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Connect Amazon Lex with Lambda

AZ

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Test Draft version C G X
Last build submitted: 1 minute ago

Inspect

For which account would you like your balance?

amex

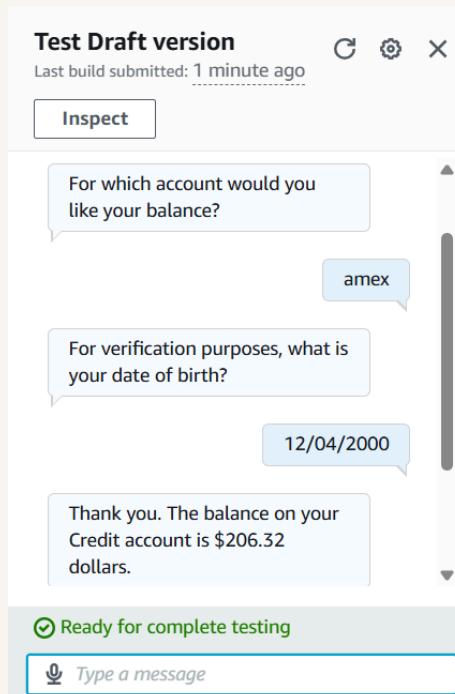
For verification purposes, what is your date of birth?

12/04/2000

Thank you. The balance on your Credit account is \$206.32 dollars.

Ready for complete testing

Type a message



Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is an AWS AI service for building conversational interfaces for applications using voice and text. With Lex, you can build chatbots that can act as virtual assistants for your applications and can help businesses with customer experience.

How I used Amazon Lex in this project

I used Amazon Lex with Amazon Lambda today by making a Lambda function to generate a random number and send it to Lex to give it as the user's account balance when they enter which account type they want to check and birthday details.

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

I didn't expect how there are different functionalities in Lex like Alias and Code hooks to seamlessly connect AWS Lambda function during conversations. It's amazing to see how your code gets triggered during conversations with a chatbot.



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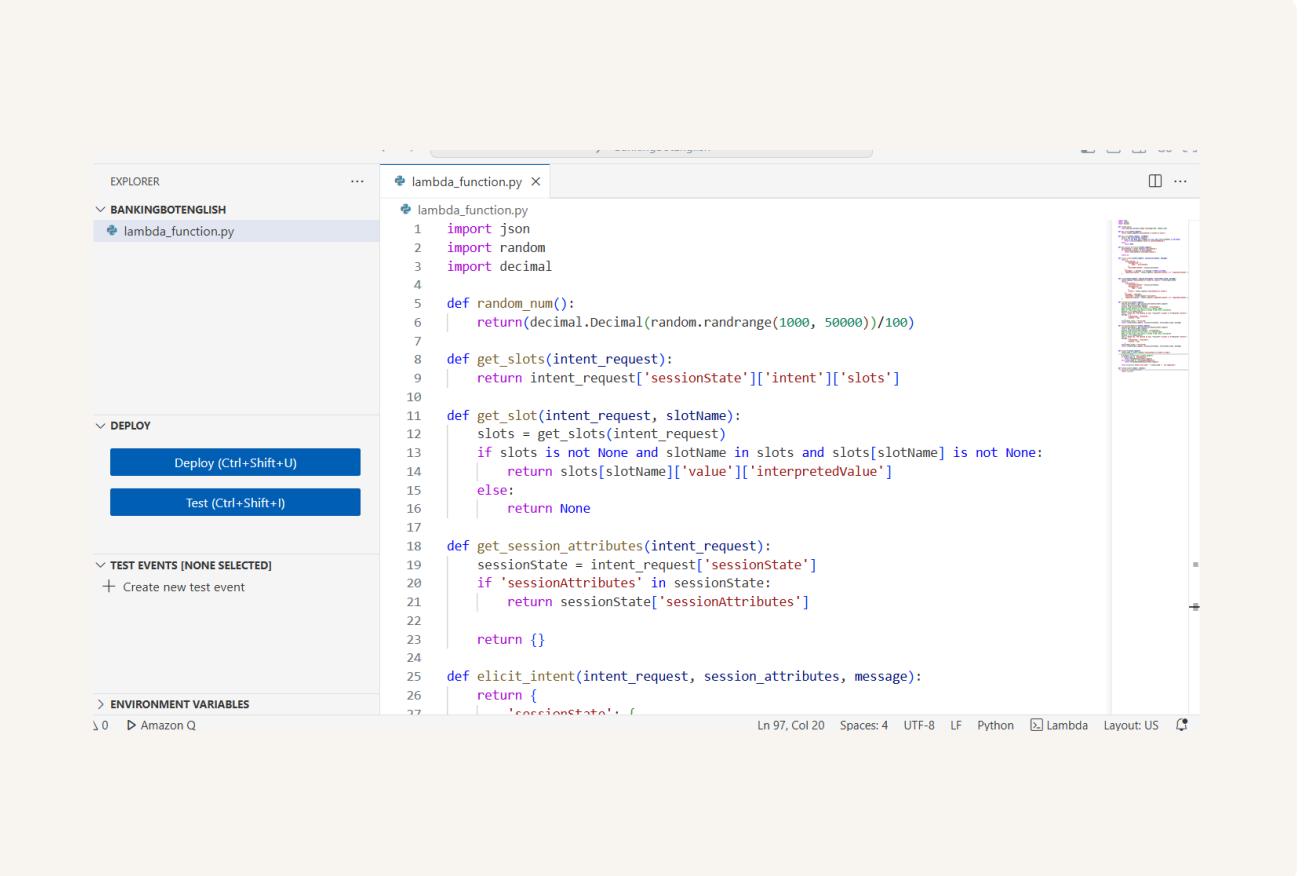
This project took me...

Understanding some steps like connecting Lambda to Lex and what code hooks and aliases are used for did take some time, so overall it took me 30 minutes.

AWS Lambda Functions

AWS Lambda is a service that lets you run code in the cloud without needing to manage any computers/servers which means Lambda will manage them for you. Lambda runs your code only when needed and scales automatically.

In this project, I created a Lambda function to pick a random number to pretend it's the user's account balance so then Lambda will pass this random number to Lex, who will then push the bank balance figure to the user through the chatbot.



```
lambda_function.py
1 import json
2 import random
3 import decimal
4
5 def random_num():
6     return(decimal.Decimal(random.randrange(1000, 50000))/100)
7
8 def get_slots(intent_request):
9     return intent_request['sessionState']['intent']['slots']
10
11 def get_slot(intent_request, slotName):
12     slots = get_slots(intent_request)
13     if slots is not None and slotName in slots and slots[slotName] is not None:
14         return slots[slotName]['value']['interpretedValue']
15     else:
16         return None
17
18 def get_session_attributes(intent_request):
19     sessionState = intent_request['sessionState']
20     if 'sessionAttributes' in sessionState:
21         return sessionState['sessionAttributes']
22
23     return {}
24
25 def elicit_intent(intent_request, session_attributes, message):
26     return {
27         'sessionState': {
```

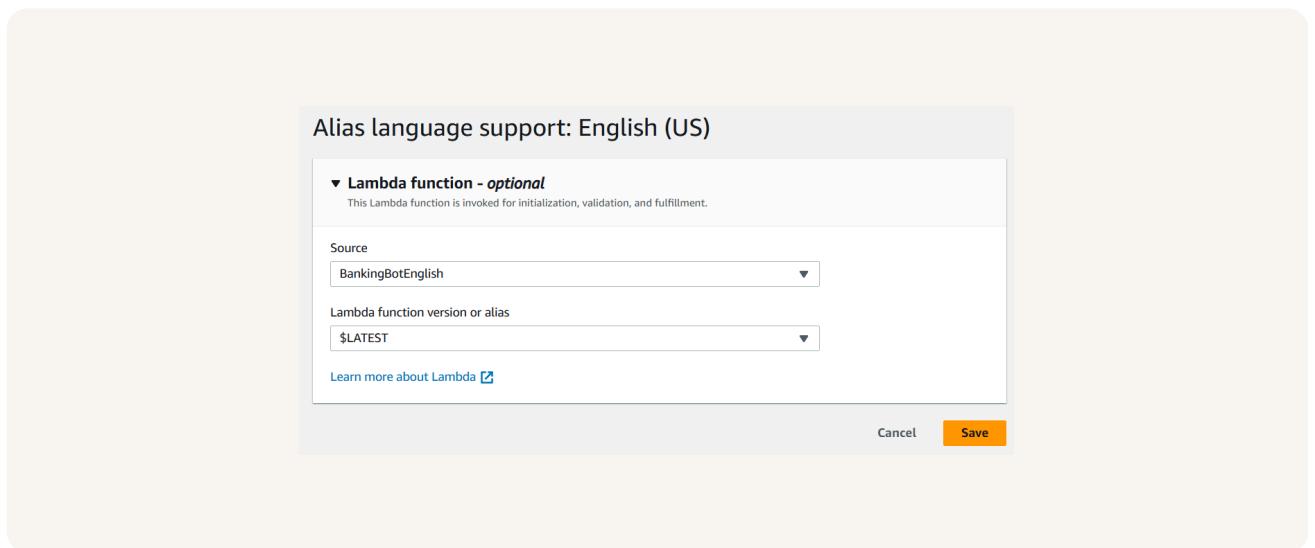
The screenshot shows the AWS Cloud9 IDE interface with the Lambda function code editor open. The code is a Python script named `lambda_function.py` containing functions to generate a random number, retrieve and parse slots from an intent request, and handle session attributes. The AWS Lambda service sidebar on the right shows various logs and metrics for the function.

Chatbot Alias

An alias is a pointer that connects your applications and other AWS Services to the specified version of the chatbot you want to use. Instead of updating your apps to connect to the newest version of your bot, you can update the alias.

TestBotAlias is a default version of your bot that you want to use for testing or development.

To connect Lambda with my BankerBot, I visited my bot's TestBotAlias and the Languages panel which lets you associate your Lambda function to the TestBotAlias version of your bot.

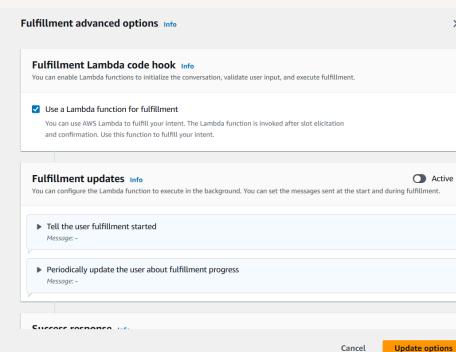


Code Hooks

A code hook is to help you connect your chatbot to custom Lambda functions for doing specific tasks during a conversation.

Even though I already connected my Lambda function with my chatbot's alias, I had to use code hooks because they make your chatbot smarter and more useful by allowing it to perform complex actions seamlessly during chats.

I could find code hooks at the Intent's Fulfilment Advanced options.



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The final result!

I've set up my chatbot to trigger Lambda and return a random dollar figure when the user tells the bot the account they want to check and their birthday.

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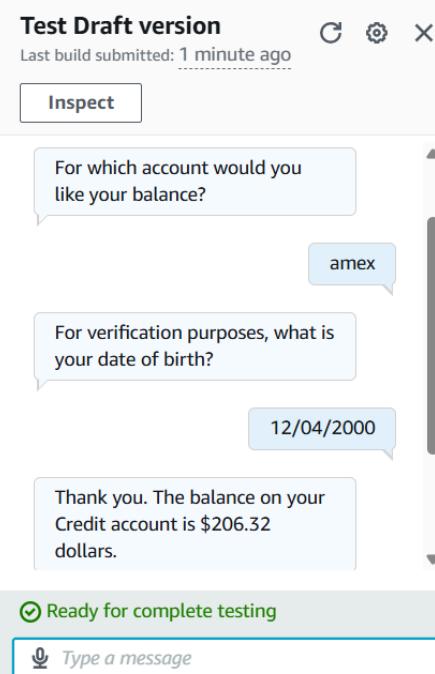
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