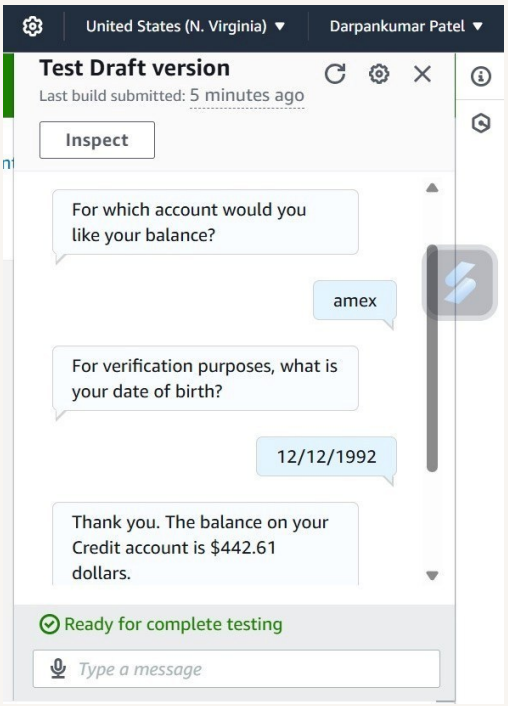
Connect Amazon Lex with Lambda



Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is a service for building chatbots using voice or text. It uses the same tech as Alexa to understand language, making it easy to create smart bots. It's useful for automating tasks, answering questions, and integrating with AWS services.

How I used Amazon Lex in this project

In today’s project, I used Amazon Lex to build a chatbot that lets users check their bank balance. I added a "CheckBalance" intent with slots and linked it to a Lambda function using a code hook.

One thing I didn't expect in this project was...

One thing I didn’t expect in this project was how important aliases and code hooks are for keeping the chatbot and Lambda connected properly during testing and fulfilment.

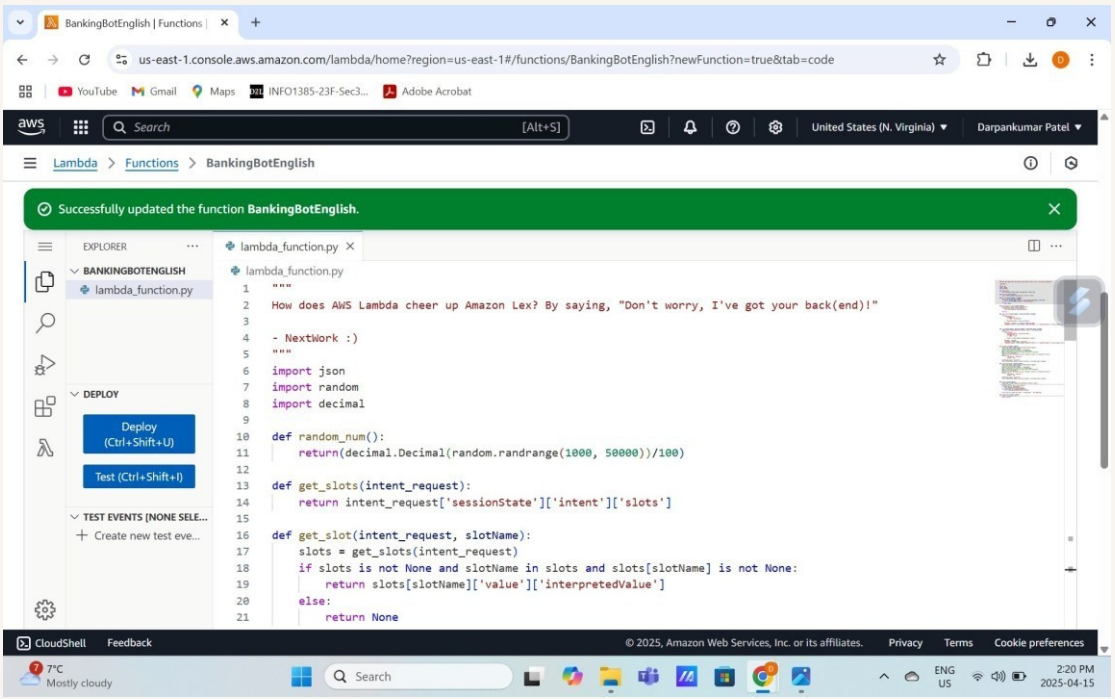
This project took me...

This project took me around 1 hour. I spent time setting up Lex, testing the Lambda function, linking them via TestBotAlias and code hooks, and fixing issues during testing to ensure smooth fulfilment and accurate response handling.

AWS Lambda Functions

> AWS Lambda is a serverless compute service that lets you run code without managing servers. It executes code in response to events, scales automatically, and you only pay for the compute time you use. Just upload your code and Lambda handles the rest

In this project, I created a Lambda function to simulate a bank balance by generating a random number. When a user asks for their balance, Lex triggers this function, which returns the number for Lex to display as the user's account balance.

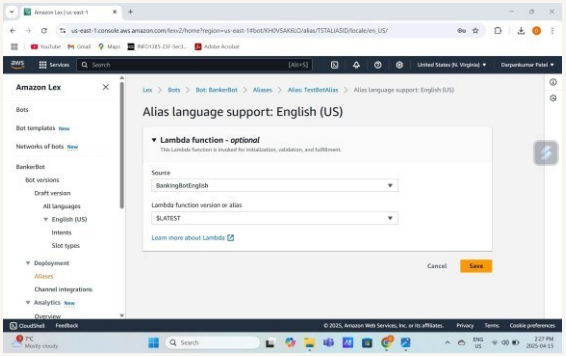


Chatbot Alias

An alias is a pointer to a specific version of your Amazon Lex bot. It allows apps to connect through the alias instead of a fixed version, so you can update the bot by simply changing the alias, without modifying the connected applications.

TestBotAlias is the default alias in Amazon Lex used for testing your bot. It links to a specific bot version, allowing you to safely test new features or changes before deploying them to production environments.

To connect Lambda with my BankerBot, I visited my bot's TestBotAlias and configured it to trigger the Lambda function. This allowed my bot to call the Lambda function during interactions, enabling it to generate and return a simulated bank balance.

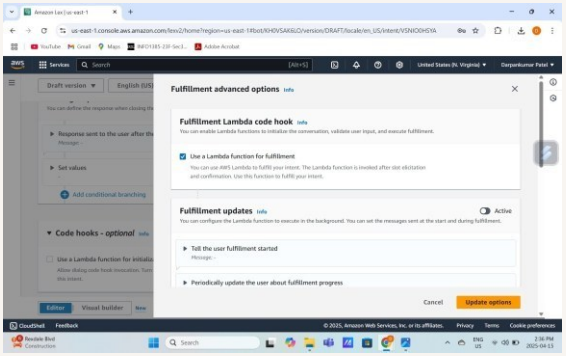


Code Hooks

A code hook is a mechanism in Amazon Lex that connects your chatbot to a custom Lambda function. It enables the bot to perform advanced tasks, like accessing a database or making decisions, during a conversation for a more dynamic user experience.

Even though I already connected my Lambda function with my chatbot's alias, I had to use code hooks because they let my chatbot trigger specific Lambda functions during a conversation, enabling it to perform tasks like fetching account balances.

I could find code hooks in the CheckBalance intent, where I configured the Lambda function to be triggered. This allows the chatbot to retrieve the account balance by executing the function during the conversation once the needed details are provided



The final result!

I've set up my chatbot to trigger Lambda and return a random dollar figure when the user provides their account type and birthday for verification. Once these details are collected, the bot moves to fulfilment and uses Lambda to generate the balance.