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ITAI 2372 - Artificial Intelligence Applications

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Get Started with Azure AI Services: Lab Report

Introduction

Performing the Azure "Get Started with Azure AI Services" lab provided a valuable opportunity to explore cloud-based artificial intelligence integration using Python and Visual Studio Code. The objective of this report is to share my learning experience throughout the lab, highlighting the steps taken, challenges faced, and insights gained while working with Azure AI Services.

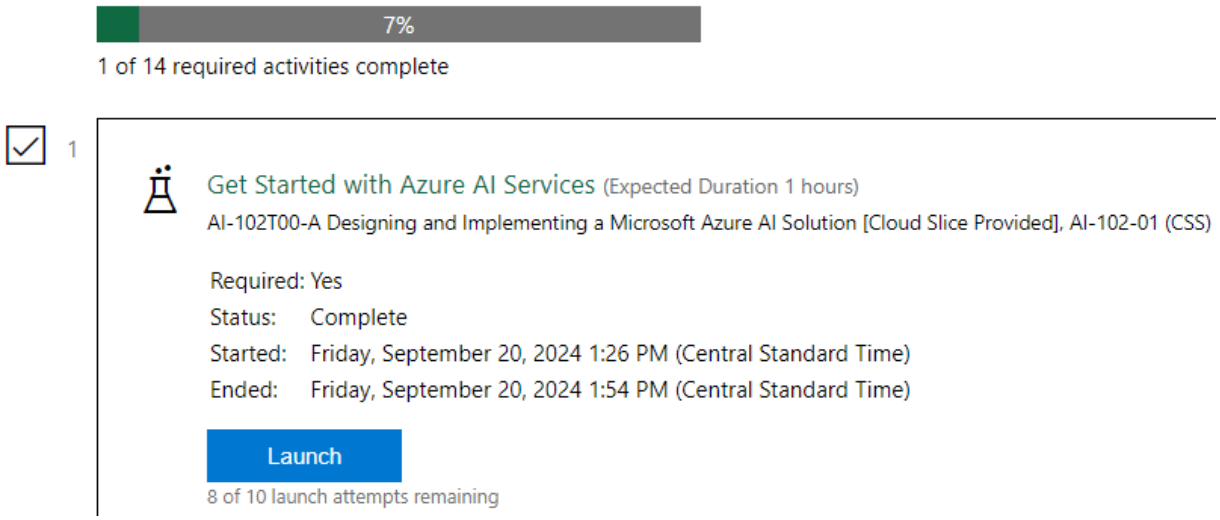
Description of Experience

The lab began by cloning the provided GitHub repository into Visual Studio Code to establish a suitable development environment. I proceeded to provision an Azure AI Services resource via the Azure portal, carefully selecting the appropriate subscription, resource group, and region. After successfully creating the resource, I retrieved the key and endpoint information, essential for authenticating and interacting with the AI services.

Using Python, I navigated to the “rest-client” folder and updated the “.env” file with my resource’s endpoint and key. Running the “rest-client.py” script allowed me to input various text samples such as "Hello" and "Bonjour," which the Language REST API accurately detected and returned the corresponding languages. Building on this, I moved to the “sdk-client” folder, installed the Azure Text Analytics SDK, and updated the “.env” file accordingly. Executing “sdk-client.py” demonstrated how the SDK simplifies the language detection process, enhancing efficiency and ease of use compared to direct REST API interactions.

Personal Reflection

I have not faced significant challenges during this lab, since I recently concluded a Microsoft Build Challenge on applying AI solutions. This previous experience helped me kickstart this new endeavor with ease. However, a key learning from this lab was recognizing how using an SDK can greatly simplify the development of applications that consume Azure AI Services. While working with REST APIs provided a foundational understanding of the underlying processes, leveraging the SDK abstracted much of the complexity, allowing for more streamlined and maintainable code. It highlighted the importance of choosing the right tools to enhance development efficiency and reduce potential errors



Conclusion

Completing the "Get Started with Azure AI Services" lab was an enlightening experience that solidified my ability to integrate advanced AI functionalities into applications in the Azure environment using Python. Implementing the Text Analytics SDK demonstrated the significant advantages of using SDKs to simplify development processes and highlighted the efficiency and maintainability that they bring to cloud-based AI integrations. I look forward to the upcoming labs.

References

Microsoft. "AI-102T00-A Designing and Implementing a Microsoft Azure AI Solution: Get Started with Azure AI Services.", 2024, https://github.com/MicrosoftLearning/mslearn-ai-services.