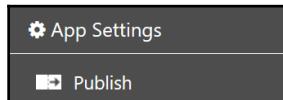
enrol chris norins as tester in it Enroll (1)

enrol chris norins as tester in it Enroll(1) ▾



Go to Preview My Applications About

New utterances Search Suggest Review labels



HTTP service ✖

Publish Current Application to URL for access via HTTP

Status: Published on 10/6/2016, 5:56:25 PM Update published application

Query:

URL: <https://api.projectoxford.ai/luis/v1/application?id=9f338a59-da59-4b37-921a-258b958d027e&subscription-key=d14817bff85b4de0af2cc701b2e5de70>

Download web service usage logs Download logs

```
{  
  "query": "Enroll Kishore Gaddam as Architect in IT",  
  "intents": [  
    {  
      "intent": "Enroll",  
      "score": 0.999999046  
    },  
    {  
      "intent": "None",  
      "score": 0.239324629  
    }  
  ],  
  "entities": [  
    {  
      "entity": "it",  
      "type": "Department",  
      "startIndex": 38,  
      "endIndex": 39,  
      "score": 0.9971673  
    },  
    {  
      "entity": "architect",  
      "type": "Designation",  
      "startIndex": 25,  
      "endIndex": 33,  
      "score": 0.843642235  
    },  
    {  
      "entity": "kishore",  
      "type": "Employee Name::First Name",  
      "startIndex": 7,  
      "endIndex": 13,  
      "score": 0.9482315  
    },  
    {  
      "entity": "gaddam",  
      "type": "Employee Name::Last Name",  
      "startIndex": 15,  
      "endIndex": 20,  
      "score": 0.919439  
    }  
  ]  
}
```

HTTP service



Publish Current Application to URL for access via HTTP

Status: Published on 10/6/2016, 5:56:25 PM

[Update published application](#)

Query:

App ID

URL: <https://api.projectoxford.ai/luis/v1/application?id=9f338a59-da59-4b37-921a-258b958d027e&subscription-key=d14817bff85b4de0af2cc701b2e5de70>

KEY

[Download web service usage logs](#)

[Download logs](#)

json2csharp

generate c# classes from json

developed by Jonathan Keith

with thanks to the [JSON C# Class Generator](#) project
and James Newton-King's [Json.NET](#)

```
        "score": 0.9482315
    },
    {
        "entity": "gaddam",
        "type": "Employee Name::Last Name",
        "startIndex": 15,
        "endIndex": 20,
        "score": 0.919439
    }
]
```

Generate

?

!

@

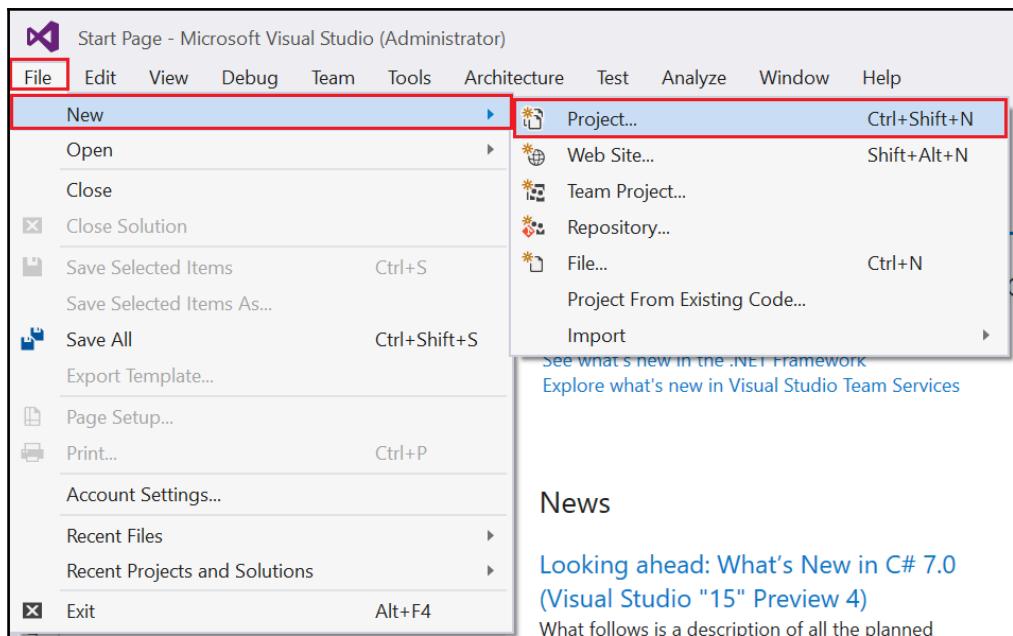
```
public class Intent
{
    public string intent { get; set; }
    public double score { get; set; }
}

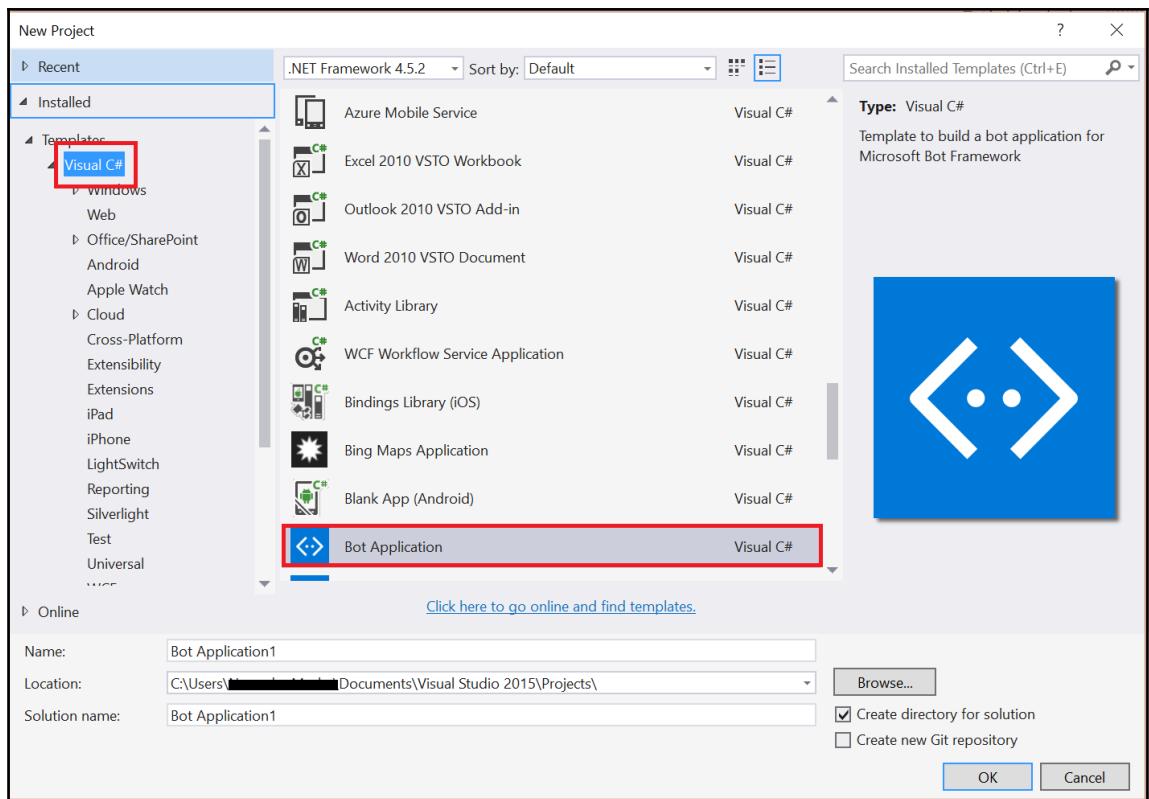
public class Entity
{
    public string entity { get; set; }
    public string type { get; set; }
    public int startIndex { get; set; }
    public int endIndex { get; set; }
    public double score { get; set; }
}

public class RootObject
{
    public string query { get; set; }
    public List<Intent> intents { get; set; }
    public List<Entity> entities { get; set; }
}
```

Close

Copy



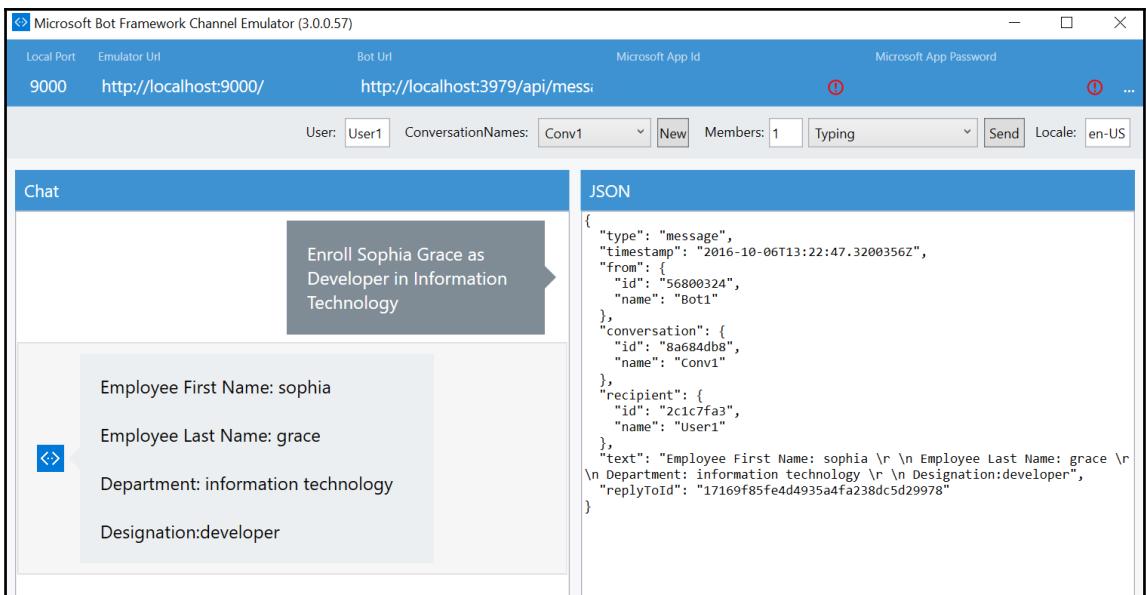


```
namespace EmployeeEnrolBot
{
    1 reference | 0 changes | 0 authors, 0 changes
    public class Intent
    {
        0 references | 0 changes | 0 authors, 0 changes
        public string intent { get; set; }
        0 references | 0 changes | 0 authors, 0 changes
        public double score { get; set; }
    }

    1 reference | 0 changes | 0 authors, 0 changes
    public class Entity
    {
        0 references | 0 changes | 0 authors, 0 changes
        public string entity { get; set; }
        0 references | 0 changes | 0 authors, 0 changes
        public string type { get; set; }
        0 references | 0 changes | 0 authors, 0 changes
        public int startIndex { get; set; }
        0 references | 0 changes | 0 authors, 0 changes
        public int endIndex { get; set; }
        0 references | 0 changes | 0 authors, 0 changes
        public double score { get; set; }
    }

    0 references | 0 changes | 0 authors, 0 changes
    public class LUIS
    {
        0 references | 0 changes | 0 authors, 0 changes
        public string query { get; set; }
        0 references | 0 changes | 0 authors, 0 changes
        public List<Intent> intents { get; set; }
        0 references | 0 changes | 0 authors, 0 changes
        public List<Entity> entities { get; set; }
    }
}
```

```
<add key="LUIS_Url" value="https://api.projectoxford.ai/luis/v1/application" />
<add key="LUIS_APP_Id" value="REDACTED" />
<add key="LUIS_Subscription_Key" value="REDACTED" />
</appSettings>
```



Go to Preview My Applications

Add a new intent

Intent name:

[+ Add Action](#)

Add a new intent

Intent name:

- Delete Action

Action Info

Fulfillment Action Type:

Action Parameters

+ Add Parameter

Required	Name	Type	Value	Prompt	Edit
<input checked="" type="checkbox"/>	First Name	Employee Name::F1	Choose Phrase	What is the First Na	<input type="button"/> <input type="button"/>
<input checked="" type="checkbox"/>	Last Name	Employee Name::La	Choose Phrase	What is the Last Na	<input type="button"/> <input type="button"/> <input type="button"/>
<input checked="" type="checkbox"/>	Designation	Designation	Designation	What Is the Designat	<input type="button"/> <input type="button"/> <input type="button"/>
<input checked="" type="checkbox"/>	Department	Department	Department	What Is the Departm	<input type="button"/> <input type="button"/>

HTTP service

Publish Current Application to URL for access via HTTP

Status: Published on 10/6/2016, 7:26:04 PM

Query:

URL: <https://api.projectoxford.ai/luis/v1/application/preview?id=9f338a59-da59-4b37-921a-258b958d027e&subscription-key=d14817bff85b4de0af2cc701b2e5de70>

Note: To enable bot integration, enable action fulfillment in one of your intents.

Enable Action Binding using Microsoft Bot Framework

Note: The Slack bot integration feature will be discontinued. Please migrate any slack bots you created to Microsoft Bot Framework

Enable Action Binding using Slack

Download web service usage logs

HTTP service



Publish Current Application to URL for access via HTTP

Status: Published on 10/6/2016, 7:44:18 PM

[Update published application](#)

Query:

Enroll Sophia Grace as Developer in Information Technology

URL: <https://api.projectoxford.ai/luis/v1/application/preview?id=9f338a59-da59-4b37-921a-258b958d027e&subscription-key=d14817bff85b4de0af2cc701b2e5de70&q=Enroll%20Sophia%20Grace%20as%20Developer%20in%20Information%20Technology>

Note: To enable bot integration, enable action fulfillment in one of your intents.

Enable Action Binding using Microsoft Bot Framework

Note: The Slack bot integration feature will be discontinued. Please migrate any slack bots you created to Microsoft Bot Framework

Enable Action Binding using Slack

[Download web service usage logs](#)

[Download logs](#)

Enroll Kishore Gaddam as
Architect in



What is the Department?

Enroll Kishore Gaddam as
Architect in



What is the Department?

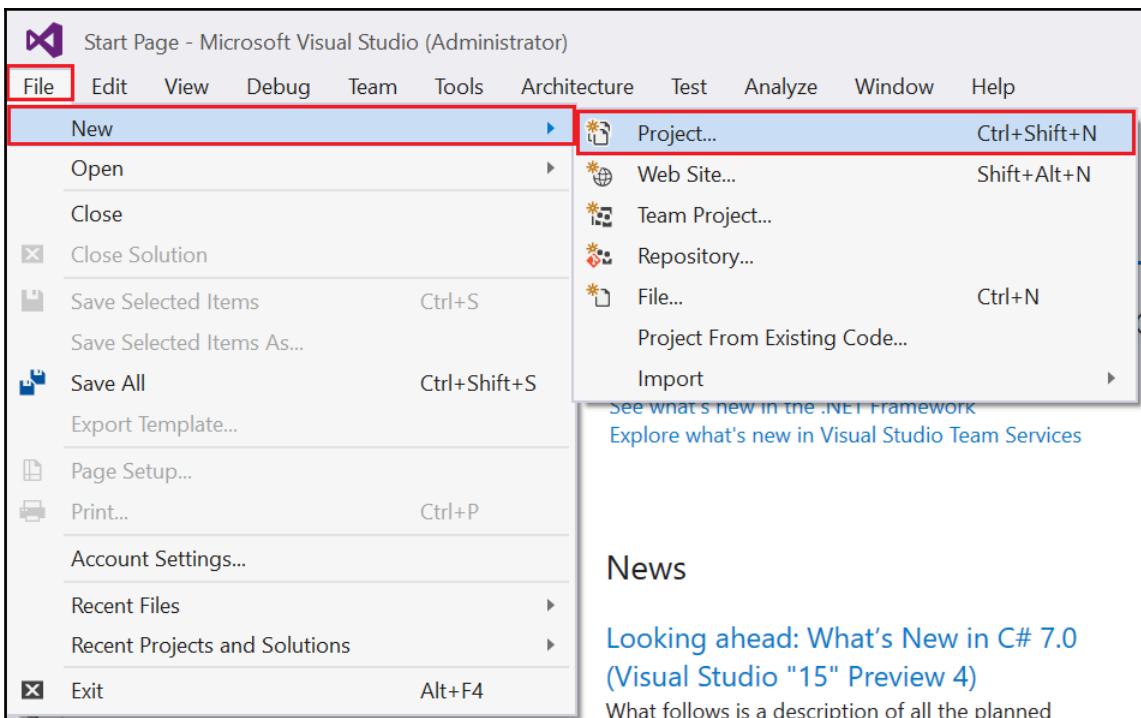
IT

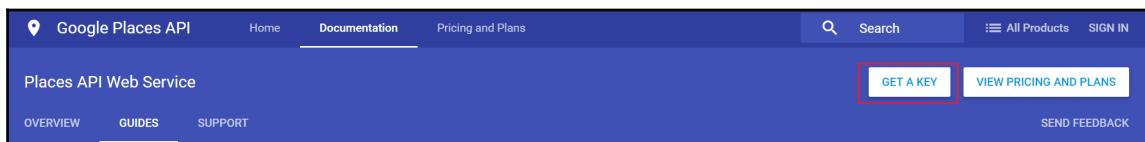
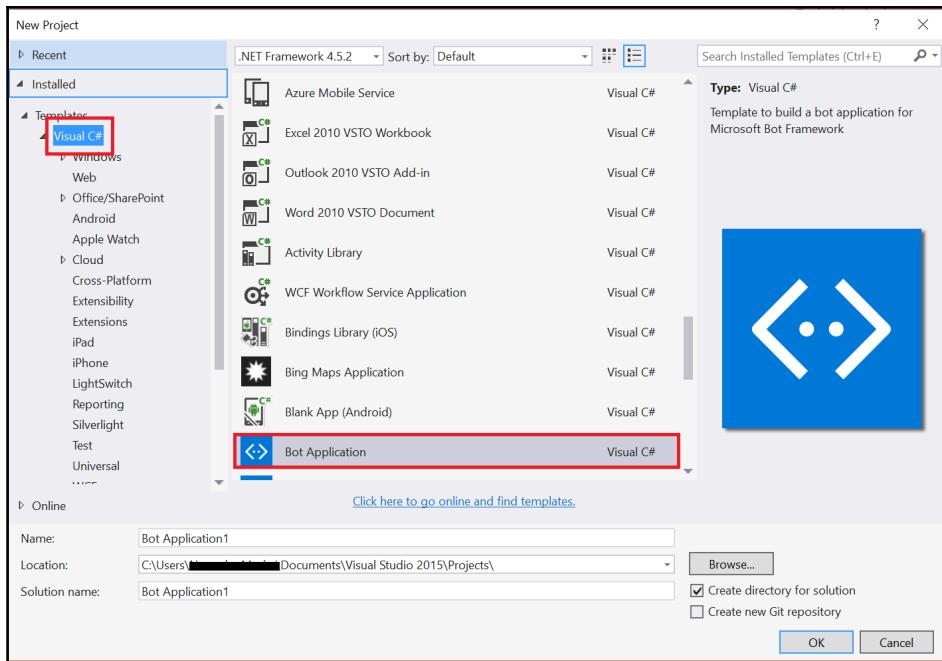
Employee First Name: kishore

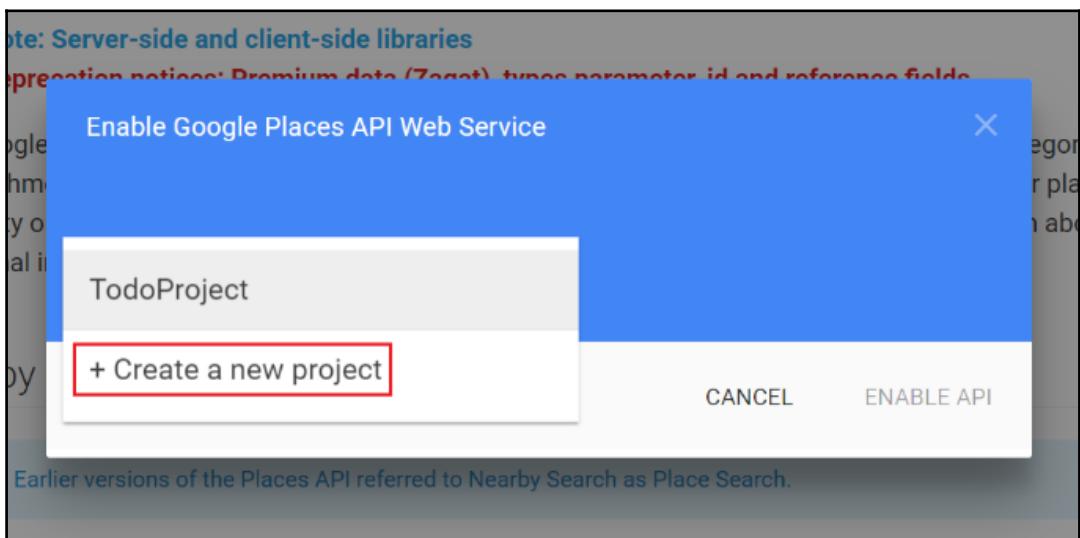
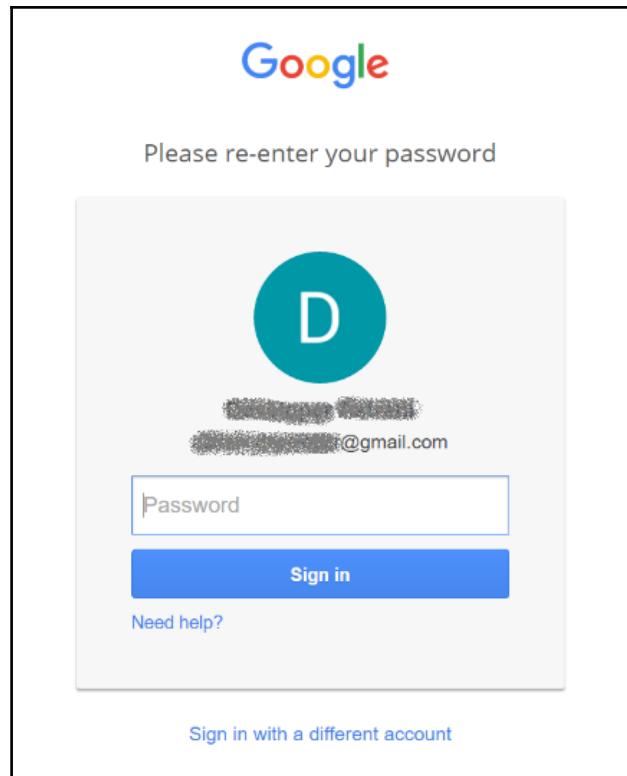
Employee Last Name: gaddam

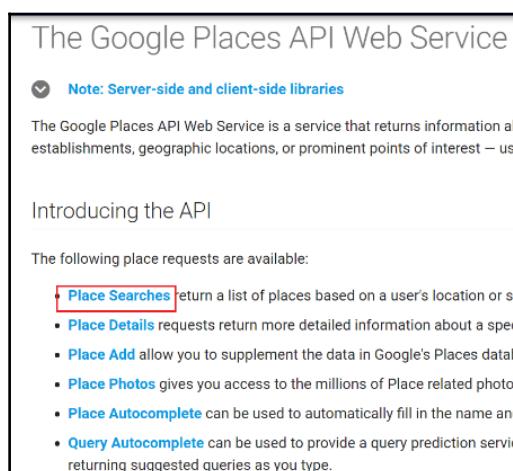
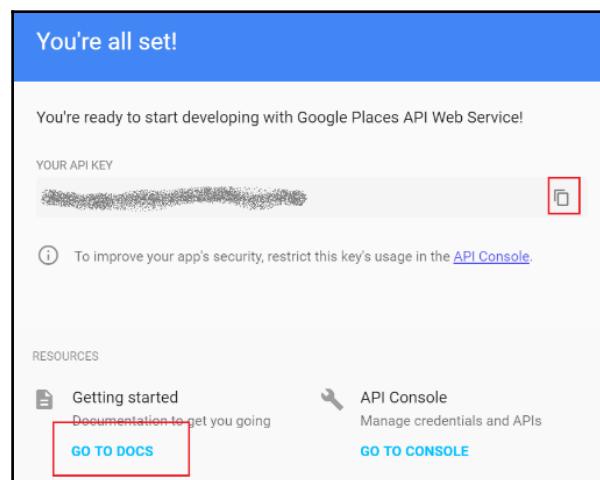
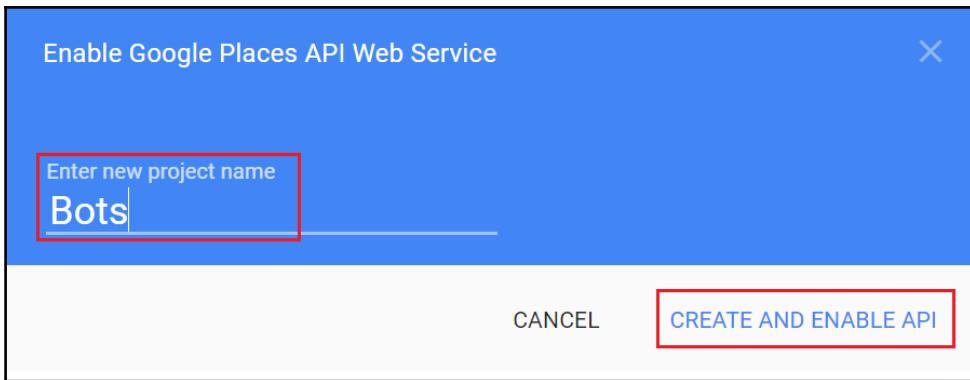
Department: it

Designation:architect









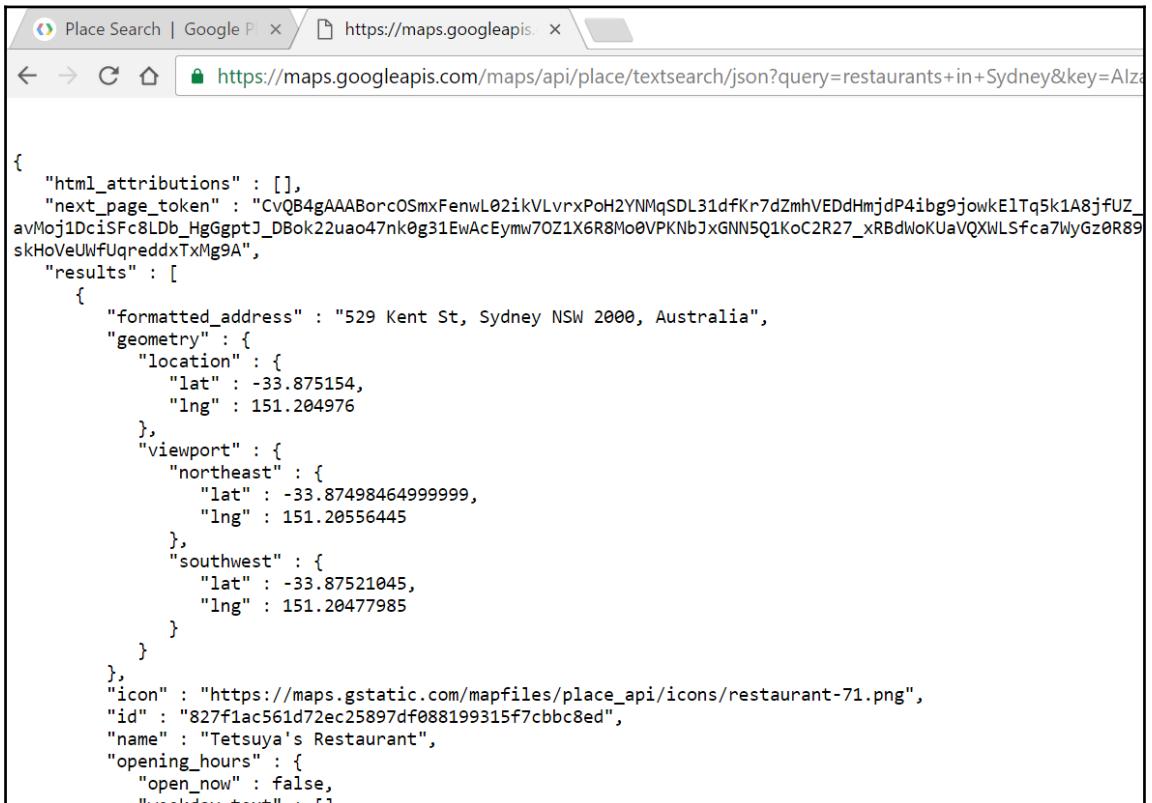
Text Search Requests

The Google Places API Text Search Service is a web service that returns information about a set of places based on a string – for example "pizza in New York" or "shoe stores near Ottawa". The service responds with a list of places matching the text string and any location bias that has been set. The search response will include a list of places, you can send a Place Details request for more information about any of the places in the response.

- ★ The Google Places search services share the [same usage limits](#). However, the Text Search service is subject to a 10-times multiplier. That is, each Text Search request that you make will count as 10 requests against your quota. If you've purchased the Google Places API as part of your Google Maps APIs Premium Plan contract, the multiplier may be different. Please refer to the [Google Maps APIs Premium Plan documentation](#) for details.

A Text Search request is an HTTP URL of the following form:

```
https://maps.googleapis.com/maps/api/place/textsearch/output?parameters
```



The screenshot shows a browser window with the address bar containing the URL: `https://maps.googleapis.com/maps/api/place/textsearch/json?query=restaurants+in+Sydney&key=Alza`. The main content area displays a JSON object representing a place search result for "Tetsuya's Restaurant". The JSON structure includes fields like "html_attributions", "next_page_token", and a "results" array. Each result item contains detailed information such as the formatted address ("529 Kent St, Sydney NSW 2000, Australia"), geometry (location coordinates), and a bounding box (viewport). The "icon" field provides a URL for a restaurant icon, and the "name" field is "Tetsuya's Restaurant". The "opening_hours" field indicates that the establishment is not currently open.

```
{
  "html_attributions": [],
  "next_page_token": "CvQB4gAAABorcOSmxFenwL02ikVLvrxFoH2YNMqSDL31dfKr7dZmhVEDdHmjdp4ibg9jowkE1Tq5k1A8jfUZ_avMoj1DciSfc8LD_b_HgGpptJ_DBok22ua047nk0g31EwAcEymw70Z1X6R8Mo0VPKnbJxGNNSQ1KoC2R27_xRBdWoKUaVQXWLsfca7WyGz0R89_skHoVeUwfUqreddxTxMg9A",
  "results": [
    {
      "formatted_address": "529 Kent St, Sydney NSW 2000, Australia",
      "geometry": {
        "location": {
          "lat": -33.875154,
          "lng": 151.204976
        },
        "viewport": {
          "northeast": {
            "lat": -33.87498464999999,
            "lng": 151.20556445
          },
          "southwest": {
            "lat": -33.87521045,
            "lng": 151.20477985
          }
        }
      },
      "icon": "https://maps.gstatic.com/mapfiles/place_api/icons/restaurant-71.png",
      "id": "827f1ac561d72ec25897df088199315f7cbbc8ed",
      "name": "Tetsuya's Restaurant",
      "opening_hours": {
        "open_now": false,
        "weekday_text": []
      }
    }
  ]
}
```

json2csharp

generate c# classes from json

developed by [Jonathan Keith](#)
with thanks to the [JSON C# Class Generator](#) project
and James Newton-King's [Json.NET](#)

```
        "score": 0.9482315
    },
{
    "entity": "gaddam",
    "type": "Employee Name::Last Name",
    "startIndex": 15,
    "endIndex": 20,
    "score": 0.919439
}
]
```

Generate

? ! @

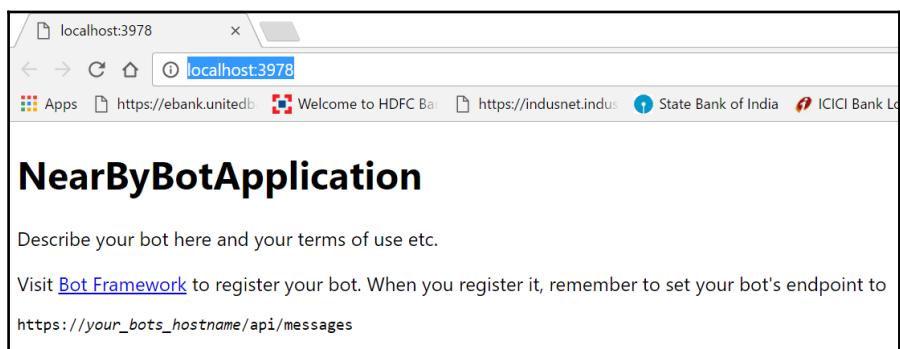
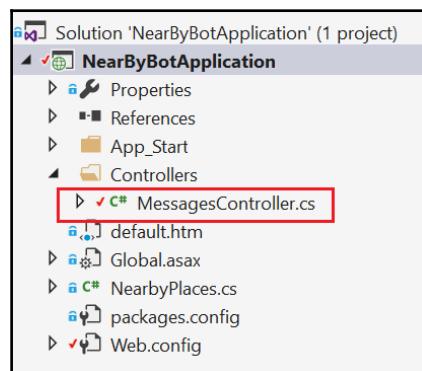
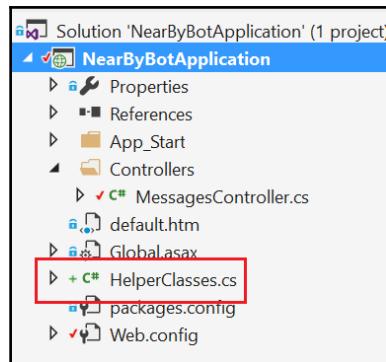
```
public class Intent
{
    public string intent { get; set; }
    public double score { get; set; }
}

public class Entity
{
    public string entity { get; set; }
    public string type { get; set; }
    public int startIndex { get; set; }
    public int endIndex { get; set; }
    public double score { get; set; }
}

public class RootObject
{
    public string query { get; set; }
    public List<Intent> intents { get; set; }
    public List<Entity> entities { get; set; }
}
```

Close

Copy

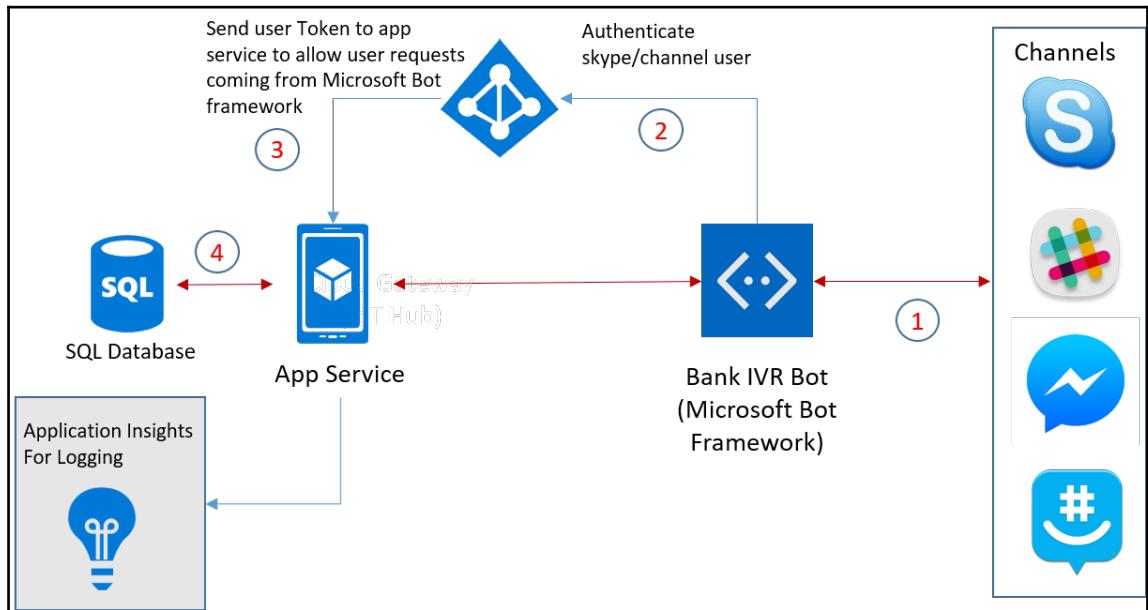


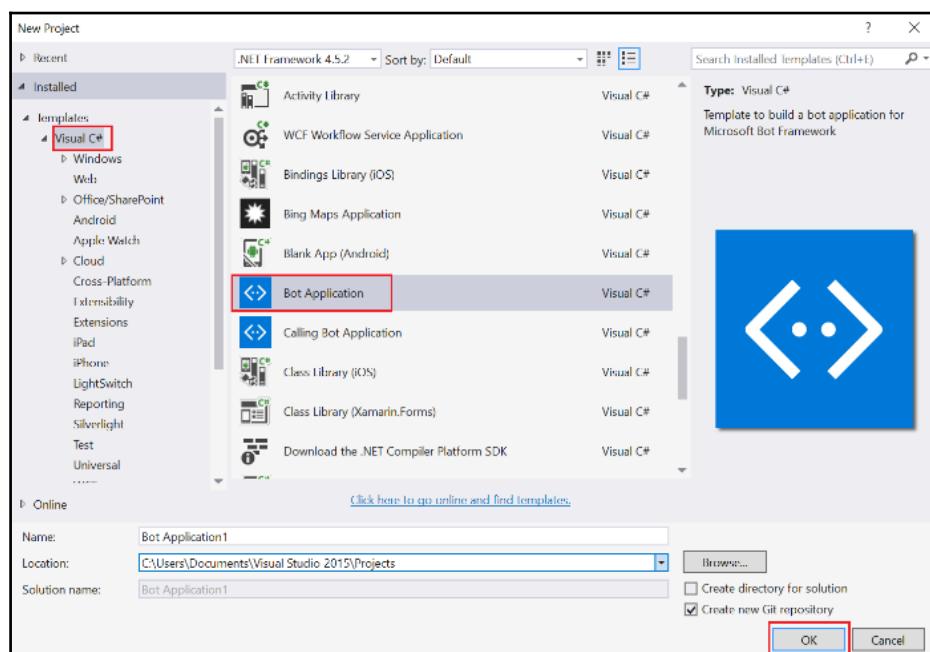
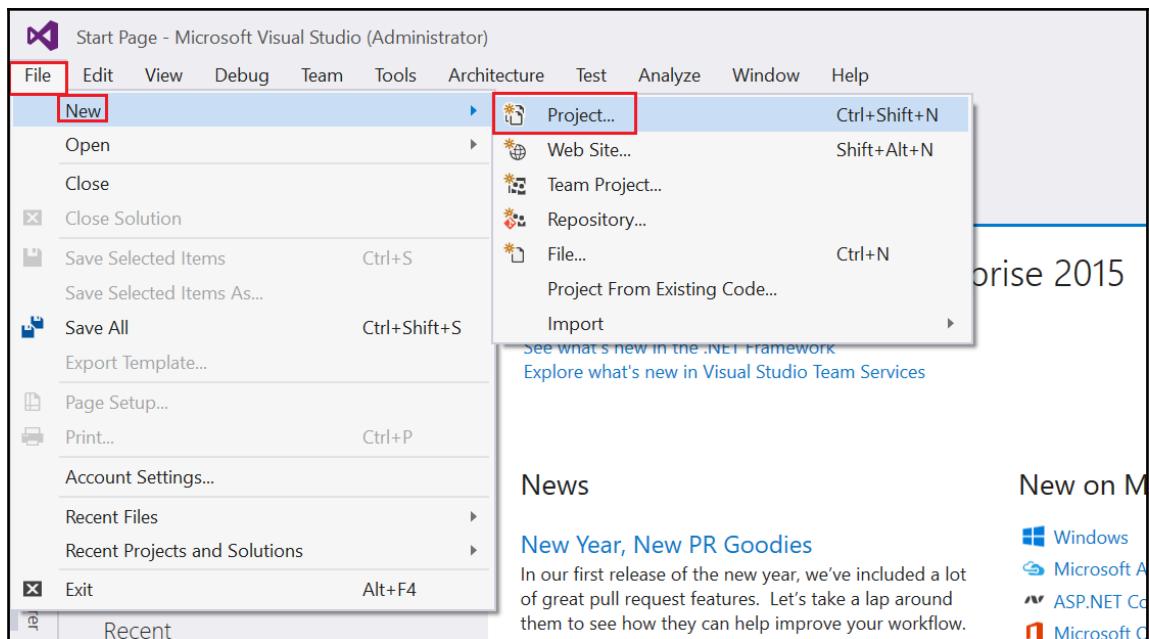
Restaurants in Sydney

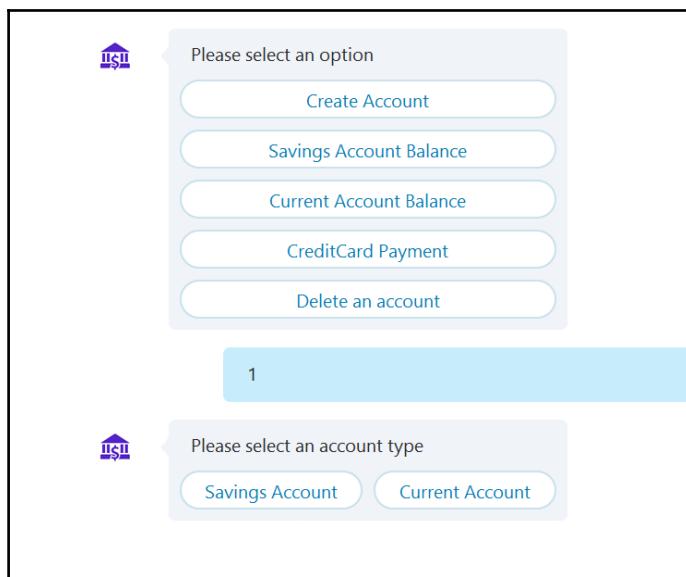
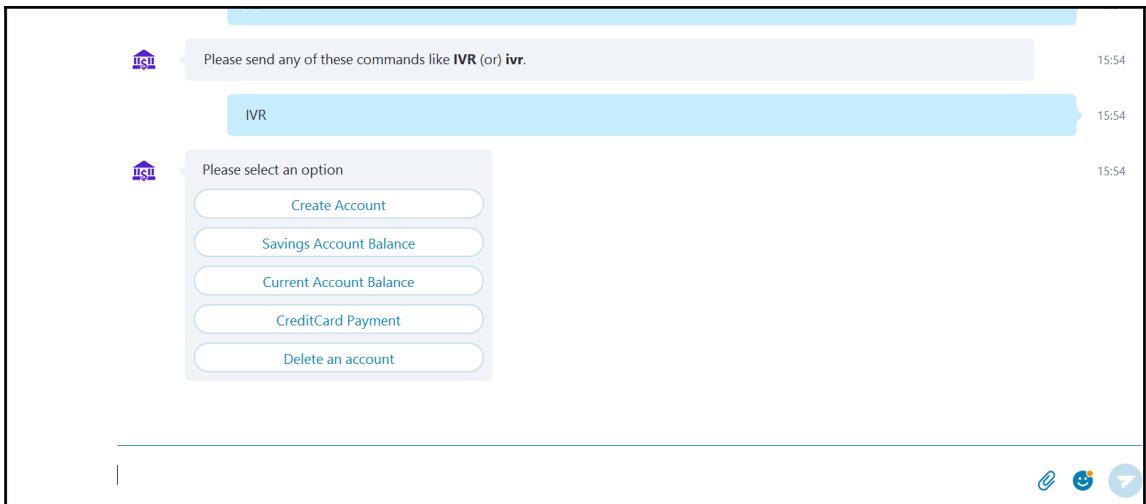
Tetsuya's Restaurant,
est.,
ARIA Restaurant,
Sydney Cove Oyster Bar,
Cafe Sydney,
Mr. Wong,
Home Thai,
Fortune Village Chinese Restaurant,
The Malaya,
Medusa Greek Taverna,

Chapter 6:

Developing an IVR Bot for a Bank Using Advanced Microsoft Bot Framework Technologies







Please select an option

Create Account

Savings Account Balance

Current Account Balance

CreditCard Payment

Delete an account

1

Please select an account type

Savings Account

Current Account

1

Please enter your full name

 Please select an account type

Savings Account Current Account

 1

 Please enter your full name

Christina Ruther

 Please enter your personal details like *CustomerType, DOB, Nationality, Mother's Name, Applicant's Marital Status, Social Security Number, Nominee Details, Permanent Address, Correspondence Address, Pin, Account Type, Account Number, Balance*

29-08-1989, US, Christina, Single

 Please enter your correspondence address like *LandMark, District, State, City, PIN, Mobile Number, Email Address*

1-20-DBH-30,Ashburn,VA,987654321,christina@gmail.com

 Please enter your permanent address like *LandMark, District, State, City, PIN, Mobile Number, Email Address*

Same

These are your account details: Savings Account Christina Ruther 29-08-1989, US, Christina, Single 1-20-DBH-30,Ashburn,VA,987654321,christina@gmail.com Same 1234567 NA 1000\$

Do you want to create account with the above details?

Yes

 We are currently processing your account details. We will message you the status.

These are your Complete account details:

AccountNumber: 11760071952
Pin: 1235
FullName: Christina Ruther
AccountType: SavingsAccount
Personal Details: 29-08-1989, US, Christina, Single
Correspondence Address: 1-20-DBH-30,Ashburn,VA,987654321,christina@gmail.com
Permanent Address: Same
Social Security Number: 1234567
Nominee Details: NA
Balance: 1000\$

Thanks for creating account here!

Please select an option

Create Account

Savings Account Balance

Current Account Balance

CreditCard Payment

Delete an account

2

Please enter your account number

19202525702

Please enter your pin

1235

Total Available Balance is \$1000.00

 Please select an option

[Create Account](#)

[Savings Account Balance](#)

[Current Account Balance](#)

[CreditCard Payment](#)

[Delete an account](#)

3

 Please enter your account number

19202525702

 Please enter your pin

1235





Please select an option

Create Account

Savings Account Balance

Current Account Balance

CreditCard Payment

Delete an account

4



Please enter your creditcard number

1234567899876543

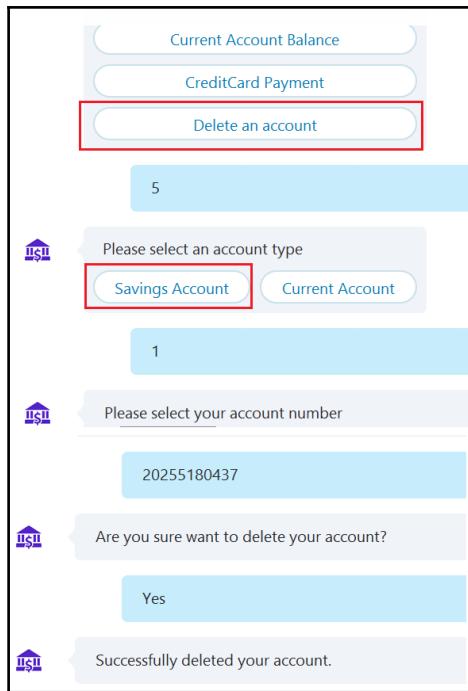


Please enter how much amount do you want to pay

1000

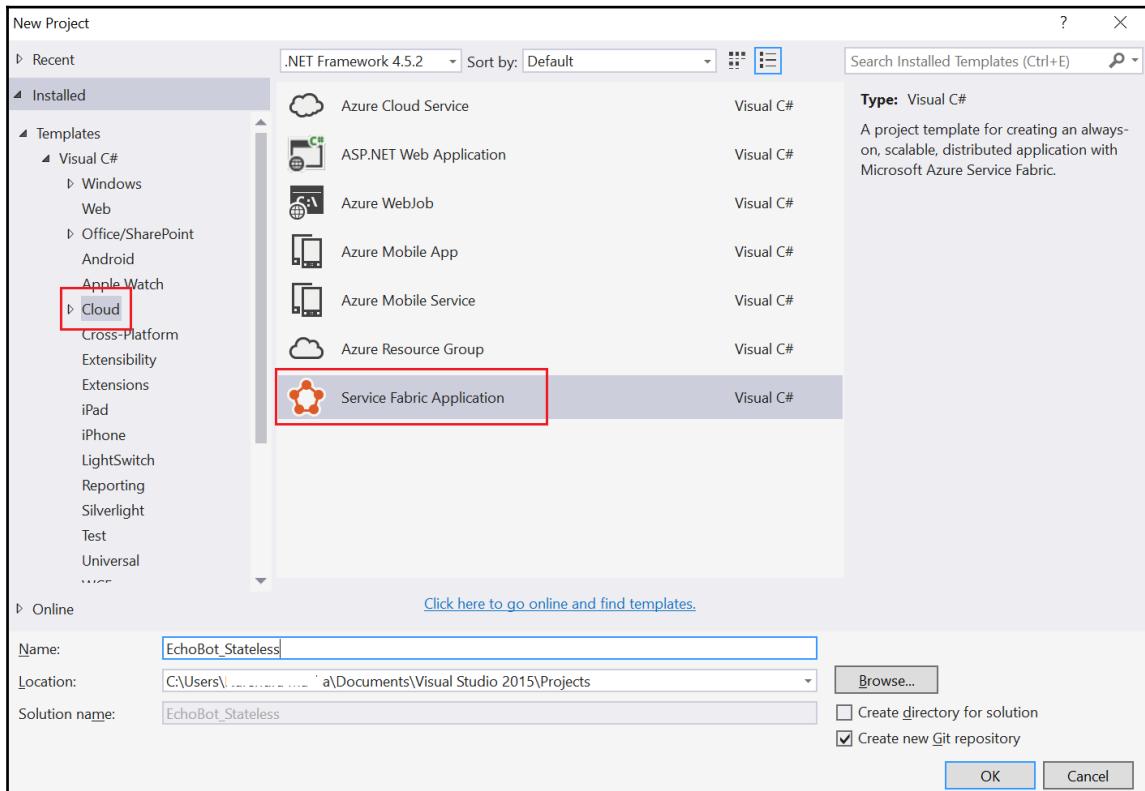


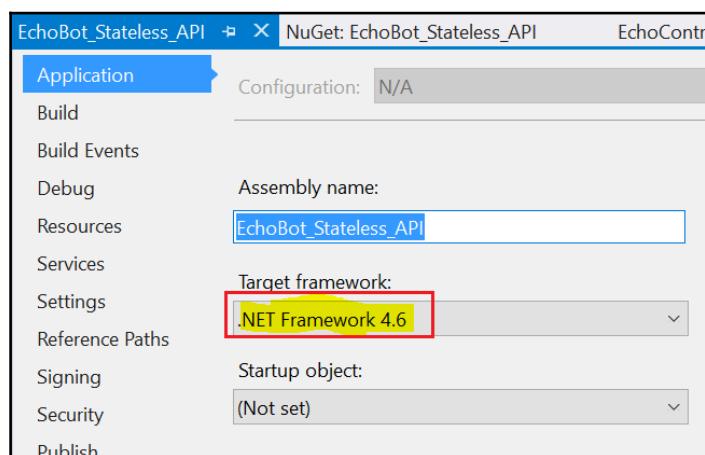
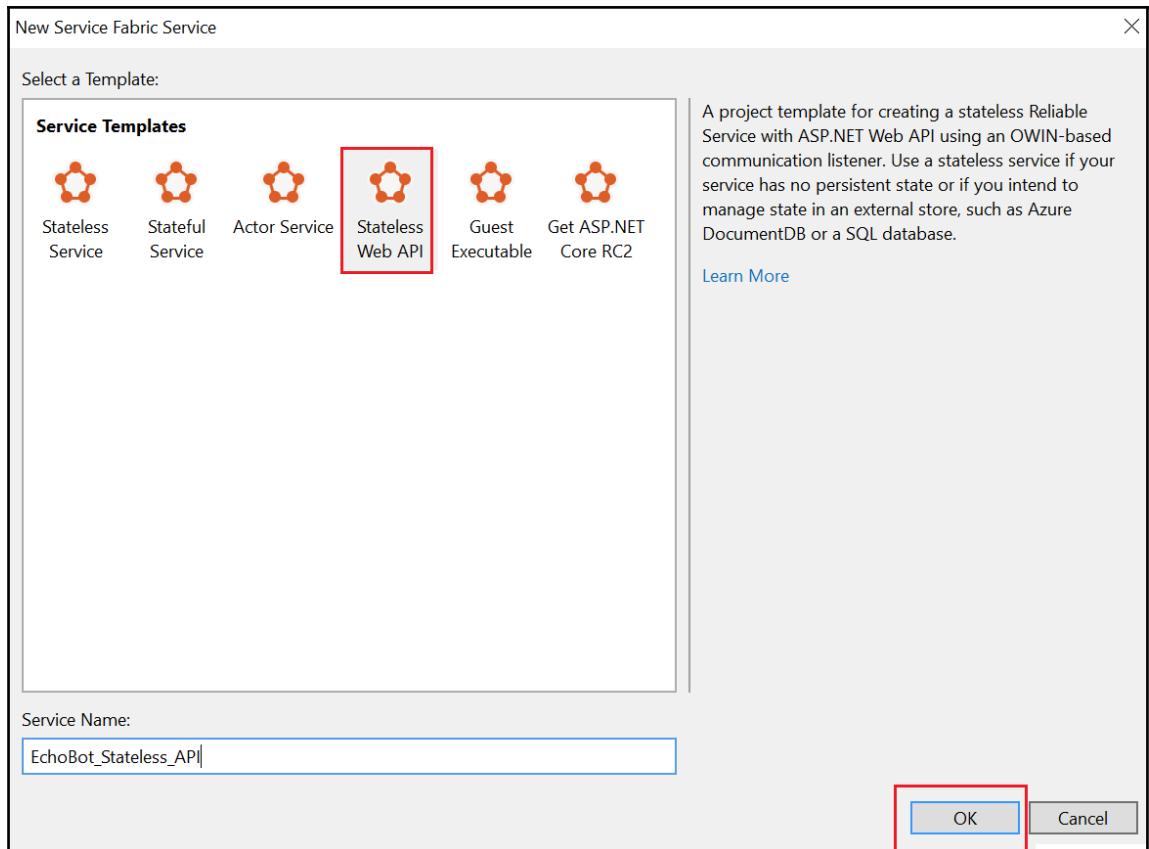
Successfully paid your credit card payment.

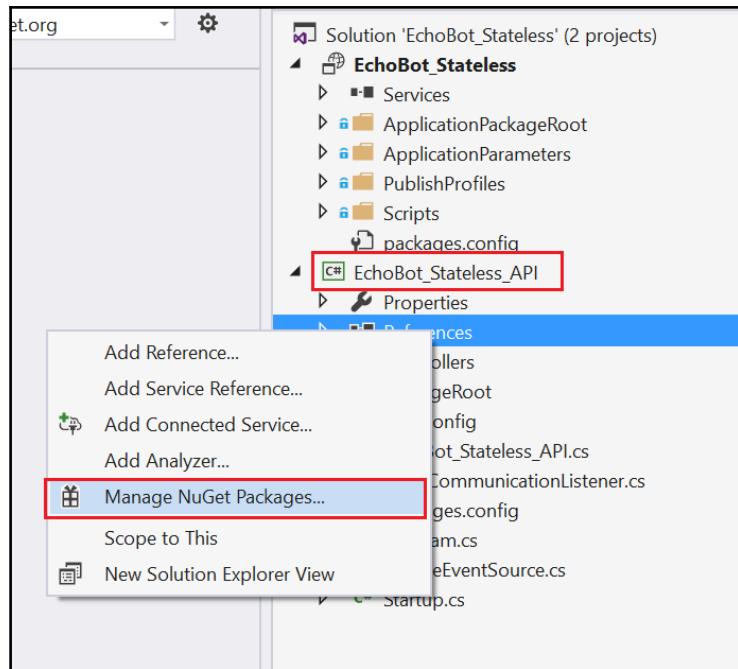


Chapter 7:

Intelligent Bots with Microsoft Bot Framework and Service Fabric







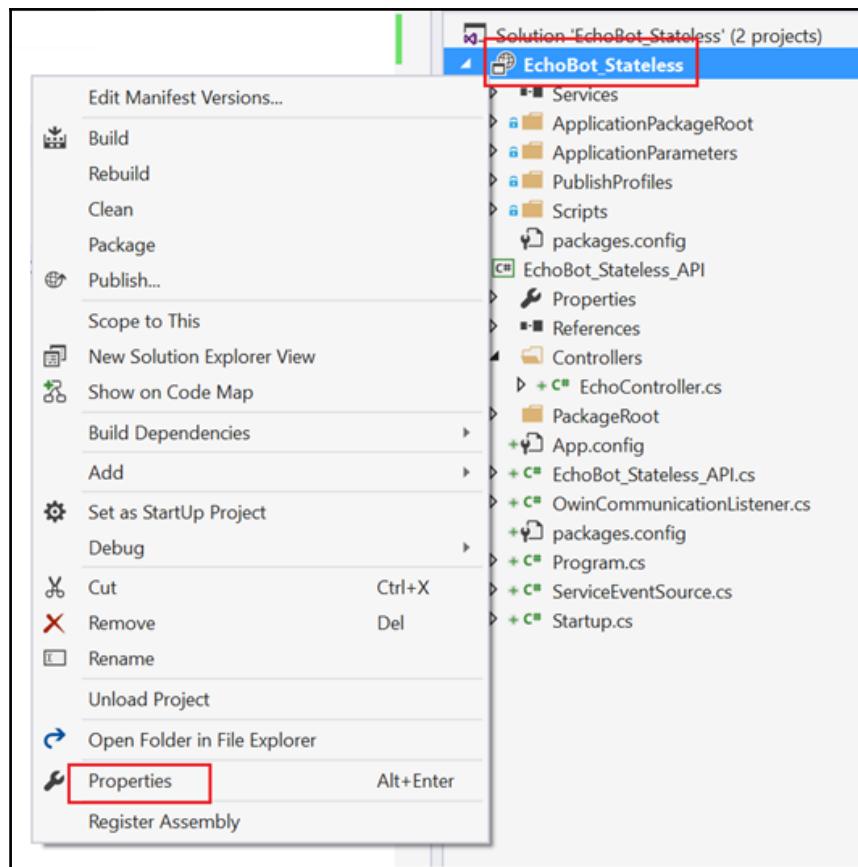
NuGet: EchoBot_Stateless_API

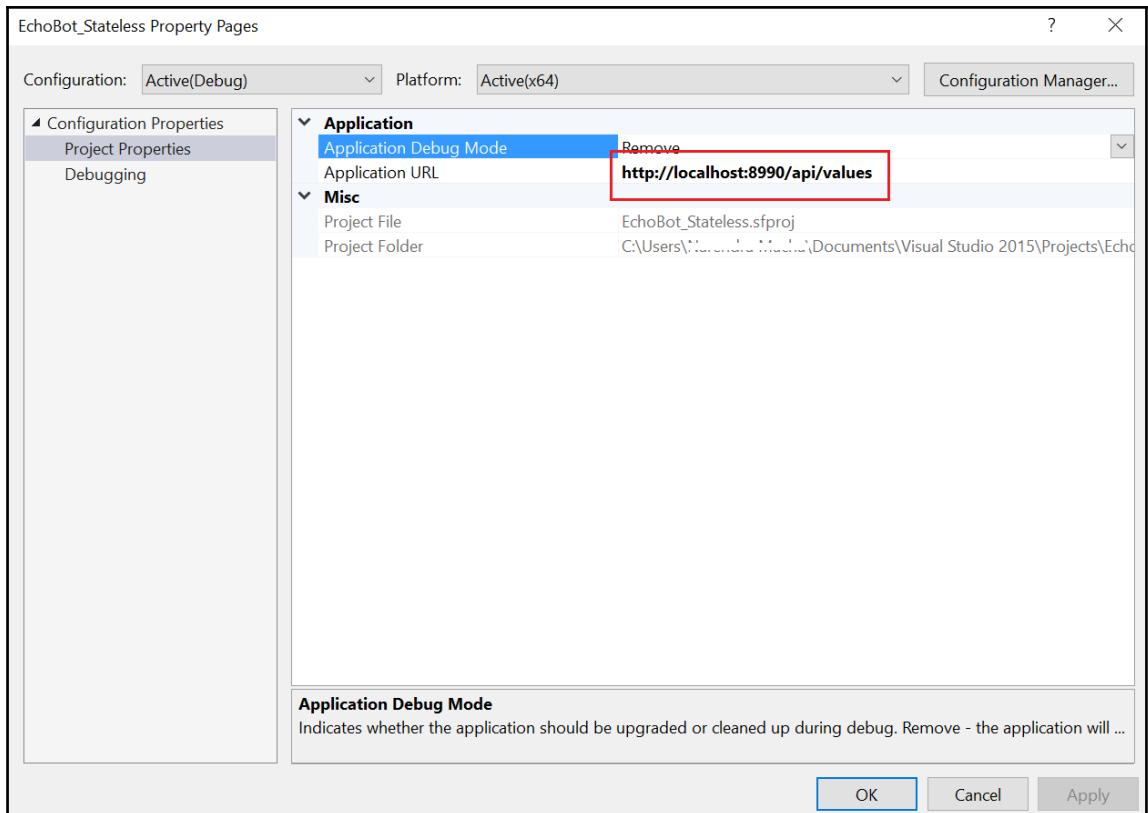
Browse Installed Updates 11

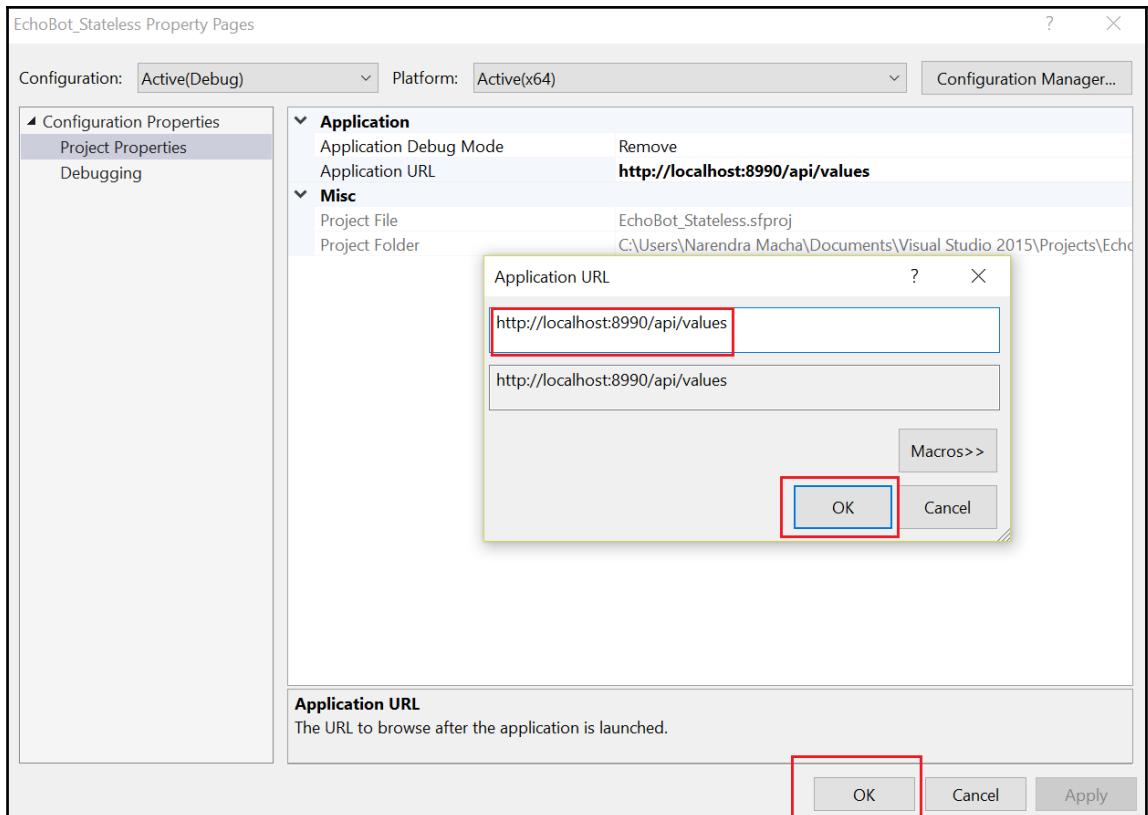
bot builder

Telegram.Bot by Robin Müller, 61.7K downloads
Telegram Bot API Class Library

Microsoft.Bot.Builder by Microsoft, 56.8K downloads
Microsoft.Bot.Builder is a framework for easily building stateless bots







The screenshot shows the Microsoft Visual Studio interface with the following details:

- Title Bar:** EchoBot_Stateless - Microsoft Visual Studio (Administrator)
- Toolbar:** File, Edit, View, Project, Build, Debug, Team, Tools, Architecture, Test, Analyze, Window, Help
- Solution Explorer:** Shows two projects:
 - EchoBot_Stateless
 - EchoBot_Stateless_APIUnder EchoBot_Stateless, there are Service, ApplicationPackageRoot, ApplicationParameters, PublishProfiles, Scripts, and packages.config.
- Editor:** Displays the code for EchoController.cs in the EchoBot_Stateless_API project. The code implements an ApiController that handles GET and POST requests to echo messages.
- Context Menu:** A context menu is open over the code editor, with the "Build Solution" option highlighted.
- Status Bar:** Quick Launch (Ctrl+Q), F6, Ctrl+V, Rename, Open Folder in File Explorer, Properties, Alt+Enter.

```
using Microsoft.Bot.Connector;
using System.Collections.Generic;
using System.Threading.Tasks;
using System.Web.Http;

namespace EchoBot_Stateless_API.Controllers
{
    public class EchoController : ApiController
    {
        // GET api/values
        public IEnumerable<string> Get()
        {
            return new string[] { "Service Fabric", "Echo" };
        }

        // POST: api/Messages
        // Receive a message from a user and reply
        public async Task<Message> Post([FromBody]Message message)
        {
            if (message.Type == "Message")
            {
                return message;
            }
        }
    }
}
```

EchoBot_Stateless (Running) - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Tools Architecture Test Analyze Window Help

Application Insights

Diagnostic Events EchoController.cs Service Fabric proj...eps | Microsoft Docs EchoBot_Stateless_API.cs

Filter Events

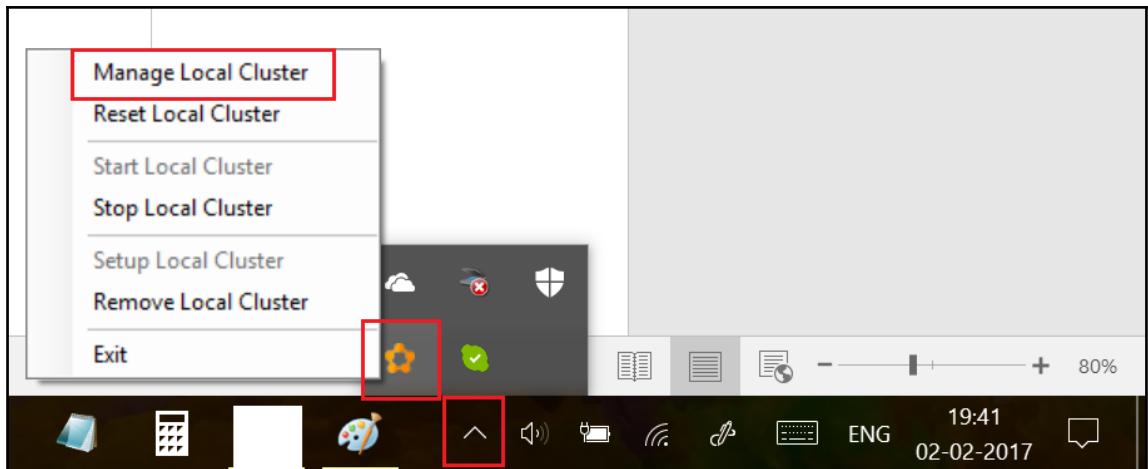
Timestamp	Event Name	Message
19:35:08.924	StatelessRunAsyncCompletion	RunAsync has successfully completed for a stateless service instance. Application Type Name: EchoBot_StatelessType
19:35:08.919	StatelessRunAsyncInvocation	RunAsync has been invoked for a stateless service instance. Application Type Name: EchoBot_StatelessType, ApplicationId: 19852
19:35:08.885	ServiceMessage	Listening on http://localhost:8990/
19:35:07.517	ServiceMessage	Starting web server on http://+:8990/
19:35:05.728	ServiceTypeRegistered	Service host process 19852 registered service type EchoBot_Stateless_API
19:34:57.453	PLB	Completed the Creation phase and issued the action -- Add, on Service -- fabric:/EchoBot_Stateless/EchoBot_Stateless API
19:34:56.195	CM	Application created: Application fabric:/EchoBot_Stateless Created: ApplicationType = EchoBot_StatelessType ApplicationId: 19852
19:34:56.070	FM	Service Created: Service fabric:/EchoBot_Stateless/EchoBot_Stateless_API partition d372cc97-4254-4a84-a492-3d5cd4f3e33

Output

Show output from: Debug

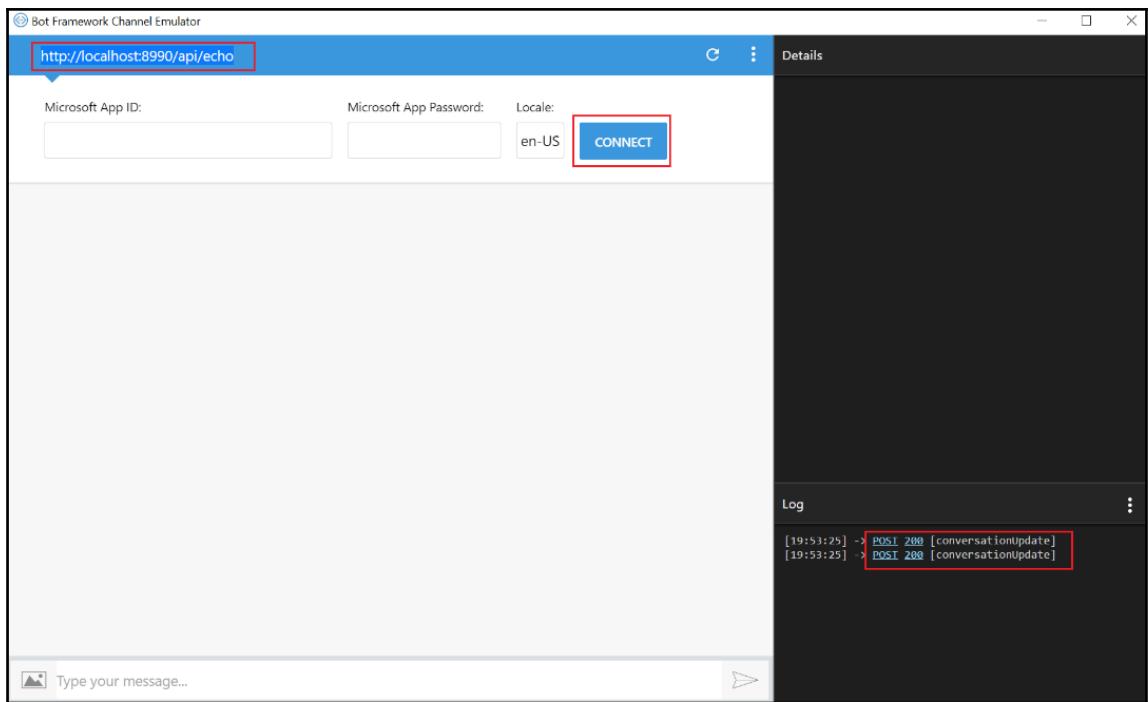
```
ApplicationName      : fabric:/EchoBot_Stateless
ApplicationTypeName   : EchoBot_StatelessType
ApplicationTypeVersion: 1.0.0
ApplicationParameters: { "_WFDebugParams_" = "[{"ServiceManifestName":"EchoBot_Stateless_APIPkg","CodePackageName":"Core","EntryPointType":"Main","DebugExePath":"C:\\Program Files (x86)\\Microsoft Visual Studio 14.0\\Common7\\Packages\\Debugger\\VsDebugLaunchNotify.exe","DebugArguments":"{3c15e6e3-83d6-4ce7-93a4-66c05dc0a77d} -p [ProcessId] -tid [ThreadId]","EnvironmentBlock":"_NO_DEBUG_HEAP=1\u0000"}]" }
"EchoBot_Stateless_API_InstanceCount" = "1" }
```

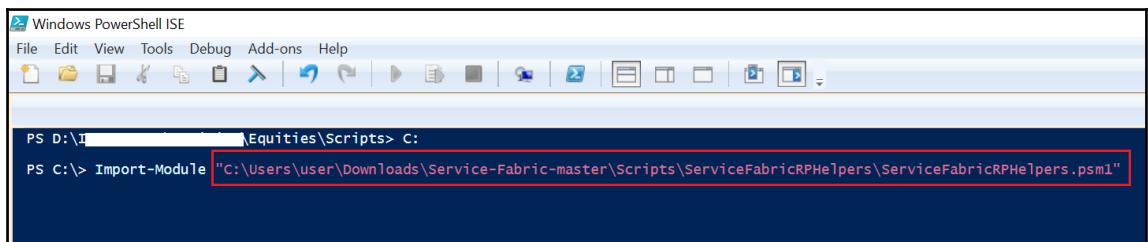
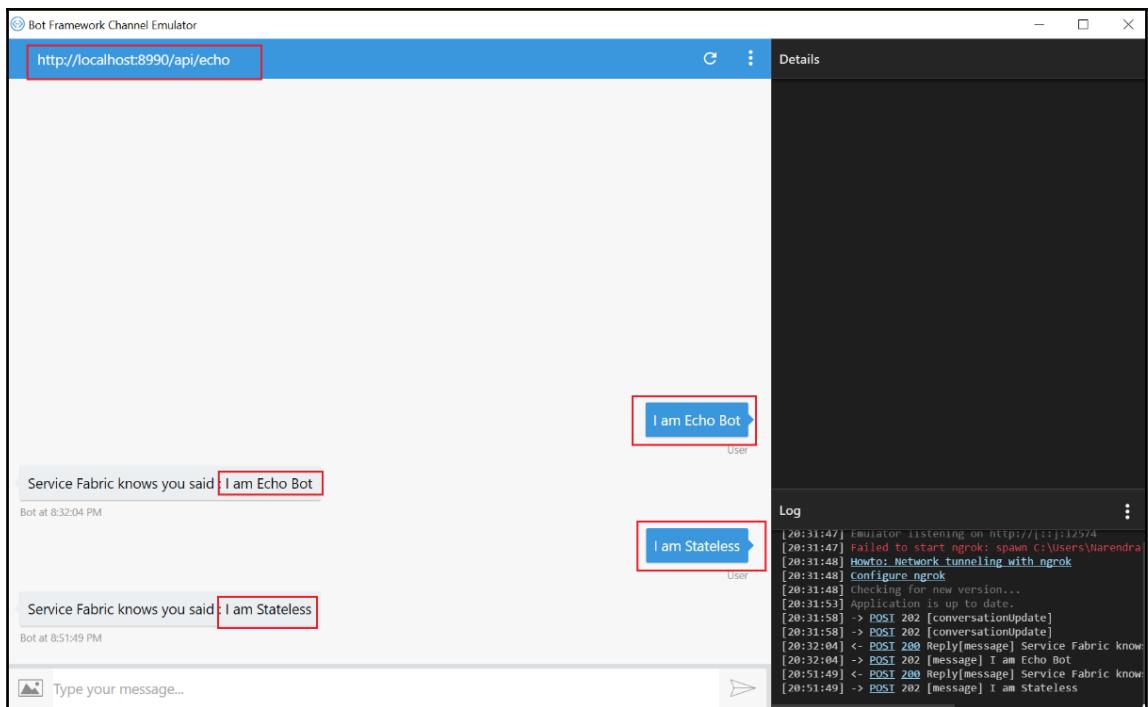
Create application succeeded.



A screenshot of the Microsoft Azure Service Fabric Explorer dashboard. The URL is `localhost:19080/Explorer/index.html#`. The interface includes:

- Back, Forward, Home, Refresh buttons.
- Microsoft Azure logo and Service Fabric Explorer title bar.
- OK, Warning, Error status indicators.
- Search Cluster input field.
- Cluster navigation tree:
 - Cluster
 - Applications
 - EchoBot.StatelessType
 - fabric/EchoBot.Stateless
 - fabric/EchoBot.Stateless/EchoBot.Stateless...
 - a989889f-1140-4869-8003-390ce19328fa
 - Instance (.Node_0)
 - Nodes
 - _Node_0
 - _Node_1
 - _Node_2
 - _Node_3
 - _Node_4
 - System
 - ESSENTIALS tab (selected).
 - DETAILS, CLUSTER MAP, MANIFEST tabs.
 - Cluster Health State: Error (highlighted with a red box).
 - System Application Health State: Error (highlighted with a red box).
 - Healthy Seed Nodes: 3 (100%).
 - Upgrade Domains: 5.
 - Fault Domains: 5.
 - DASHBOARD section with three circular metrics:
 - APPLICATION: 1 | ERROR: 0 | WARNING: 0 | HEALTHY: 1
 - NODES: 5 | ERROR: 0 | WARNING: 0 | HEALTHY: 5
 - UPGRADE IN PROGRESS: 0





```
PS C:\> Import-Module "C:\Users\Kishore\Downloads\Service-Fabric-master\Scripts\ServiceFabricRPHelpers\ServiceFabricRPHelpers.psm1"
PS C:\> Login-AzureRmAccount

Environment          : AzureCloud
AccountId           : kishoreisimac@outlook.com
TenantId            : [REDACTED]
SubscriptionId      : [REDACTED]
SubscriptionName    : Visual Studio Enterprise
CurrentStorageAccount :

PS C:\> Invoke-AddcertToKeyVault -SubscriptionId [REDACTED] -ResourceGroupName BotFabricVault -Location "East US" -VaultName Bot-key-vault -CertPath "C:\[REDACTED]\botcert.pfx" -Thumbprint [REDACTED]
Switching context to SubscriptionId [REDACTED]
Ensuring ResourceGroup BotFabricVault in East US
Creating new vault Bot-key-vault in East US
Creating new self signed certificate at C:\[REDACTED]\botcert.pfx
Reading pfx file from C:\[REDACTED]\botcert.pfx
Writing secret to botcert in vault Bot-key-vault

Name : CertificateThumbprint
Value : [REDACTED]

Name : SourceVault
Value : /subscriptions/[REDACTED]/resourceGroups/BotFabricVault/providers/Microsoft.KeyVault/vaults/Bot-key-vault

Name : CertificateURL
Value : https://Bot-key-vault.vault.azure.net:443/secrets/botsert

PS C:\>
```

The screenshot shows the Microsoft Azure Marketplace interface. On the left, there is a sidebar with a '+' button highlighted by a red box, followed by category icons for Compute, Networking, Storage, Web + Mobile, Databases, Intelligence + analytics, and Internet of Things. The main area is titled 'Everything' and contains a search bar with the text 'Service Fabric Cluster' highlighted by a red box. Below the search bar, the results section is titled 'NAME' and lists two items: 'Service Fabric Cluster' and 'Service Fabric Analytics', each accompanied by its respective icon.



Service Fabric Cluster

Microsoft

Create a customized Service Fabric cluster to host your Service Fabric micro services. Service Fabric is a distributed systems platform used to build scalable, reliable, and easily-managed applications for the cloud. By using Service Fabric, developers and administrators can avoid solving complex infrastructure problems and focus instead on implementing mission critical, demanding workloads knowing that they are scalable, reliable, and manageable.

You can use Service Fabric to:

- Develop massively scalable, self-healing, applications that can be deployed in seconds.
- Simplify the design of your application and improve its reliability by using stateful and stateless micro-services.
- Easily monitor and diagnose the health of your applications and set policies for automatic repairs & upgrades.

[!\[\]\(e317c15c34b6ca797aff501a6c36d54b_img.jpg\)](#) [!\[\]\(fa33217dc4d3b631485b8f2a5e1dc820_img.jpg\)](#) [!\[\]\(b6a86c3b0a1b2e59b74045b8004b02bf_img.jpg\)](#) [!\[\]\(59047dec2b1eadfeed2b45eb0aa47be5_img.jpg\)](#) [!\[\]\(c6bab43ba3c772f5ed8ad697cab04a5e_img.jpg\)](#) [!\[\]\(623682131d20895317bf9fddb7f98e69_img.jpg\)](#)

PUBLISHER	Microsoft
USEFUL LINKS	Documentation Service Overview Pricing details

[Create](#)

Create Service Fabric cl...

-

□

×

1

Basics



Configure basic settings

2

Cluster configuration



Set up cluster configuration

3

Security



Configure security settings

4

Summary



Review, view template, create

Create Service Fabric cl...

1 Basics
Configure basic settings

2 Cluster configuration
Set up cluster configuration

3 Security
Configure security settings

4 Summary
Review, view template, create

Basics

Basic cluster settings

* Cluster name ⓘ
echobotcluster .centralus.cloudapp.azure.com

Operating system
 Windows Linux (preview)

Default VM credentials

* User name ⓘ
echobot

* Password ⓘ
.....

* Confirm password
.....

* Subscription
Visual Studio Enterprise

* Resource group ⓘ
 Create new Use existing
BotFabric

* Location
Central US

OK

Cluster configuration

Configure node types and diagnostics

* Node type count

Configure each node type

* Node type 1 (Primary) [Configure required settings](#)

Diagnostics

Create application log storage

Custom fabric settings [Enter fabric setting properties](#)

Fabric version

Fabric upgrade mode Automatic Manual

* Fabric version

Node type configuration

Node type 1 (Primary)

* Node type name ✓

Durability tier

* Virtual machine size

Reliability tier

Initial VM scale set capacity

Custom endpoints ✓

Configure advanced settings [i](#)

Create Service Fabric cl...

— □ X

1 Basics Done ✓

2 Cluster configuration Done ✓

3 Security **Done** > 3

4 Summary > Review, view template, create

Security

Configure cluster security settings [Learn more](#)

Security mode ⓘ

Secure Unsecure

Primary certificate

* Source key vault ⓘ
`/subscriptions/55c8b769-eb89-41a0-86c7-b...`

* Certificate URL ⓘ
`https://bot-key-vault.vault.azure.net:443/s...` ✓

* Certificate thumbprint ⓘ
`5D3DDA8512F5CAB045F35FBE19523CE960A...`

Configure advanced settings ⓘ

Create Service Fabric cl... _ □ X

Summary

Validation passed

Basics

Subscription	Visual Studio Enterprise
Resource group	BotFabric
Location	Central US

Settings

Cluster name	echobotcluster
User name	echobot
Node type count	1
Security mode	Unsecure
Create application log storage	On

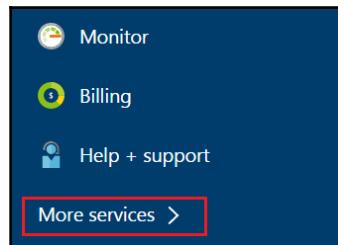
Node types

Node type 1 (Primary)	echobot (5xStandard_D1_v2)
Virtual machine size	Standard_D1_v2

4 Summary
Review, view template, create >

Create Download template and parameters

The screenshot shows the 'Create Service Fabric cluster' wizard in the Azure portal. The left pane displays four steps: 'Basics' (Done), 'Cluster configuration' (Done), 'Security' (Done), and 'Summary'. Step 4 is highlighted with a red box around the 'Create' button. The right pane shows the 'Summary' page with validation passed. It details the basics (Subscription: Visual Studio Enterprise, Resource group: BotFabric, Location: Central US), settings (Cluster name: echobotcluster, User name: echobot, Node type count: 1, Security mode: Unsecure, Create application log storage: On), and node types (Node type 1 (Primary): echobot (5xStandard_D1_v2), Virtual machine size: Standard_D1_v2). A red box also highlights the 'Create' button at the bottom of the summary page.



The screenshot shows the Azure portal's sidebar on the left and a list of services on the right. The sidebar includes options like SQL databases, Cloud services (classic), Storage accounts, Security Center, Subscriptions, Application Insights, DevTest Labs, Azure Active Directory, Monitor, Billing, Help + support, and More services >. The 'More services >' button is highlighted with a red box. On the right, the service list is organized into sections: COMPUTE, PREVIEW, and others. Under COMPUTE, 'Service Fabric clusters' is highlighted with a red box. Other items in COMPUTE include Virtual machines, Virtual machines (classic), Virtual machine scale sets, Container services, and Batch accounts. Under PREVIEW, items include Cloud services (classic), RemoteApp collections, Container registries, and Availability sets. A yellow star icon is next to several items, and a 'Help improve the service menu!' link is at the bottom.

The screenshot shows the 'Service Fabric clusters' management interface. At the top, it displays the user's name (kishoreismacoutlook) and the default directory. It includes buttons for Add, Columns, and Refresh. Below this, it shows 'Subscriptions: Visual Studio Enterprise' and a filter input field. It indicates '1 items'. A table header 'NAME' is shown with a dropdown arrow. One item, 'echobotcluster', is listed, featuring its name and a small orange Service Fabric icon.

echobotcluster
Service Fabric cluster

Explorer Delete

Essentials

Resource group (change) BotFabric	Service Fabric version 5.4.164.9494
Status	Client connection endpoint echobotcluster.centralus.cloudapp.azure.co...
Baseline upgrade	Node count 5
Location Central US	Application count 0
Subscription name (change) Visual Studio Enterprise	Service Fabric Explorer http://echobotcluster.centralus.cloudapp.a...
Subscription ID 55c8b769-eb89-41a0-86c7-ba2ae87ffcdca	

5 nodes

NAME	NODE TYPE	HEALTH STATE	STATUS	UPGRADE DO...	FAULT DOMAIN
_echobot_0	echobot	✓ OK	Up	0	fd:/0
_echobot_1	echobot	✓ OK	Up	1	fd:/1
_echobot_2	echobot	✓ OK	Up	2	fd:/2
_echobot_3	echobot	✓ OK	Up	3	fd:/3
_echobot_4	echobot	✓ OK	Up	4	fd:/4

echobotcluster.centralus.cloudapp.azure.com:19080/Explorer/index.html#/ Microsoft Azure Service Fabric Explorer REFRESH RATE 15s OFF

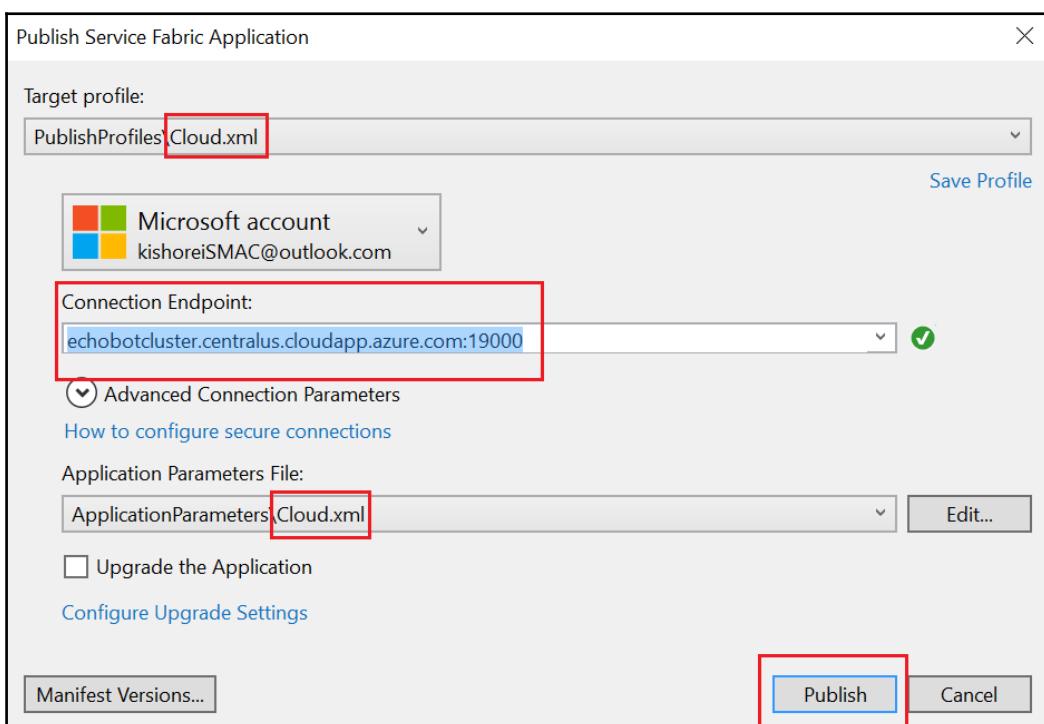
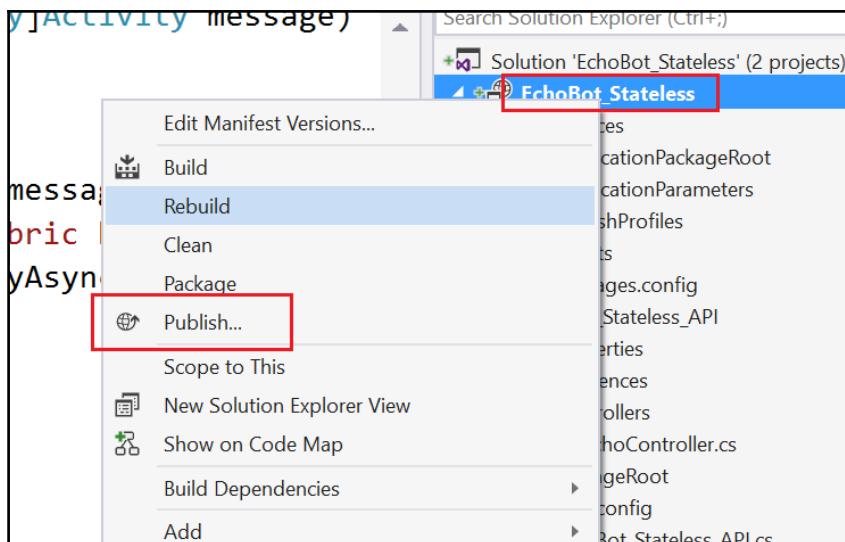
Cluster http://echobotcluster.centralus.cloudapp.azure.com

ESSENTIALS DETAILS CLUSTER MAP METRICS MANIFEST

Cluster Health State ✓ OK	Upgrade Domains 5
System Application Health State ✓ OK	Fault Domains 5
Healthy Seed Nodes 5 (100%)	

DASHBOARD

0 APPLICATIONS	0 ERROR 0 WARNING 0 HEALTHY
5 NODES	0 ERROR 0 WARNING 5 HEALTHY
	0 UPGRADE IN PROGRESS



Microsoft Azure Service Fabric Explorer

REFRESH RATE 15s OFF FAST

OK Warning Error

Search Cluster

Cluster Applications EchoBot_StatelessType fabric/EchoBot_Stateless ... Nodes _echobot_0 _echobot_1 _echobot_2 _echobot_3 _echobot_4 system

Application fabric:/EchoBot_Stateless

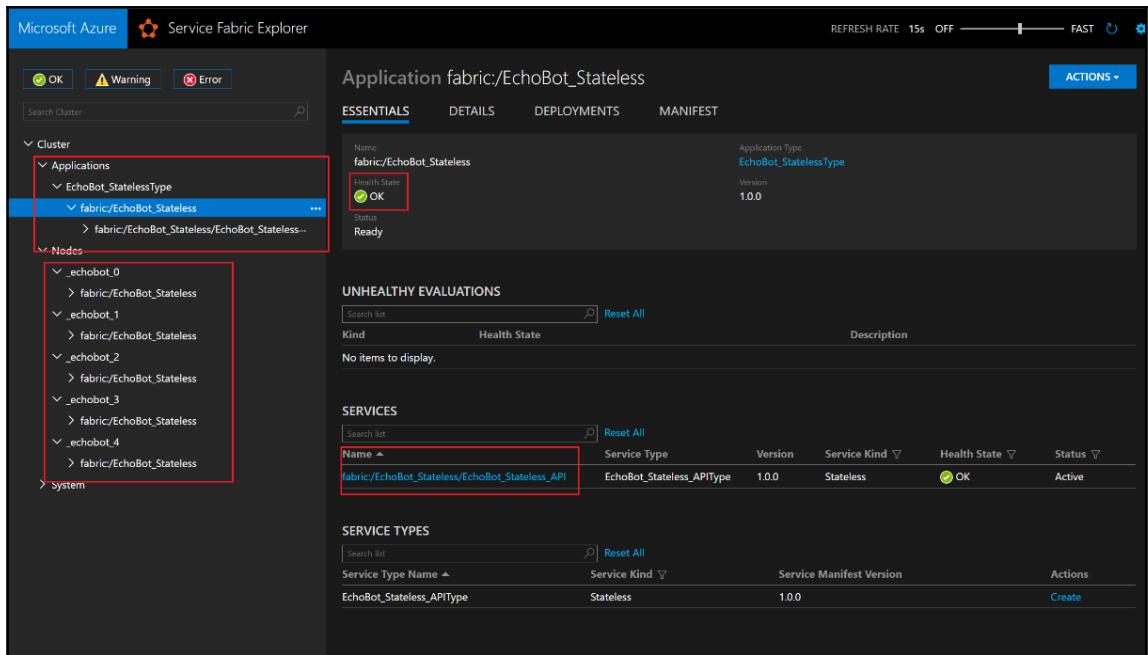
ESSENTIALS DETAILS DEPLOYMENTS MANIFEST

Name: fabric/EchoBot_Stateless Length State: OK Status: Ready Application Type: EchoBot_StatelessType Version: 1.0.0

UNHEALTHY EVALUATIONS Search list Reset All Kind Health State Description No items to display.

SERVICES Search list Reset All Name Service Type Version Service Kind Health State Status fabric/EchoBot_Stateless/EchoBot_Stateless_API EchoBot_Stateless_APIType 1.0.0 Stateless OK Active

SERVICE TYPES Search list Reset All Service Type Name Service Kind Service Manifest Version Actions EchoBot_Stateless_APIType Stateless 1.0 Create



demobot Service Fabric cluster

Explorer Delete

Search (Ctrl+ /)

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

SETTINGS

Essentials

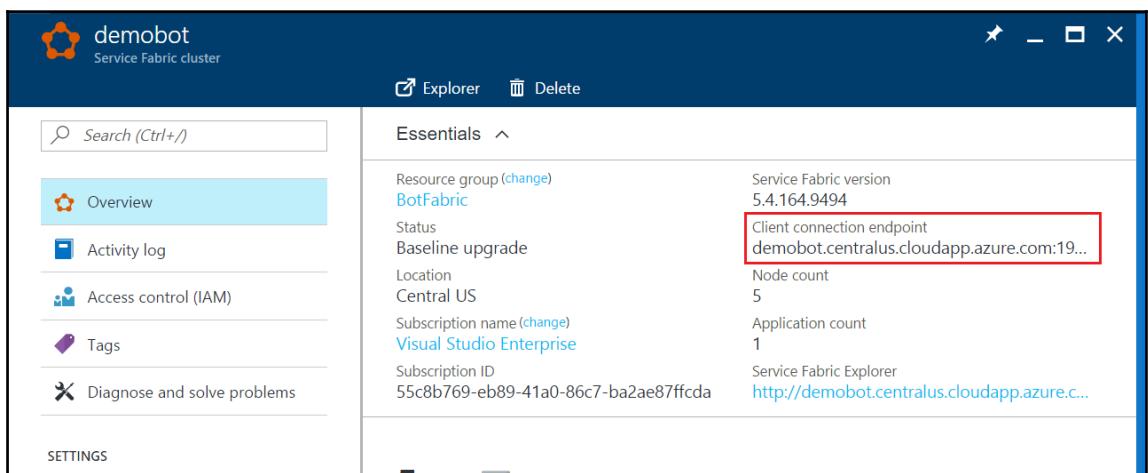
Resource group (change) BotFabric Service Fabric version 5.4.164.9494

Status Client connection endpoint demobot.centralus.cloudapp.azure.com:19... Baseline upgrade

Location Central US Node count 5

Subscription name (change) Visual Studio Enterprise Application count 1

Subscription ID 55c8b769-eb89-41a0-86c7-ba2ae87ffcdca Service Fabric Explorer http://demobot.centralus.cloudapp.azure.c...



Edit EchoBot

Bot profile



Icon

[Upload custom icon](#)
30K max, png only

Name: * ?

EchoBot

Bot handle: * ?

echobot123456

Description: * ?

echobot

Configuration

Messaging endpoint:

<https://demobot.centralus.cloudapp.azure.com:8080/api/echo>

Register your bot with Microsoft to generate a new App ID and password

[Manage Microsoft App ID and password](#)

The screenshot shows the Visual Studio interface. On the left is the code editor with the file `ServiceManifest.xml`. On the right is the Solution Explorer showing the project structure for `EchoBot_Stateless_API`.

```
</CodePackage>

<!-- Config package is the contents of the Config directory under PackageRoot that
     independently-updatable and versioned set of custom configuration settings +-->
<ConfigPackage Name="Config" Version="1.0.0" />

<Resources>
    <Endpoints>
        <!-- This endpoint is used by the communication listener to obtain the port or
            listen. Please note that if your service is partitioned, this port is shared
            across replicas of different partitions that are placed in your code. -->
        <Endpoint Protocol="http" Name="ServiceEndpoint" Type="Input" Port="8080" />
    </Endpoints>
</Resources>
</ServiceManifest>
```

Solution Explorer content:

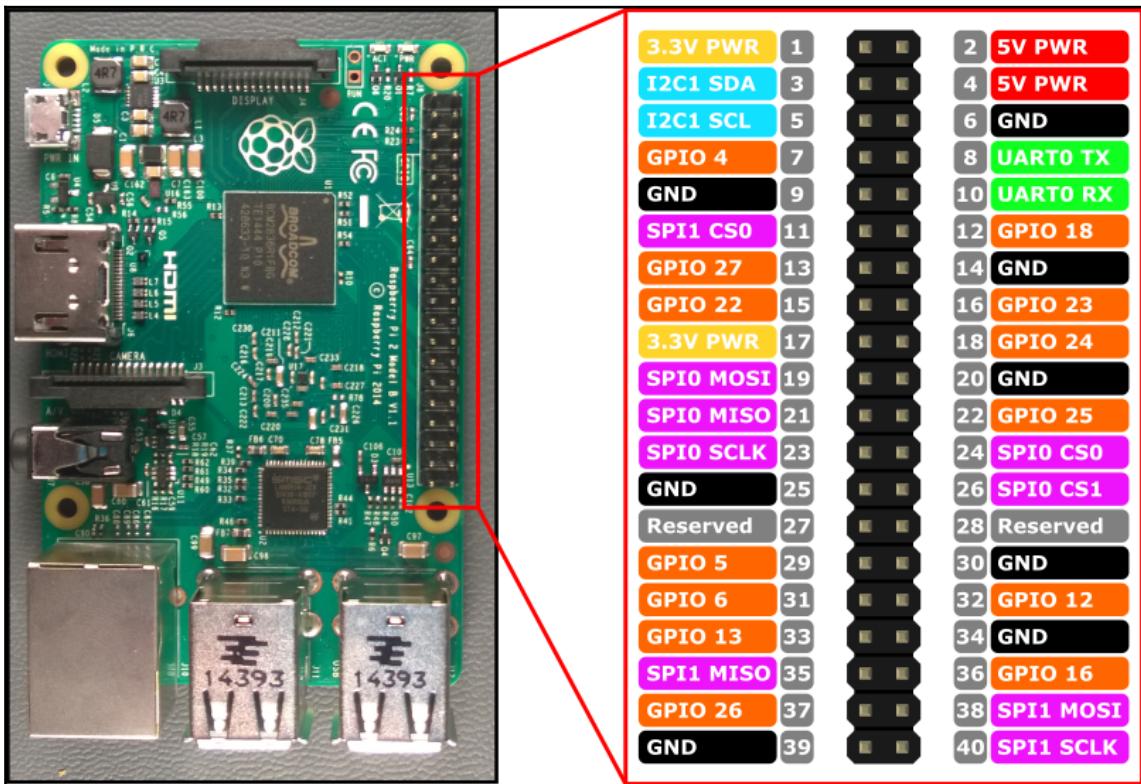
- `EchoBot_Stateless_API` (highlighted)
- Properties
- References
- Controllers
 - `EchoController.cs`
- PackageRoot
 - Config
 - `ServiceManifest.xml` (highlighted)
 - `App.config`
 - `EchoBot_Stateless_API.cs`
 - `OwinCommunicationListener.cs`
 - `packages.config`
 - `Program.cs`
 - `ServiceEventSource.cs`
 - `Startup.cs`

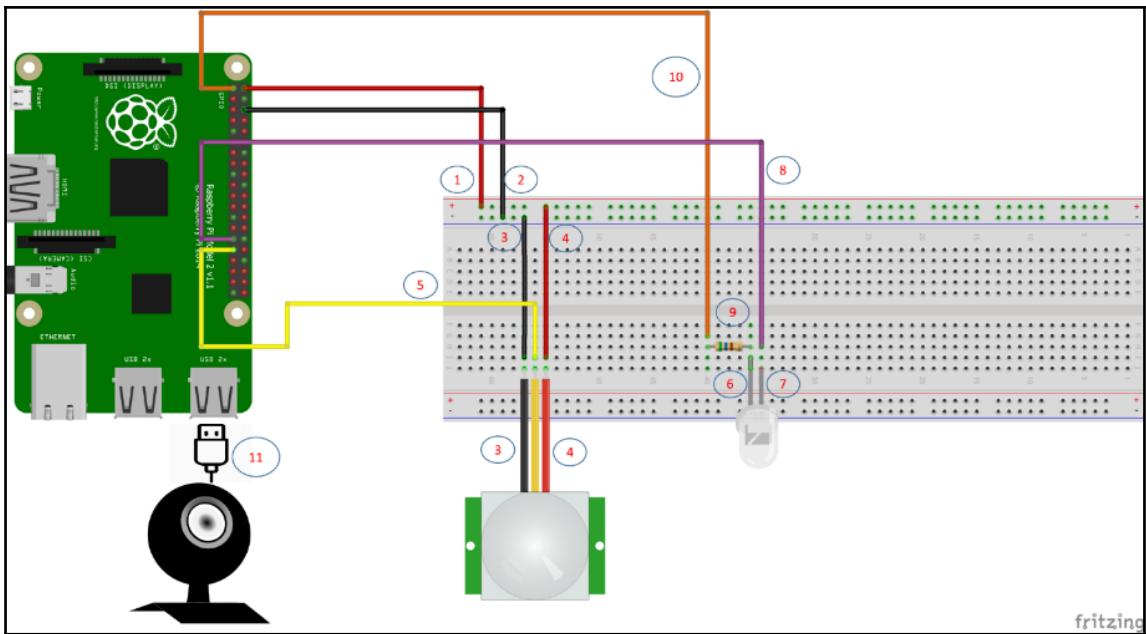
The screenshot shows the Visual Studio code editor with the file `EchoController.cs`. A specific line of code is highlighted with a red box.

```
namespace EchoBot_Stateless_API.Controllers
{
    [BotAuthentication(MicrosoftAppId = "e0011002-2010-17d5-bccc-10000007ca55",
        MicrosoftAppPassword = "fCERqC0L2EjB1c1NxD...")]
    public class EchoController : ApiController
    {
        // GET api/values
```

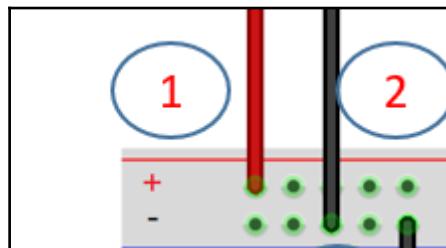
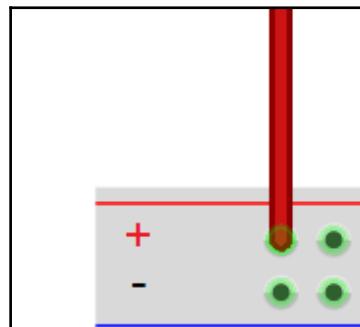
Chapter 8:

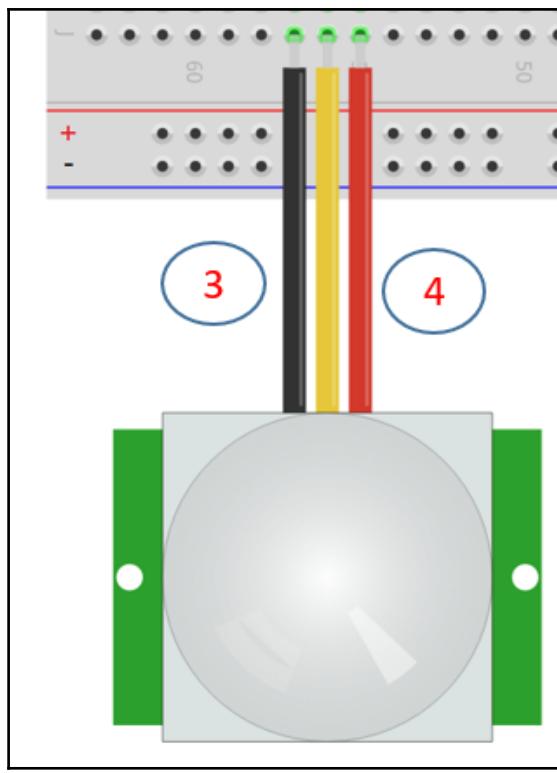
Developing Intelligent Facial Expression Identification Bot for IoT Using Azure and Power BI

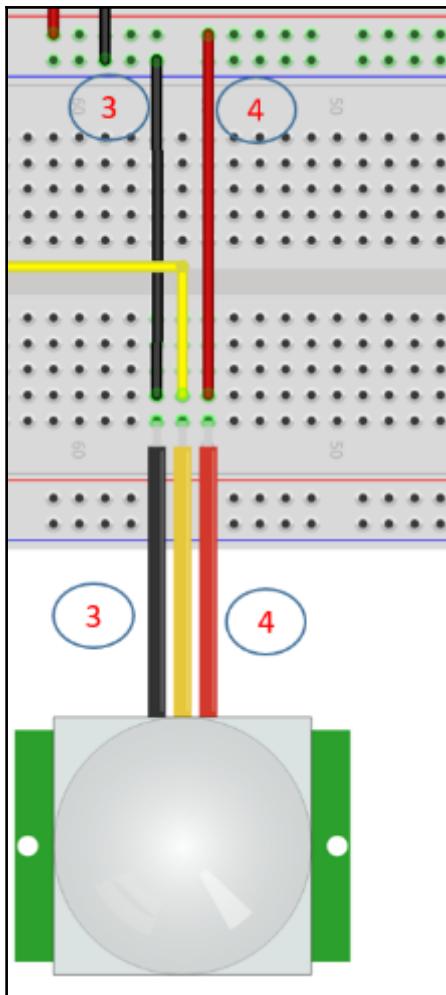




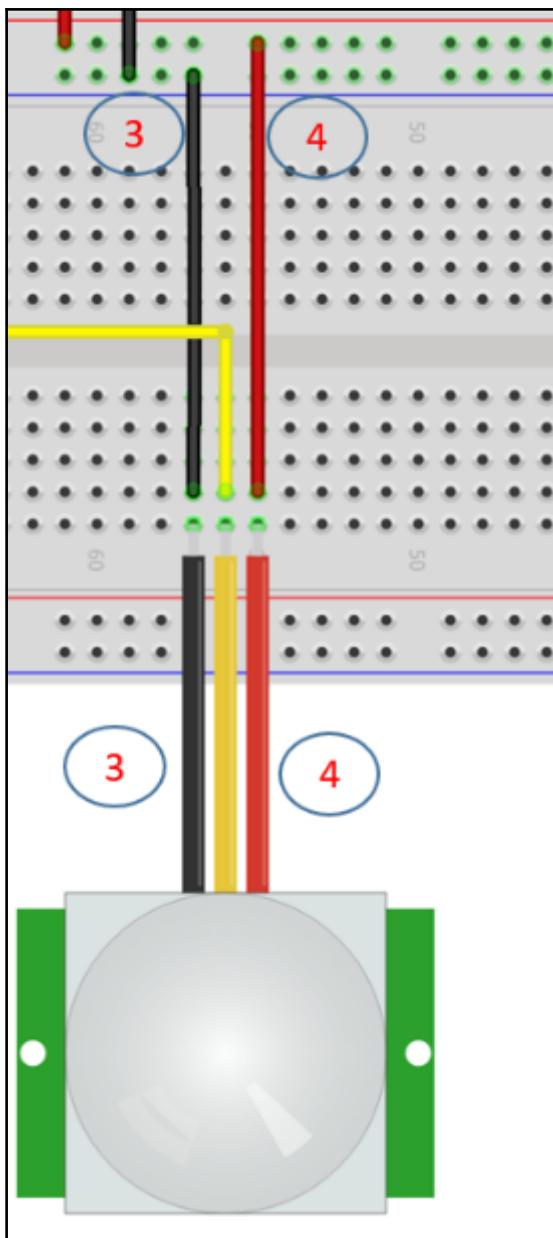
fritzing

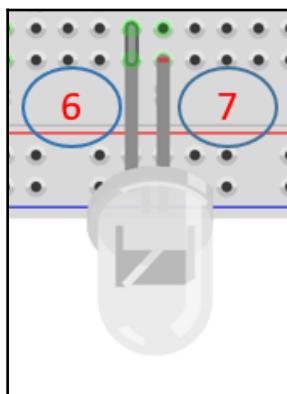
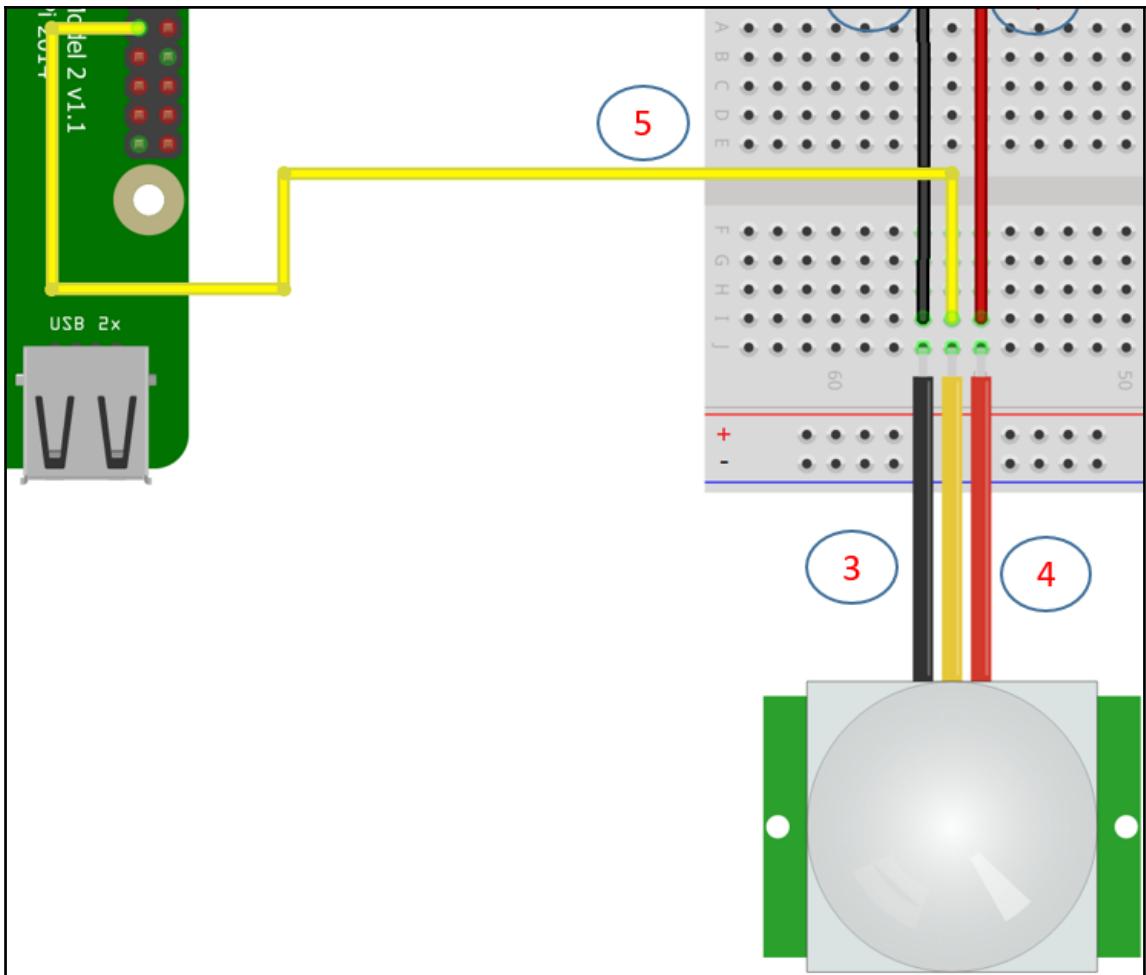


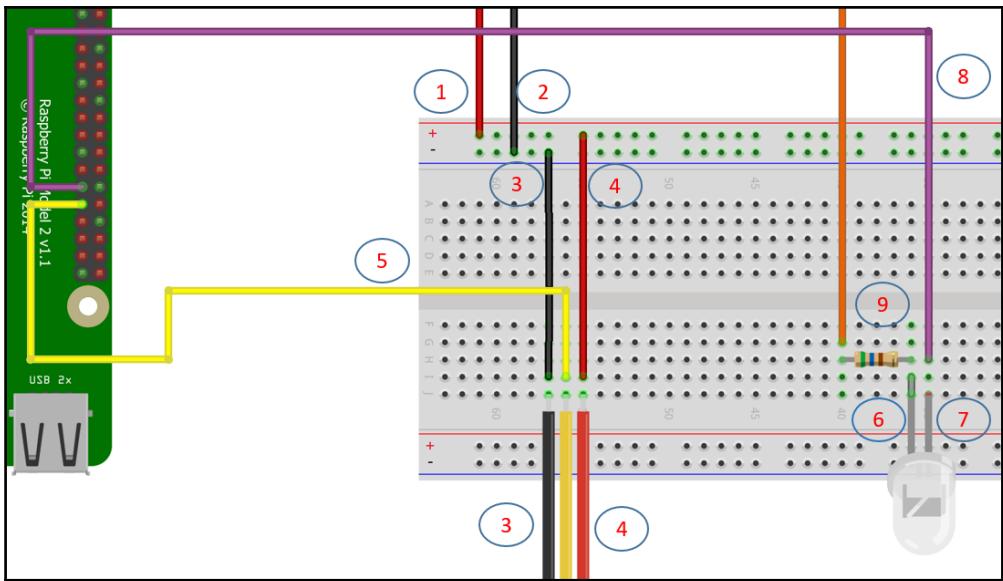


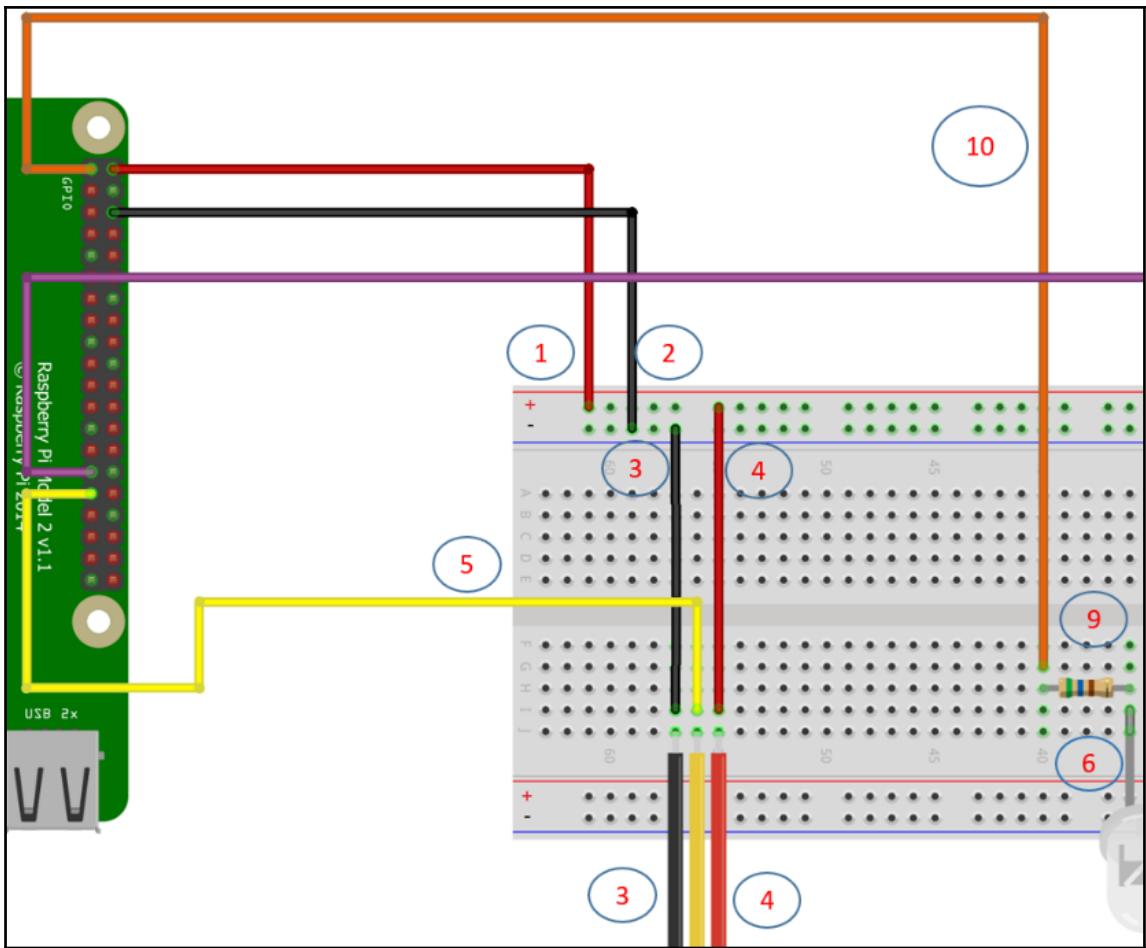


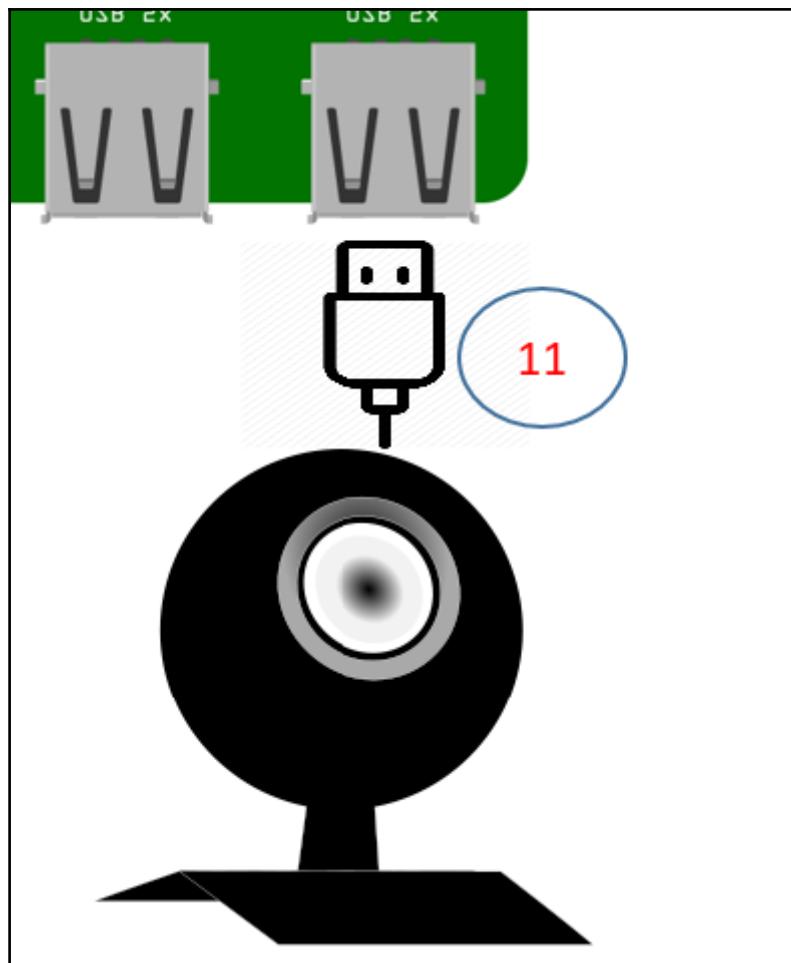


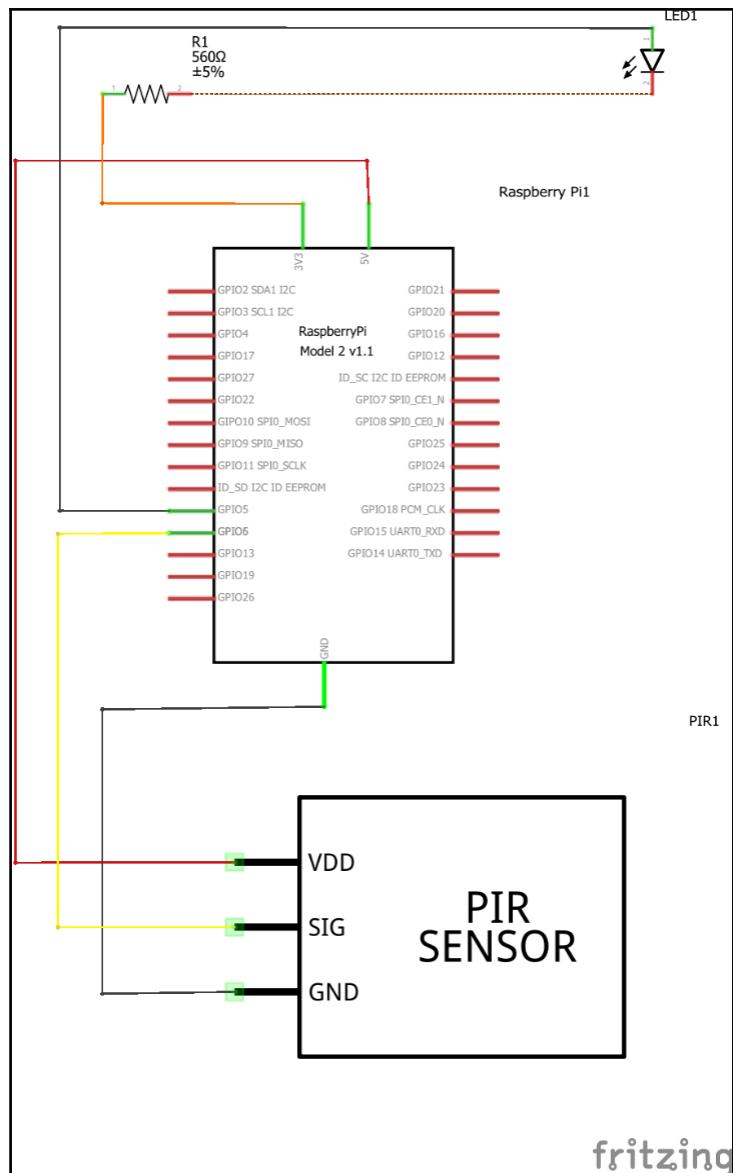












GenericHub - Shared access policies

+ Add

POLICY	PERMISSIONS
iothubowner	registry write, service connect, device connect
service	service connect
device	device connect
registryRead	registry read
registryReadWrite	registry write

SETTINGS

- Properties
- Locks
- Automation script

GENERAL

- Shared access policies
- Messaging
- File upload
- Pricing and scale
- Operations monitoring
- Diagnostics

SUPPORT + TROUBLESHOOTING

- New support request

iothubowner

GenericHub

Save Discard More

Access policy name
iothubowner

Permissions

Registry read ⓘ
 Registry write ⓘ
 Service connect ⓘ
 Device connect ⓘ

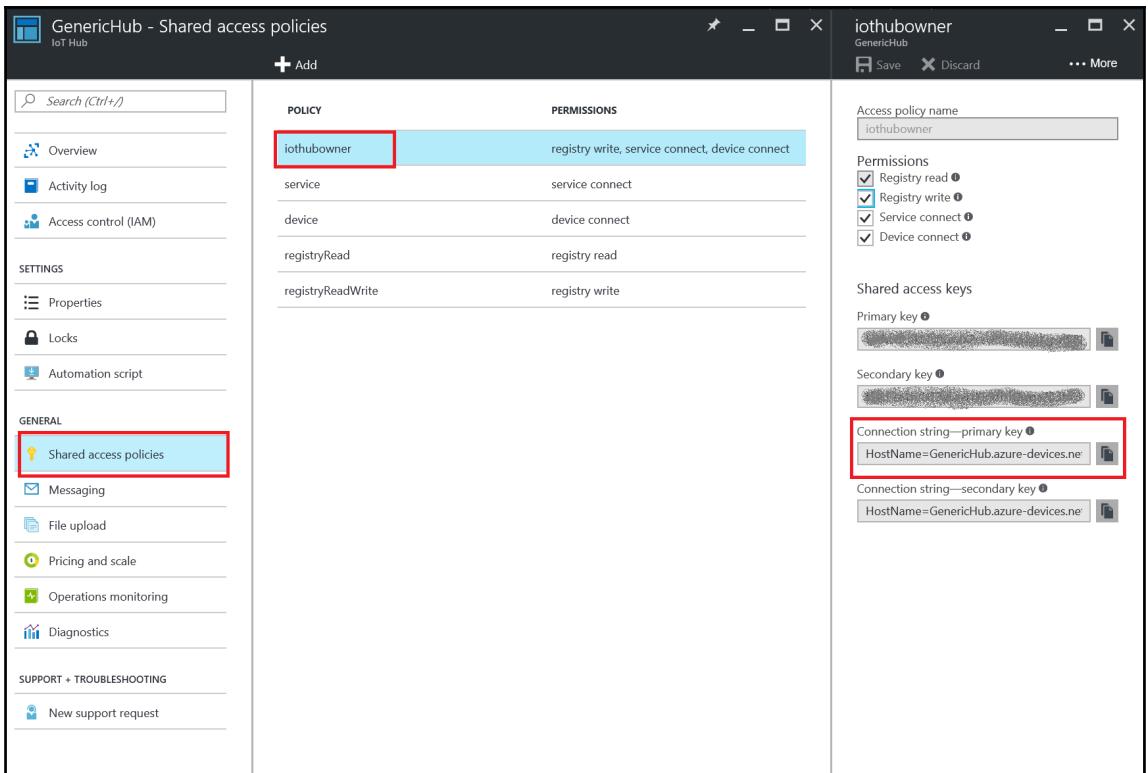
Shared access keys

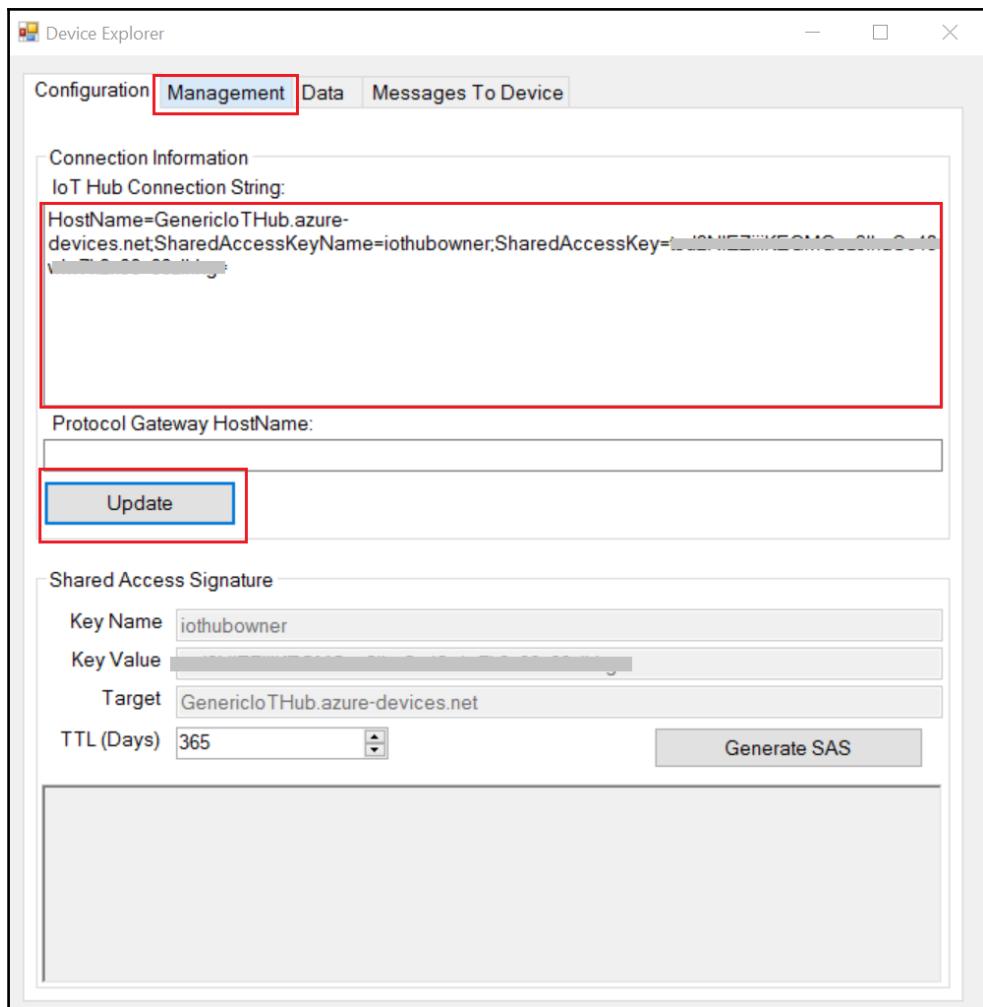
Primary key ⓘ
[REDACTED]

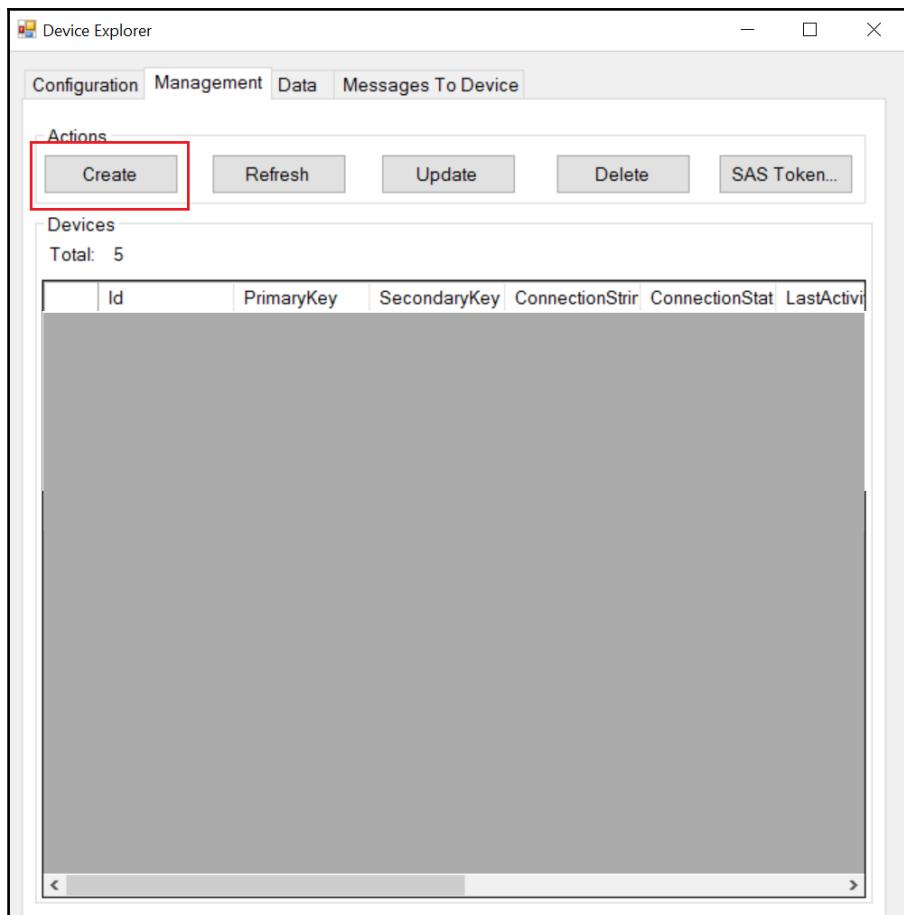
Secondary key ⓘ
[REDACTED]

Connection string—primary key ⓘ
HostName=GenericHub.azure-devices.net

Connection string—secondary key ⓘ
HostName=GenericHub.azure-devices.net







Create Device

Device ID: XXXXXXXXXXXXXX

Primary Key: XXXXXXXXXXXXXX

Secondary Key: XXXXXXXXXXXXXX

Auto Generate ID Auto Generate Keys

Create Cancel

 State: active

Key 1:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
Key 2:XXXXXXXXXXXXXXXXXXXXXXXXXXXX

[Regenerate](#) | [Show](#) | [Copy](#)
[Regenerate](#) | [Show](#) | [Copy](#)

[Show Quota](#)

Buy On Azure Cancel

 Emotion - Preview
30,000 transactions per month, 20 per minute.
State: active

Key 1:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
Key 2:XXXXXXXXXXXXXXXXXXXXXXXXXXXX

[Regenerate](#) | [Hide](#) Copy
[Regenerate](#) | [Show](#) | [Copy](#)

[Show Quota](#)

Buy On Azure Cancel

 Computer Vision - Preview
5,000 transactions per month, 20 per minute.
State: active



Face - Preview

30,000 transactions per month, 20 per minute.

State: active

Key 1:XXXXXXXXXXXXXXXXXXXXXXXXXXXX
Key 2:XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Regenerate | Show **Copy**

Regenerate | Show **Copy**

Show Quota

Buy On Azure 

Cancel

Start Page - Microsoft Visual Studio (Administrator)

File Edit View Debug Team Tools Architecture Test Analyze Window Help

New ▶

- Project... Ctrl+Shift+N
- Web Site... Shift+Alt+N
- Team Project...
- Repository...
- File... Ctrl+N
- Project From Existing Code...
- Import ▶

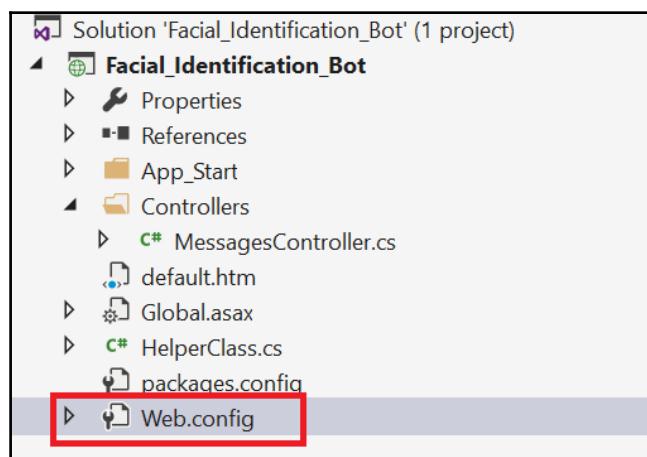
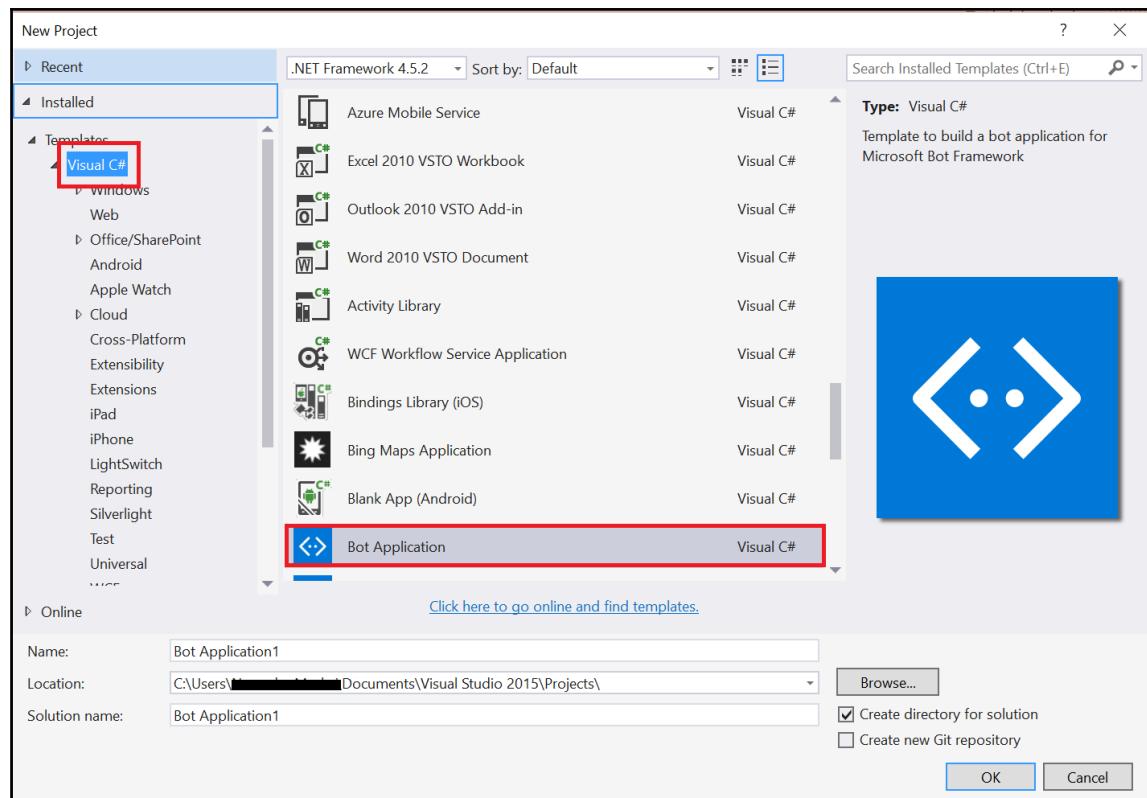
See what's new in the .NET Framework

Explore what's new in Visual Studio Team Services

News

Looking ahead: What's New in C# 7.0
(Visual Studio "15" Preview 4)

What follows is a description of all the planned



```
<configuration>
  <appSettings>
    <!-- update these with your BotId, Microsoft App Id and your Microsoft App Password -->
    <add key="BotId" value="" />
    <add key="MicrosoftAppId" value="" />
    <add key="MicrosoftAppPassword" value="" />
    <add key="FaceKey" value="C772C4A587B4A5E8C42A888127A540" />
    <add key="EmotionKey" value="07A071CE1A1A88801000A11A00" />
  </appSettings>
```

NuGet: Facial_Identification_Bot X HelperClass.cs Web.config* MessagesController.cs

Browse Installed Updates 7 NuGet Pa...

Microsoft.ProjectOxford

Microsoft.ProjectOxford.Vision by Microsoft, 23.9K downloads v1.0.372
Microsoft Cognitive Services Vision API Client Library.

Microsoft.ProjectOxford.Emotion by Microsoft, 18K downloads v1.0.336
This client library allows the use of Microsoft's state-of-the-art cloud-based algorithms to...

Microsoft.ProjectOxford.Video by Microsoft, 1.53K downloads v1.2.0
Microsoft Cognitive Services Video Client Library

Microsoft.ProjectOxford.Text by Adam Grocholski, 1.48K downloads v1.0.2.36174
Microsoft Cognitive Services Text Analytics API Client Library

Microsoft.ProjectOxford.Search by Adam Grocholski, 342 downloads v0.0.3.27992
Microsoft Cognitive Services Search API Client Library

Microsoft.ProjectOxford.Face by Microsoft, 24.8K downloads v1.2.1.2
Use Face API Client Library to enrich your apps with Microsoft's state-of-the-art cloud-bas...

A screenshot of a code editor showing the `HelperClass.cs` file. The code defines a static class `HelperClass` containing various using statements and client definitions for Face and Emotion services.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using Microsoft.ProjectOxford.Face.Contract;
using Microsoft.ProjectOxford.Face;
using Microsoft.ProjectOxford.Emotion;
using System.Configuration;
using System.IO;
using System.Text;
using System.Threading.Tasks;

namespace Facial_Identification_Bot
{
    public static class HelperClass
    {
        // ...
    }
}
```

```
2 references | 0 changes | 0 authors, 0 changes
public static class HelperClass
{
    public static FaceServiceClient faceClient =
        new FaceServiceClient(ConfigurationManager.AppSettings["FaceKey"].ToString());
    public static EmotionServiceClient emotionClient =
        new EmotionServiceClient(ConfigurationManager.AppSettings["EmotionKey"]);
    public static Face face = null;
    public static Microsoft.ProjectOxford.Face.Contract.Face
        FaceclientFace = null;
}
```

A screenshot of the Configuration step in the Azure Bot Service setup wizard. It shows the messaging endpoint set to `https://facialidentificationbot.azurewebsites.net/api/messages`. A button to manage Microsoft App ID and password is present, along with a field for pasting an app ID.

Configuration

Messaging endpoint:

`https://facialidentificationbot.azurewebsites.net/api/messages`

Register your bot with Microsoft to generate a new App ID and password

[Manage Microsoft App ID and password](#)

Paste your app ID below to continue

`fbce89cb-d016-4293-acea-b252367313b1`

```
<configuration>
  <appSettings>
    <!-- update these with your BotId, Microsoft App Id and your Microsoft App
        Client ID -->
    <add key="BotId" value="FacialIdentificationBot" />
    <add key="MicrosoftAppId" value="fbce89cb-d016-4293-acea-b252367313b1" />
    <add key="MicrosoftAppPassword" value="WNg5c7QaLcLcSDXNcJcA" />
    <add key="FaceKey" value="C72ca4a5c1d4a5e88e42dd00127a640" />
    <add key="EmotionKey" value="071107f55111100020111020111100" />
  </appSettings>
```

Configuration

Messaging endpoint:

<https://facialidentificationbot.azurewebsites.net/api/messages>

Register your bot with Microsoft to generate a new App ID and password

[Manage Microsoft App ID and password](#)

Paste your app ID below to continue

fbce89cb-d016-4293-acea-b252367313b1



Facial Identification Bot

Details

[Edit](#)**Bot handle**

FacialIdentificationBot

Bot Framework Version

3.0

Messaging endpoint[https://facialidentificationbot.azurewebsites.net/api...](https://facialidentificationbot.azurewebsites.net/api/)**Microsoft App ID**

fbce89cb-d016-4293-acea-b252367313b1

Test connection
to your bot

[Test](#)

Endpoint authorization succeeded

Channels

Test link

Issues

Enabled

Published

	Skype	Add to Skype	0	Yes	<input type="checkbox"/> Off
	Web Chat		7	Yes	<input type="checkbox"/> Off

ools Help

 Facial Identification Bot
Online

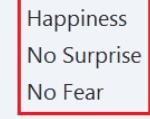
Today 5:51 PM



 Face Analytics of given Image are

Age: 2.3
Gender: female
HeadPose:

No beard
No moustache
No sideburns
smile
NoGlasses

 Emotion Analytics of given image are

Happiness
No Surprise
No Fear

Type a message here

Microsoft

Bot Framework PREVIEW My bots Register a bot Documentation Bot Directory Blog

 Facial Identification Bot

Details [Edit](#)

Bot handle
FacialIdentificationBot

Bot Framework Version
3.0

Messaging endpoint
[https://facialidentificationbot.azurewebsites.net/api...](https://facialidentificationbot.azurewebsites.net/api/)

Microsoft App ID
fbce89cb-d016-4293-acea-b252367313b1

Test connection to your bot Test

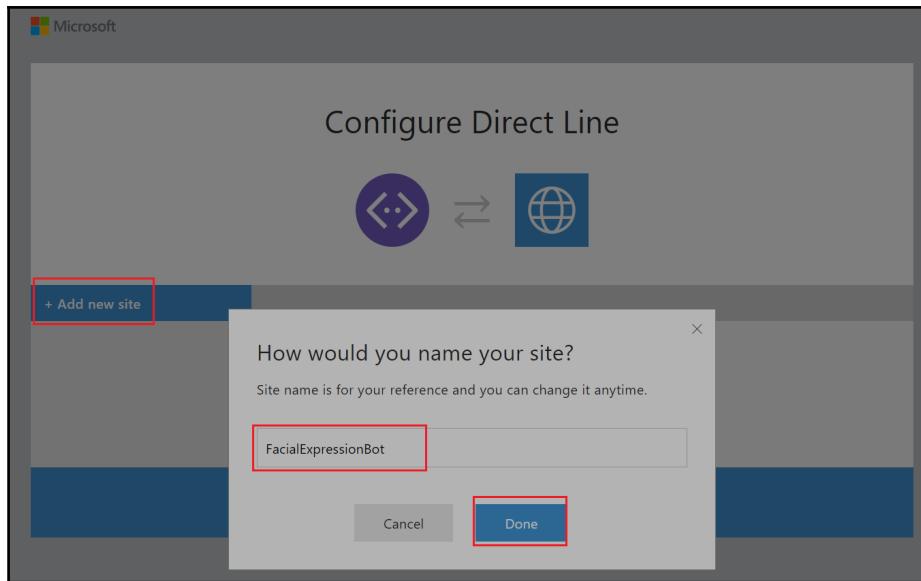
Channels

	Test link	Issues	Enabled	Published	
 Skype	Add to Skype	0	Yes	<input type="checkbox"/> Off	Edit
 Web Chat		9	Yes	<input type="checkbox"/> Off	Edit

[Get bot embed codes](#)

Add another channel

 Direct Line	Add
 Email	Add
 Facebook Messenger	Add
 GroupMe	Add



+ Add new site FacialExpressionBot Disable

FacialExpressionBot

Secret keys

XOqvmfBl7t4.cwA.gMc.j1UFm8t2fXlYb9xwxcKP0qnV3q7GINCfEbRwj1eY [Hide](#) | [Regenerate](#)

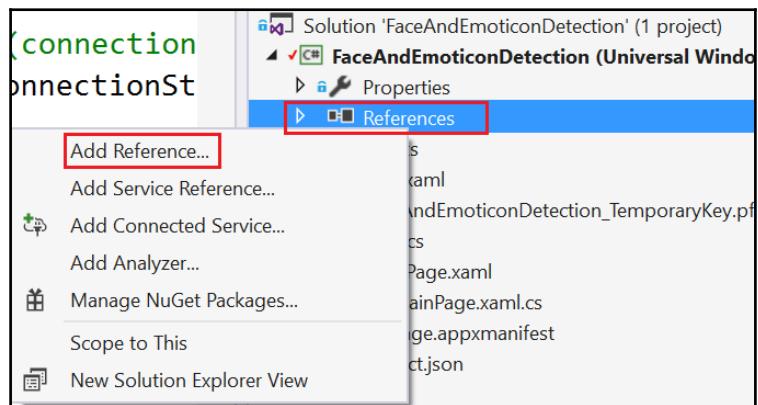
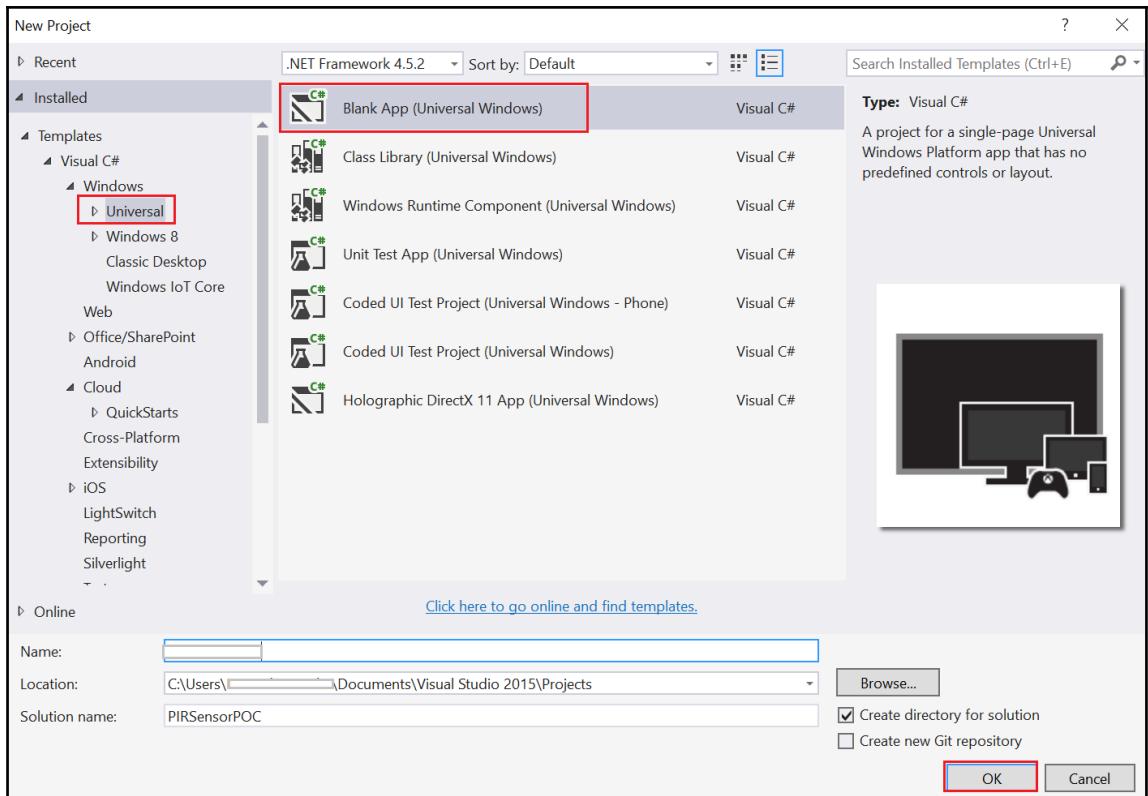
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX [Show](#) | [Regenerate](#)

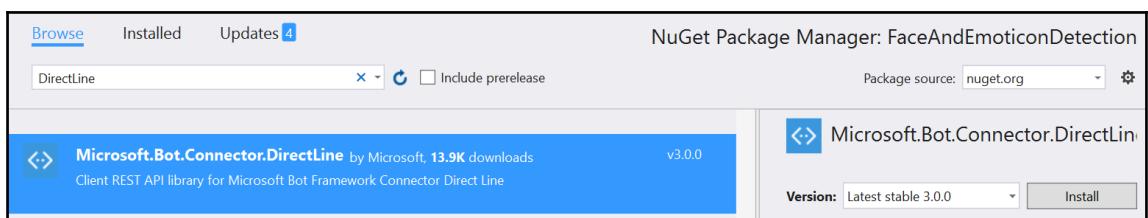
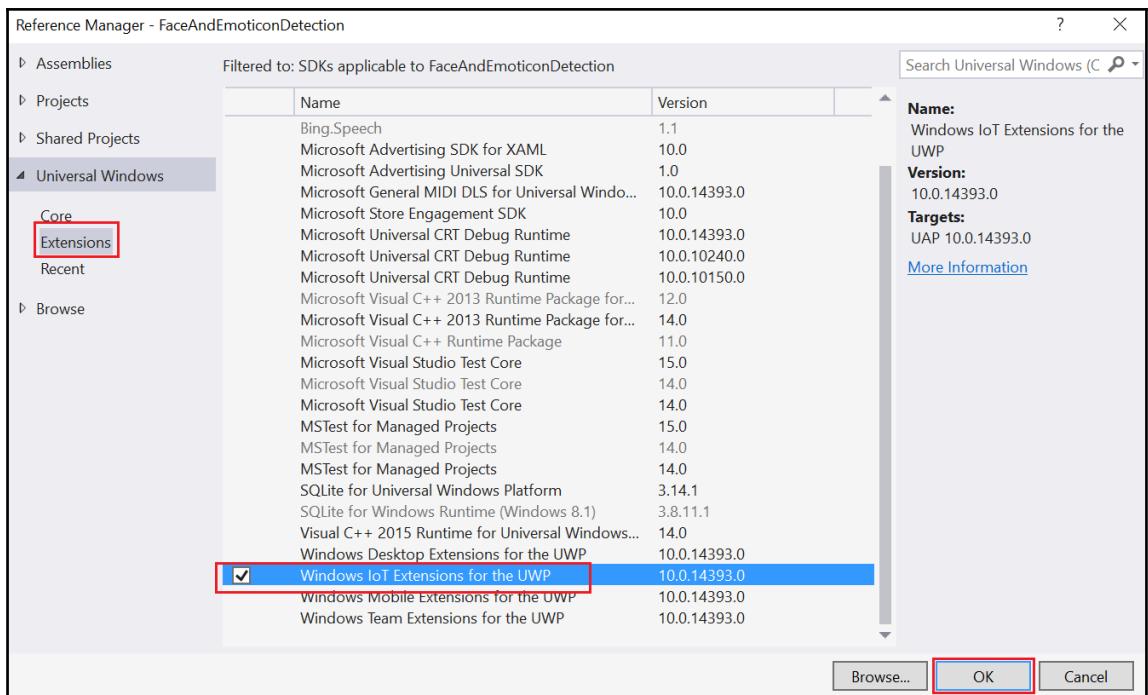
Version

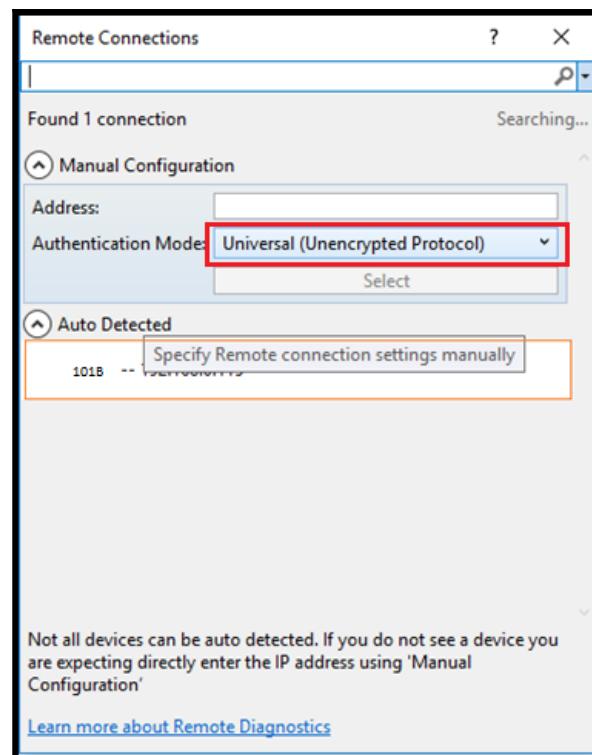
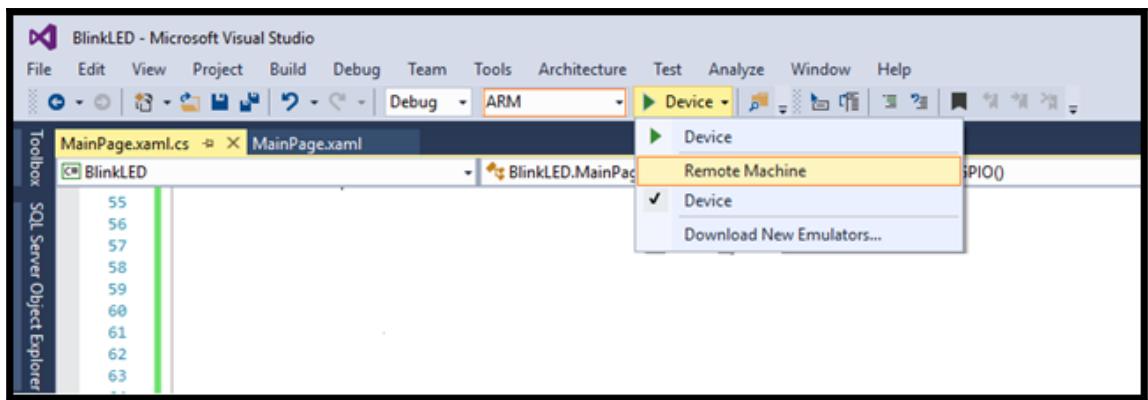
Select which versions of the Direct Line protocol are enabled on this site. More information about these versions can be found in the [Direct Line reference documentation](#).

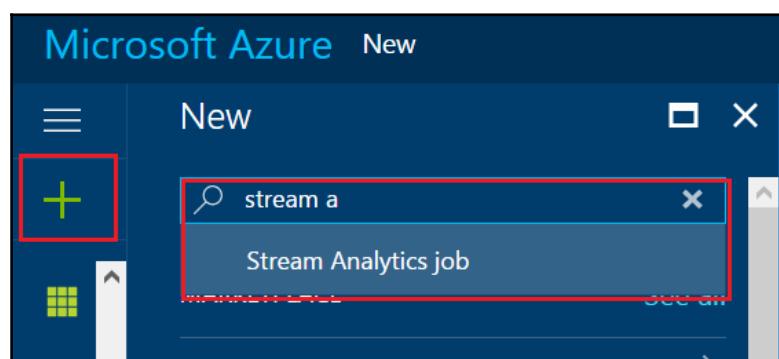
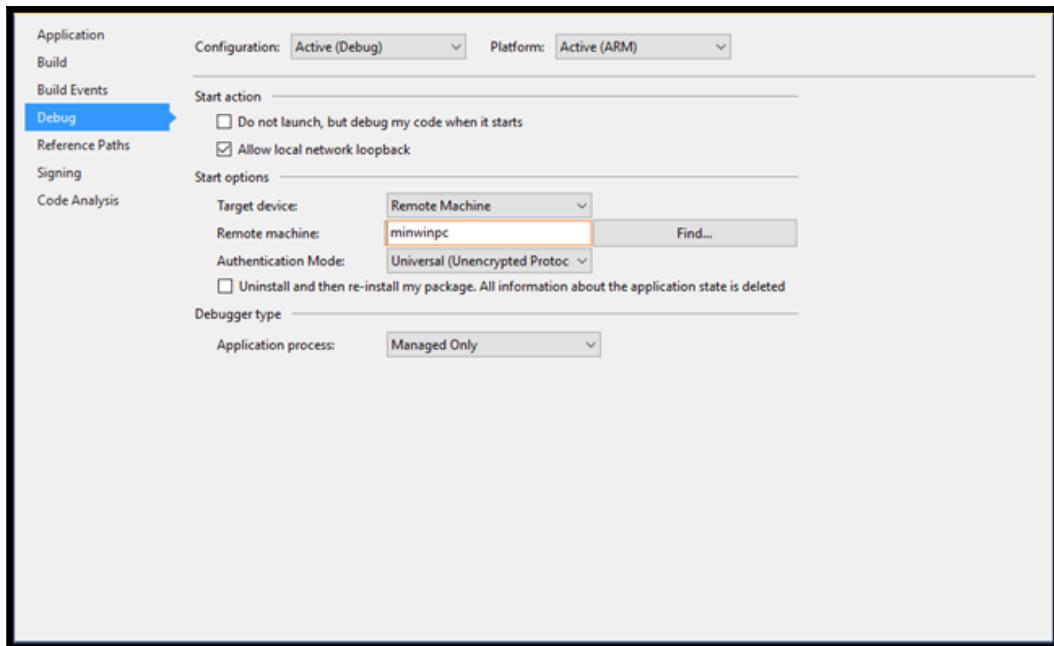
1.1
 3.0 [PREVIEW]
 High-speed storage [PREVIEW]

I'm done configuring Direct Line >









New Stream Analytics Job

* Job name
FacialAnalyticsJob

* Subscription
Visual Studio Enterprise

* Resource group i
 Create new Use existing
azureresearch

* Location
East US

FacialAnalyticsJob

Stream Analytics job

Search (Ctrl+/
)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Start Stop Delete

Created

Essentials

Resource group (change)
azureresearch

Status
Created

Location
East US

Subscription name (change)
Visual Studio Enterprise

Subscription ID
55c8b769-eb89-41a0-86c7-ba2ae87ffcd

Inputs
0 ↗
No results.

Query
<>

Outputs
0 ↘
No results.

New input

Input alias: IoTHubData ✓

Source Type: Data stream

Source: IoT hub

Subscription: Use IoT hub from current subscription

IoT hub: GenericIoTHub

Endpoint: Messaging

Shared access policy name: iothubowner

Shared access policy key: *****

Consumer group: \$Default

Event serialization format: JSON

Encoding: UTF-8

Create

 FacialAnalyticsJob
Stream Analytics job

Search (Ctrl+ /)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

SETTINGS

Locks

JOB TOPOLOGY

Inputs

Functions

Query

Outputs

CONFIGURE

Settings Start Stop Delete

Created

Resource group (change)
azureresearch

Status
Created

Location
East US

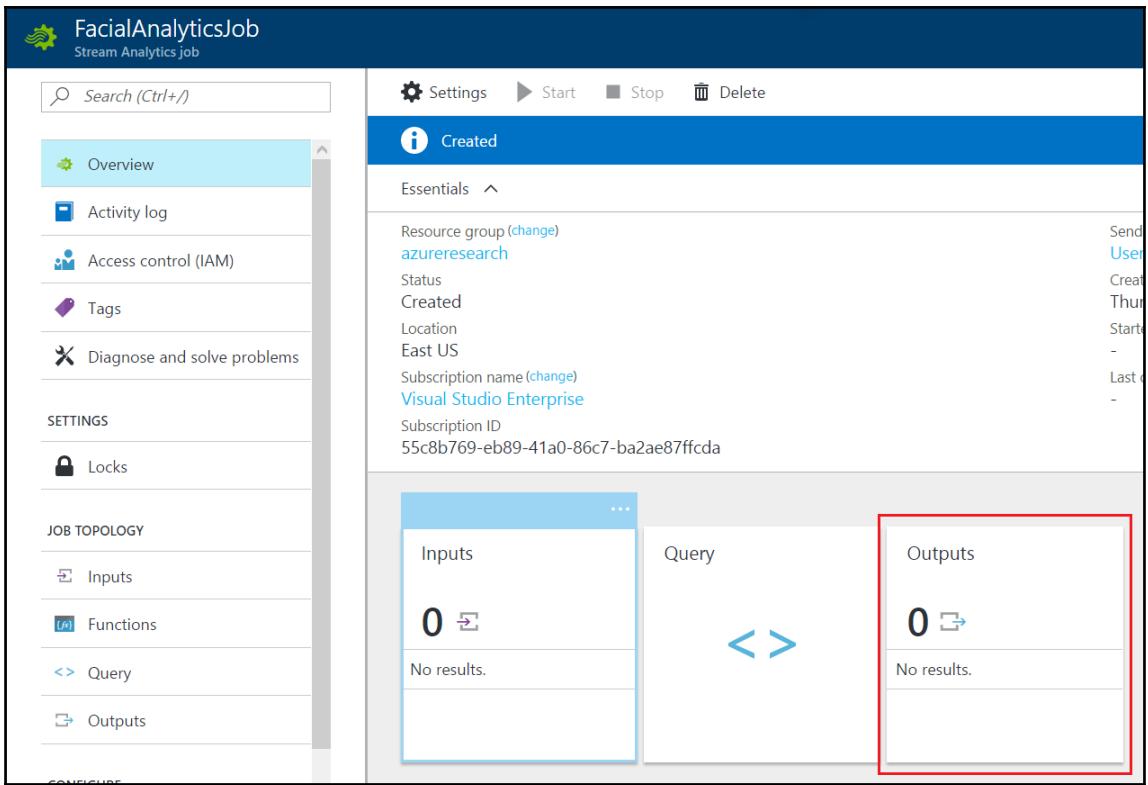
Subscription name (change)
Visual Studio Enterprise

Subscription ID
55c8b769-eb89-41a0-86c7-ba2ae87ffcd

Inputs
0 ↗
No results.

Query
<>

Outputs
0 ↘
No results.



New output

* Output alias
PowerBI ✓

* Sink ⓘ
Power BI ▾

Authorize Connection
You'll need to authorize with Power BI to configure your output settings.

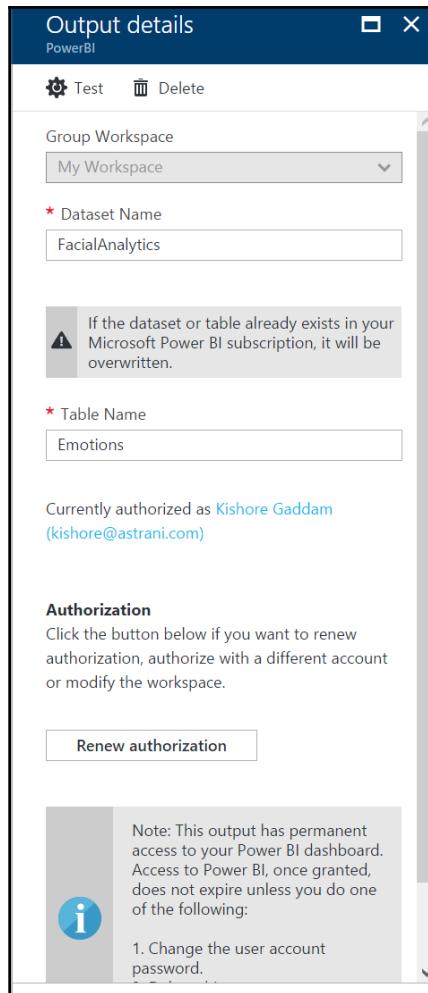
[Authorize](#)

Don't have a Microsoft Power BI account yet?
[Sign Up](#)

i Note: You are granting this output permanent access to your Power BI dashboard. Should you need to revoke this access in the future you can do one of the following:

1. Change the user account password.
2. Delete this output.
3. Delete this job.

[Create](#)



FacialAnalyticsJob

Stream Analytics job

Search (Ctrl+ /)

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

SETTINGS

Locks

JOB TOPOLOGY

Inputs

Functions

<> Query

Outputs

Created

Resource group (change) azureresearch

Status Created

Location East US

Subscription name (change) Visual Studio Enterprise

Subscription ID 55c8b769-eb89-41a0-86c7-ba2ae87ffcd

Inputs ...

Query

0 ↗

No results.

Outputs

0 ↘

No results.

The screenshot shows the Azure Stream Analytics job 'FacialAnalyticsJob' in the 'Created' state. The left sidebar lists various job settings like Overview, Activity log, and Job Topology. The main area displays the job's configuration, including its resource group, status, location, and subscription details. A large red box highlights the 'Query' section, which contains a placeholder text 'No results.' and a central '<>' symbol indicating no query has been defined yet.

FacialAnalyticsJob

Query

Save Discard Test

Inputs (1)

IoTHubData ...

Outputs (1)

PowerBI

Need help with your query? Check out [docs](#)

```
1 SELECT
2 *
3 INTO [PowerBI]
4 FROM [IoTHubData]
```

The screenshot shows the 'Query' editor for the 'FacialAnalyticsJob'. It includes buttons for Save, Discard, and Test. On the left, there are sections for Inputs (with 'IoTHubData') and Outputs (with 'PowerBI'). On the right, there is a code editor with a query: '1 SELECT * INTO [PowerBI] FROM [IoTHubData]'. The 'PowerBI' table name is highlighted with a red box.

FacialAnalyticsJob

Stream Analytics job

Search (Ctrl+ /)

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings Start Stop

Created

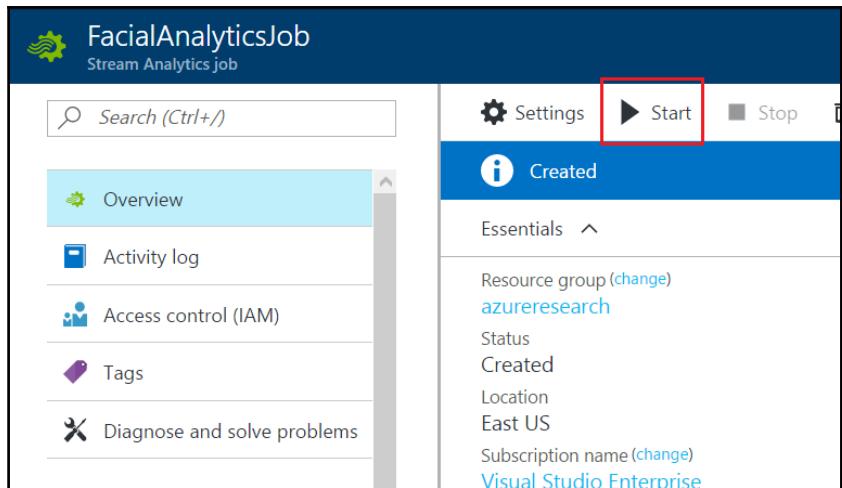
Essentials

Resource group (change)
azureresearch

Status
Created

Location
East US

Subscription name (change)
Visual Studio Enterprise



Power BI

My Workspace > Datasets

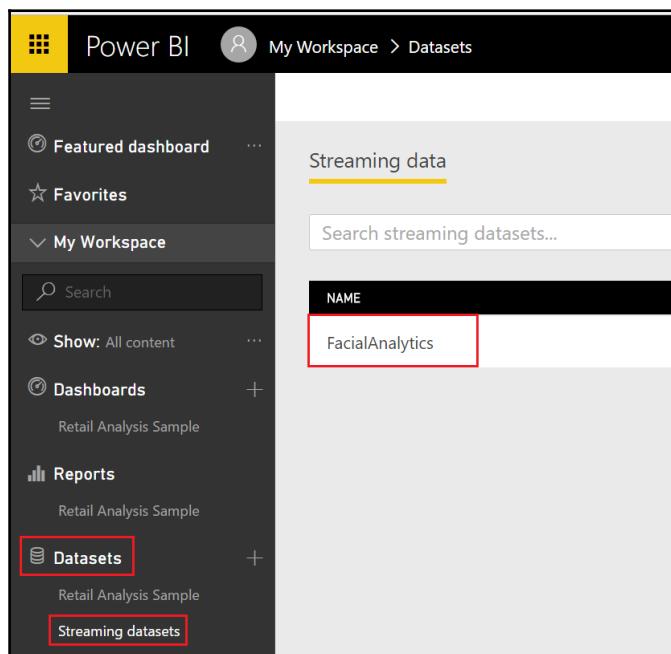
Featured dashboard Favorites My Workspace

Search

Show: All content Dashboards Reports Datasets Streaming datasets

NAME

FacialAnalytics



Streaming data

Search streaming datasets...

NAME	TYPE	USED IN DASHBOARDS	HISTORICAL	ACTIONS
FacialAnalytics	API	E		

Visualizations > Fields

Search

Emotions

- attachments
- conversationId
- created
- eTag
- EventEnqueue...
- EventProcesse...
- from
- id
- images
- IoTHub
- PartitionId
- text

Values

- from
- conversationId
- text
- created

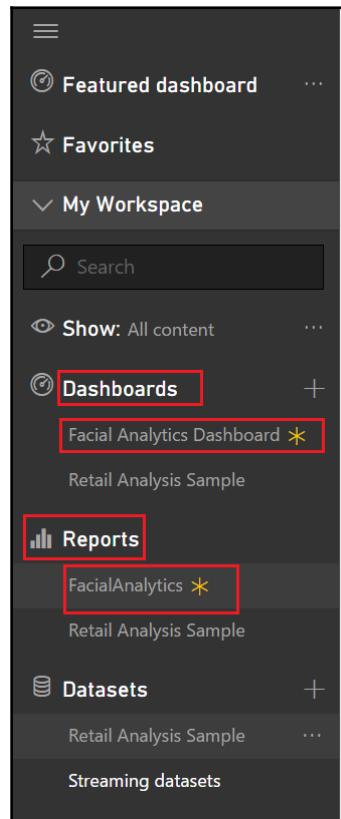
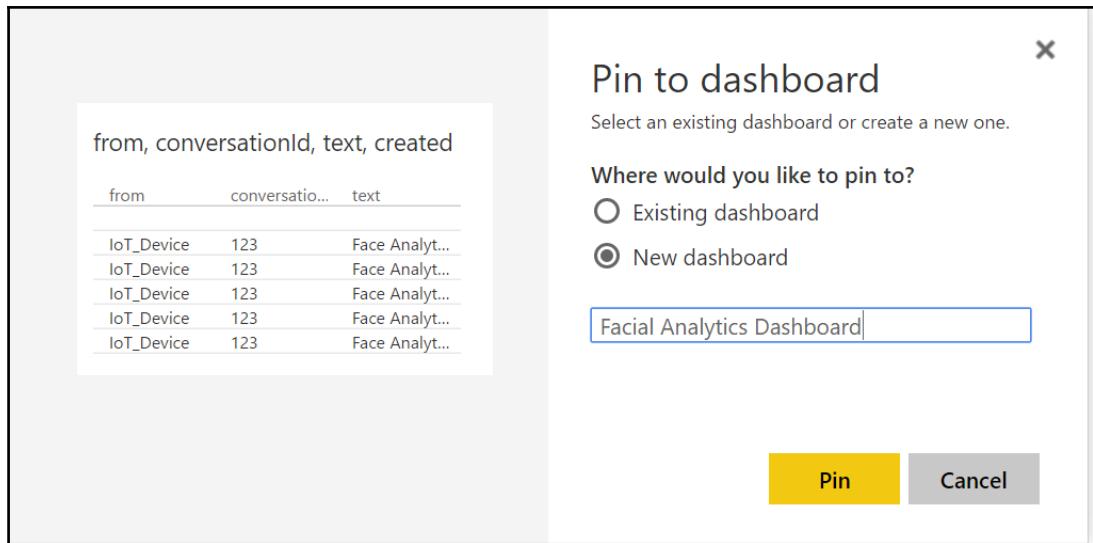
Filters

Visual level filters

conversationId(All)

The screenshot shows the Microsoft Power BI Fields pane. At the top, there is a search bar with a magnifying glass icon and the word "Search". Below the search bar, a list of fields is displayed under the heading "Emotions". The fields listed are: authType, category, deviceId, ipAddress, level, operationName, protocol, statusCode, statusDescript..., statusType, and time. The "statusType" field is currently selected, indicated by a blue selection bar at the bottom of its row. On the left side of the Fields pane, there is a "Visualizations" pane with various visualization icons, and below it, sections for "Values" and "Filters" each containing a "Drag data fields here" placeholder.

authType
category
deviceId
ipAddress
level
operationName
protocol
statusCode
statusDescript...
statusType
time



Power BI My Workspace > Facial Analytics Dashboard

Ask a question about your data

from, conversationId, text, created

from	conversationId	text	created
IoT_Device	123	Face Analytics of give...	03/09/17 05:56:52 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:56:58 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:56:59 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:00 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:01 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:03 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:04 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:05 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:07 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:08 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:09 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:11 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:12 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:13 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:15 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:16 PM
IoT_Device	123	Face Analytics of give...	03/09/17 05:57:17 PM

Search

Show: All content

Dashboards

Facial Analytics Dashboard

Retail Analysis Sample

Reports

FacialAnalytics

Retail Analysis Sample

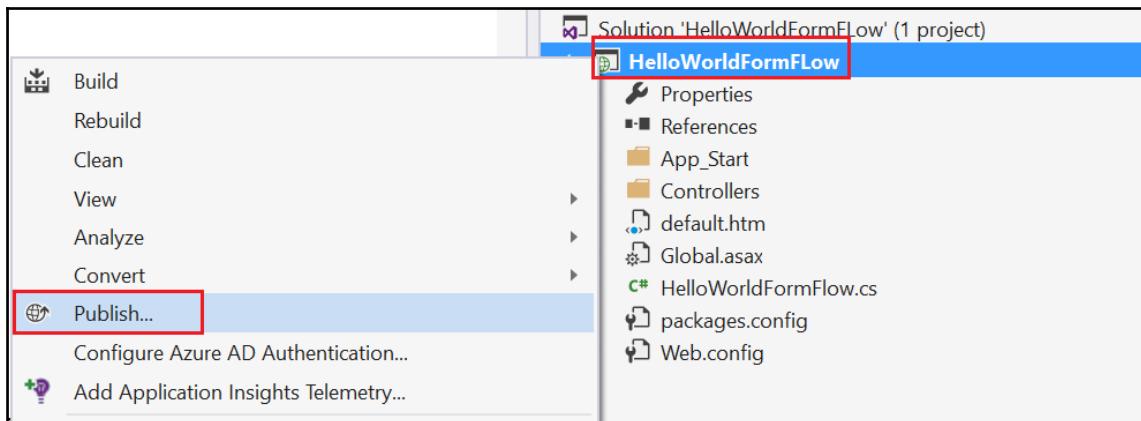
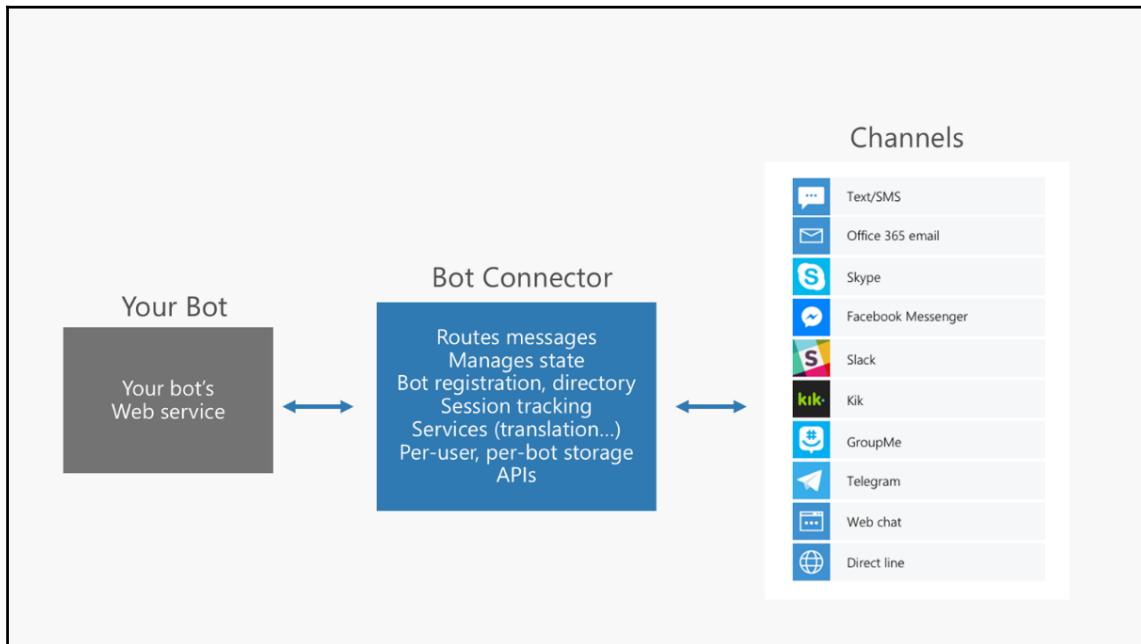
Datasets

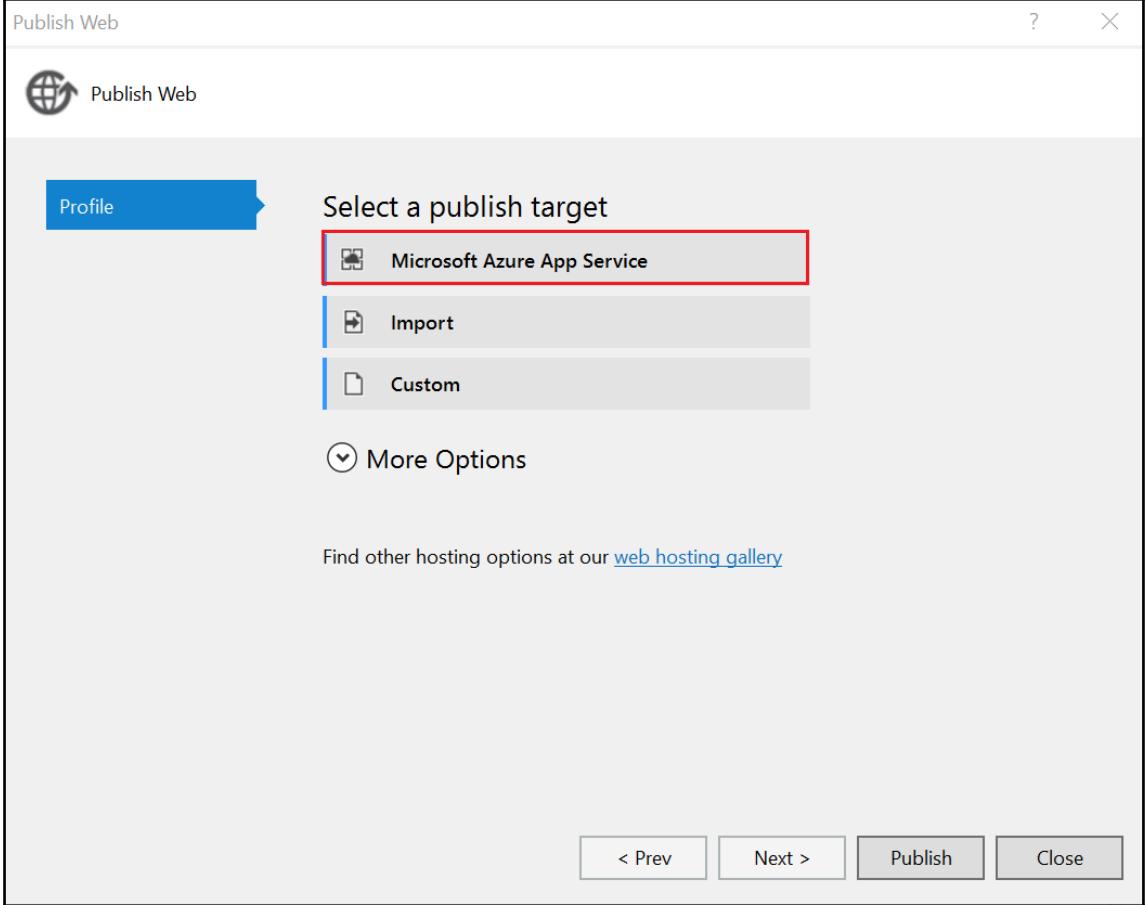
Retail Analysis Sample

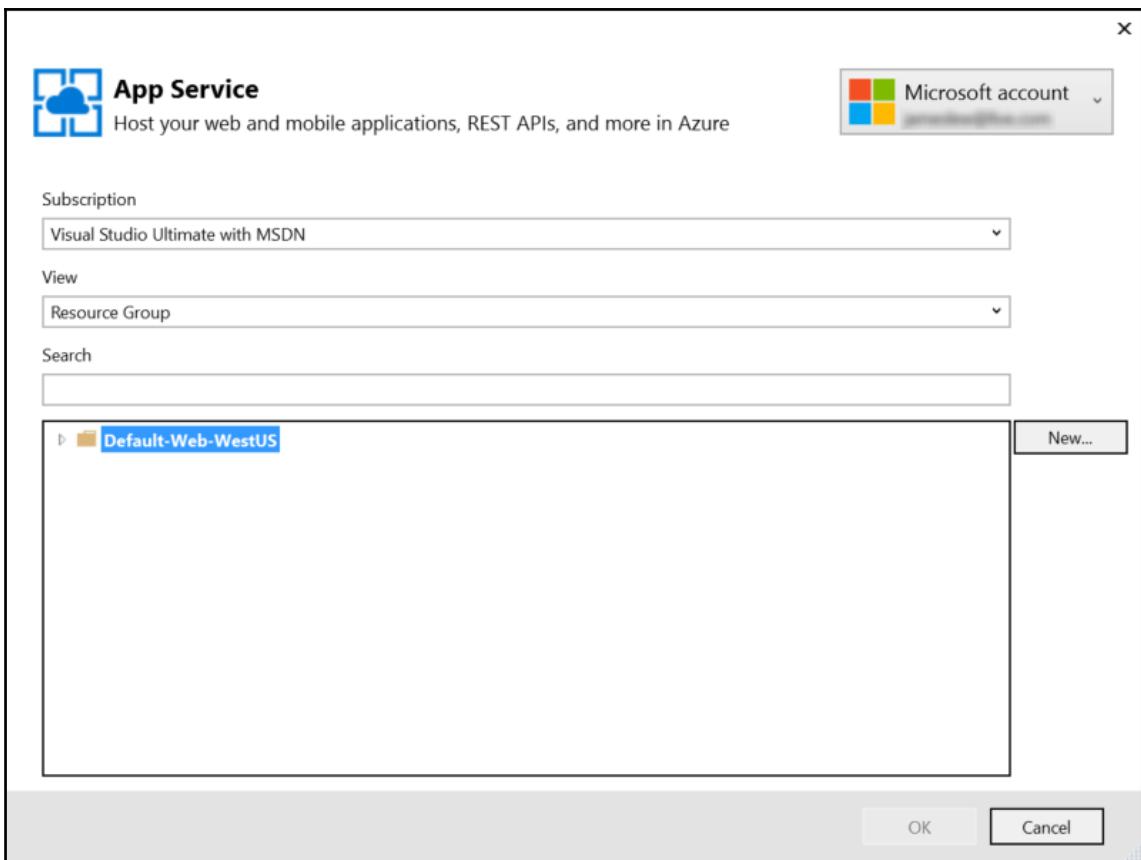
Streaming datasets

Chapter 9:

Publishing a Bot to Skype, Slack, Facebook, and the GroupMe Channel







 **Create App Service**

Host your web and mobile applications, REST APIs, and more in Azure

Microsoft account  kslivansr@outlook.com

Hosting  **Services**

Web App Name Change Type ▾

Subscription

Resource Group New... 

App Service Plan New... 

Clicking the Create button will create the following Azure resources

[Explore additional Azure services](#)

App Service - HelloWorldFormFLow

If you have removed your spending limit or you are using Pay as You Go, there may be monetary impact if you provision additional resources.
[Learn More](#)

Publish Web

?

X

 Publish Web

Profile

Connection

Settings

Preview

HelloWorldFormFlow - Web Deploy

Publish method: **Web Deploy**

Server: **helloworldformflow.scm.azurewebsites.net:443**

Site name: **HelloWorldFormFlow**

User name: **\$HelloWorldFormFlow**

Password: **••••••••••••••••••••••••••••••••**

Save password

Destination URL: **http://helloworldformflow.azurewebsites.net**

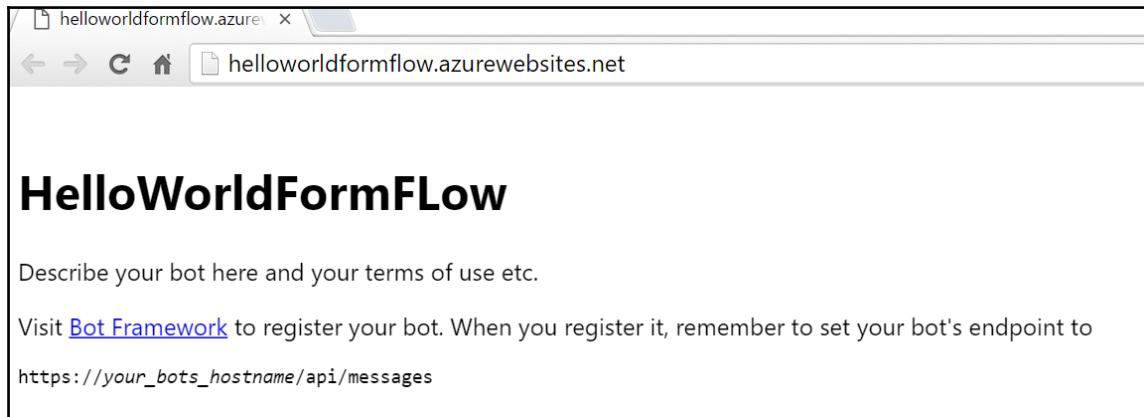
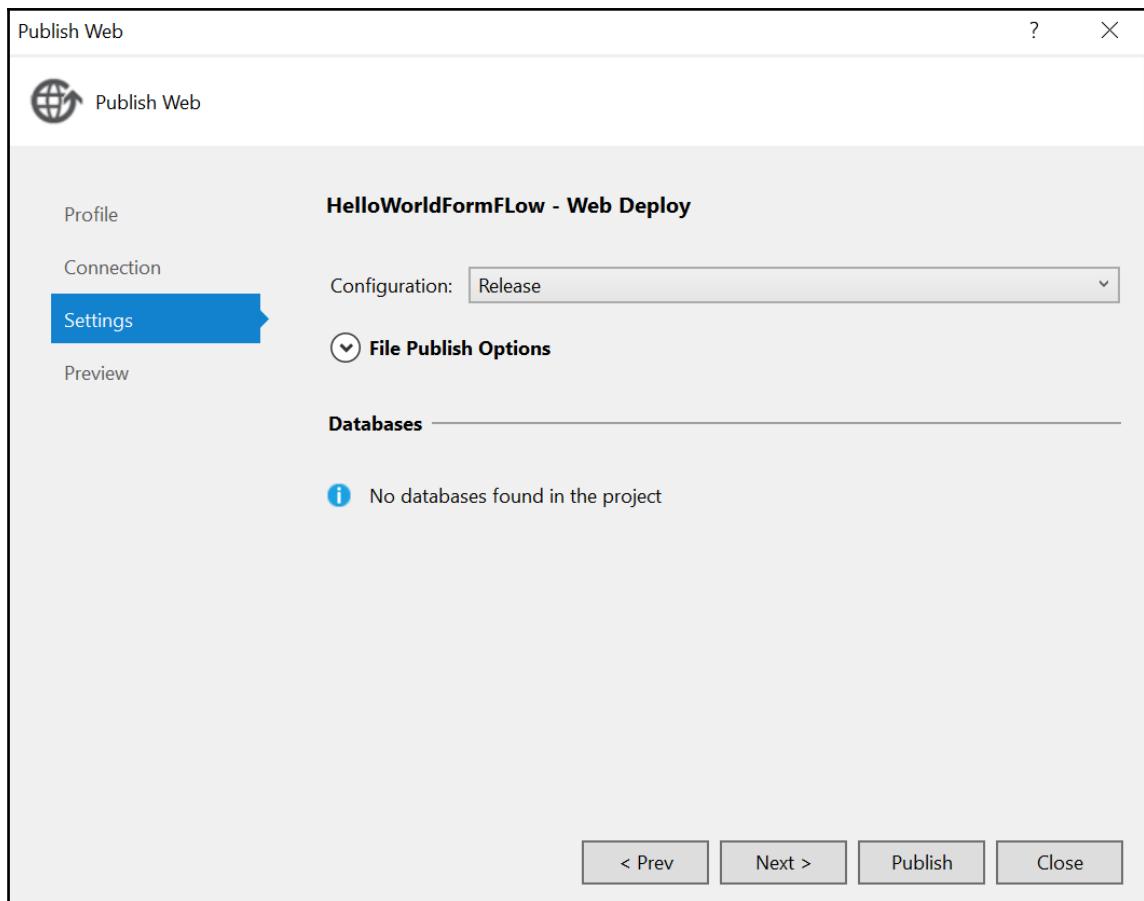
Validate Connection

< Prev

Next >

Publish

Close



Bot Framework
PREVIEW

My bots **Register a bot** Documentation Bot Directory Blog

Tell us about your bot

Bot profile

Icon
 [Upload custom icon](#)
30K max. png only

Name: * [?](#)

Bot handle: * [?](#)

Description: * [?](#)

Configuration

Messaging endpoint:

Register your bot with Microsoft to generate a new App ID and password
[Create Microsoft App ID and password](#)

Paste your app ID below to continue

Configuration

Messaging endpoint [?](#)

Configuration

Messaging endpoint ?

https://helloworldformflow.azurewebsites.net/api/messages

* Microsoft App ID ?

Microsoft App ID from the Microsoft App registration portal

Create Microsoft App ID and password

Generate App ID and password

App name

HelloWorld

App ID

0f6f5a96-2329-440a-aa38-b7580773a5dc

Generate a password to continue

New password generated

This is the only time when it will be displayed. Please store it securely. Paste this password into your bot configuration file.

[REDACTED]

Ok

Configuration

Messaging endpoint [?](#)

https://helloworldformflow.azurewebsites.net/api/messages

* Microsoft App ID [?](#)

[REDACTED]

[Manage Microsoft App ID and password](#)

By clicking Register, you agree to the [Privacy statement](#), [Terms of use](#), and [Code of conduct](#).

[Register](#)

[Cancel](#)



Bot Framework PREVIEW

My bots Register a bot Documentation Bot Directory Blog

HelloWorld Kishore Babu Gaddum Publish

Details Edit

Bot handle **helloworldformflow**

Bot Framework Version 3.0

Messaging endpoint [https://helloworldformflow.azurewebsites.net/api/...](https://helloworldformflow.azurewebsites.net/api/)

Microsoft App ID [REDACTED]

Channels

	Test link	Issues	Enabled	Published	Edit
Skype	Add to Skype	0	Yes (Preview)	<input type="checkbox"/> Off	Edit
Web Chat		0	Yes	<input type="checkbox"/> Off	Edit

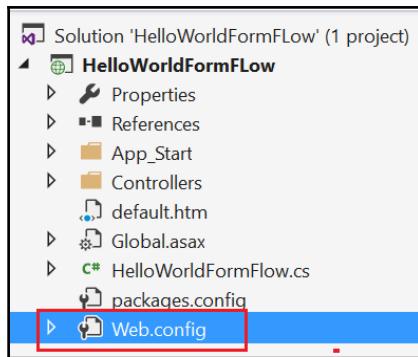
[Get bot embed codes](#)

Add another channel

	Direct Line	Add
	Email	Add
	Facebook Messenger	Add
	GroupMe	Add
	Kik	Add
	Slack	Add
	Telegram	Add

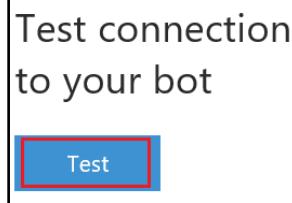
[Test connection to your bot](#)

[Test](#)



```
<appSettings>
    <!-- update these with your BotId, Microsoft App Id and your Microsoft App Password-->
    <add key="BotId" value="YourBotId" />
    <add key="MicrosoftAppId" value="" />
    <add key="MicrosoftAppPassword" value="" />
</appSettings>
```

```
<configuration>
    <appSettings>
        <!-- update these with your BotId, Microsoft App Id and your Microsoft App Password-->
        <add key="BotId" value="helloworldformflow" />
        <add key="MicrosoftAppId" value="b356043c-werf-3edc-3456-c1a54cb22595" />
        <add key="MicrosoftAppPassword" value="qwerrtrty56567rgfgt" />
    </appSettings>
</configuration>
```



Test connection
to your bot

Test

Endpoint authorization succeeded

Channels

Test link

Status

Published



Web Chat

Disabled

Off

Edit

[Get bot embed codes](#)

Add another channel



Direct Line

Add



Email

Add



Facebook Messenger

Add



GroupMe

Add



Kik

Add



Skype

Add



Slack

Add



SMS

Add



Telegram

Add

How to

- ✓ Log in to Slack and create a Slack Application for your bot
- ✓ Create application and set redirect URI
- ✓ Create a Slack Bot
- ✓ Add Interactive Messages (optional)
- ✓ Configure Interactive Messages (optional)
- ✓ Gather your Credentials
- ✓ Submit your Credentials

Enable this bot on Slack

How to

- ^ Log in to Slack and create a Slack Application for your bot

<https://api.slack.com/applications/new>

Your Apps

Create New App

Your Apps

You'll need to [sign in to your Slack account](#) to create an application.

Sign in to another team

Enter your team's Slack domain.

 teamdomain .slack.com

Continue →

Your Apps

Welcome! Apps you've created will appear here (both public apps listed in the App Directory and private apps only your team uses).

Need ideas for what to build? Our [Ideaboard](#) features requests and suggestions directly from Slack users.

[Create App](#)

Log in to Slack and create a Slack Application for your bot

Create application and set redirect URI

Create App

App Name: Super ServiceCo

Team: (dropdown menu)

Short Description: A short description of your app in (10 words or less).

Icon (512px by 512px or larger required):  Choose File No file chosen

Describe what your app does on Slack (3-5 sentences): Describe what your app does on Slack (3-5 sentences).

Link to clear instructions on how to install your Slack app: http://example.com/superserviceco

Where users can learn more about how to set this up for their team.

Link to support for your Slack app: http://example.com/superserviceco

Where users can get support for installing and using your Slack app.

Redirect URI(s): **{COPY FROM BELOW}**

You must specify at least one URI for authentication to work. If you pass a URI in an OAuth request, it must (partially) match one of the URIs you enter here. [Learn more](#)

By creating a Web API Application, you agree to the [Slack API Terms of Service](#).

Create App Cancel

Use this Redirect URI: https://slack.botframework.com Select

Your Icon Image: https://bot-framework.azureedge.net/bot-icons-v1/bot-framework- Select

Link to clear instructions on how to install your Slack app

Where users can learn more about how to set this up for their team.

Link to support for your Slack app

Where users can get support for installing and using your Slack app.

Redirect URI(s)

You must specify at least one URI for authentication to work. If you pass a URI in an OAuth request, it must (partially) match one of the URIs you enter here. [Learn more](#)

By creating a Web API Application, you agree to the [Slack API Terms of Service](#).

Create App **Cancel**

HelloWorld

Basic Information

- OAuth & Permissions
- Bot Users
- Interactive Messages
- Slash Commands
- Event Subscriptions
- Submit to App Directory

HelloWorld

Your app was created!

You can now manage OAuth and permissions, bot users, and other features for your app using these pages. Need help? [Documentation](#) and [support](#) are available.

Display Information

App Name **Icon** (512px by 512px or larger required) No file selected.

Short description

Describe your app in 10 words or less.

Made with ❤ by Slack

Select the 'Bot Users' tab and add a bot to your app

The screenshot shows the 'YourNewBot' app configuration interface. On the left, a sidebar lists several tabs: 'Basic Information', 'App Credentials', 'Bot Users' (which is highlighted with a blue background and has a red arrow pointing to it), 'Interactive Messages', 'Slash Commands', and 'Submit to App Directory'. The main content area is titled 'YourNewBot' and contains a section titled 'Bot User'. It explains that you can bundle a Bot User with your app to interact with users in a more conversational manner, with a link to 'how bot users work'. A button labeled 'Add a bot to this app' is present, with a red arrow pointing to it.

The screenshot shows the 'HelloWorld' app configuration interface. On the left, a sidebar lists several tabs: 'Basic Information', 'OAuth & Permissions', 'Bot Users' (which is highlighted with a blue background and has a red box around it), 'Interactive Messages', 'Slash Commands', 'Event Subscriptions', and 'Submit to App Directory'. The main content area is titled 'HelloWorld' and contains a section titled 'Bot User'. It explains that you can bundle a bot user with your app to interact with users in a more conversational manner, with a link to 'how bot users work'. A button labeled 'Add a Bot User' is present, with a red box around it.

The screenshot shows the 'HelloWorld' app configuration interface. On the left, a sidebar lists several tabs: 'Basic Information', 'OAuth & Permissions', 'Bot Users' (which is highlighted with a blue background), 'Interactive Messages', 'Slash Commands', 'Event Subscriptions', and 'Submit to App Directory'. Below the sidebar, links for 'Help', 'Contact', 'Policies', and 'Our Blog' are visible. The main content area is titled 'HelloWorld' and contains a section titled 'Bot User'. It explains that you can bundle a Bot User with your app to interact with users in a more conversational manner, with a link to 'how bot users work'. A 'Default username' input field contains the value '@helloworld'. Below the input field, a note states: 'If this username isn't available on any team that tries to install it, we will slightly change it to make it work. Usernames must be all lowercase. They cannot be longer than 21 characters and can only contain letters, numbers, periods, hyphens, and underscores.' A green 'Add bot user' button is at the bottom of the section.

^ Add Interactive Messages (optional)

If your bot will use buttons, select the 'Interactive Messages' tab and enable interactive messages

The screenshot shows the Slack App Builder interface for a bot named 'YourNewBot'. On the left, there's a sidebar with options: Basic Information, App Credentials, Bot Users, **Interactive Messages**, Slash Commands, and Submit to App Directory. The 'Interactive Messages' option is highlighted with a blue background and a red arrow points to it from the text above. To its right is a large box titled 'Interactive Messages' containing the text: 'You can add buttons to messages from your app, which will send interactions to a URL you specify.' Below this is a green button labeled 'Enable Interactive Messages' with a red arrow pointing to it.

Set the Request URL for Interactive Messages

The screenshot shows the same Slack App Builder interface for 'YourNewBot'. The sidebar options are the same, with 'Interactive Messages' selected. In the main area, there's a section titled 'Interactive Messages' with the same explanatory text and 'Enable Interactive Messages' button. Below this, there's a 'Request URL' field containing the placeholder text '{COPY FROM BELOW}' in red. A note below the field says: 'We'll send an HTTP POST request with information to this URL when users invoke message buttons. This URL must use the "https" protocol.' At the bottom of the interface, there's a green button labeled 'Enable Interactive Messages' with a red arrow pointing to it.

Use this Redirect URI:

<https://slack.botframework.com/api/Actions>

Select

HelloWorld

Basic Information

OAuth & Permissions

Bot Users

Interactive Messages

Slash Commands

Event Subscriptions

Submit to App Directory

Interactive Messages

You can add buttons to messages from your app, which will send interactions to a URL you specify. [Learn more.](#)

Enable Interactive Messages

Interactive Messages

You can add buttons to messages from your app, which will send interactions to a URL you specify. [Learn more.](#)

Request URL

`https://slack.botframework.com/api/Actions`

We'll send an HTTP POST request with information to this URL must use the "https" protocol.

Enable Interactive Messages

HelloWorld

Interactive Messages

You can add buttons to messages from your app, which will send interactions to a URL you specify. [Learn more.](#)

Request URL

`https://slack.botframework.com/api/Actions`

We'll send an HTTP POST request with information to this URL when users invoke message buttons. This URL must use the "https" protocol.

[Save changes](#)

[Disable Interactive Messages](#)

^ Gather your Credentials

Select the 'Add Credentials' tab and copy your Client Id, Client Secret and (optionally) your Verification Token for Buttons

The screenshot shows the Slack App Dashboard for a bot named "YourNewBot". The left sidebar includes links for Basic Information, App Credentials (which is selected and highlighted in blue), Bot Users, Interactive Messages, Slash Commands, and Submit to App Directory. The bottom left also has links for Help, Contact, Policies, and Our Blog, along with a "Made with ❤ by Slack" badge.

OAuth Information

This section contains fields for Client ID and Client Secret, both of which are highlighted with red boxes and contain the placeholder text "Your Client Id" and "Your Client Secret" respectively. It also includes a "Show" link next to the Client Secret field. Below these fields is a "Redirect URI(s)" input field, which is currently empty. A note below the input field states: "You must specify at least one URI for authentication to work. If you pass a URI in an OAuth request, it must (partially) match one of the URIs you enter here." followed by a "Learn more" link. At the bottom of this section are "Save changes" and "Change secret" buttons.

Verification Token

This section is titled "Verification Token" and includes the instruction: "Use this token to verify that requests are actually coming from Slack." Below this is a text input field containing the placeholder text "Your Verification Token (optional)". To the right of the input field is a "Regenerate" button.

OAuth Information

Client ID

23317398256.79032640113

Client Secret

••••••••••

Show

Redirect URI(s)

https://slack.botframework.com

You must specify at least one URI for authentication to work. If you pass a URI in an OAuth request, it must (partially) match one of the URIs you enter here. [Learn more](#)

Save changes

[Change secret](#)

Verification Token

Use this token to verify that requests are actually coming from Slack.

[Regenerate](#)

Submit your Credentials

Client Id

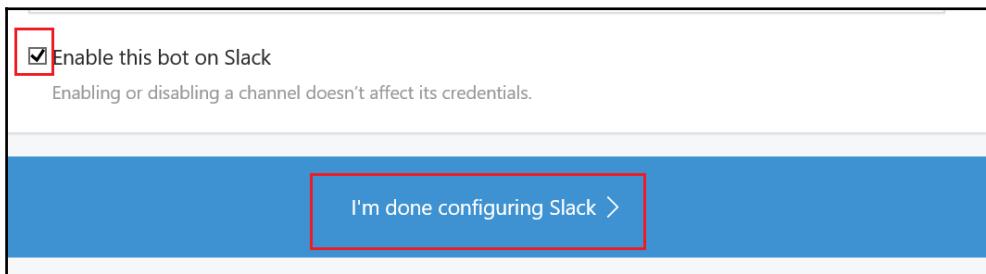
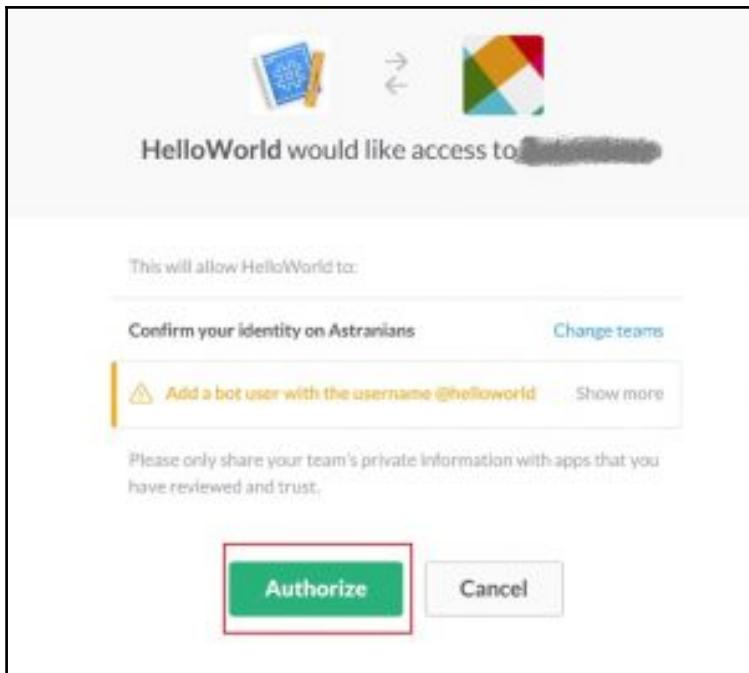
Client Secret

Verification Token

Landing Page URL

Users will be redirected to this URL after adding your bot to Slack.

Submit Slack Credentials



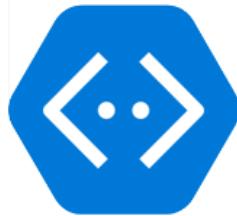
Channels						
		Test link	Issues	Enabled	Published	
	Skype	Add to Skype	0	Yes (Preview)	<input type="checkbox"/> Off	Edit
	Slack	Add to Slack	0	Yes	<input type="checkbox"/> Off	Edit
	Web Chat		0	Yes	<input type="checkbox"/> Off	Edit

Channels

		Test link	Issues	Enabled	Published	
	Skype	Add to Skype	0	Yes (Preview)	<input type="checkbox"/> Off	Edit
	Slack	Add to Slack	0	Yes	<input type="checkbox"/> Off	Edit
	Web Chat		0	Yes	<input type="checkbox"/> Off	Edit



HelloWorld



Kishore Babu Gaddum

[Add to Contacts](#)

This is a sample Hello World Bot.

Capabilities

- Send and receive instant messages and photos

This bot will have access to your Skype Name, and any chat messages or content that you or other group participants share with it.

[Privacy](#) and [Terms of Use](#)

Sign in

Skype name, email or phone number

Password

Keep me signed in

Sign in

[Create new account](#)

 ★ HelloWorld
Online

Today

Hi 1:48 AM

 Please enter name 1:48 AM

Christina 1:48 AM

 Hello World: Christina 1:48 AM

|

Add another channel

	Direct Line	Add
	Email	Add
	Facebook Messenger	Add
	Kik	Add
	Telegram	Add
	Twilio (SMS)	Add

How to

Getting Started

Creating a Bot for Facebook requires you create both a Facebook Page and a Facebook App. Learn more at the link below.

<https://developers.facebook.com/docs/messenger-platform>

facebook for developers  Products Docs Tools & Support News Videos Log In

All Docs 

Docs / Messenger Platform / On this page: ▾

Messenger Platform

- Product Overview
- Getting Started
- Complete Guide
- Reference
- Platform Guidelines
- Messenger Policy Overview
- App Review
- Changelog

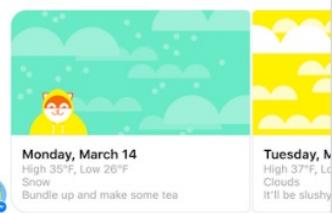
Messenger Platform

Introducing new tools to help you build your bot and reach 1 billion people around the world

Overview

See how your bot can use our platform to have rich conversations with people on Messenger

Cool. And the 5 day forecast?



Monday, March 14
High 35°F, Low 26°F
Snow
Bundle up and make some tea

Tuesday, M
High 37°F, Lo Clouds
It'll be slushy

Implementation

Getting Started

Get started in a few easy steps to see the Messenger Platform in action.

Complete Guide

Learn about all the features of the Messenger Platform.

Reference

View the reference documentation for more technical details.

Platform Guidelines

Discover how to use Messenger Platform tools to design a delightful experience and get the most out of your interactions on Messenger.

English (UK) Español Português (Brasil) ...

facebook [Sign Up](#)

You must log in to continue.

Log in to Facebook

Email address or phone number

Password

[Log In](#)

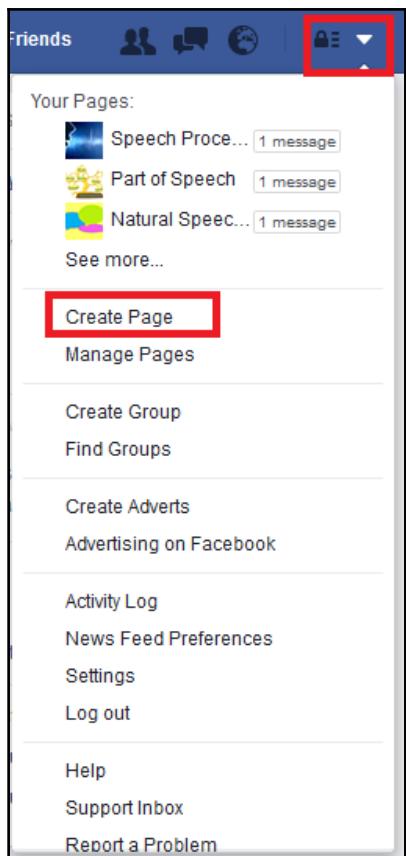
[Forgotten account?](#) · [Sign up for Facebook](#)

English (UK) हिन्दी بُرْج தமிழ் ବାଣୀ ମରାଠୀ ଠିଲାଗୁ ମୁହାରୀ କଞ୍ଚକ ମଲଯାଳମ �Español +

[Sign Up](#) [Log In](#) [Messenger](#) [Facebook Lite](#) [Mobile](#) [Find Friends](#) [Badges](#) [People](#) [Pages](#) [Places](#) [Games](#)

Pages

[+ Create a Page](#)



Create a Page

Give your brand, business or cause a voice on Facebook and connect with the people who matter to you.
It's free to set up. Just choose a Page type to get started.



Local Business or Place



Company, Organisation or Institution



Brand or Product



Artist, Band or Public Figure



Entertainment



Cause or Community

Chat

Set up Hello World Club

1 About

2 Profile Picture

3 Add to Favourites

4 Preferred Page Audience

Tip: Add a description and website to improve the ranking of your Page in search.
Fields marked by asterisks (*) are required.

Add a few sentences to tell people what your Page is about. This will help it show up in the right search results. You will be able to add more details later from your Page settings.

116

This page is just sample of hello world

Website (e.g. your website, Instagram, Twitter or other social media links)

Need help?

Skip

Save Info

Screenshot of a Facebook Page settings interface.

The page title is "HelloWorld".

Left sidebar menu:

- Home
- About** (highlighted with a red box)
- Photos
- Likes
- Videos
- Posts
- Manage Tabs
- + Add Shop Section

Top navigation bar:

- Page
- Messages
- Notifications
- Insights
- Publishing Tools
- Settings
- Help ▾

Facebook controls:

- Like
- Message
- More

Form fields (with some entries highlighted by red boxes):

Impressum	Input Impressum for your Page
Company Overview	+ Enter company overview
Long description	Write a long description for your Page
General Information	+ Enter general information
Mission	+ Enter mission
Founded	+ Enter founding date
Awards	+ Enter awards
Products	+ Enter products
Website	https://helloworldformflow.azurewebsites.net/
Official Page	Enter the official brand, celebrity or organisation your Page is about
Facebook Page ID	551426228381192

Screenshot of the "My apps" section in the Facebook developer console.

Header:

- My apps ▾

Main area:

- See All Apps
- Add a New App** (highlighted with a red box)

Side navigation:

- Requests
- Developer Settings
- Company Settings

Create a New App ID

Get started integrating Facebook into your app or website

Display Name

Contact Email

Category

By proceeding, you agree to the [Facebook Platform Policies](#)

[Cancel](#) [Create App ID](#)

HelloWorld APP ID: 857255211075617 [View Analytics](#)

Dashboard

- Settings
- Roles
- Alerts
- App Review

PRODUCTS

+ Add Product

Dashboard

HelloWorld

This app is in development mode and can only be used by app admins.

API Version [\(?\)](#)

v2.7

App ID **857255211075617**

App Secret **.....**

The screenshot shows the 'Product Setup' section of the Facebook developer portal. On the left, a sidebar menu is visible with options like Dashboard, Settings, Roles, Alerts, App Review, and a 'PRODUCTS' section containing 'Messenger' and '+ Add Product'. The '+ Add Product' option is highlighted with a red box. The main content area displays four product cards: 'Facebook Login', 'Audience Network', 'Account Kit', and 'Messenger'. The 'Messenger' card is also highlighted with a red box. Each card includes a brief description and a 'Get Started' button.

APP ID: 857255211075617 | View Analytics

Tools & Support Docs ASTRAK

Product Setup

Facebook Login
The world's number one social login product.
[Get Started](#)

Audience Network
Monetize your mobile app or website with native ads from 3 million Facebook advertisers.
[Get Started](#)

Account Kit
Seamless account creation. No more passwords.
[Get Started](#)

Messenger
Customize the way you interact with people on Messenger
[Get Started](#)

The screenshot shows the 'Messenger Platform' settings page. The sidebar menu now highlights the 'Messenger' section and its 'Settings' sub-section. The main content area is titled 'Messenger Platform' and contains a welcome message about the platform and API. It also includes detailed instructions for using the Send/Receive API, a note about organic content, and links to Platform Policies and Examples. A 'Get Started' button is present at the bottom.

Welcome to the Messenger Platform! Now people won't need to download an app to interact with you. Just build your bot and instantly reach people on whichever device and platform they use.

The Send/Receive API provides customizable tools for you to build your bot so you can start sending relevant updates to people who want to hear from you. Our platform is in beta and we will gradually accept and approve submissions to ensure the best experiences for everyone on Messenger. [Read the Docs](#)

The Send/Receive API should be used for organic content and should not be used to send marketing or other promotional communications. For this reason, you must submit your app for review before you can begin using the API publicly. Before your app is approved, you'll only be able to send messages to app developers and testers. See our Platform Policies and our Examples and Explanations for more info.

[Get Started](#)

The screenshot shows the 'Token Generation' page. The sidebar menu highlights the 'Messenger' section and its 'Settings' sub-section. The main content area explains what a page token is and how it can be used. It features two input fields: 'Page' and 'Page Access Token'. The 'Page' field has a dropdown menu with the placeholder 'Select a Page ▾' and is highlighted with a red box. The 'Page Access Token' field contains the message 'You must select a Page to generate an access token.'.

Page token is required to start using the APIs. This page token will have all messenger permissions even if your app is not approved to use them yet, though in this case you will be able to message only app admins. You can also generate page tokens for the pages you don't own using Facebook Login.

Page
[Select a Page ▾](#)

Page Access Token
You must select a Page to generate an access token.



Log in with Facebook



Submit for Login Review

Some of the permissions below have not been approved for use by Facebook.

[Submit for review now or learn more.](#)



Continue as [REDACTED]

HelloWorld will receive the following info:
your public profile. [?](#)

[Review the info that you provide](#)

This doesn't let the app post to Facebook

[Cancel](#)

[OK](#)

Log in with Facebook



HelloWorld would like to manage your Pages, Send messages from Pages you manage, Use a user phone number to send messages from Pages you manage and Send messages from Pages you manage at any time after the first user interaction.

[Choose what you allow](#)

[Not Now](#)

[OK](#)

Token Generation

Page token is required to start using the APIs. This page token will have all messenger permissions even if your app is not approved to use them yet, though in this case you will be able to message only app admins. You can also generate page tokens for the pages you don't own using Facebook Login.

Page

HelloWorld ▾

Page Access Token

EAAMLq0hWiCEBAEvWDiuK4m8pUIBT8mwEd7Kxt0PZABox164tsgrrBPTg1RiD4JsG

Webhooks

[Setup Webhooks](#)

To receive messages and other events sent by Messenger users, the app should enable webhooks integration.

^ Configure webhook callback url and verify token

Configure the webhook. Enter the URL below for the Callback URL, and the Verify Token. Then select message_deliveries, messages, messaging_optins, and messaging_postbacks under Subscription Fields to set the correct permissions. Click Verify and Save.

New Page Subscription

Callback URL

{ Copy from below }

Verify Token

{ Copy from below }

Subscription Fields

message_deliveries

message_reads

messages

message_echoes

messaging_optins

messaging_postbacks

messaging_account_linking

Cancel

Verify and Save

Callback Url:

https://facebook.botframework.com/api/v1/bots/helloworldformflow

Select

Verify Token:

E5eALs49Csr4yB3qz1My4Wb5TN11b7jwDn9DnB1s48ux7qb

Select

New Page Subscription

Callback URL

Verify token

Subscription fields

message_deliveries message_reads messages
 message_echoes messaging_optins messaging_postbacks
 messaging_account_linking

Enter your credentials

Credentials have not yet been validated.

Facebook Page Id
Facebook App Id
Facebook App Secret
Page Access Token

Credentials have been validated.

Enable this bot on Facebook Messenger

Enabling or disabling a channel doesn't affect its credentials.

I'm done configuring Facebook Messenger >

Channels

	Test link	Issues	Enabled	Published	
 Facebook Messenger	Message Us	0	Yes	<input type="checkbox"/> Off	Edit
 Skype	Add to Skype	0	Yes (Preview)	<input type="checkbox"/> Off	Edit
 Slack	Add to Slack	0	Yes	<input type="checkbox"/> Off	Edit
 Web Chat		0	Yes	<input type="checkbox"/> Off	Edit

[Get bot embed codes](#)

Channels

	Test link	Issues	Enabled	Published	
 Facebook Messenger	Message Us	0	Yes	<input type="checkbox"/> Off	Edit
 Skype	Add to Skype	0	Yes (Preview)	<input type="checkbox"/> Off	Edit
 Slack	Add to Slack	0	Yes	<input type="checkbox"/> Off	Edit
 Web Chat		0	Yes	<input type="checkbox"/> Off	Edit

[Get bot embed codes](#)

HelloWorld
Messenger

HelloWorld
0 people like this
App Page

18:57

This is Christina

Hello World: This is Christina

Options

Manage Messages

Leave feedback

Search in Conversation

Mute Notifications

Configure GroupMe

How to

- ✓ Sign up for a GroupMe account
- ✓ Create a GroupMe Application for your bot
- ✓ Copy the client Id from the redirect Url
- ✓ Submit your client Id

Enable this bot on GroupMe

Enabling or disabling a channel doesn't affect its credentials.

Already have an account? [Log in.](#)



Get your group together.

[f Continue with Facebook](#)

OR

Enter your email

Continue

By signing up, you agree to our [terms of service.](#)

Create Application

Application Name

Callback URL

Callback URL must be https, localhost, or a deep link.

Developer Name

Developer Email

Developer Phone Number

Developer Company

Developer Address

Hello World

[Details](#) [Settings](#) [Delete](#)

Settings

Redirect URL https://oauth.groupme.com/oauth/authorize?client_id=Your Client Id

Callback URL https://groupme.botframework.com/Home/Login

Your Access Token

Use the access token string to authenticate as yourself when making API requests.

Astrani Dev's Access Token

[Details](#) [Settings](#) [Delete](#)

Settings

Redirect URL https://oauth.groupme.com/oauth/authorize?client_id=Your Client Id

Callback URL https://fc9ad1bb.ngrok.io/Home/Login

Your Access Token

Use the access token string to authenticate as yourself when making API requests.

Dev's Access Token

^ Submit your client Id

Client Id parameter in the Redirect Url

[Submit GroupMe Credentials](#)

Enable this bot on GroupMe

Enabling or disabling a channel doesn't affect its credentials.

I'm done configuring GroupMe >

Channels

		Test link	Issues	Enabled	Published	
	Facebook Messenger	Message Us	0	Yes	<input type="button" value="On"/> Off	Edit
	GroupMe	@helloworldformflow	0	Yes	<input type="button" value="On"/> Off	Edit
	Skype	Add to Skype	0	Yes (Preview)	<input type="button" value="On"/> Off	Edit
	Slack	Add to Slack	0	Yes	<input type="button" value="On"/> Off	Edit
	Web Chat		0	Yes	<input type="button" value="On"/> Off	Edit

[Get bot embed codes](#)

 Hello world ▾ X

Add members from your contacts or
create a share link for this group.

[Add Members](#) [Share Group](#)

Please enter name ♡

ASTRANI Astrani Dev ♡
hi ♡

 helloworldformflow ♡
Please enter name ♡

4:22 PM

ASTRANI Astrani Dev ♡
hello ♡

 helloworldformflow ♡
Hello World: hello ♡