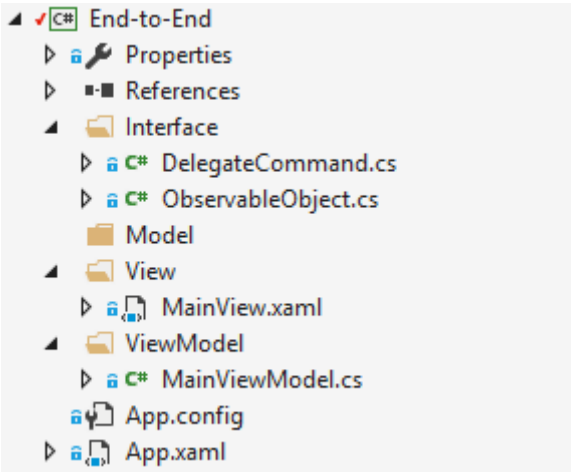



# Chapter 1: Getting Started with Microsoft Cognitive Services



 Hello, Leif Henning Larsen!  
| ██████@██████.com

### My free subscriptions (2)


[Request new trials](#)

Product	Description	Keys	State	Created	Quota	
Face - Preview	30,000 transactions per month, 20 per minute.	Key 1: XXXXXXXXXXXXXXXXXXXXXXXXXXXX Regenerate   Show   Copy Key 2: XXXXXXXXXXXXXXXXXXXXXXXXXXXX Regenerate   Show   Copy	active	7/1/2016 8:18:54 PM	Show Quota	<a href="#">Buy On Azure</a>  <a href="#">Cancel</a>

[Browse](#) | [Installed](#) | [Updates](#)

Include prerelease

---

 **Microsoft.ProjectOxford.Face** by Microsoft, 9,74K downloads v1.1.0  
Detect, identify, analyze, organize, and tag faces in photos with Microsoft Face API client library.

Chapter 1

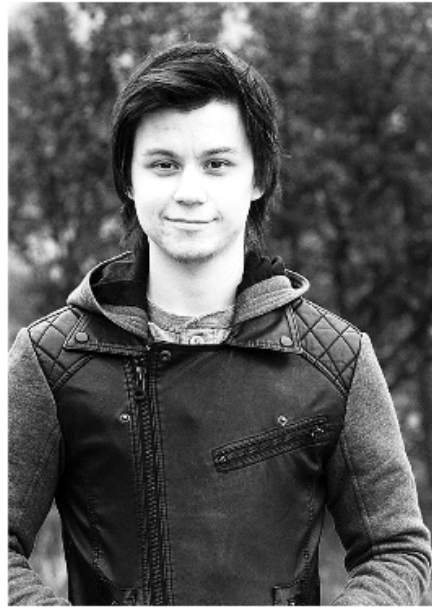


Status: Waiting for image...

Browse

Detect face

Chapter 1



Status: Finished detecting faces...

Browse

Detect face

**Choose Template Type**

This wizard will allow you to export a project or project item from the current solution to a template which future projects can then be based upon.

Which type of template would you like to create?

Project template

A project template will allow a user to create a new project based on your exported project. A user will be able to utilize your template from the New Project dialog box for client projects and from the New Website dialog box for websites.

Item template

An item template will allow a user to add your item to one of their existing projects. Your template will be available to the user from the Add New Item dialog box.

From which project would you like to create a template?

WpfApplication1

< Previous

Next >

Finish

Cancel

Export Template Wizard



Select Template Options

Template name:

WpfApplication1

Template description:

<No description available>

Icon Image:

Browse...

Preview Image:

Browse...

Output location:

C:\Documents\Visual Studio 2015\My Exported Templates\WpfApplication1.zip

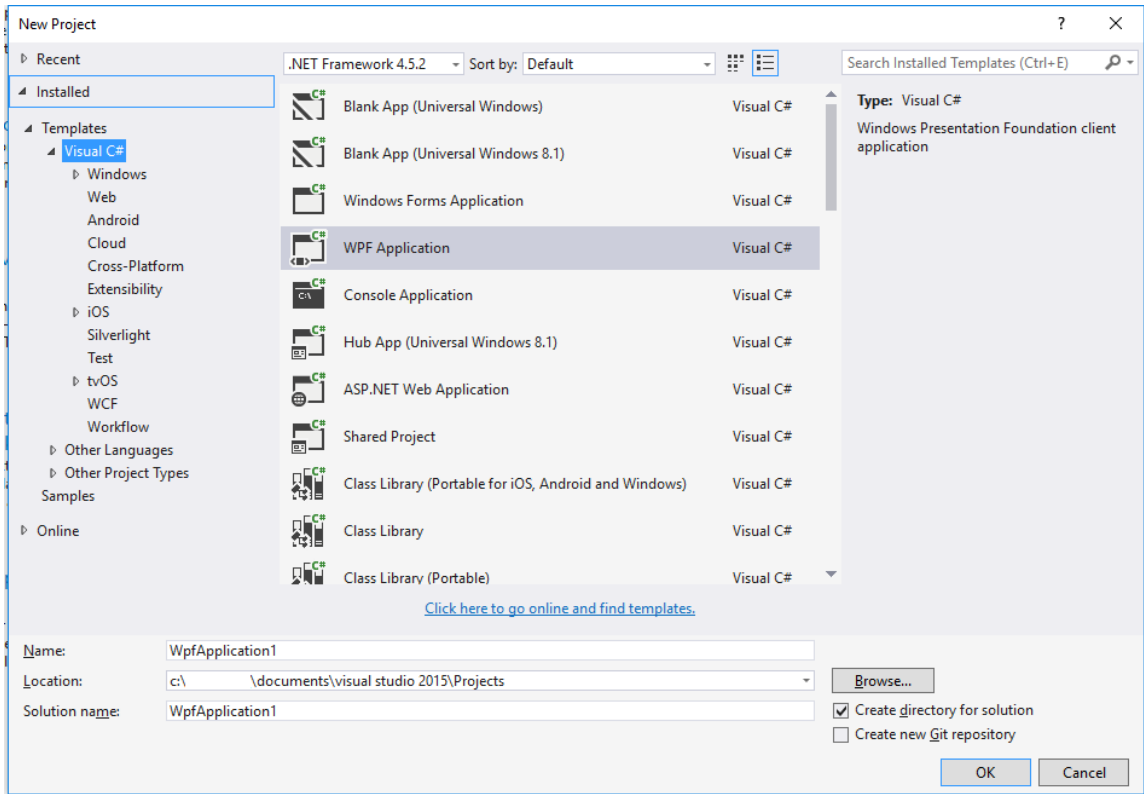
- Automatically import the template into Visual Studio
- Display an explorer window on the output files folder

< Previous

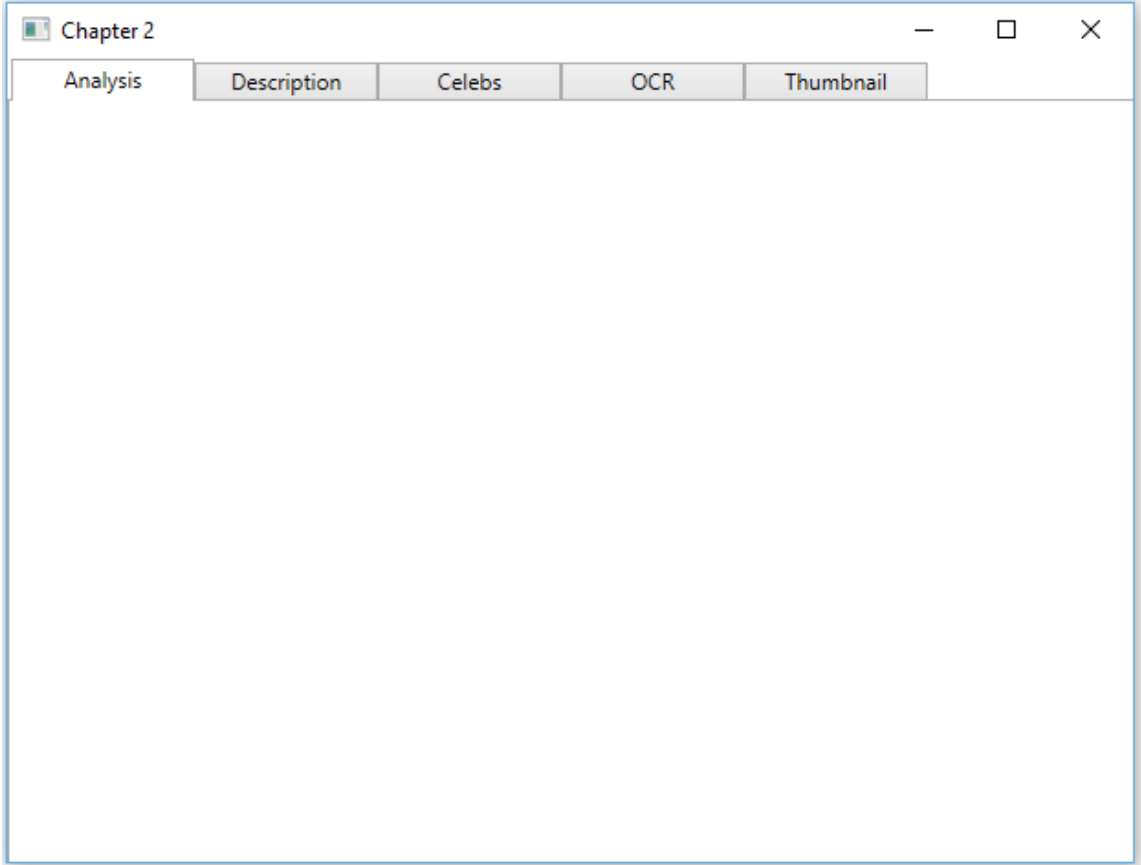
Next >

Finish

Cancel



# Chapter 2: Analyzing Images to Recognize a Face






Chapter 2

Analysis Description Celebs OCR Thumbnail Face verification Similar face Face grouping

**Visual Features:**

- ImageType
- Color
- Faces
- Adult
- Categories
- Tags
- Description

[Browse and analyze](#)



**Analysis Results:**

Description: a harbor with a boat in the water  
Probability: 0,75724296883707

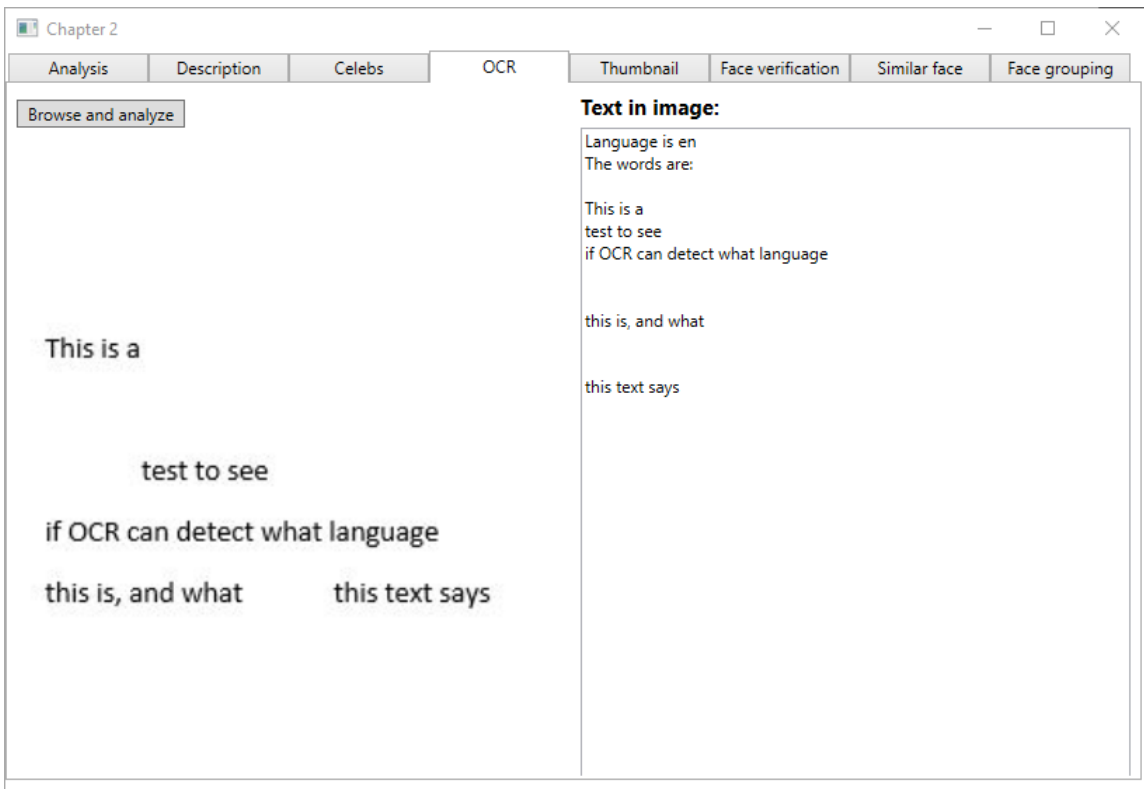
Categories:

- outdoor\_  
Probability: 0,0078125
- outdoor\_oceanbeach  
Probability: 0,4296875

Image content is adult: False  
Image content is racy: False

The image is Jpeg  
Image size: 3264 \* 2448 px

Request ID is: 5964b01a-9205-49e3-be06-c0b9d45e2548




Chapter 2

Analysis Description Celebs OCR Thumbnail Face verification Similar face Face grouping

Browse for image 1

Browse for image 2





Verify faces


The two provided faces is identical: False, with confidence: 0,10252


Chapter 2


Analysis Description Celebs OCR Thumbnail Face verification Similar face Face grouping


**Image 1**  
  
 525a88e5-e77b-407c-ba1a-11e3ce162eda

**Image 2**  
  
 5a1cd2a8-e7e5-41ce-a96a-2fd8cb38c4a5

**Image 3**  
  
 d35187c4-9fb2-4dc0-90a6-04724e5cbbb0

**Image 4**  
  
 9fddf235-2dc5-4b5f-b7e3-561b5e203ace

**Image 5**  
  
 f4d805ac-0926-4af8-85a5-df86b0d97433

**Image 6**  
  
 e199a798-38b8-4d1c-b1c4-b946d16048d7

Group images **Face groups:**

There are 2 group(s)  
 Groups: Image 4 - Image 6 -  
 Image 3 - Image 1 -  
 Messy group: Image 2 - Image 5 -

Smart Home

Home Administration

### Administration

#### Person groups

Add new person group | Person group name/id:

Add

Person groups:

- Administrators
- Family 3

Delete person group Train person group

Add new person | Person name:

Add

#### Persons

Persons:

- Leif

Delete person Add face

**Status:**  
ViewModel initialized

Smart Home

Home

Administration

## Smart Home

Logon to group:

Administrators

Family 3

Image logon

Welcome home, Leif




NuGet Package Manager: Chapter2

Browse Installed Updates


Microsoft.ProjectOxford.Vision x ↕  Include prerelease

Package source: nuget.org ⚙

---

 **Microsoft.ProjectOxford.Vision** by Microsoft, 19.4K downloads v1.0.370  
Microsoft Cognitive Services Vision API Client Library.

---

 **Microsoft.ProjectOxford.Vision**

Installed: 1.0.370

Version: 1.0.354

Options

**Description**  
Microsoft Project Oxford Vision API Client Library

**Version:** 1.0.354

**Author(s):** Microsoft

**License:** <https://github.com/Microsoft/ProjectOxford-ClientSDK/blob/master/LICENSE.md>

**Date published:** Thursday, June 9, 2016 (6/9/2016)

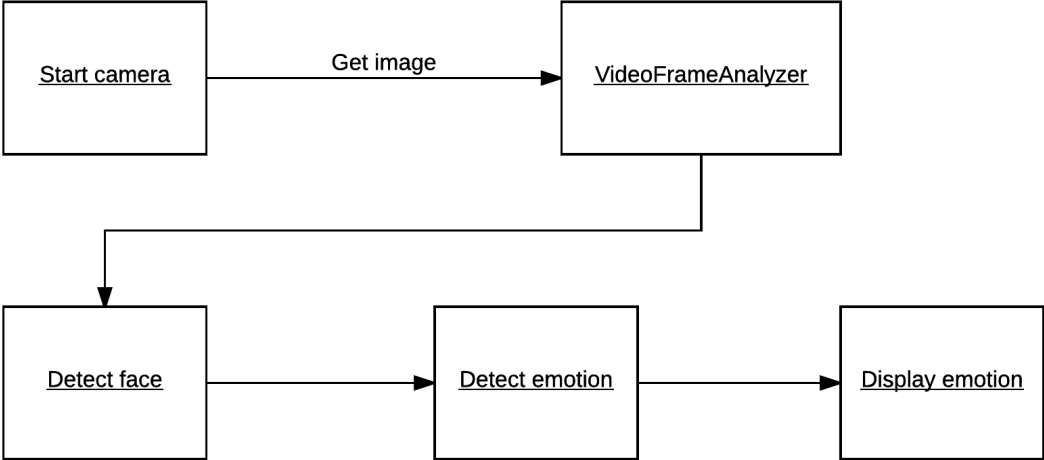
**Project URL:** <https://www.github.com/microsoft/cognitive-vision-windows>

**Report Abuse:** <https://www.nuget.org/packages/Microsoft.ProjectOxford.Vision/1.0.354/ReportAbuse>

**Tags:** Face, Oxford, ProjectOxford, Vision, Caption, CognitiveServices, Microsoft, Cognitive

**Dependencies**  
Newtonsoft.Json (>= 8.0.2)

# Chapter 3: Analyzing Videos





Smart Home

Home Administration


### Smart Home

Logon to group: You seem to be happy today.

Administrators

Family 3

Image logon Start Camera Stop camera



Smart Home

Home Administration


### Smart Home

Logon to group: You seem to be neutral today.

Administrators

Family 3

Image logon Start Camera Stop camera



## Video Operations

Browse video:

Video Operation:

Operation result

## Video Operations

Browse video:

Browse

Video Operation:

Thumbnail ▾

Execute operation



Operation result

Running  
Video operation is running

## Video Operations

Browse video:

Browse

Video Operation:

Thumbnail ▾

Execute operation



Operation result

Succeeded  
Video operation completed successfully  
Video can be fetched at: <https://api.projectoxford.ai/video/v1.0/operation>



## Video Operations

Browse video:

Browse

Video Operation:

FaceDetection

Execute operation



Operation result

```
Succeeded
Video operation completed successfully
Results:
{
  "version": 1,
  "timescale": 12800,
  "offset": 0,
  "framerate": 25,
  "width": 640,
  "height": 480,
  "fragments": [
    {
      "start": 0,
      "end": 1000000000,
      "timescale": 12800,
      "offset": 0,
      "framerate": 25,
      "width": 640,
      "height": 480,
      "fragments": [
        {
          "start": 0,
          "end": 1000000000,
          "timescale": 12800,
          "offset": 0,
          "framerate": 25,
          "width": 640,
          "height": 480,
          "fragments": [
            {
              "start": 0,
              "end": 1000000000,
              "timescale": 12800,
              "offset": 0,
              "framerate": 25,
              "width": 640,
              "height": 480,
              "fragments": [
                {
                  "start": 0,
                  "end": 1000000000,
                  "timescale": 12800,
                  "offset": 0,
                  "framerate": 25,
                  "width": 640,
                  "height": 480,
                  "fragments": [
                    {
                      "start": 0,
                      "end": 1000000000,
                      "timescale": 12800,
                      "offset": 0,
                      "framerate": 25,
                      "width": 640,
                      "height": 480,
                      "fragments": [
                        {
                          "start": 0,
                          "end": 1000000000,
                          "timescale": 12800,
                          "offset": 0,
                          "framerate": 25,
                          "width": 640,
                          "height": 480,
                          "fragments": [
                            {
                              "start": 0,
                              "end": 1000000000,
                              "timescale": 12800,
                              "offset": 0,
                              "framerate": 25,
                              "width": 640,
                              "height": 480,
                              "fragments": [
                                {
                                  "start": 0,
                                  "end": 1000000000,
                                  "timescale": 12800,
                                  "offset": 0,
                                  "framerate": 25,
                                  "width": 640,
                                  "height": 480,
                                  "fragments": [
                                    {
                                      "start": 0,
                                      "end": 1000000000,
                                      "timescale": 12800,
                                      "offset": 0,
                                      "framerate": 25,
                                      "width": 640,
                                      "height": 480,
                                      "fragments": [
                                        {
                                          "start": 0,
                                          "end": 1000000000,
                                          "timescale": 12800,
                                          "offset": 0,
                                          "framerate": 25,
                                          "width": 640,
                                          "height": 480,
                                          "fragments": [
                                            {
                                              "start": 0,
                                              "end": 1000000000,
                                              "timescale": 12800,
                                              "offset": 0,
                                              "framerate": 25,
                                              "width": 640,
                                              "height": 480,
                                              "fragments": [
                                                {
                                                  "start": 0,
                                                  "end": 1000000000,
                                                  "timescale": 12800,
                                                  "offset": 0,
                                                  "framerate": 25,
                                                  "width": 640,
                                                  "height": 480,
                                                  "fragments": [
                                                    {
                                                      "start": 0,
                                                      "end": 1000000000,
                                                      "timescale": 12800,
                                                      "offset": 0,
                                                      "framerate": 25,
                                                      "width": 640,
                                                      "height": 480,
                                                      "fragments": [
                                                        {
                                                          "start": 0,
                                                          "end": 1000000000,
                                                          "timescale": 12800,
                                                          "offset": 0,
                                                          "framerate": 25,
                                                          "width": 640,
                                                          "height": 480,
                                                          "fragments": [
                                                            {
                                                              "start": 0,
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                                                              "timescale": 12800,
                                                              "offset": 0,
                                                              "framerate": 25,
                                                              "width": 640,
                                                              "height": 480,
                                                              "fragments": [
                                                                {
                                                                  "start": 0,
                                                                  "end": 1000000000,
                                                                  "timescale": 12800,
                                                                  "offset": 0,
                                                                  "framerate": 25,
                                                                  "width": 640,
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                                                                      "start": 0,
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                                                                      "timescale": 12800,
                                                                      "offset": 0,
                                                                      "framerate": 25,
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                                                                          "start": 0,
                                                                          "end": 1000000000,
                                                                          "timescale": 12800,
                                                                          "offset": 0,
                                                                          "framerate": 25,
                                                                          "width": 640,
                                                                          "height": 480,
                                                                          "fragments": [
                                                                            {
                                                                              "start": 0,
                                                                              "end": 1000000000,
                                                                              "timescale": 12800,
                                                                              "offset": 0,
                                                                              "framerate": 25,
                                                                              "width": 640,
                                                                              "height": 480,
                                                                              "fragments": [
                                                                                {
                                                                                  "start": 0,
                                                                                  "end": 1000000000,
                                                                                  "timescale": 12800,
                                                                                  "offset": 0,
                                                                                  "framerate": 25,
                                                                                  "width": 640,
                                                                                  "height": 480,
                                                                                  "fragments": [
                                                                                    {
                                                                                      "start": 0,
                                                                                      "end": 1000000000,
                                                                                      "timescale": 12800,
                                                                                      "offset": 0,
                                                                                      "framerate": 25,
                                                                                      "width": 640,
                                                                                      "height": 480,
                                                                                      "fragments": [
                                                                                        {
                                                                                          "start": 0,
                                                                                          "end": 1000000000,
                                                                                          "timescale": 12800,
                                                                                          "offset": 0,
                                                                                          "framerate": 25,
                                                                                          "width": 640,
                                                                                          "height": 480,
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                      ]
                    ]
                  ]
                ]
              ]
            ]
          ]
        ]
      ]
    ]
  ]
}
```

## Video Operations

Browse video:

Browse

Video Operation:

MotionDetection

Execute operation



Operation result

Succeeded

Video operation completed successfully

Results:

```
{  
  "version": 2,  
  "timescale": 12800,  
  "offset": 0,  
  "framerate": 25,  
  "width": 640,  
  "height": 480,  
  "regions": [  
    {  
      "x": 0,  
      "y": 0,  
      "x2": 640,  
      "y2": 480,  
      "confidence": 1.0,  
      "label": "background"  
    }  
  ]  
}
```

## Video Operations

Browse video:

Browse

Video Operation:

Emotion

Execute operation



Operation result

Succeeded

Video operation completed successfully

Emotion results:

Emotion: Anger / Score: 0

Emotion: Contempt / Score: 0

Emotion: Disgust / Score: 0

Emotion: Fear / Score: 0

Emotion: Happiness / Score: 0

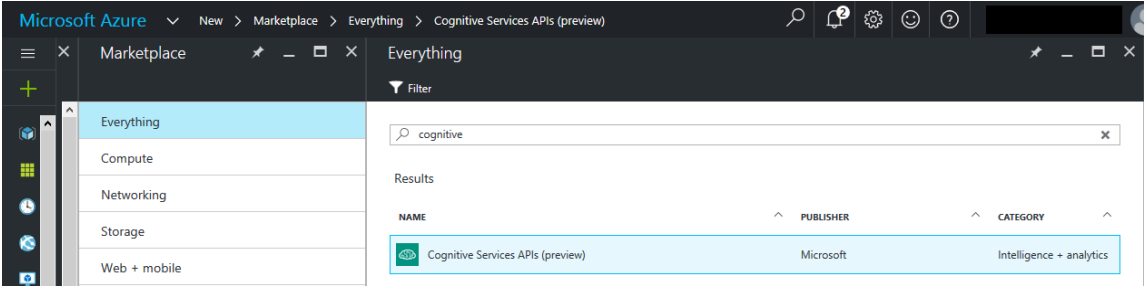
Emotion: Neutral / Score: 0

Emotion: Sadness / Score: 0

Emotion: Surprise / Score: 0



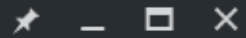
# Chapter 4: Letting Applications Understand Commands





# LearningLuisService - Keys

Cognitive Services account - PREVIEW



Regenerate Key1

Regenerate Key2

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

## RESOURCE MANAGEMENT

Keys

Pricing tier

Properties

Locks

Automation script

## HELP

Quick start

## ACCOUNT NAME

LearningLuisService

## KEY 1

4 [REDACTED] 3

## KEY 2

a [REDACTED] 5



# My Settings

General Information

Subscription Keys

## Programmatic API Key

a [redacted] 4

Reset Programmatic Api Key

Enter new key [Need help getting your key?](#)

Copy your key from the Azure Portal ...

Add Key

### Azure subscription keys

Delete

4 [redacted] 3



# Add a new application

Enter application name

SmartHouseApplication

Enter application usage scenario

Other (please specify) ▾

Smart House Application

Choose application domain(s)

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

Enter application description (optional)


Application description (optional) ...

Choose Application Culture


English ▾

Add App

LUIS


Go to Preview My Applications About Help Docs Support  Sign Out

SmartHouseApplication


New utterances Search Suggest Review labels Performance analysis 

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

Please, enter an utterance. 

Click on the refresh icon to load or refresh the performance analysis pane.

Your app isn't trained. Click "train" then refresh the performance pane.

 Train 

## Add a new Entity

Rooms

Include children

Save

Cancel

## Add a new Entity

Date

Include children

Hierarchical

Composite

Entity Children 

Children can not be edited or deleted once added.

StartDate




EndDate



Save

Cancel

Phrase List Features 



Rooms

Kitchen, living  
room, bathroom, bedroom, office,  
hallway, garage

- Exchangeable  
 Not exchangeable (advanced)

Save

Cancel

Delete

## Add a new intent

Intent name:

Enter an example of a command that triggers this intent:

[+ Add Action](#)

Save

Cancel

New utterances

Search

Suggest

Review labels



what is the temperature in the kitchen?

GetRoomTemperature

Which entity is this?

Rooms

Cancel



set the temperature in the kitchen to 22 degrees celsius



set the temperature in the kitchen to 22 degrees celsius

SetTemperature ▾

Submit

## HTTP service



Publish Current Application to URL for access via HTTP

Status: Published on 10/14/2016, 5:53:05 AM

Update published application

Query:

URL: [https://api.projectoxford.ai/luis/v1/application?id=68\[REDACTED\]3&subscription-key=a\[REDACTED\]4](https://api.projectoxford.ai/luis/v1/application?id=68[REDACTED]3&subscription-key=a[REDACTED]4)

Download web service usage logs

Download logs

```
{
  "query": "get the bedroom temperature",
  "intents": [
    {
      "intent": "GetRoomTemperature",
      "score": 0.846428752,
      "actions": [
        {
          "triggered": true,
          "name": "GetRoomTemperature",
          "parameters": [
            {
              "name": "Room",
              "required": true,
              "value": [
                {
                  "entity": "bedroom",
                  "type": "Rooms",
                  "score": 0.963398457
                }
              ]
            }
          ]
        }
      ]
    }
  ]
},
```

## App Settings



### General Info

App Id: 68 [REDACTED] 3

App Name

SmartHouseApplication

Rename

Revert

Close

**Input text**

what is the bedroom temperature?

**Results**

Status: Succeeded


Summary: Top intent is GetRoomTemperature with score 0,8229306. Found 1 entities.


Entities found: 1

Entities:

Name: Rooms    Value: bedroom

Execute utterance

Performance analysis 

Intents 

### None



10 utterances: 10 correctly predicted



### GetRoomTemperature

3 utterances: 0 correctly predicted



-  Correctly predicted
-  Error (predicted as other intent)

Watch 1	
Name	Value
result	{Microsoft.Cognitive.LUIS.LuisResult}
DialogResponse	null
Entities	Count = 0
Raw View	
Intents	{Microsoft.Cognitive.LUIS.Intent[3]}
[0]	{Microsoft.Cognitive.LUIS.Intent}
[1]	{Microsoft.Cognitive.LUIS.Intent}
[2]	{Microsoft.Cognitive.LUIS.Intent}
OriginalQuery	"can you tell me the bedroom temperature?"
Reply	{Method = {Microsoft.Cognitive.LUIS.LuisResult <.ctor>b_0(System.String)}}
TopScoringIntent	{Microsoft.Cognitive.LUIS.Intent}
Actions	{Microsoft.Cognitive.LUIS.Action[0]}
Name	"None"
Score	0.6122963

New utterances

Search

Suggest

Review labels

Suggest utterances that will improve:

Intent: None

Select highlight to add another entity or click to clear

can you tell me the bedroom temperature ?

None(0.61)

Submit

Watch 1

Name	Value
result	{Microsoft.Cognitive.LUIS.LuisResult}
DialogResponse	null
Entities	Count = 1
[0]	{[Rooms, System.Collections.Generic.List`1[Microsoft.Cognitive.LUIS.Entity]]}
Key	"Rooms"
Value	Count = 1
[0]	{Microsoft.Cognitive.LUIS.Entity}
EndIndex	26
Name	"Rooms"
Resolution	Count = 0
Score	0.8959288
StartIndex	20
Value	"bedroom"
Raw View	
Non-Public members	
Raw View	
Intents	{Microsoft.Cognitive.LUIS.Intent[3]}
OriginalQuery	"can you tell me the bedroom temperature?"
Reply	{Method = {Microsoft.Cognitive.LUIS.LuisResult <.ctor> b_0(System.String)}}
TopScoringIntent	{Microsoft.Cognitive.LUIS.Intent}
Actions	{Microsoft.Cognitive.LUIS.Action[1]}
Name	"GetRoomTemperature"
Score	0.491344

## Add a new intent

Intent name:

GetRoomTemperature

[- Delete Action](#)

Action Info


Fulfillment

Action Type:

Select Action ...

Action Parameters

[+ Add Parameter](#)

Required	Name	Type	Value	Prompt	Edit
<input checked="" type="checkbox"/>	Room	Rooms	Rooms	What room do you war	

Delete

Save

Cancel

Smart Home

Home LUIS Administration

**Input text**

what is the temperature

**Results**

Status: Succeeded  
Summary: Top intent is GetRoomTemperature with score 0,908334136. Found 0 entities.  
Response: What room do you want the temperature for?  
Reply in the left textfield

Execute utterance

The image shows a software window titled "Smart Home" with three tabs: "Home", "LUIS", and "Administration". The "LUIS" tab is active. The window is split into two main sections. The left section, titled "Input text", contains a text area with the input "what is the temperature". The right section, titled "Results", displays the following text: "Status: Succeeded", "Summary: Top intent is GetRoomTemperature with score 0,908334136. Found 0 entities.", "Response: What room do you want the temperature for?", and "Reply in the left textfield". At the bottom left of the window, there is a button labeled "Execute utterance".

Smart Home

Home LUIS Administration

**Input text**

bedroom

**Results**

Status: Succeeded  
Summary: Top intent is GetRoomTemperature with score 0,908334136. Found 1 entities.  
Entities found: 1  
Entities:  
Name: Rooms Value: bedroom

Execute utterance

The image shows a web browser window titled "Smart Home". At the top, there are three tabs: "Home", "LUIS", and "Administration". The "LUIS" tab is active. The main content area is split into two columns. The left column, titled "Input text", contains the word "bedroom". The right column, titled "Results", displays the following information: "Status: Succeeded", "Summary: Top intent is GetRoomTemperature with score 0,908334136. Found 1 entities.", "Entities found: 1", "Entities:", and "Name: Rooms Value: bedroom". At the bottom left of the content area, there is a button labeled "Execute utterance".



**Input text**

What is the bedroom temperature?

**Results**

Status: Succeeded

Summary: Top intent is GetRoomTemperature with score 0,9735279. Found 1 entities.

Entities found: 1

Entities:

Name: Rooms    Value: bedroom

Action: GetRoomTemperature

Action triggered: True

Execute utterance

## Add a new intent

SetRoomTemperature

[- Delete Action](#)

### Action Info

Fulfillment

Action Type:

WriteLine

[Need help filling the settings?](#)

### Action Parameters

[+ Add Parameter](#)

Required	Name	Type	Value	Prompt	Edit
<input checked="" type="checkbox"/>	temperature	temperature	Choose Phrase List	What temperature do	
<input checked="" type="checkbox"/>	room	Rooms	Rooms	What room do you wa	

### Action Settings

Text

Temperature in {room} was set to {temperature}.

Append a Parameter

Choose Parameter ...

Delete

Save

Cancel

# Chapter 5: Speak with Your Application

## Speaker profiles

Add new speaker profile

Add

Speaker profiles:

be4d3d7b-9b50-4b12-9180-ad0ba926b844

Delete speaker

Start enrollment rec.

Stop recording

Reset enrollment

### Status:

Enrollment finished. Enrollment status: Enrolled

Smart Home

Home

LUIS

Administration

## Smart Home

Logon to group:

Hi there, be4d3d7b-9b50-4b12-9180-ad0ba926b844

Image logon

Start Camera

Stop camera

Start Recording

Stop Recording

### Speaker profiles

Add new speaker profile

Add

Verification phrases:

i am going to make him an offer he cannot refuse  
houston we have had a problem  
my voice is my passport verify me  
apple juice tastes funny after toothpaste  
you can get in without your password  
you can activate security system now  
my voice is stronger than passwords

Speaker profiles:

f365b19e-3ada-4fa3-a72f-7ba3e513ad9b

Delete speaker

Start enrollment rec.

Stop recording

Reset enrollment

Start verification

Stop verification

#### Status

Enrollment status: Enrolled

## Speaker profiles

Add new speaker profile

Add

Verification phrases:

i am going to make him an offer he cannot refuse  
houston we have had a problem  
my voice is my passport verify me  
apple juice tastes funny after toothpaste  
you can get in without your password  
you can activate security system now  
my voice is stronger than passwords

Speaker profiles:

f365b19e-3ada-4fa3-a72f-7ba3e513ad9b

Delete speaker

Start enrollment rec.

Stop recording

Reset enrollment

Start verification

Stop verification

### Status

Verification result: Accept with High confidence.

Phrase used: houston we have had a problem

### Speaker profiles

Add new speaker profile

Add

Verification phrases:

i am going to make him an offer he cannot refuse  
houston we have had a problem  
my voice is my passport verify me  
apple juice tastes funny after toothpaste  
you can get in without your password  
you can activate security system now  
my voice is stronger than passwords

Speaker profiles:

f365b19e-3ada-4fa3-a72f-7ba3e513ad9b

Delete speaker

Start enrollment rec.

Stop recording

Reset enrollment

Start verification

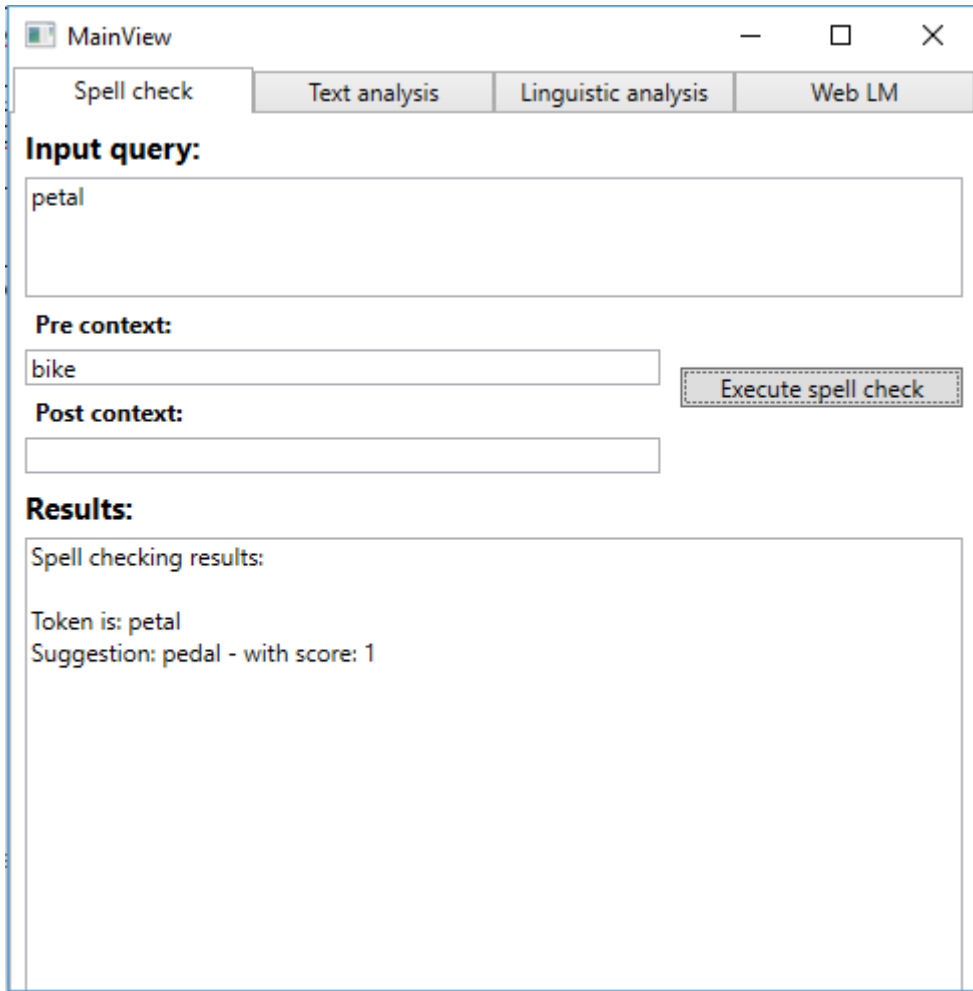
Stop verification

#### Status

Verification result: Reject with High confidence.

Phrase used:

# Chapter 6: Understanding Text



MainView

Spell check | Text analysis | Linguistic analysis | Web LM

**Input query:**

thisisalongwordineedtobreakup

Break words | Cond. Prob | Joint Prob | Next words

**Results:**

Candidate: this is a long word i need to break up, with probability: -19,081  
Candidate: thisisalongword i need to break up, with probability: -20,153  
Candidate: this is a long word i need to breakup, with probability: -20,297  
Candidate: this is a longword i need to break up, with probability: -20,615  
Candidate: thisisalongword i need to breakup, with probability: -21,369



MainView

Spell check   Text analysis   Linguistic analysis   Web LM

**Input query:**

what is the next big

Break words   Cond. Prob   Joint Prob   Next words

**Results:**

Candidate: storm, with probability: -0,103  
Candidate: thing, with probability: -0,926  
Candidate: step, with probability: -2,029  
Candidate: sports, with probability: -2,235  
Candidate: move, with probability: -2,366

MainView

Spell check   Text analysis   Linguistic analysis   Web LM

**Input query:**

my name;is

Break words   Cond. Prob   Joint Prob   Next words

**Results:**

Probability of 'is' being the next word in 'my name' is -0,262

The image shows a software window titled "MainView" with standard window controls (minimize, maximize, close). The window contains a tabbed interface with four tabs: "Spell check", "Text analysis", "Linguistic analysis", and "Web LM". The "Linguistic analysis" tab is currently selected. Below the tabs, the text "Input query:" is displayed above a text input field containing the string "this, this is, my name is". Below the input field are four buttons: "Break words", "Cond. Prob", "Joint Prob", and "Next words". Below the buttons, the text "Results:" is displayed above a text output area containing the following results:

Probability of 'this' to appear together is -2,282  
Probability of 'this is' to appear together is -3,541  
Probability of 'my name is' to appear together is -5,213

MainView

Spell check   Text analysis   Linguistic analysis   Web LM

**Input query:**

Dette er en test på om jeg får norsk språk som resultat

Detect language   Detect key phrases   Detect sentiment

**Results:**

Detected language: Norwegian with score 1

MainView

Spell check   Text analysis   Linguistic analysis   Web LM

**Input query:**

this is probably the coolest technology I have worked with

Detect language   Detect key phrases   Detect sentiment

**Results:**

Document ID: FirstId  
Sentiment is positive, with a score of 0,8326857

MainView

Spell check   Text analysis   Linguistic analysis   Web LM

**Analyzers:**

- POS\_Tags
- Constituency\_Tree
- Tokens

**Input query:**

given sentences of text, we can do linguistic analysis on this.

Analyse linguistics

**Results:**

```
"IN",
"DT",
"."
]
]
["(TOP (S (PP (VBN given) (NP (NP (NNS sentences)) (PP (IN of) (NN text)))) (, .) (NP (PRP
```

```
{
  "Len": 63,
  "Offset": 0,
  "Tokens": [
    r
```

# Chapter 7: Extending Knowledge Based on Context

The screenshot shows a web application window titled "Smart Home" with a navigation bar containing "Home", "LUIS", "Entity Linking", and "Administration". The "Entity Linking" tab is active. Below the navigation bar, there is a section titled "Input text" containing a paragraph of text about the James Webb Space Telescope. Below the text, there are input fields for "Entity:" and "Offset:" (set to 0), and a "Link entities" button. Below this is a "Results" section showing the output of the entity linking process.

**Input text**

For months, the four scientific instruments at the heart of the James Webb Space Telescope have been sealed in what looks like a huge pressure cooker. It's a test chamber that simulates the grueling operating conditions they will face after Webb is launched into orbit in 2018. But in fact, "pressure cooker" is an apt metaphor for the whole project. The infrared Webb observatory is the biggest, most complex, and most expensive science mission that NASA has ever attempted. Like that of its predecessor, the Hubble Space Telescope, Webb's construction has been plagued by redesigns, schedule slips, and cost overruns that have strained relationships with contractors, international partners, and supporters in the U.S. Congress. Lately the project has largely stuck to its schedule and its \$8 billion budget. But plenty could still go wrong, and the stakes are high: Both the future of space-based astronomy and NASA's ability to build complex science missions depend on its success.

Entity:  Offset:

**Results**

Entities found: 5

Entity 'James Webb Space Telescope'  
Score 0,993  
Wikipedia ID 'James Webb Space Telescope'  
Matches in text: 2

Text match: 'James Webb Space Telescope'  
Found at position: 64

Text match: 'Webb'  
Found at position: 241 364 534

Smart Home

Home LUIS Entity Linking Administration

### Input text

For months, the four scientific instruments at the heart of the James Webb Space Telescope have been sealed in what looks like a huge pressure cooker. It's a test chamber that simulates the grueling operating conditions they will face after Webb is launched into orbit in 2018. But in fact, "pressure cooker" is an apt metaphor for the whole project. The infrared Webb observatory is the biggest, most complex, and most expensive science mission that NASA has ever attempted. Like that of its predecessor, the Hubble Space Telescope, Webb's construction has been plagued by redesigns, schedule slips, and cost overruns that have strained relationships with contractors, international partners, and supporters in the U.S. Congress. Lately the project has largely stuck to its schedule and its \$8 billion budget. But plenty could still go wrong, and the stakes are high: Both the future of space-based astronomy and NASA's ability to build complex science missions depend on its success.

Entity:  Offset:

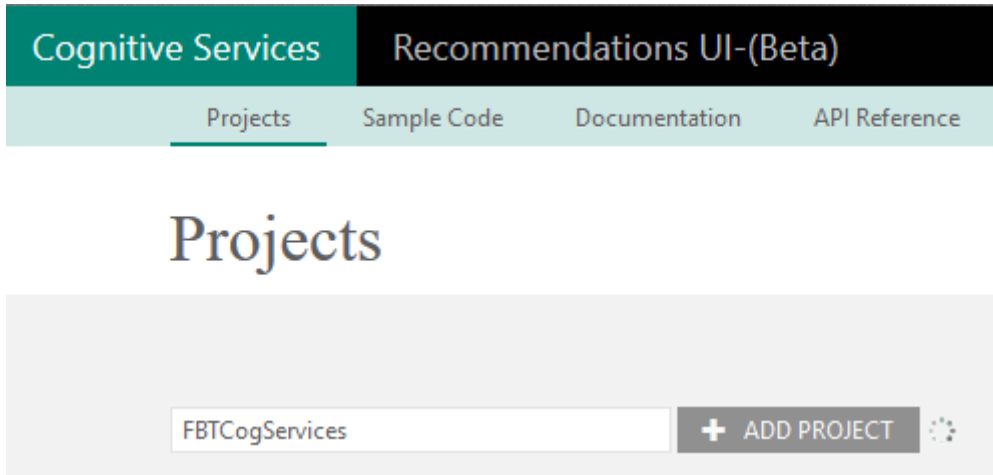
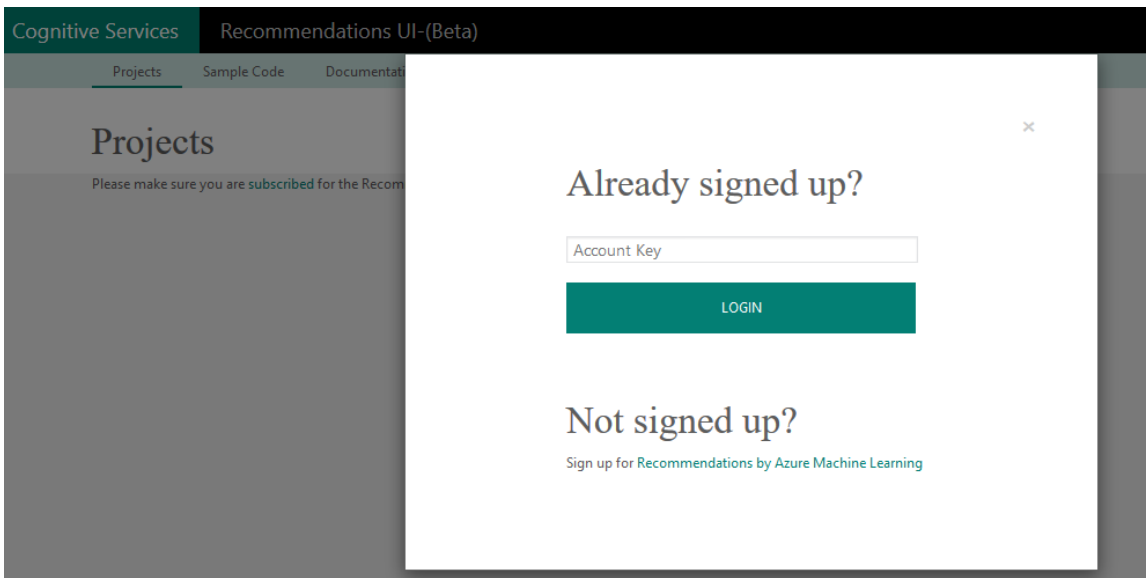
### Results

Entities found: 1

Entity 'James Webb Space Telescope'  
Score 1  
Wikipedia ID 'James Webb Space Telescope'  
Matches in text: 1

Text match: 'Webb'  
Found at position: 241





[Projects](#) > FBTCogServices


# FBTCogServices

Model ID:

BUILDS


RULES

## Step 1: Add a catalog file (schema)

 BROWSE FOR FILE...

Catalog uploaded

## Step 2: Add usage files (schema)

 BROWSE FOR FILE...

Uploaded files

usage1.csv



## Step 3: Create a build

NEW BUILD

×

FBTCogServices

Build Type

FBT

Description

Frequently Bought Together build definition, with default values

[Hide Advanced](#)

FBT Support Threshold

6

FBT Maximum Item Set Size

2

FBT Minimal Score

0

FBT Similarity Function

Jaccard (Balanced)

Enable Modeling Insights

False

RESET BUILD

### Step 3: Create a build

NEW BUILD

ACTIVE BUILD	BUILD ID	TYPE	STATUS	DATE CREATED	
<input checked="" type="radio"/>	1590442	FBT	Success	11/30/2016, 4:41:19 AM	<span>SCORE</span>

Select seed items below, or search by name.

Disney Interactive Studios Infinity Figure-francesco	Word 2013 32/64 ES PKL Online DwnLd C2R NonCmcl NR	Windows Server CAL 2012 English MLP 5 User CAL	HP Stream 7 Tablet Case - Black #K2N05AA#ABL	3D Systems Cube Cartridge Gen3 PLA White #391146	HP ENVY 15 TouchSmart Silver
Ubisoft Assassin's Creed IV:Black Flag PC	Her Interactive Nancy Drew: #22 Trail of the Twister PC Game ESD	Take 2 Nickelodeon Dance Xbox 360	Trina Turk Printed Sleeve for Surface Pro 3 - Fall 2 Floral #TTRKSP-001-F2F	Belkin Mini Displayport to HDMI 6' Cable	ADONIT Jot Mini Fine Point Stylus- Turquoise #ADJMT
Disney Interactive Studios Infinity Figure - Rapunzel	HP Pavilion TouchSmart 11 Silver	OfficePro 2013 32/64 ES PKL Online NaOnly DwnLd C2R NR	GOPRO LCD Touch BacPac #ALCDB-303	Nokia Micro USB Car Charger DC-15	EA FIFA World Cup 2014 Brazil Xbox 360

Page 1

#### Cart

Nokia Micro USB Car Charger DC-15
--------------------------------------

#### Recommendations

Microsoft Online Coupon SKU (0.00953)
---



I2ICogServices

Build Type

Recommendation

Description

I2I Default Build

Hide Advanced

Number of model iterations

40

Number of Model Dimension

20

Item Cut-off Lower Bound

2

Item Cut-off Upper Bound

User Cut-off Lower Bound

2

User Cut-off Upper Bound

Enable Modeling Insights

False

Enable U2I

True

RESET

BUILD

**Model**

I2ICogServices

**Products**

Wedge Touch Mouse Bluetooth Surface Edition EN/XD/ES Hdwr

Recommend items

**Recommendations**

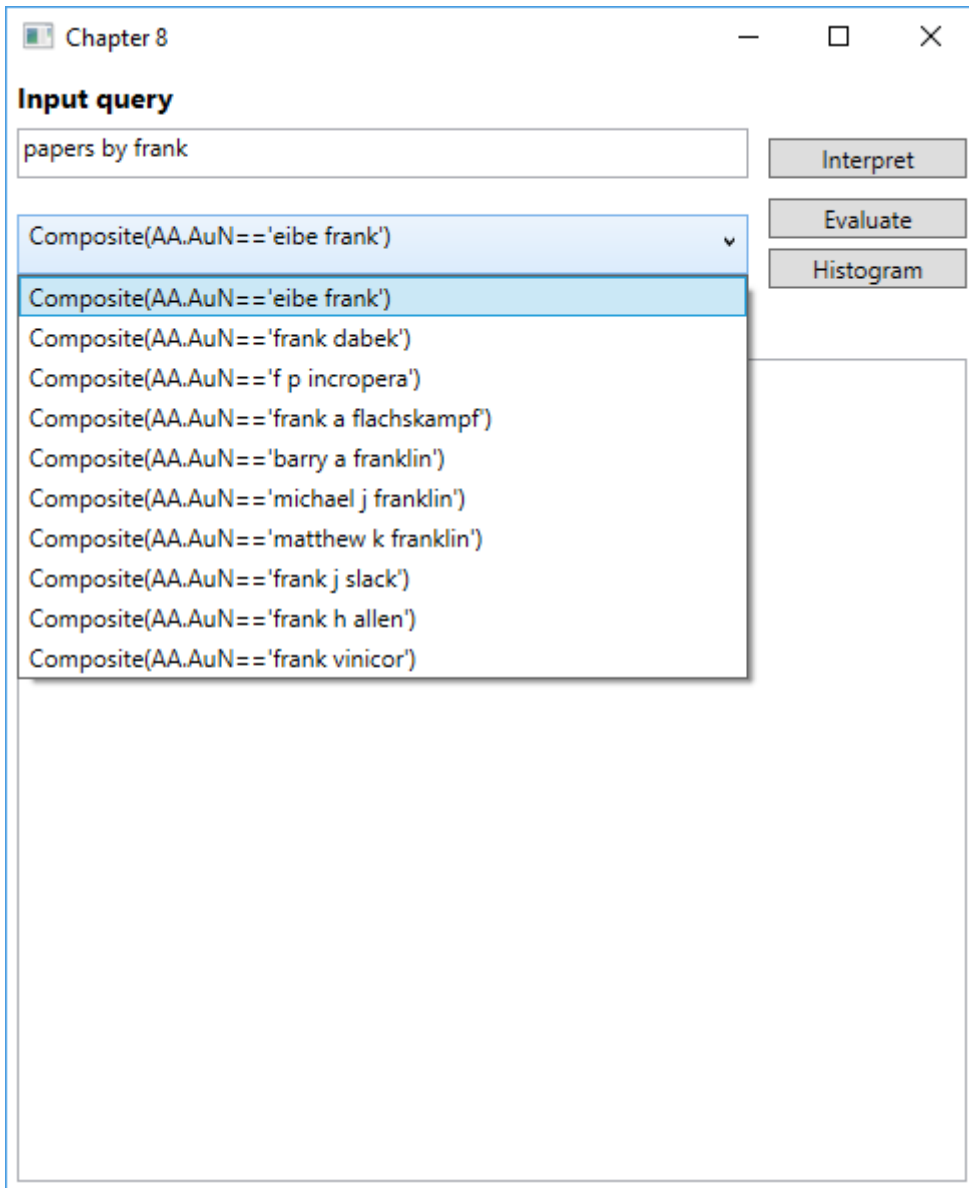
Recommended items:

Score: 0,7226764  
Reason: People who like 'Wedge Touch Mouse Bluetooth Surface Edition EN/XD/ES Hdwr' also like 'Cmplt Warranty U:  
Item ID: DQF-00248  
Item Name: Cmplt Warranty USD Surface Pro2/Pro3

Score: 0,7202604  
Reason: People who like 'Wedge Touch Mouse Bluetooth Surface Edition EN/XD/ES Hdwr' also like 'Type Cover 3 SC E  
Item ID: RD2-00080  
Item Name: Type Cover 3 SC English Hdwr Black

Score: 0,7189347  
Reason: People who like 'Wedge Touch Mouse Bluetooth Surface Edition EN/XD/ES Hdwr' also like 'DckngStn-SrfPro3  
Item ID: 3Q9-00001  
Item Name: DckngStn-SrfPro3 SC EN/XD/ES Hdwr

# Chapter 8: Querying Structured Data in a Natural Way



**Input query****Results**

Expression Composite(AA.AuN='frank dabek') returned 10 entities

Paper title: chord a scalable peer to peer lookup protocol for internet applications

Date: 2003-02-01

Authors:

ion stoica  
r morris  
david libennowell  
david r karger  
m f kaashoek  
frank dabek  
hari balakrishnan

Paper title: wide area cooperative storage with cfs

Date: 2001-10-21

Authors:

frank dabek  
m frans kaashoek  
david r karger  
robert morris  
ion stoica

Paper title: vivaldi a decentralized network coordinate system

Date: 2004-08-30

Authors:

frank dabek



**Input query****Results**

Total number of matching entities: 19

Attribute: Y

- Value '2003' was found 5 times
- Value '2001' was found 2 times
- Value '2004' was found 4 times
- Value '2010' was found 1 times
- Value '2006' was found 4 times
- Value '2002' was found 2 times
- Value '1998' was found 1 times

Attribute: F.FN

- Value 'computer science' was found 15 times
- Value 'distributed computing' was found 11 times
- Value 'computer network' was found 6 times
- Value 'world wide web' was found 5 times
- Value 'chord' was found 4 times
- Value 'routing' was found 2 times
- Value 'the internet' was found 2 times
- Value 'steady state' was found 1 times
- Value 'application software' was found 1 times
- Value 'routing protocol' was found 1 times

Click [here](#) to see details about the web service

Enter a query below to see interpretations. After 1 second, entities and histograms will be fetched for the first interpretation. You can click on other interpretations to fetch objects and histograms for them.

papers by

**Interpret URL:** <interpret?complete=1&results=0&query=papers by>

papers by [james r bergen](#)

papers by [hugh r wilson](#)

papers by [paramvir bahl](#)

papers by [bishnu s atal](#)

papers by [suzanne l hanauer](#)

papers by [andrew blake](#)

papers by [zhengyou zhang](#)

papers by [huques hoppe](#)

**Evaluate URL:**

[evaluate?attributes=&expr=Composite\(Author.Name=='james r bergen'\)](evaluate?attributes=&expr=Composite(Author.Name=='james r bergen'))

```
{
  "logprob": -13.963,
  "Title": [
    "a four mechanism model for threshold spatial vision"
  ],
  "Year": [
    1979
  ],
  "Keyword": [],
  "Author": [
    {
      "id": [
        2225066386
      ],
      "Name": [
        "hugh r wilson"
      ],
      "Affiliation": [
        "microsoft"
      ]
    }
  ]
}
```

**CalcHistogram URL:**

[histogram?attributes=&expr=Composite\(Author.Name=='james r bergen'\)](histogram?attributes=&expr=Composite(Author.Name=='james r bergen'))

```
{
  "attribute": "Title",
  "distinct_values": 1,
  "total_count": 1,
  "histogram": [
    {
      "value": "a four mechanism model for threshold spatial vision",
      "logprob": -13.963,
      "count": 1
    }
  ]
}
```


```
{
  "attribute": "Year",
  "distinct_values": 1,
  "total_count": 1,
  "histogram": [
    {
      "value": 1979,

```

**Endpoint:**

**Input query**

- Composite(Author.Name=='james r bergen') ▾
- Composite(Author.Name=='james r bergen')
- Composite(Author.Name=='hugh r wilson')
- Composite(Author.Name=='paramvir bahl')
- Composite(Author.Name=='bishnu s atal')
- Composite(Author.Name=='suzanne l hanauer')
- Composite(Author.Name=='andrew blake')
- Composite(Author.Name=='zhengyou zhang')
- Composite(Author.Name=='hugues hoppe')

Service Name	Last modified	Last published	Sample Code
 Learning Cognitive Services	Feb 07, 2017 05:29 AM	Feb 07, 2017 05:28 AM	<a href="#">View Code</a>

## Creating a QnA service

Add sources which contain question and answer pairs you would like to include in your knowledge base.

### What would you like to name your service?

The service name is for your reference and you can change it at anytime.

SERVICE NAME

### What is the URL of your company FAQ page?

This will help us gather relevant data about your business and extract QnA pairs that you can later use in your bot. Here is an [example](#) of a page that would work.

FAQ URL(S)

[+ Add another](#)

### No FAQ URL? No worries. Upload files containing your question and answer pairs.

Supported formats are .tsv, .pdf, .doc, .docx, each under 2MB. Upload up to five files containing questions and answers in sequence. [See an example](#).

FAQ FILES

Select file...

### Would you prefer to enter questions and answers manually? No problem.

You will be able to do it in the next step.

STARTING FROM SCRATCH

# Learning Cognitive Services

Download Knowledge Base | Replace Knowledge Base

Save and retrain

Publish

Retrained a few seconds ago

Knowledge Base	KNOWLEDGE BASE   27 QnA pairs	+ Add new QnA pair
Test	Question	Answer
Settings	^ Original source: Editorial	
1	Hi	Hello
	^ Original source: https://www.microsoft.com/en-us/software-download/faq	
1	How do I find my Windows product key?	Windows 8.1 and Windows 10\nThe product key is located inside the product packaging, on the receipt or confirmation page for a digital purchase or in a confirmation e-mail that shows you purchased Windows. If you purchased a digital copy from [Microsoft Store](http://www.microsoftstore.com/store/msusa/en_US/home), you can locate your product key in your Account under Digital Content.\nWindows 7\nThe product key is located inside the box that the Windows DVD came in, on the DVD, on the receipt or confirmation page for a digital purchase or in a

KNOWLEDGE BASE   28 QnA pairs	+ Add new QnA pair	
Question	Answer	
^ Original source: Editorial		
1	Hi	Hello
2	How are you doing?	I'm doing great, how about you?
	^ Original source: https://www.microsoft.com/en-us/software-download/faq	

Add alternative phrasing

Delete QnA pair

Knowledge Base

TEST

Test

Settings

Chat

Manufacturer or reseller may be removed during installation.

Windows 8.1 & 10: The product key may be embedded on the motherboard or may be on the Certificate of Authenticity sticker on the bottom of the device.

Windows 7: For devices that came with Windows 7 pre-installed, the product key may be on the Certificate of Authenticity sticker on the bottom of the device.

For more information about Windows product keys and genuine Microsoft products, see [What is a product key](#) and [How to Tell](#) site.

Learning Cognitive Services - 1 min ago

what is wrong with my iso download?

You - Now

If you become disconnected while files are being downloaded through your web browser, reconnect to the internet and retry your download.

Download chat logs | Upload chat logs

Type your message...

Choose the most appropriate answer from these alternatives.

The media creation tool (...)

You can use the ISO file ...

If you become disconnecte...

None of the above

Provide multiple alternative phrasings to the question, to broaden the knowledge base.

Add alternative here +

what is wrong with my iso... X

## Learning Cognitive Services

Your service has never been deployed.

### Review your changes

Source	QnA in production	QnA in current draft	QnA added	QnA deleted
<a href="https://www.microsoft.com/en-us/software-download/...">https://www.microsoft.com/en-us/software-download/...</a>	0	27	27	0
Editorial	0	2	2	0

[Download Diff File](#)

Cancel

Publish

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

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

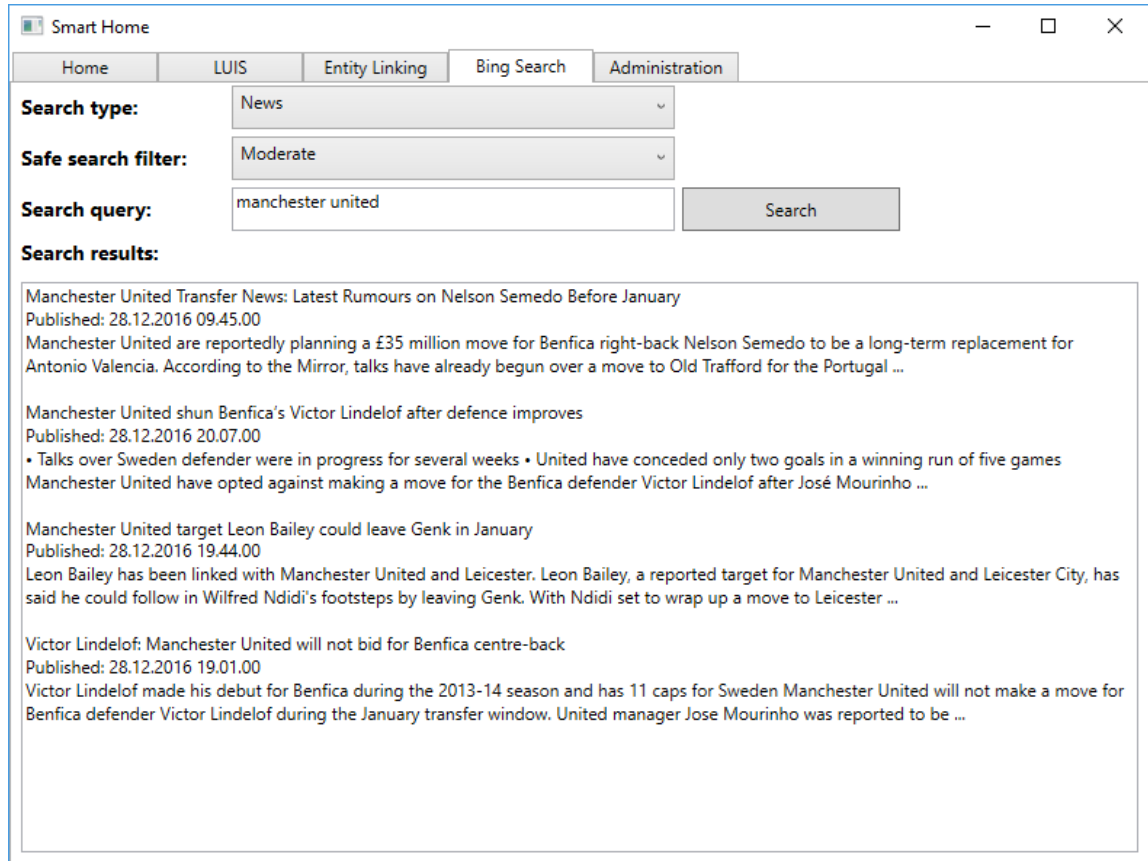
Use the below HTTP request to build your bot. [Learn how.](#)

Sample HTTP request	<pre>POST /knowledgebases/ft                    55/generateAnswer Host: https://westus.api.cognitive.microsoft.com/qnamaker/v1.0 Ocp-Apim-Subscription-Key: c3              i744 Content-Type: application/json {"question":"hi"}</pre>
---------------------	---

Need to fine-tune and refine? Go back and keep editing your service.

Edit Service

# Chapter 9: Adding Specialized Searches



The screenshot shows a web application window titled "Smart Home" with a navigation bar containing "Home", "LUIS", "Entity Linking", "Bing Search", and "Administration". The "Bing Search" tab is active. Below the navigation bar, there are three input fields: "Search type:" with a dropdown menu set to "News", "Safe search filter:" with a dropdown menu set to "Moderate", and "Search query:" with the text "manchester united". A "Search" button is located to the right of the search query field. Below the search fields, the "Search results:" section displays three news items:

**Manchester United Transfer News: Latest Rumours on Nelson Semedo Before January**  
Published: 28.12.2016 09.45.00  
Manchester United are reportedly planning a £35 million move for Benfica right-back Nelson Semedo to be a long-term replacement for Antonio Valencia. According to the Mirror, talks have already begun over a move to Old Trafford for the Portugal ...

**Manchester United shun Benfica's Victor Lindelof after defence improves**  
Published: 28.12.2016 20.07.00  
• Talks over Sweden defender were in progress for several weeks • United have conceded only two goals in a winning run of five games  
Manchester United have opted against making a move for the Benfica defender Victor Lindelof after José Mourinho ...

**Manchester United target Leon Bailey could leave Genk in January**  
Published: 28.12.2016 19.44.00  
Leon Bailey has been linked with Manchester United and Leicester. Leon Bailey, a reported target for Manchester United and Leicester City, has said he could follow in Wilfred Ndidi's footsteps by leaving Genk. With Ndidi set to wrap up a move to Leicester ...

**Victor Lindelof: Manchester United will not bid for Benfica centre-back**  
Published: 28.12.2016 19.01.00  
Victor Lindelof made his debut for Benfica during the 2013-14 season and has 11 caps for Sweden Manchester United will not make a move for Benfica defender Victor Lindelof during the January transfer window. United manager Jose Mourinho was reported to be ...

Smart Home

Home LUIS Entity Linking Bing Search Administration

**Search type:** Web

**Safe search filter:** Strict

**Search query:** politics

**Search results:**

CNN Politics - Official Site  
URL: [www.cnn.com/POLITICS](http://www.cnn.com/POLITICS)  
About: Politics at CNN has news, opinion and analysis of American and global politics Find news and video about elections, the White House, the U.N and much more.

Fox News Politics - Official Site  
URL: [www.foxnews.com/politics.html](http://www.foxnews.com/politics.html)  
About: Presidential politics and political news from FOXNews.com. News about political parties, political campaigns, world and international politics, politics news ...

POLITICS - huffingtonpost.com  
URL: [www.huffingtonpost.com/section/politics](http://www.huffingtonpost.com/section/politics)  
About: Follow American politics, keep up with the hottest political debates, and share your thoughts and opinions on the political news that matters to you.

Politico - Official Site  
URL: [www.politico.com](http://www.politico.com)  
About: Political news about campaigns, Congress, lobbyists and issues.

Politics - Wikipedia  
URL: <https://en.wikipedia.org/wiki/Politics>  
About: Politics (from Greek: πολιτικός politikos, definition "of, for, or relating to citizens") is the process of making decisions applying to all ...



Search type: ImageSearch

Search query: soccer

Search

Image search results:

# of results: 933

Image name: How I got Fired from my sons soccer team | Children's Directory  
Image size: 1829573 B  
Image host: childrensdirectory.net/2014/10/how-i-got-fired-from-my-sons-soccer...  
Image URL: http://www.bing.com/cr?IG=871E010D672D402DBFCA2B584314AB58&CID=32

Image name: Pics Photos - About Soccer About Soccer  
Image size: 269084 B  
Image host: funny-quotes.picphotos.net/about-soccer-about-soccer/data3.whicdn...  
Image URL: http://www.bing.com/cr?IG=871E010D672D402DBFCA2B584314AB58&CID=32

Image name: Barcelona Needs Depth, but It's Losing It Every Day - NYTimes.com  
Image size: 396765 B  
Image host: www.nytimes.com/2013/07/17/sports/soccer/barcelona-needs-depth-but...  
Image URL: http://www.bing.com/cr?IG=871E010D672D402DBFCA2B584314AB58&CID=32

Image name: Soccer Images | Crazy Gallery  
Image size: 5941362 B  
Image host: www.crazygallery.info/soccer.html  
Image URL: http://www.bing.com/cr?IG=871E010D672D402DBFCA2B584314AB58&CID=32

Search type: VideoSearch Search query: cats Search

Video search results:

# of results: 1000

Video name: Cats the Musical: Jellicle Songs  
Video duration: PT3M20S  
Video URL: <https://www.youtube.com/watch?v=tLvMjWHMNIU>  
Publisher: YouTube

Video name: Cats Meowing and Talking Compilation Video  
Video duration: PT3M31S  
Video URL: <https://www.youtube.com/watch?v=fiAIQA8-Yks>  
Publisher: YouTube

Video name: Funny Cats Compilation 2016 - Best Funny Cat Videos Ever ...  
Video duration: PT3M48S  
Video URL: <https://www.youtube.com/watch?v=njSyHmcEdkw>  
Publisher: YouTube

Video name: TALKING CATS - COMPILATION, CHATTERING CATS, TICKYUL  
Video duration: PT6M20S  
Video URL: <https://www.youtube.com/watch?v=57zOdS9pB38>  
Publisher: YouTube

# Chapter 10: Connecting the Pieces

## Add a new Entity

  
 Include children  

## Add a new intent

Intent name:

Enter an example of a command that triggers this intent:

[- Delete Action](#)

Action Info

Fulfillment    Action Type:

Action Parameters

[+ Add Parameter](#)

Required	Name	Type	Value	Prompt	Edit
<input type="checkbox"/>	<input type="text" value="category"/>	<input type="text" value="NewsCategor"/> ▾	<input type="text" value="Choose Phrase List"/> ▾	<input type="text" value="Enter prompt ..."/>	

New utterances

Search

Suggest

Review labels

Read me the latest sports news



read me the latest sports news

GetNews



NewsCategory

Submit

**Input text**

[Empty input text area]

**Results**

Result message: STT completed with status: RecognitionSuccess

Retrieved the following results:  
Read me the latest Sports News.

Calling LUIS with the top result

Status: Succeeded  
Summary: Top intent is GetNews with score 0,9797508. Found 1 entities.

Action: GetNews  
Action triggered: True

Record command

Execute utterance