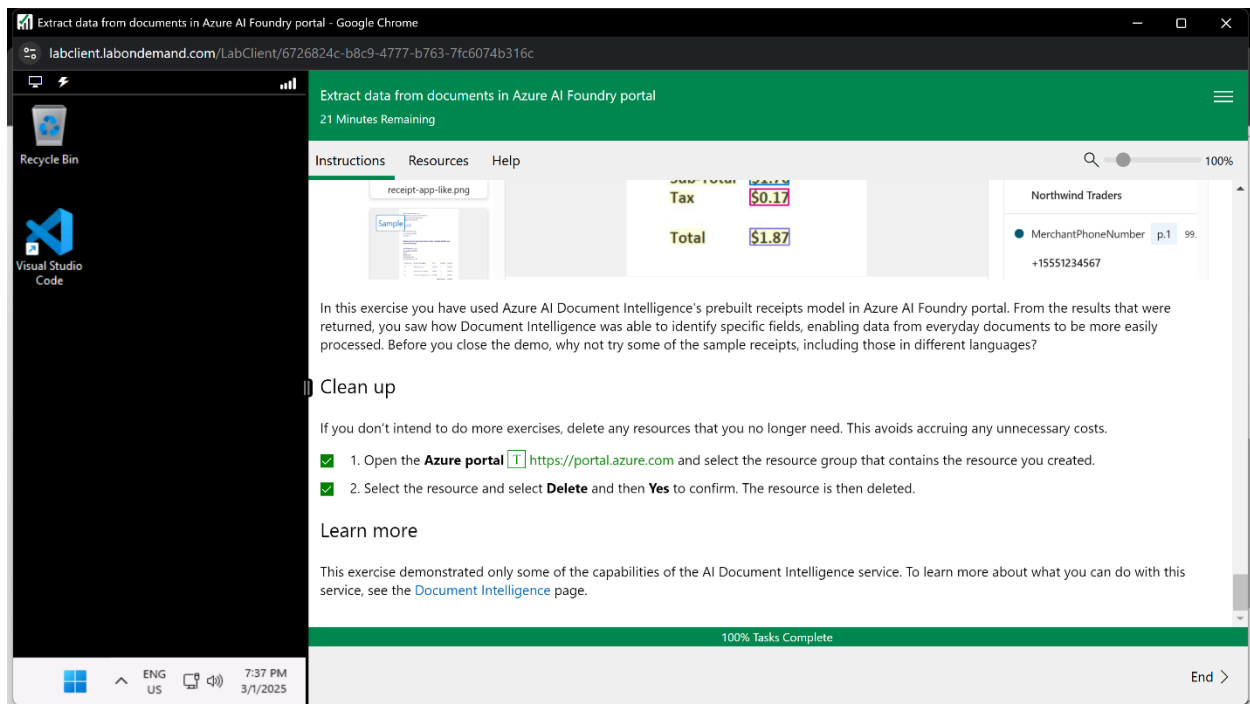**Alhassane Samassekou**

ITAI2374

Lab 04

Reflective Journal: Lab Experience with Azure AI Foundry Portal

I completed a lab exercise focused on extracting data from documents using the Azure AI Foundry portal and Azure AI Document Intelligence service. The lab provided hands-on experience with Microsoft's AI tools, specifically in analyzing a receipt using prebuilt models. Below, I reflect on what I learned, the challenges I faced, and the insights I gained from this experience.

What I Learned

The lab introduced me to the Azure AI Foundry portal, a platform designed to create intelligent applications, and the Azure AI Document Intelligence service, which extends beyond traditional optical character recognition (OCR). I learned that while OCR extracts unstructured text from documents, Document Intelligence adds value by interpreting the

structure—identifying fields like merchant names, dates, and totals, and organizing them in a way that's suitable for database storage or further analysis.

The process of setting up a project in Azure AI Foundry was straightforward yet educational. I created a project named project48915894 and a hub named hub48915894 within the ResourceGroup1 resource group, provisioning resources like an Azure AI services instance, storage account, and key vault. Using these resources, I analyzed a sample receipt and observed how the service extracted specific data fields with confidence percentages, demonstrating its practical application in real-world scenarios like retail data processing.

I also gained a basic understanding of resource management in Azure, including the importance of cleaning up unused resources to avoid unnecessary costs—an essential skill for working with cloud platforms.

Challenges Faced

A technical challenge occurred when selecting a location for the Azure AI services resource. The lab specified options like East US and West Europe, but I wasn't sure which would perform best or align with real-world considerations like latency or compliance. I chose East US arbitrarily, which worked fine.

Downloading and uploading the sample receipt file also posed a minor hurdle. The link (https://aka.ms/mslearn-receipt) worked seamlessly, but finding the file in the virtual machine's file system required some exploration, as I initially saved it to Downloads instead of the Desktop. This small issue underscored the importance of familiarity with the lab environment.

Insights Gained

The lab showed me how AI can make boring tasks fast and easy, like pulling data from receipts. I liked seeing how all the Azure tools work together, and it made me want to try more, like testing receipts in other languages. I also realized I need to be careful with details, like passwords and cleanup.

Conclusion

Overall, this lab was a rewarding introduction to Azure AI Foundry and Document Intelligence. It bridged theoretical concepts of AI with hands-on application, despite minor challenges like navigation and file management. I'm left with a sense of accomplishment and a desire to delve deeper into Azure's capabilities, perhaps tackling more complex document types or learning about resource optimization. This experience has solidified my understanding of how AI can transform unstructured data into structured insights, a skill I hope to build upon in future projects.