



# Make Smart Bots using Cognitive Services

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# Corporate Overview – ValueMomentum Software Services

- Software & Services Firm
- **Financial Services & Insurance focused**
- Established in 2000 with HQ in NJ, USA
- 150+ dedicated R&D team
- Executive Leadership and Practice Heads based in the US
- Offshore centers are SSAE 16 SOC 2 certified. Clean Rooms for several clients offshore

**23%**

Compound Annual  
Growth Rate since 2000

**4**

Analysts covering  
ValueMomentum  
Software & Services

**>65**

Clients Served in North  
America

**1,850+**

Global employee strength

**Top 15**

IT Services Vendor for  
North American P&C  
Carriers by # of customers\*

**14**

>5 Year Customer  
Relationships  
Average ~8 years

## BUSINESS FOCUS



- Banking & Lending
- Capital Markets



- Property & Casualty
- Healthcare
- Life & Annuities

Microsoft Cognitive Services are a **set of APIs, SDKs and services** available to developers, exposing a suite of machine learning APIs that enable developers to easily add intelligent features—such as emotion and video detection, facial, speech and vision recognition, and speech and language understanding—into their applications.



# Cognitive Services Stack



Solutions

Extensible applications



Cognitive services



Bot framework

Easy to consume  
Artificial Intelligence



Data Science tools

Data preparation, modeling, and operationalization

Most comprehensive  
data science capabilities

Algorithms

Best of Microsoft research  
and open source

Unique data assets

Rich data sources to  
enrich predictions

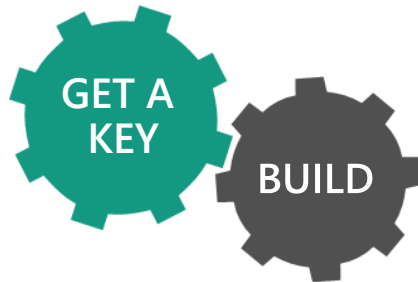
Analytics in Big Data Stores  
(cloud + on premise)

Flexible infrastructure  
support for analytics

# Why Microsoft Cognitive Services

## Easy

Roll your own with REST APIs  
Simple to add: just a few lines of code required



## Flexible

Integrate into the language and platform of your choice  
Breadth of offerings helps you find the right API for your app



## Tested

Built by experts in their field from Microsoft Research, Bing, and Azure Machine Learning  
Quality documentation, sample code, and community support





## Computer Vision API

Distill actionable  
information from  
images



## Face API

Detect, identify,  
analyze, organize, and  
tag faces in photos



## Content Moderator API

Automated image, text  
and video moderation



## Custom Vision API

Easily customize your  
own state-of-the-art  
computer vision  
models for your unique  
use case



## Emotion API

Personalize user  
experiences with  
emotion recognition



## Video Indexer API

Unlock video insights



## Bing Speech API

Convert speech to text  
and back again to  
understand user intent



## Translator Speech API

Easily conduct real-time  
speech translation with a  
simple REST API call



## Speaker Recognition API

Use speech to identify  
and authenticate  
individual speakers



## Custom Speech Service API

Overcome speech  
recognition barriers like  
speaking style,  
background noise and  
vocabulary



## Bing Spell Check API

Detect and correct spelling mistakes in your app



## Linguistic Analysis API

Simplify complex language concepts and parse text with the Linguistic Analysis API



## Text Analytics API

Easily evaluate sentiment and topics to understand what users want



## Translator Text API

Easily conduct machine translation with a simple REST API call



## Web Language Model API

Use the power of predictive language models trained on web-scale data



## Language Understanding (LUIS)

Teach your apps to understand commands from your users





## Custom Decision Service API

A cloud-based,  
contextual decision-  
making API that sharpens  
with experience



## QnA Maker API

Distill information into  
conversational, easy-to-  
navigate answers



## Bing Web Search API

Get enhanced search details from billions of web documents



## Bing Autosuggest API

Give your app intelligent autosuggest options for searches



## Bing Image Search API

Search for images and get comprehensive results



## Bing Video Search API

Search for videos and get comprehensive results



## Bing Custom Search API

An easy-to-use, ad-free, commercial-grade search tool that lets you deliver the results you want



## Bing Entity Search API

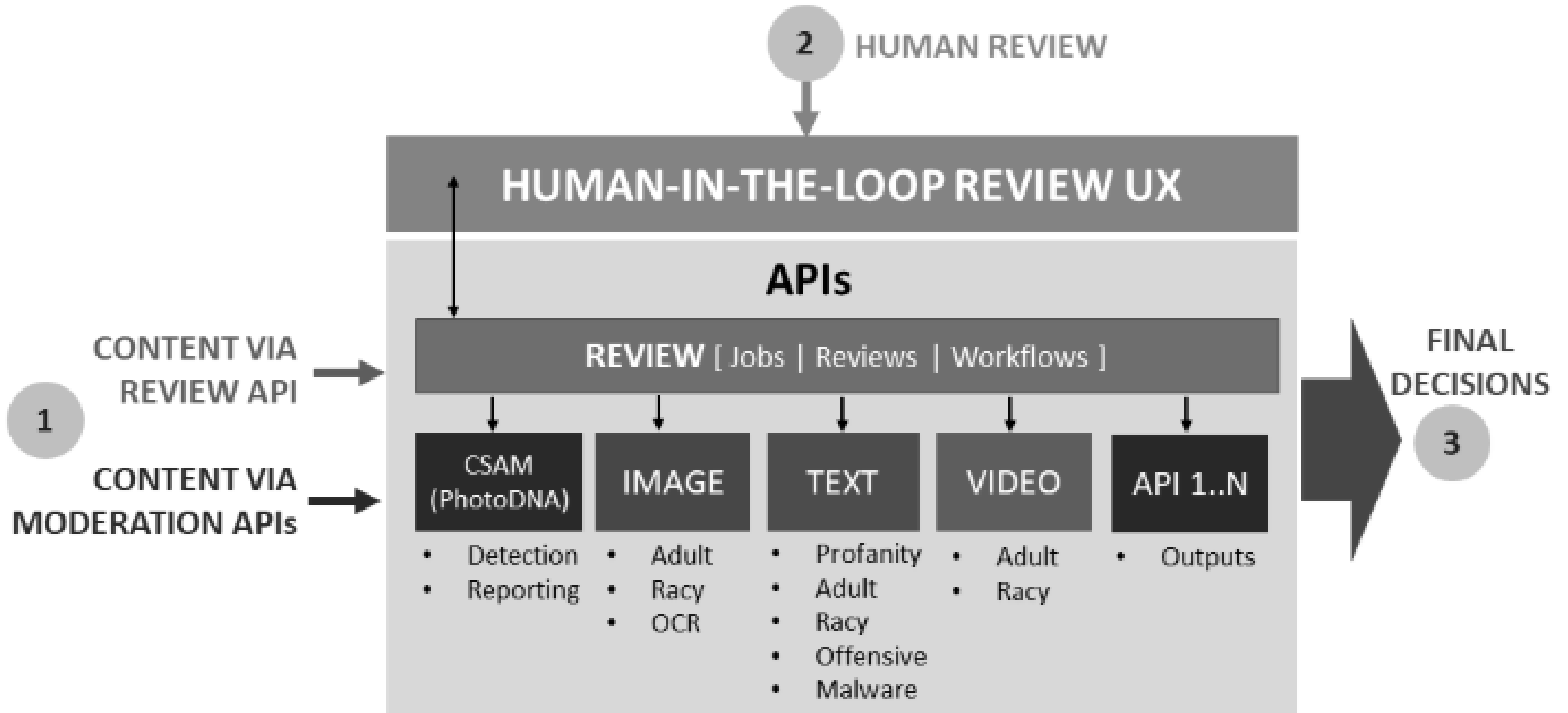
Enrich your experiences by identifying and augmenting entity information from the web



## Bing News Search API

Search for news and get comprehensive results

# A Cognitive Services Use Case – Content Moderator + Bing Spell Check + QnA Maker + Bing Search API





Recognizes slang and informal language

Recognizes common name errors in context

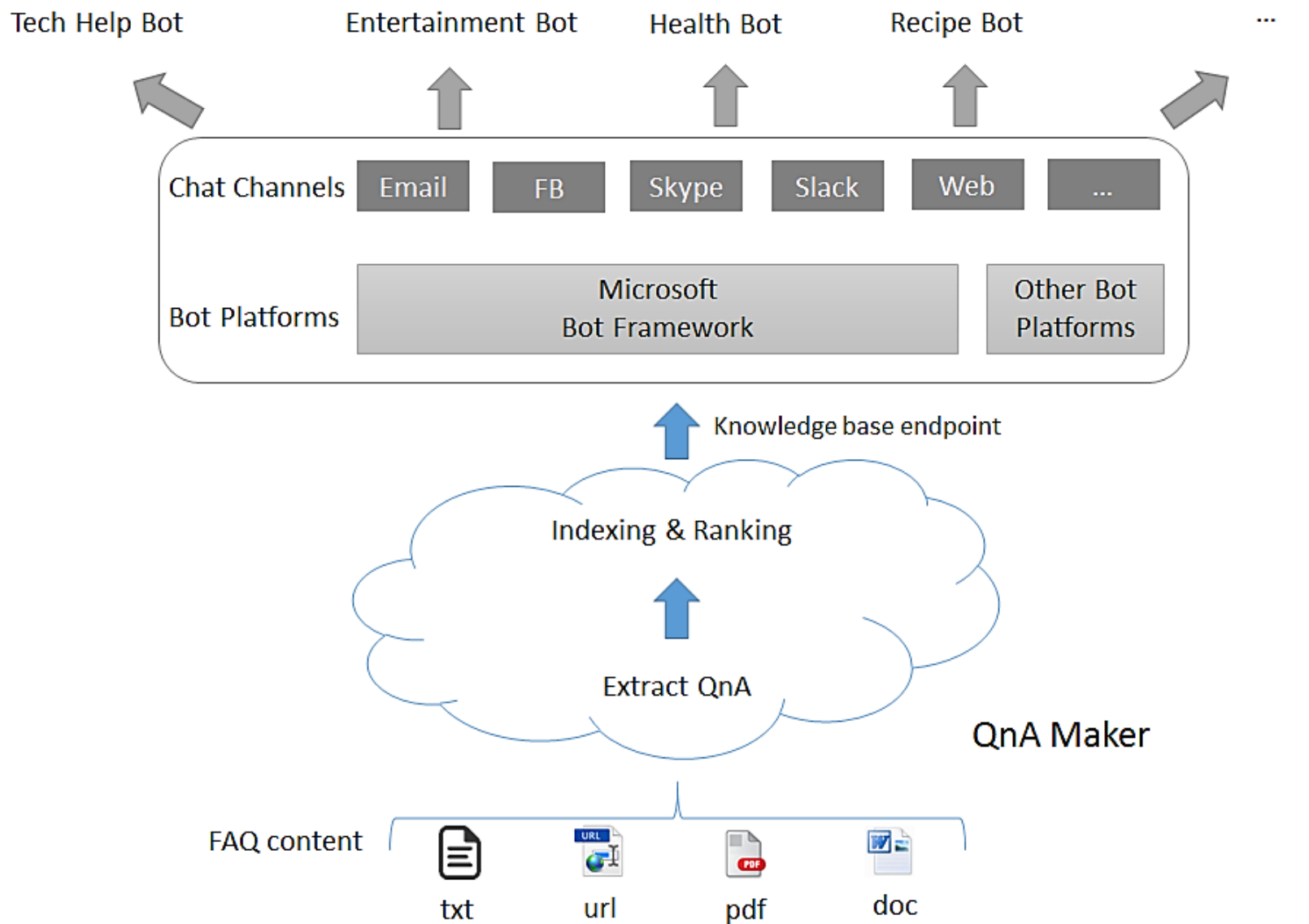
Corrects word breaking issues with a single flag



Is able to correct homophones in context, and other difficult to spot errors

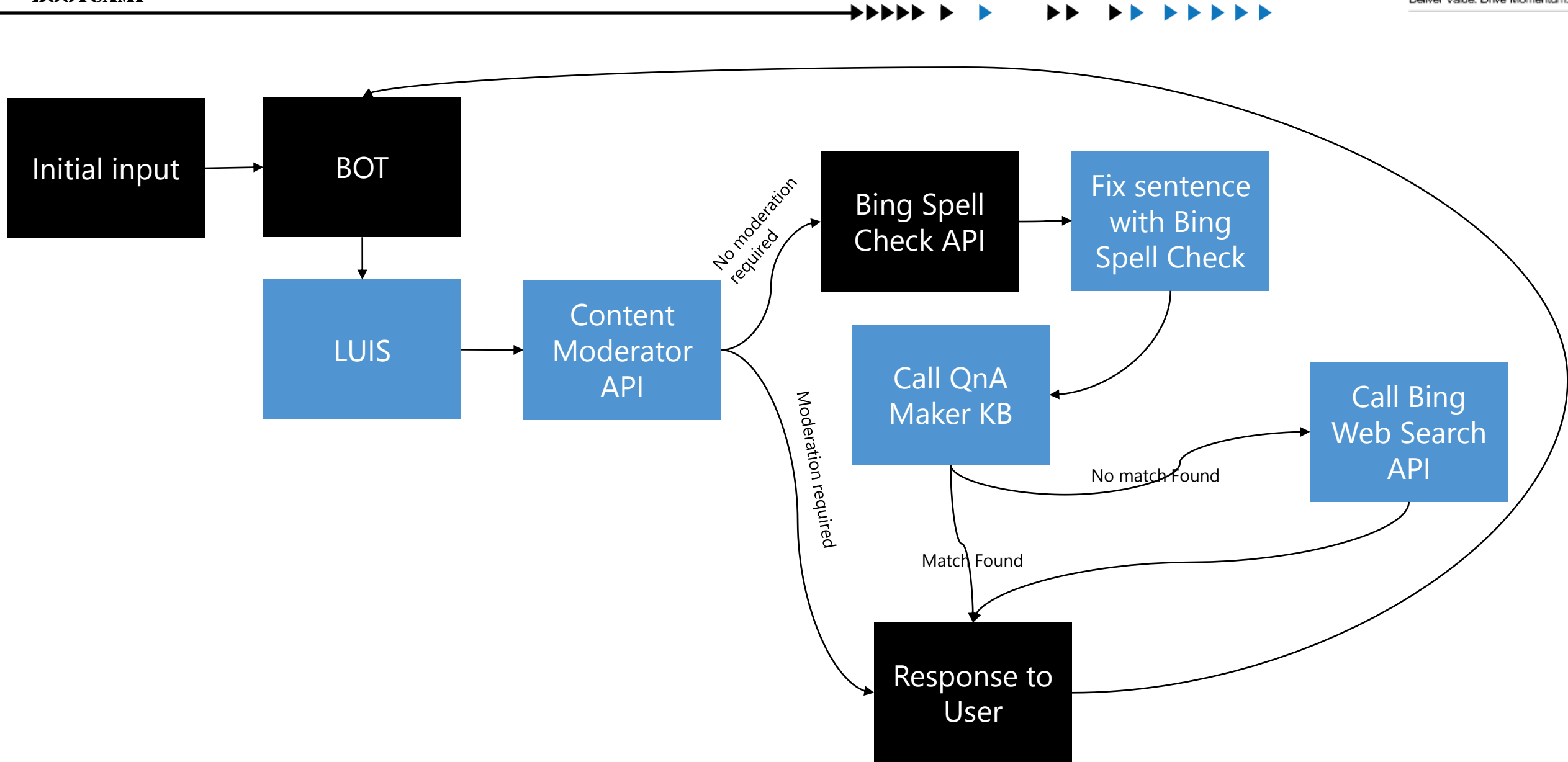
Supports new brands, digital entertainment, and popular expressions as they emerge

Words that sound the same but differ in meaning and spelling



Demo

# Flow of the Bot





# Create a Bot

The screenshot displays the 'Web App Bot' page in the Azure portal. The breadcrumb navigation at the top reads 'Home > New > Web App Bot'. The page title is 'Web App Bot' by Microsoft. The description states: 'An Azure Bot Service Bot deployed to an Azure App Service Web App. Build, connect, deploy and manage Bots to interact with your users wherever they are - from your app or website to Cortana, Skype, Messenger and many other services.' Below the description are social media icons for Twitter, Facebook, LinkedIn, YouTube, Google+, and Email. The 'PUBLISHER' section shows 'Microsoft' with a dashed border. The 'USEFUL LINKS' section includes 'Documentation', 'Solution Overview', and 'Pricing Details'. A blue 'Create' button is located at the bottom left of the page. The main content area on the right is a large, solid blue rectangle.

# Create a Bot

Home > New > Web App Bot > Web App Bot

## Web App Bot

Bot Service

\* Resource group  
☒ Create new ☐ Use existing  
 GABC18 ✓

\* Location ⓘ  
 Central US ▼

Pricing tier ([View full pricing details](#))  
 F0 (10K Premium Messages) ▼

\* App name ⓘ  
 GABCCortanaLUIS ✓  
 .azurewebsites.net

\* Bot template  
 Language understanding (C#) >

\* LUIS App location  
 West US ▼

☐ Pin to dashboard

[Create](#) [Automation options](#)

# Download the code for the Bot

The screenshot shows the Azure Bot Service interface for a bot named 'azureqnamakerbot'. The left sidebar contains a navigation menu with options: Overview, Activity log, Access control (IAM), Tags, BOT MANAGEMENT (Build, Test in Web Chat, Analytics, Channels, Settings, Speech priming, Bot Service pricing), and a search bar. The 'Build' option is selected. The main content area is titled 'Choose how to work with your code' and lists three methods: Online code editor, Download source code, and Continuous deployment from source control. Each method includes a brief description and a link to further actions.

Home > azureqnamakerbot - Build

azureqnamakerbot - Build  
Web App Bot

Search (Ctrl+ /)

Overview

Activity log

Access control (IAM)

Tags

BOT MANAGEMENT

Build

Test in Web Chat

Analytics

Channels

Settings

Speech priming

Bot Service pricing

Choose how to work with your code

Online code editor ⓘ

Make quick changes to your bot code online, run build.cmd in the editor console, and see your changes instantly.

[Open online code editor](#)

Download source code ⓘ

Download your source code and develop locally using your favorite IDE. You can publish your code back to the bot when ready.

[Download zip file](#)

Continuous deployment from source control ⓘ

Step 1: [Download zip file](#)

Step 2: Create a folder/repo for the source files in your preferred service

Step 3: [Configure continuous deployment](#)

[Language Understanding](#)[My apps](#)[Docs](#)[Pricing](#)[Support](#)[About](#)

## My Apps ?

[Create new app](#)[Import new app](#)

Name	Culture	Created date	Endpoint hits	
<a href="#">FnolLuisApp</a> (V 0.1)	en-us	3/2/2018	109	...
<a href="#">Joshua 2.0</a> (V 0.1)	en-us	6/16/2016	0	...
<a href="#">PolicyEnquiry</a> (V 0.1)	en-us	3/3/2018	339	...
<a href="#">QnAMaker</a> (V 0.1)	en-us	4/17/2018	44	...

QnAMaker (V 0.1) ▾

DASHBOARD

BUILD

PUBLISH

SETTINGS

● Train

← Test

## Publish app ?

Published version: 0.1

Published date: Apr 17, 2018, 4:12:58 PM (Approximately 2 days(s) ago)

## Publish to

Production ▾

Timezone:

(GMT) Western Europe Time, London, Lisbon, Casablanca ▾

☒ Include all predicted intent scores ?☐ Enable Bing spell checker ?

Publish to production slot

# Create Bing Search API Service

The screenshot displays the Azure portal interface for creating a Bing Search v7 APIs service. The breadcrumb navigation at the top reads: Home > New > Marketplace > AI + Cognitive Services > Cognitive Service > Bing Search v7 APIs. The main content area is divided into three sections:

- Left Panel:** A grid of service tiles. The 'Bing Search v7 APIs' tile, featuring a magnifying glass icon, is highlighted. Other visible tiles include 'Functions Bot' and 'Translator Speech API'.
- Center Panel:** A list of available Cognitive Services. The 'Bing Search v7 APIs' entry is selected and highlighted in blue. The list includes:
  - Computer Vision API
  - Face API
  - Text Analytics API
  - Language Understanding
  - Translator Speech API
  - Bing Search v7 APIs**
  - Bing Autosuggest v7 API
  - Bing Spell Check v7 API
- Right Panel:** Detailed information for the 'Bing Search v7 APIs' service.
  - Description:** 'The Bing Search APIs v7 adds intelligent search to your app, combining hundreds of billions of webpages, images, videos, and news to provide relevant results with no ad requirements. The results can be automatically customized to your users' locations or markets, increasing relevancy by staying local. Responses from the Bing Search APIs rank page results, including news, dictionary, computation, and time. Safe search levels are customizable for your users, keeping them from adult content, if required. Finally, the APIs return spelling suggestions for misspelled queries, and lists of related searches. Bring the power of Bing Search to your app today.'
  - Legal Notice:** 'Microsoft will use data you send to Bing Search Services to improve Microsoft products and services. Where you send personal data to this service, you are responsible for obtaining sufficient consent from the data subjects. The General Privacy and Security Terms in the Online Services Terms do not apply to this Services.'
  - Publisher:** Microsoft
  - Links:** [More about Bing Web Search API Documentation](#) and [More about Bing Image Search API Documentation](#)
  - Action:** A blue 'Create' button.

# Create Bing Search API Service

Home > New > Marketplace > AI + Cognitive Services > Cognitive Service > Bing Search v7 APIs > Create

## Create

Bing Search v7 APIs

\* Name  
GABC\_Cognitive ✓

\* Subscription  
Visual Studio Premium with MSDN ▾

\* Pricing tier (View full pricing details)  
S1 (250 Calls per second) ▾

\* Resource group  
☒ Create new ☐ Use existing  
GABC18 ✓

\* Resource group location ⓘ  
West US ▾

☐ \* I confirm I have read and understood the notice below.  
Microsoft will use data you send to Bing Search Services to improve Microsoft products and services. Where you send personal data to

☐ Pin to dashboard

Create Automation options

# Create Bing Spell Check API Service

The screenshot displays the Azure Marketplace interface for the Bing Spell Check v7 API. The breadcrumb navigation at the top reads: Home > New > Marketplace > AI + Cognitive Services > Cognitive Service > Bing Spell Check v7 API. The main content area is divided into three sections:

- Service Cards:** A grid of service cards including Functions Bot, Translator Speech API, and Bing Search v7 APIs.
- Service List:** A vertical list of cognitive services, with "Bing Spell Check v7 API" highlighted. Other services include Translator Speech API, Bing Search v7 APIs, Bing Autosuggest v7 API, Bing Custom Search API, Bing Speech API, Content Moderator, and Translator Text API.
- Service Details Panel:** A right-hand panel for the selected "Bing Spell Check v7 API" service, showing its description, legal notice, publisher information, and a "Create" button.

**Bing Spell Check v7 API Description:**

From thumb typing to commonly confused words, spelling errors are common when dealing with user input. Add advanced cloud-based spelling algorithms to your app with the Bing Spell Check API v7, and give your users the peace of mind that your app will understand the input they provide. Bing Spell Check API doesn't just address misspelled words. It recognizes extra spaces (broken words), and supports the use of slang and informal language, so your apps can understand input from users on their terms. It also contextually recognizes common names, and can correct homophones contextually too. Finally, the API updates with new brands and expressions, so your app is always caught up on the latest verbal trends. Remove spelling barriers for user input in your app.

**Legal Notice:**

Microsoft will use data you send to Bing Search Services to improve Microsoft products and services. Where you send personal data to this service, you are responsible for obtaining sufficient consent from the data subjects. The General Privacy and Security Terms in the Online Services Terms do not apply to this Services.

Please refer to the [Online Services Terms](#) for details. Microsoft offers [policy controls](#) that may be used to disable new deployments.

**PUBLISHER:** Microsoft

**Create**



# Create Bing Spell Check API Service

Home > New > Marketplace > AI + Cognitive Services > Cognitive Service > Bing Spell Check v7 API > Create

## Create

Bing Spell Check v7 API

\* Name  
GABC\_Cognitive ✓

\* Subscription  
Visual Studio Premium with MSDN ▾

\* Pricing tier (View full pricing details)  
S1 (100 Calls per second) ▾

\* Resource group  
☒ Create new ☐ Use existing

GABC18 ✓

\* Resource group location ⓘ  
West US ▾

☐ \* I confirm I have read and understood the notice below.

Microsoft will use data you send to Bing Search Services to improve Microsoft products and services. Where you send personal data to

☐ Pin to dashboard

Create Automation options

# Create Content Moderator API Service

The screenshot displays the Azure Marketplace interface for the Content Moderator API service. The breadcrumb navigation at the top reads: Home > New > Marketplace > AI + Cognitive Services > Cognitive Service > Content Moderator. The main content area is divided into three sections:

- Left Panel:** A list of related services including Functions Bot, Microsoft, More, Language Understanding API, Translator Speech API, and Bing Search v7 APIs.
- Center Panel:** A list of Cognitive Services APIs, with Content Moderator highlighted. The list includes Bing Autosuggest v7 API, Bing Spell Check v7 API, Bing Custom Search API, Bing Speech API, Content Moderator, Translator Text API, and Custom Speech Service (preview).
- Right Panel:** Detailed information about the Content Moderator service, including sections for Image Moderation, Text Moderation, Video Moderation, and The Review Tool. It also features social media links and a 'Create' button.

[https://twitter.com/intent/tweet?text=Just discovered Content Moderator is available from Microsoft #Azure Marketplace...kt-CognitiveServicesContentModerator&utm\\_content=fa5d6808bc8f4df0bc33d354dab5de00&utm\\_campaign=social&utm\\_medium=T](https://twitter.com/intent/tweet?text=Just%20discovered%20Content%20Moderator%20is%20available%20from%20Microsoft%20%23Azure%20Marketplace%20%23CognitiveServicesContentModerator&utm_content=fa5d6808bc8f4df0bc33d354dab5de00&utm_campaign=social&utm_medium=T)

# Create Content Moderator API Service

Home > New > Marketplace > AI + Cognitive Services > Cognitive Service > Content Moderator > Create

## Create

Content Moderator

\* Name  
GABC\_Cognitive ✓

\* Subscription  
Visual Studio Premium with MSDN ▼

\* Location  
West US ▼

\* Pricing tier (View full pricing details)  
S0 (10 Calls per second) ▼

\* Resource group  
☒ Create new ☐ Use existing  
GABC18 ✓

☐ Pin to dashboard

Create Automation options

QnA Maker  
PREVIEW

My services

Create new service

Documentation

Feedback

## From FAQ to Bot in minutes.

Build, train and publish a simple question and answer bot based on FAQ URLs, structured documents or editorial content in minutes.

**GET STARTED** >

QnA Maker  
PREVIEW

My services

Create new service

Documentation

Feedback

## 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

### Enter URL(s) of the knowledge base (FAQ pages or product manuals) that you'd like to crawl.

This will help us gather relevant data about your business and extract QnA pairs that you can later use in your bot. See examples of an [FAQ page](#) or a [product manual page](#).

URL(S)

[+ Add another](#)

QnA Maker  
PREVIEW


My services

Create new service

Documentation

Feedback

## Life Insurance Policies

[Download Knowledge Base](#) | [Replace Knowledge Base](#) Save and retrain

Retrained 2 days ago

 Publish

Knowledge Base


KNOWLEDGE BASE | 157 QnA pairs

[+ Add new QnA pair](#)

Test

Question

Answer

 Original source: Editorial

Settings

1

Hi

Hello, How can I help you ?

2

Hello

Hello, How can I help you ?

3

What is an Insurance Repository?

"Insurance Repository" is a company formed and registered under the Companies Act, 1956 (1 of 1956) and which has been granted a certificate of registration by Insurance Regulatory and Development Authority (IRDA) for maintaining data of insurance policies in Electronic form on behalf of Insurers. The Insurance Repositories provide the ease of holding insurance policies issued in an electronic form.

What is the objective of an Insurance Repository?

QnA Maker  
PREVIEW

My services

Create new service

Documentation

Feedback

https://www.icicprulife.com/customer-support/prot...	11	11	0	0
https://www.icicprulife.com/customer-support/poli...	18	18	0	0
https://www.icicprulife.com/customer-support/assi...	13	13	0	0
https://www.icicprulife.com/customer-support/nomi...	19	19	0	0
https://www.icicprulife.com/customer-support/payo...	11	11	0	0
https://www.icicprulife.com/customer-support/annu...	11	11	0	0
https://www.icicprulife.com/insurance-library/lif...	16	16	0	0
Editorial	14	14	0	0

[Download Diff File](#)

Cancel

Publish



User

Hello, How can I help you ?

Bot

Which are the valid KYC documents?

User

Identity proof (any one): a) PAN Card b) UID

Address proof (any one): a) Ration card b) Passport c) Aadhar letter d) Voter ID card e) Driving license f) Bank Pass Book (not more than 6 months old) g) Verified copies of: i) Electricity bills (not more than 6 months old) ii) Residence Telephone Bills (not more than 6 months old) iii) Registered Lease and License agreement / Agreement for sale

Self- declaration by High Court and Supreme Court judges, giving the new address in respect of their own accounts. Identity card/document with address, issued by: a) Central/State Government and its Departments b) Statutory/Regulatory Authorities c) Public Sector Undertakings d) Scheduled Commercial Banks e) Public Financial Institutions f) Colleges affiliated to universities g) Professional Bodies such as ICAI, ICWAI, Bar Council etc. to their Members

Bot at 4:55:47 PM



Type your message...





# No match in KB and Incorrect spelling

msft azure

User

## Online Search Results

The search results are as follows:

[Microsoft Azure Cloud Computing Platform & Services](#)[What is Azure — Microsoft cloud service | Microsoft ...](#)[Microsoft Azure - Wikipedia](#)[Microsoft Azure \(@Azure\) | Twitter](#)[Online Microsoft Azure Training | Azure Certifications](#)[Azure certifications | Microsoft](#)[Microsoft Azure certification exams | Microsoft Learn...](#)[Azure cloud solutions | Microsoft for Nonprofits](#)[Microsoft Azure Training Courses - Microsoft Virtual ...](#)

Bot at 4:56:47 PM



Type your message...



# No match in KB



## Online Search Results

The search results are as follows:

[Microsoft - Official Home Page](#)

[Microsoft - Wikipedia](#)

[Office Online - Official Site](#)

[Microsoft OneDrive](#)

[Microsoft Word 2016 - Word Processing Software | O...](#)

[Microsoft Office | Productivity Tools for Home & Office](#)

[Microsoft account | Sign In or Create Your Account T...](#)

[Microsoft Security Essentials - support.microsoft.com](#)

Bot at 4:57:14 PM



Type your message...







crappy shit

User

Please do not use offensive or explicit language.

Bot at 4:58:02 PM

 Type your message...





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