**Bot Hackathon – API Reference**

This reference guide provides links to many tools you may find useful during and before the hackathon. You will find information regarding Speech to Text services, Development Platforms, Boilerplates and more. If you are looking for

3rd party data resources, scroll to the bottom of the document where we have several useful developer links for thinks like weather, census data, social media access, etc. Most of these resources are free, but often require sign up for use of their services.

If you are looking for sources of data within Northwestern Mutual let the us know and we will do our best to help you find the data you’re looking for.

Thanks for participating in Ideas 2 Innovation Bot Hackathon, have fun and good luck!

**Developer Friendly Platforms:**

**Slack**

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

Create a bot for your Slack channel

**Microsoft Bot Framework**

<https://dev.botframework.com/>

Make bots for Skype, Slack, Facebook Messenger and more!

**Facebook Messenger**

<https://messengerplatform.fb.com/>

**ChatScript**

<http://chatscript.sourceforge.net/>

**PandoraBot**

<https://playground.pandorabots.com/en/>

**Computer Speech API’s**

**Amazon Lex/Alexa**

\*Lex is in preview mode

<https://developer.amazon.com/alexa-voice-service>

<https://aws.amazon.com/lex/>

Amazon Lex is a service for building conversational interfaces into any application using voice and text. Lex provides the advanced deep learning functionalities of automatic speech recognition (ASR) for converting speech to text, and natural language understanding (NLU) to recognize the intent of the text, to enable you to build applications with highly engaging user experiences and lifelike conversational interactions.

*Please contact the Innovation team if you are having trouble gaining access to Lex and we can try to help.*

**Develop an Alexa skill in 5 minutes or less**

<https://developer.amazon.com/alexa-skills-kit/alexa-skill-quick-start-tutorial>

**Microsoft Cognitive – Bing Speech**

<https://www.microsoft.com/cognitive-services/en-us/speech-api>

Text to Speech, Speech to Text and Speech intent are all part of one of the many services offers in their cognitive services package. Free to get going using the Azure platform.

“Bing Speech Recognition API provides the ability to convert spoken audio to text by sending audio to Microsoft’s servers in the cloud. Developers have a choice of using the REST API, Client Library or the Service Library.”

**Intro to MS Cognitive Services**

<https://www.youtube.com/watch?v=f4XBxNuEifQ>

**Search for sample software development kits/sample code:**

<https://www.microsoft.com/cognitive-services/en-us/SDK-Sample>

**IBM Watson**

<https://www.ibm.com/watson/>

Use IBM’s free to use platform Bluemix to prototype applications using IBM Watson API’s. Use advanced natural language processing techniques without being an expert with machine learning or data science.

**Starter Kit’s using IBM Watson:**

<https://www.ibm.com/watson/developercloud/starter-kits.html>

**Chat Bot Starter:**

<https://www.ibm.com/watson/developercloud/starter-kits.html#text-message-chatbot>

**Google Cloud Vision and Speech**

<https://cloud.google.com/speech/>

Google Cloud Speech API enables developers to convert audio to text by applying powerful neural network models in an easy to use API. The API recognizes over 80 languages and variants, to support your global user base.

**Sample projects:**

<https://cloud.google.com/speech/docs/samples>

**Python Online/Offline Speech Recognition**

<https://pypi.python.org/pypi/SpeechRecognition/>

Python library for performing speech recognition, with support for several engines and APIs, online and offline. Can interface with IBM Speech to Text, Houndify, Bing Speech, Google Cloud, and more. Open source solution for tinkers.

**Speech Recognition example:**

<https://github.com/Uberi/speech_recognition>

**Electron** - **Custom Application Platform**

<https://electron.atom.io/>

“Build cross platform desktop apps with JS, HTML, and CSS”. The platform used to make Atom, Slack and many others.”

**List of Apps:**

<https://electron.atom.io/apps/>

**Docs and Tutorials:**

<https://electron.atom.io/docs/>

**External API Sources**

**Todd Motto – Google Developer Github**

[**https://github.com/toddmotto/public-apis**](https://github.com/toddmotto/public-apis)

Todd Motto’s public-apis github repo is a well maintained resource to find public apis and information on how they are consumed. Check this first before moving down this resource list.

**ProgrammableWeb**

[**https://www.programmableweb.com/**](https://www.programmableweb.com/)

[**https://www.programmableweb.com/category/all/apis**](https://www.programmableweb.com/category/all/apis) **(Search APIs)**

Website devoted to API’s. News, articles and lists of available apis.

**Google API’s**

[**https://developers.google.com/apis-explorer/#p/**](https://developers.google.com/apis-explorer/#p/)

Large list of API’s:

Highlights:

* G-Suite Access (Gmail, Gcal, etc)
* Fitness (Storing fitness data)
* Cloud Vision (Computer Vision Api’s)
* Cloud Speech (Speech Recognition Api)
* Surveys
* URL Shortener
* Translation

**Yahoo API’s**

[**https://developer.yahoo.com/everything.html**](https://developer.yahoo.com/everything.html)

Various API’s ranging from Analytics, Authentication, to Flickr and Weather.

**Social Media**

**Twitter**

<https://dev.twitter.com/>

**Facebook**

<https://developers.facebook.com/>

**LinkedIn**

[**https://developer.linkedin.com/**](https://developer.linkedin.com/)

**Google+**

[**https://developers.google.com/+/web/api/rest/**](https://developers.google.com/+/web/api/rest/)

**MeetUp**

[**http://www.meetup.com/meetup\_api/**](http://www.meetup.com/meetup_api/)

**Yelp**

[**https://www.yelp.com/developers/documentation/v2/overview**](https://www.yelp.com/developers/documentation/v2/overview)

Access millions of businesses and their reviews with Yelp’s REST API.

**Other:**

**United States Census Data**

[**https://www.census.gov/data/developers/data-sets.html**](https://www.census.gov/data/developers/data-sets.html)

Diverse data set including population, economic, heath statistics and more.

**Weather Underground**

[**https://www.wunderground.com/weather/api/?ref=twc**](https://www.wunderground.com/weather/api/?ref=twc)

**OpenWeatherMap**

[**https://openweathermap.org/api**](https://openweathermap.org/api)

**Twilio**

[**https://www.twilio.com/docs/api**](https://www.twilio.com/docs/api)

API interfacing for receiving and sending text and voice messages.