

Tales Araujo Leonidas

ITAI 2372 - Artificial Intelligence Applications

Prof. Patricia McManus

October 25th, 2024

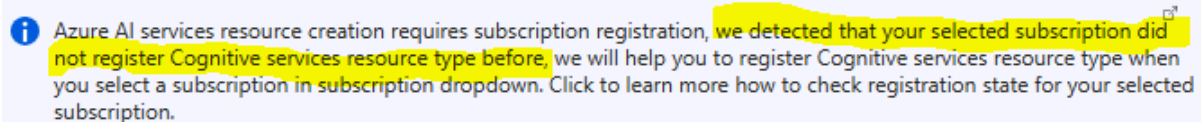
Analyzing text with Azure Language Studio: Lab Report

Introduction

In Lab 3 of the Microsoft Azure AI Fundamentals course, I explored text analysis using Azure's Language Studio, particularly focusing on sentiment analysis for hotel reviews. This lab allowed me to experience how Natural Language Processing (NLP) tools work in Azure, enabling AI-driven analysis to extract sentiment from user-generated content. This report outlines my experience and reflections.

Description of Experience

I started creating an Azure Language resource and faced my first challenge while configuring it, as I was not prompted to select a language resource in Language Studio. However, my subscription had registered Cognitive services resource type before.

A screenshot of an Azure error message. It features a blue information icon on the left. The text reads: "Azure AI services resource creation requires subscription registration, we detected that your selected subscription did not register Cognitive services resource type before, we will help you to register Cognitive services resource type when you select a subscription in subscription dropdown. Click to learn more how to check registration state for your selected subscription." The words "we detected that your selected subscription did not register Cognitive services resource type before" are highlighted in yellow.

i Azure AI services resource creation requires subscription registration, we detected that your selected subscription did not register Cognitive services resource type before, we will help you to register Cognitive services resource type when you select a subscription in subscription dropdown. Click to learn more how to check registration state for your selected subscription.

It was troubleshooted by re-registering "Microsoft.CognitiveServices" in the Azure Portal by going to Subscription Settings and enabling the resource provider. This step resolved the issue, allowing me to continue with the analysis. After setting up the resource, I opened Language Studio to analyze three hotel reviews and applied Azure's sentiment analysis feature. The task involved pasting each review into Language Studio, running the analysis, and reviewing the sentiment scores.

The first review described a "tired hotel with poor service," marked with a predominantly negative sentiment score. The second review praised the hotel's staff, location, and amenities, and was accurately marked as positive. The third review, highlighting noise issues and small rooms, received mixed sentiment scores. For each review, the analysis provided confidence scores in positive, neutral, and negative categories, displaying each sentence's sentiment.

Personal Reflection

This lab provided practical exposure to Azure's NLP capabilities and strengthened my troubleshooting skills. Resolving the configuration issue with "Microsoft.CognitiveServices" gave

me a better grasp of Azure resource management, and the precise sentiment analysis results demonstrated the effectiveness of AI-driven tools in interpreting customer feedback.



3



Analyze text with Language Studio (Expected Duration 1 hours) [Details](#)

AI-900T00-A Microsoft Azure AI Fundamentals [Cloud Slice Provided], Learning Path 03 (CSS)

Required: Yes

Status: **Running**

Started: Saturday, October 26, 2024 5:16 PM (Central Standard Time)

Ended: Saturday, October 26, 2024 5:57 PM (Central Standard Time)

Launch

Cancel

7 of 10 launch attempts remaining

Conclusion

Lab 3 offered a valuable introduction to Azure Language Studio's text analysis capabilities. Despite initial configuration challenges, the experience enhanced my understanding of both NLP applications and Azure setup. This lab reinforced NLP's importance in efficiently processing and analyzing sentiment in user-generated content.

References

Microsoft. "AI-900T00-A Microsoft Azure AI Fundamentals: Analyze text with Language Studio.", 2024, <https://github.com/MicrosoftLearning/mslearn-ai-services>.