

Reflective Journal: L03

Today, I went through the lab to find out what Azure AI Language Studio can do. The exercises were well structured and presented me with a chance to engage with natural language processing (NLP) using Azure's powerful tools. It was a comprehensive introduction to text analysis and sentiment analysis based on AI.

Creating a Language Resource

The first significant step was to build a Language resource. I logged into the Azure portal and created a new Language service plan. Being cautious about the right settings, such as the region and pricing tier, was critical. This was a critical step as it allowed me to utilize the Language resource in subsequent tasks.

Configuring the Resource in Language Studio

Next, I went ahead and created Language Studio and configured it to use the new Language resource that had been set up. This involved selecting the appropriate Azure directory, subscription, resource type, and resource name. The whole process was very smooth and highlighted the importance of effectively managing Azure resources.

Analyzing Text with Language Studio

The task in the center of the lab was to analyze hotel reviews using Azure AI Language Studio. The task was to identify the sentiment and leading phrases in the reviews.

A bad review of a very old hotel with poor service was one of the first reviews I worked on. The review mentioned an ancient hotel with average furniture, non-functional internet, and misleading information about how close the hotel was to the British Museum. After pasting the review into Language Studio and analyzing it, the result was amazing. The sentiment analysis provided an overall sentiment score along with detailed confidence scores for positive, neutral, and negative sentiments. The AI answered accurately to the negative aspects of the review, such as the poor service and outdated facilities. Next, I tested a positive review of a hotel with great service and location. The review highlighted clean rooms, excellent service, and a peaceful courtyard. It also mentioned an excellent dining experience at a Michelin-starred restaurant. The sentiment analysis performed excellently in capturing the positive tone of the review with high positive sentiment confidence scores. This exercise was able to prove that the AI could identify and quantify positive sentiments in a long review.

Finally, I analyzed a complaint regarding a noisy hotel with tiny rooms.

The complaint listed the hotel's location on a busy street, poor soundproofing, and tiny room size. Despite these disadvantages, the complaint said that the rooms were clean and

up-to-date. The sentiment analysis caught the conflicting sentiments, with high confidence scores for both negative and neutral sentiments. This exercise demonstrated the capacity of Azure AI Language Studio to interpret and analyze complex, subtle feedback. Insights and Challenges Throughout the lab, I found it somewhat challenging, primarily when it came to navigating through the Azure portal and correctly setting up resources. Ensuring that appropriate resources were selected and managed required careful attention to detail. These challenges, however, turned out to be invaluable learning experiences and emphasized the importance of precision in working with complex systems.

The most important thing that I learned was the immense strength of NLP in text understanding and analysis. The ability to generate sentiment analysis and key phrase extraction shows the strength of AI in processing and understanding written material. This has made me even more respectful of what Azure AI Language can accomplish and how it can be applied in industries.

Apart from this, I understood how sentiment analysis could benefit businesses to gauge customer opinions and improve their services. If businesses know how to accurately measure customer sentiments, they can provide data-based decisions that enhance customer satisfaction.

Conclusion

Overall, this lab experience was difficult but rewarding.

It provided a detailed insight into Azure AI Language Studio and its text analysis features.

The practical exercises gave me a first-hand appreciation of how AI is applied in interpreting written text, and I hope to see more advanced features in the future. This exercise has opened my eyes to NLP, and I am keen to know how AI will further evolve and transform various industries.