

Women Elevate Program: Lab 2 – Analyze text using Azure AI Language

Note:

- The Analyze text feature can be explored using the Azure AI Foundry and the Language Studio.
- In this Lab, we will explore the features in Language Studio.
- The Language Service resource has been pre-created to use in this lab

Lab Overview:

Azure AI Language service includes Text Analytics, with capabilities such as entity recognition, key phrase extraction, summarization, and sentiment analysis. For example, suppose the fictitious travel agent Margie’s Travel encourages customers to submit reviews for hotel stays. You could use the Language service to extract named entities, identify key phrases, summarize text, and more.

In this exercise, you will use Azure AI Language in Language Studio to analyze hotel reviews.

Lab Steps

Step 1: Log in to the Language Studio

1. Open a web browser and navigate to the Language Studio:
<https://language.cognitive.azure.com/>
2. Enter your provided Azure username and password in the login fields.
3. Click Sign In to access the Language Studio
4. **Verification:** Confirm that the Language Studio loads successfully, displaying the main interface.

Step 2: Extract named entities with Azure AI Language

Named entities are words that describe people, places, and objects with proper names. Let’s use the named entity extraction capability of Azure AI Language to identify types of information in a review.

1. In the Language Studio, under “Extract information” tab, select **Extract named entities**

2. Make sure the Azure resource is automatically selected in the dropdown, if not, then select the available resource.
3. Under ***Enter your own text, upload a file, or use one of our sample texts***, copy and paste the following review

```
Tired hotel with poor service
The Royal Hotel, London, United Kingdom
5/6/2018
This is an old hotel (has been around since 1950's) and the room furnishings
are average - becoming a bit old now and require changing. The internet
didn't work and had to come to one of their office rooms to check in for my
flight home. The website says it's close to the British Museum, but it's too
far to walk.
```

4. Select the “I Acknowledge” checkbox
5. Select **Run**
6. Review the output. Notice in the *Result* section how the extracted entities come with additional information such as type and confidence scores. The confidence score represents the likelihood that the type identified actually belongs to that category.
7. Review the JSON response returned by the service
8. Re-run the service using one of the samples provided.

Step 3: Extract key phrases with Azure AI Language

Key phrases are the most important pieces of information in text. Let’s use the key phrase extraction capability of Azure AI Language to pull important information from a review.

1. In the Language Studio, under “Extract information” tab, select **Extract key phrases**.
2. Make sure the Azure resource is automatically selected in the dropdown, if not, then select the available resource.
3. Under ***Enter your own text, upload a file, or use one of our sample texts***, copy and paste the following review

```
Good Hotel and staff
The Royal Hotel, London, UK
3/2/2018
Clean rooms, good service, great location near Buckingham Palace and
Westminster Abbey, and so on. We thoroughly enjoyed our stay. The courtyard
is very peaceful and we went to a restaurant which is part of the same group
and is Indian ( West coast so plenty of fish) with a Michelin Star. We had
```

the taster menu which was fabulous. The rooms were very well appointed with a kitchen, lounge, bedroom and enormous bathroom. Thoroughly recommended.

4. Select the “I Acknowledge” checkbox
5. Select **Run**
6. Review the output. Notice the different phrases extracted in the *Results* section. These phrases should contribute most to the text’s meaning.
7. Re-run the service using one of the samples provided.

Step 4: Summarize text with Azure AI Language

Let’s look at Azure AI Language’s summarization capabilities.

1. In the Language Studio, under “Summarize text”, select the **Summarize information**.
2. Under **Enter your own text, upload a file, or use one of our sample texts**, copy and paste the following review

Very noisy and rooms are tiny
The Lombard Hotel, San Francisco, USA
9/5/2018
Hotel is located on Lombard street which is a very busy SIX lane street directly off the Golden Gate Bridge. Traffic from early morning until late at night especially on weekends. Noise would not be so bad if rooms were better insulated but they are not. Had to put cotton balls in my ears to be able to sleep--was too tired to enjoy the city the next day. Rooms are TINY. I picked the room because it had two queen size beds--but the room barely had space to fit them. With family of four in the room it was tight. With all that said, rooms are clean and they've made an effort to update them. The hotel is in Marina district with lots of good places to eat, within walking distance to Presidio. May be good hotel for young stay-up-late adults on a budget

3. Select the “I Acknowledge” checkbox
4. Select **Run**
5. Notice the *Extractive summary* in *Result* provides rank scores for the most salient sentences.
6. Review the *Abstractive Summary* returned as well.
8. Re-run the service using one of the samples provided.

Explore the other Analyze Text features of the Language Service.