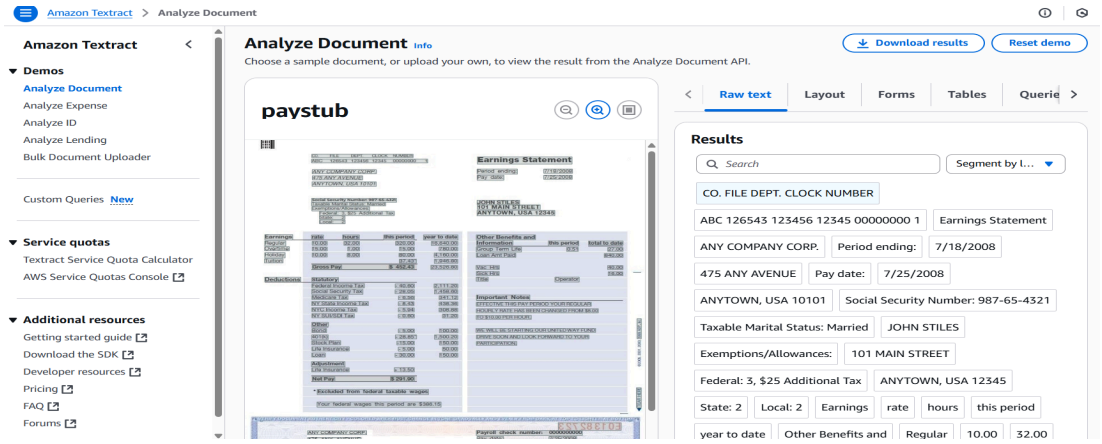
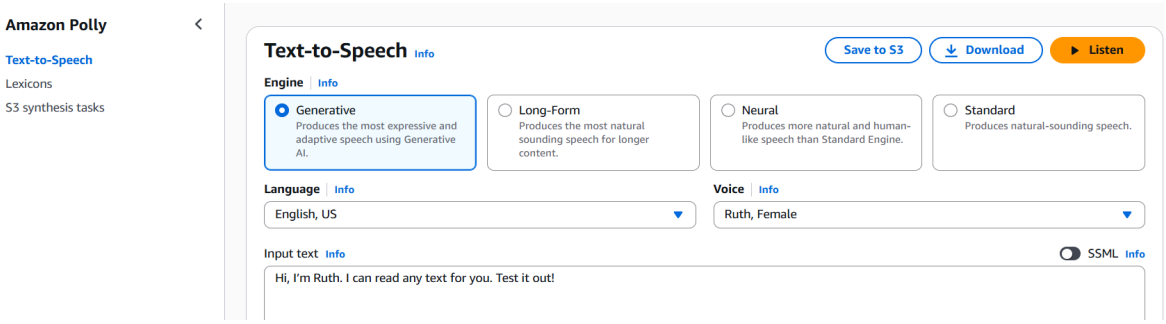
Lab: Document Handling with Amazon Textract and Amazon Polly
Lab Completed By: Brionna Morris
Cloud Service Provider (CSP): Amazon Web Services (AWS)
Areas and Services of Focus: Amazon Textract, Amazon Polly, AWS Lambda, Amazon S3 modifying source code.

Lab Objective:
In this AWS SimuLearn in the practice section, you extract and view raw text from a sample document using Amazon Textract. Then, you use Amazon Polly in an AWS Lambda function to convert an image file that contains text to an audio MP3 file. To test the process, you verify the Amazon Simple Storage Service (Amazon S3) bucket location of the generated MP3 file and listen to the audio. In the DIY section, you edit and re-run the Lambda function by using Amazon Polly generative engine and a voice ID.

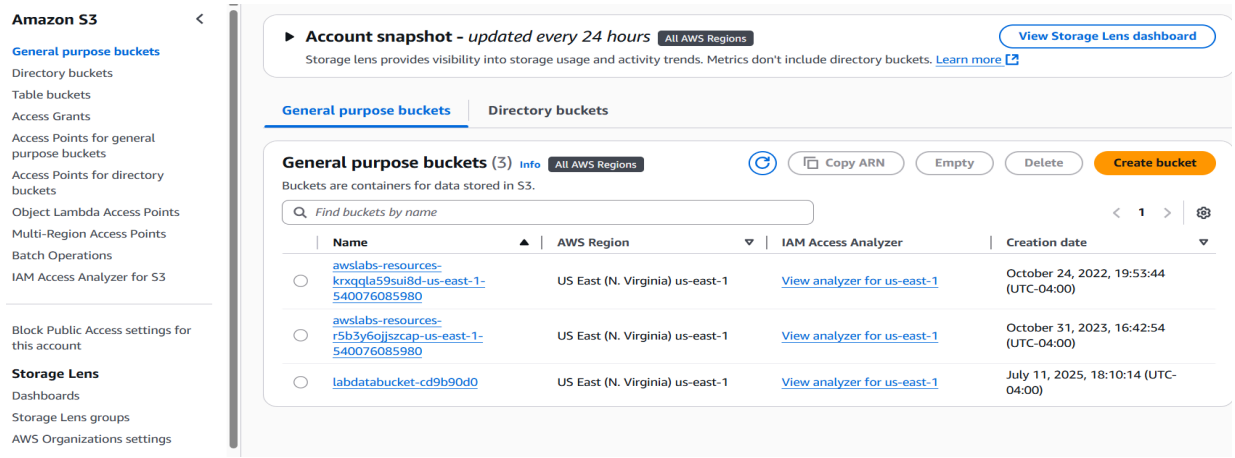
STEP ONE: Analyze the Document in Amazon Textract.



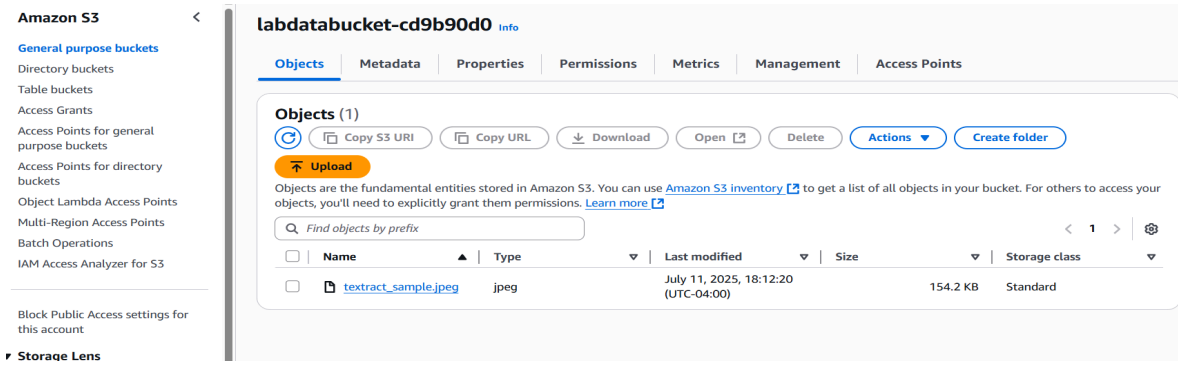
STEP TWO: Listen to the input text in the Text-to-Speech section. Navigate to Amazon Polly and review the S3 synthesis tasks.



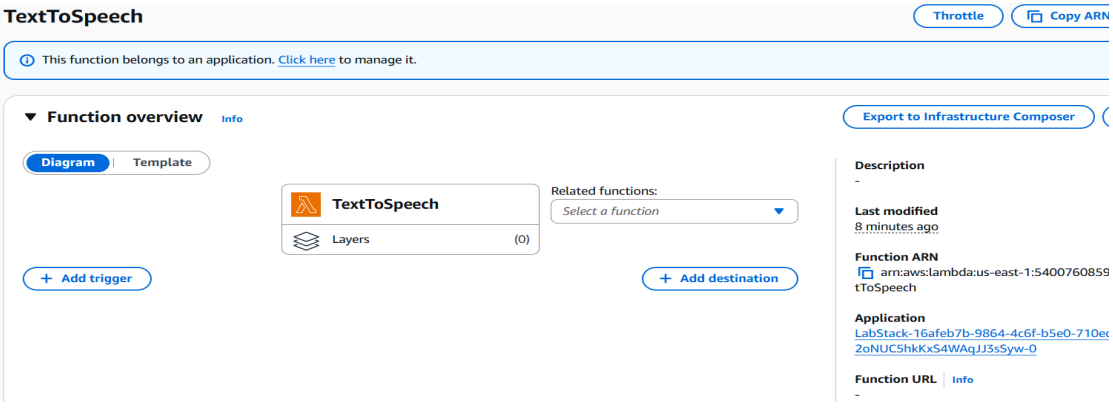
STEP THREE: Navigate to Amazon S3 and review the buckets.



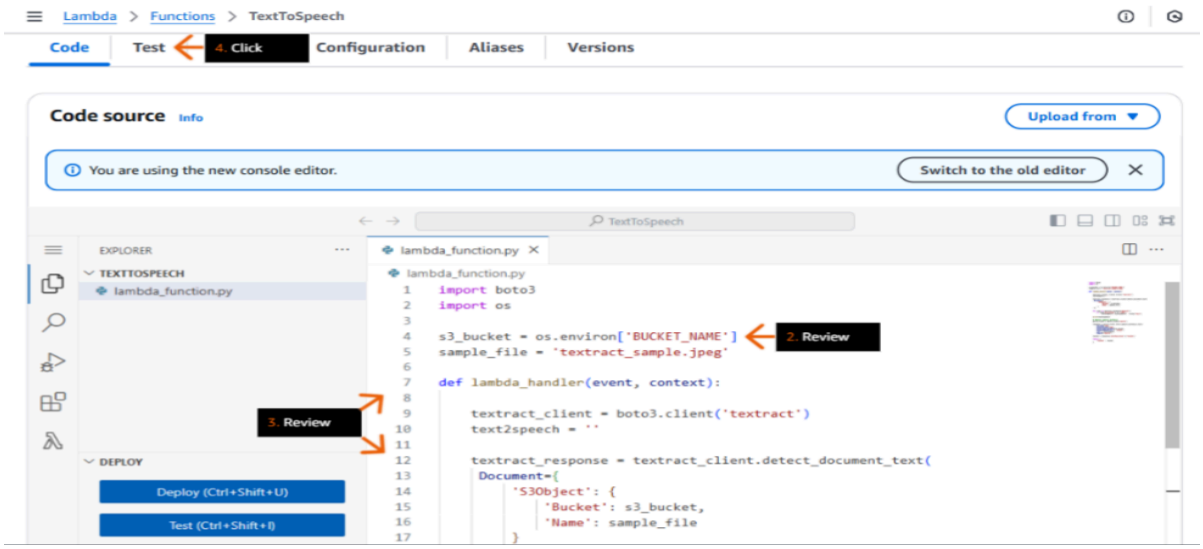
STEP FOUR: After selecting the labdata bucket, click Objects and review the jpeg file.



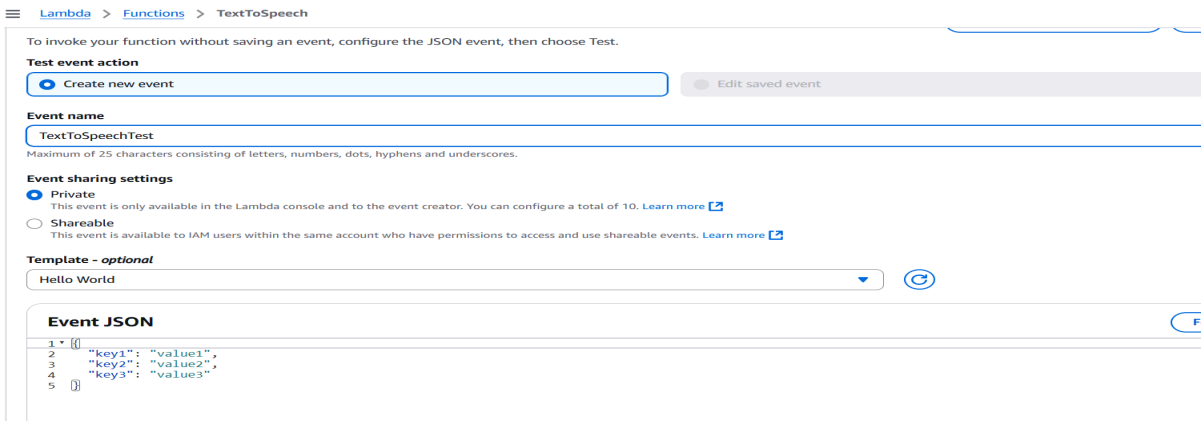
STEP FIVE: Navigate back to Lambda, select Functions and select the “TexttoSpeech” function name.



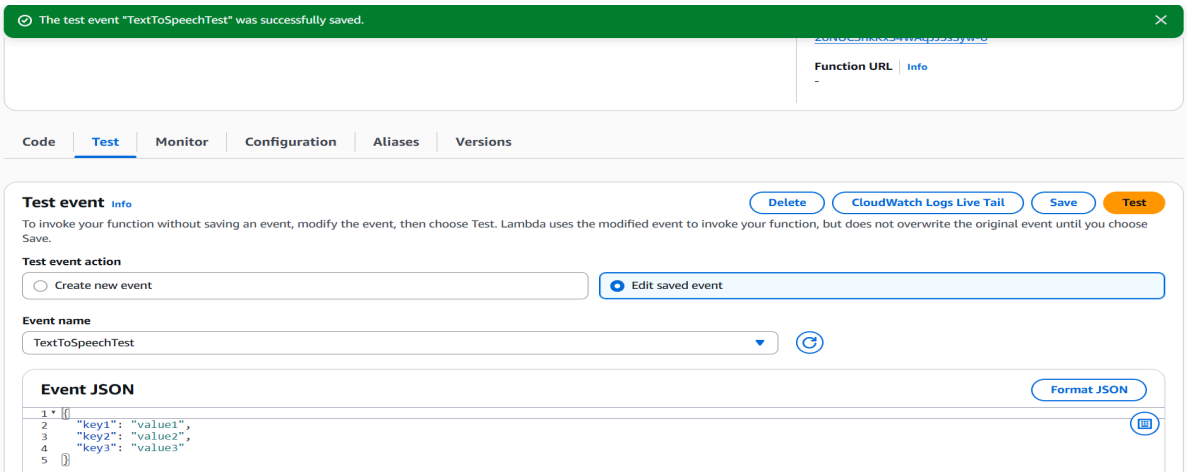
STEP SIX: Scroll down to Code and review the source code of the python file.



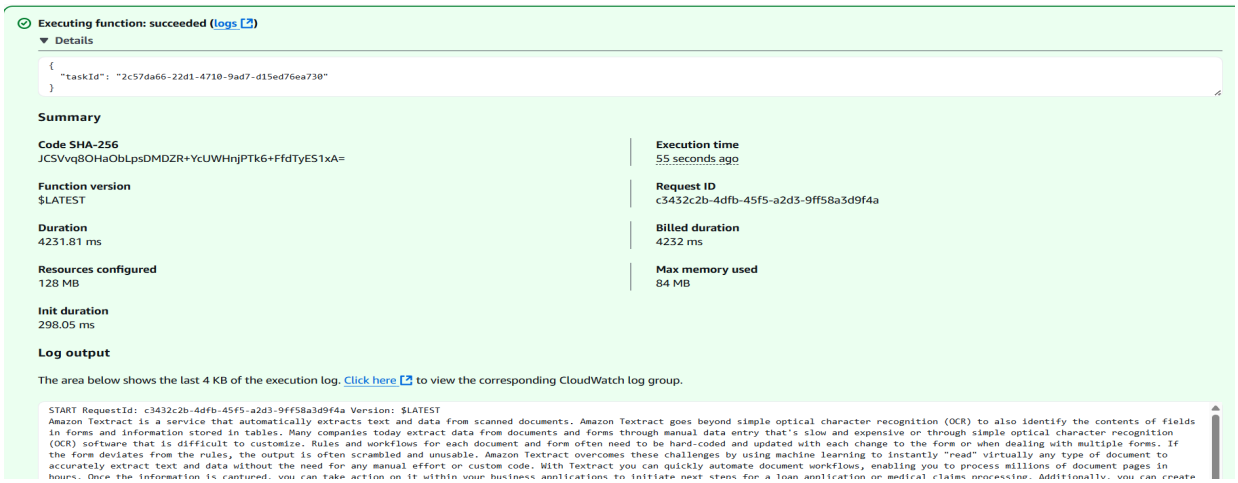
STEP SEVEN: Create a test event for the “TexttoSpeech” function.



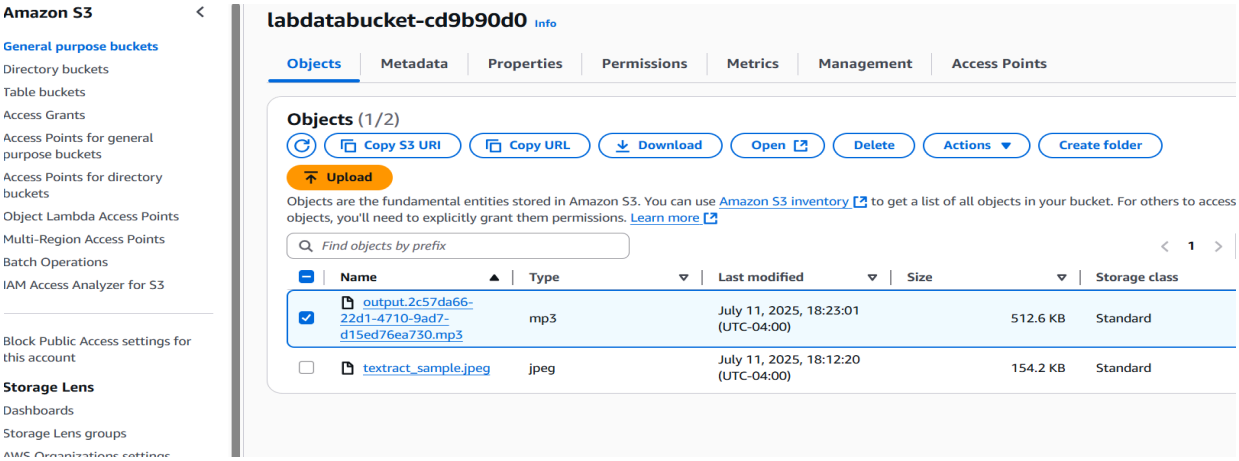
STEP EIGHT: After creating a test event, select Test.



STEP NINE: In the Details section, review the log output information.



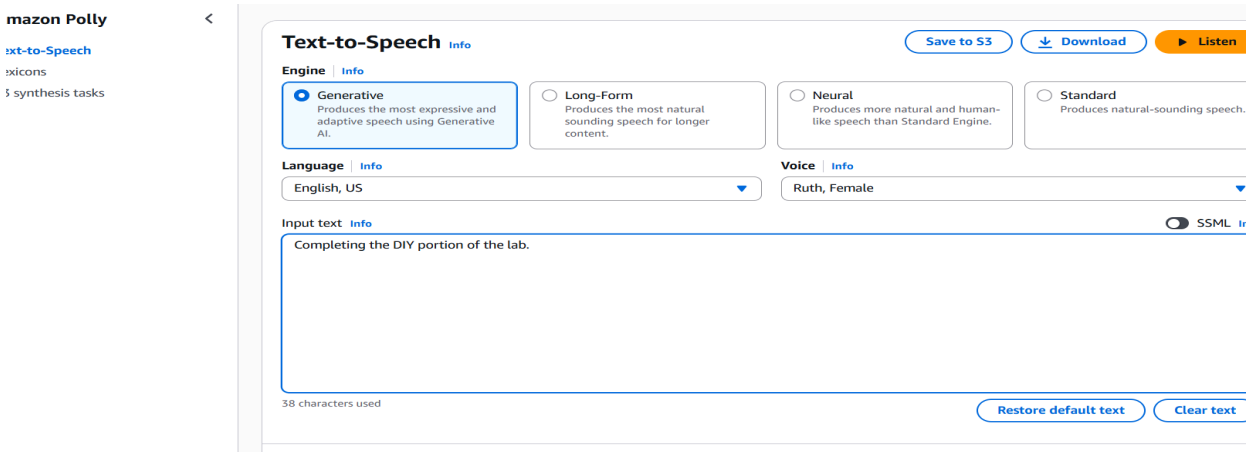
STEP TEN: Navigate back to the labdata bucket in Amazon S3 and select Objects tab and the checkbox next to the output MP3 file. After downloading the file, listen to the audio recording.



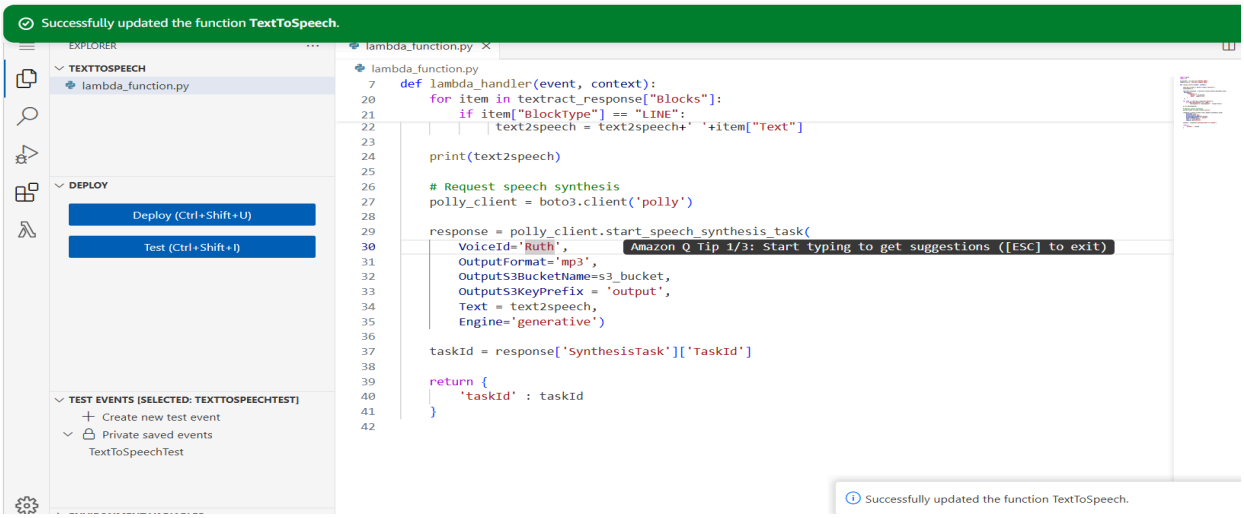
STEP ELEVEN: After completing the final step in the Simulearn Practice lab, navigate to the DIY section to complete the lab based on skills acquired.

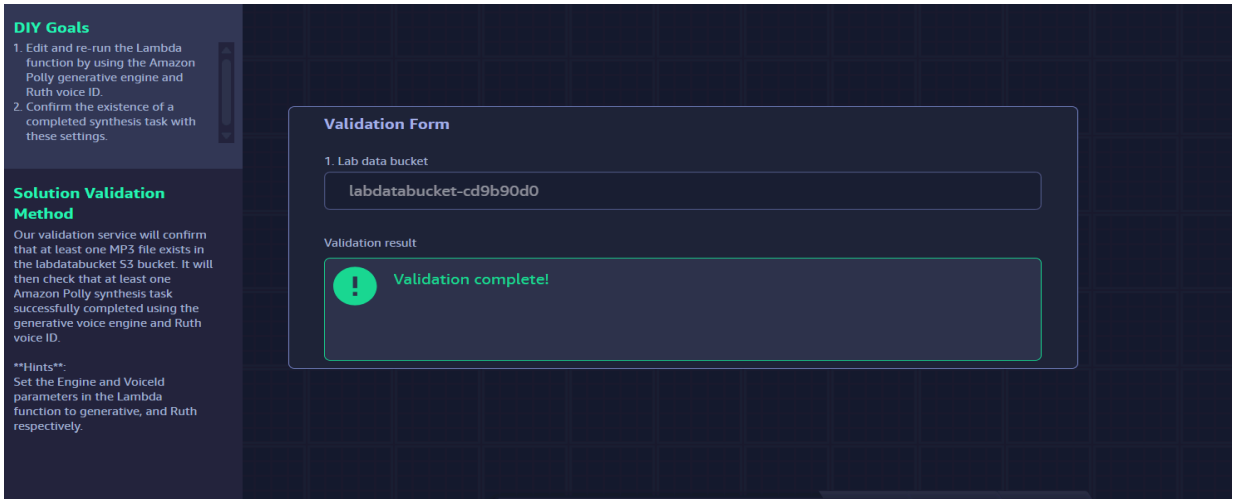
STEP TWELVE DIY (Do-It-Yourself):

1. Edit and re-run the Lambda function by using the Amazon Polly generative engine and Ruth voice ID.
2. Confirm the existence of a completed synthesis task with these settings.



In the photo below, I modified the code according to the instructions to the VoiceID of “Ruth” and the engine to “generative”.





SUMMARY:

This lab is a part of the AWS Skill Builder Exam Prep Plan for the AWS AI Practitioner Certification. To access the labs, you must have a Skill Builder subscription. The focus of this lab session was to gain some hands-on experience with Amazon Textract and Amazon Polly.

After completing the guided practice, I was able to complete the DIY section which incorporated aspects of the practice tasks, but without step-by-step instructions. In my initial attempt to complete the DIY task, AWS was unable to validate that the attempt was completed. One aspect of AWS, and cloud service providers in general, that I must get used to is the time it takes for a task to go from pending to complete. Although I had correctly changed the code, and made sure Amazon Polly and the Lambda function was updated, there seemed to be a bit of latency that I didn't experience during the practice session.

Once I refreshed a couple of times the labdata bucket was validated and complete. Overall, this was a great introduction to Amazon services such as Textract, Polly, and Lambda.