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Connect Amazon Lex with Lambda



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The screenshot shows the Amazon Lex Test Draft version interface. At the top, it says "Test Draft version" and "Last build submitted: 1 minute ago". Below that is a button labeled "Inspect". The main area shows a conversation between a user and the bot:

User message: help me with my visa account

Bot response: Thank you. The balance on your Credit account is \$451.35 dollars.

User message: amex

Bot response: Thank you. The balance on your Credit account is \$482.83 dollars.

User message: checking

Bot response: Thank you. The balance on your Checking account is \$436.92 dollars.

At the bottom, there is a green bar with the text "Ready for complete testing" and a checked checkbox. Below that is a text input field with the placeholder "Type a message".

A circular profile picture of a young man with red hair and a brown jacket, set against a blue and white background.

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Introducing Today's Project!

What is Amazon Lex?

Amazon Lex allows one to create an AI chatbot and integrate it with lambda functions.

How I used Amazon Lex in this project

I used Amazon Lex to build upon my chat bot and integrate a lambda function to return a random amount when prompted for an account balance.

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

The visual builder within the intent editor helping visual the branching paths of the chat bot.

This project took me...

This project took me about 30minutes.

AWS Lambda Functions

AWS Lambda is a serverless AWS service that allows you to run code without managing servers.

In this project, I created a Lambda function to generate a random number when Lex asks for an account balance.

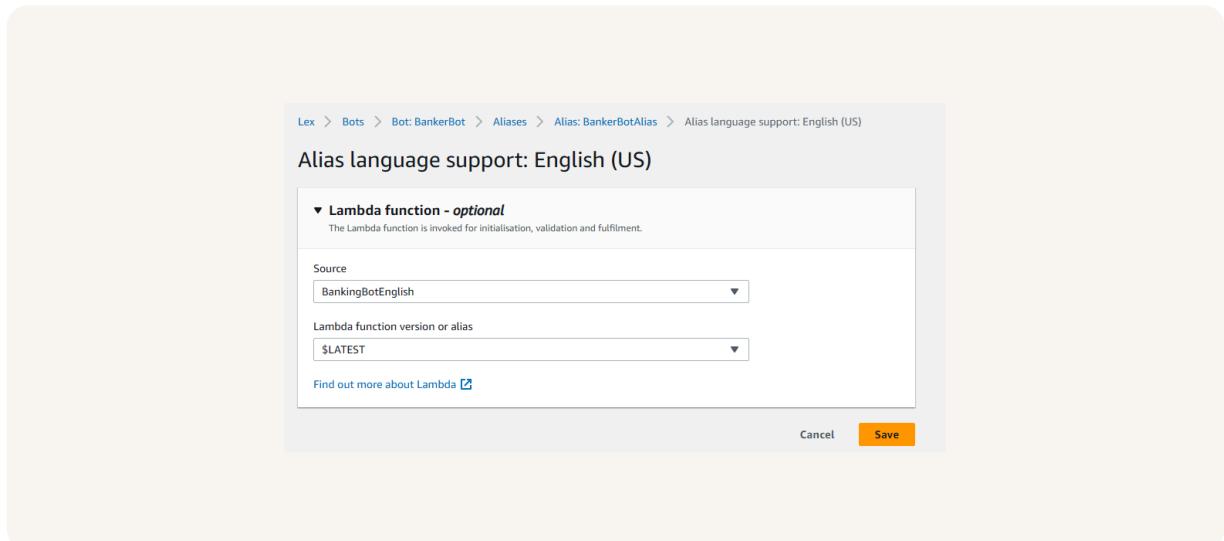
```
lambda_function.py
1 """
2 How does AWS Lambda cheer up Amazon Lex? By saying, "Don't worry, I've got your back(end)!"
3 - NextWork :)
4 """
5
6 import json
7 import random
8 import decimal
9
10 def random_num():
11     return(decimal.Decimal(random.randrange(1000, 50000))/100)
12
13 def get_slots(intent_request):
14     return intent_request['sessionState']['intent']['slots']
15
16 def get_slot(intent_request, slotName):
17     slots = get_slots(intent_request)
18     if slots is not None and slotName in slots and slots[slotName] is not None:
19         return slots[slotName]['value']['interpretedValue']
20     else:
21         return None
22
23 def get_session_attributes(intent_request):
24     sessionState = intent_request['sessionState']
25     if 'sessionAttributes' in sessionState:
26         return sessionState['sessionAttributes']
27
28     return {}
29
30 def elicit_intent(intent_request, session_attributes, message):
31     return {
```

Chatbot Alias

An alias is a pointer for a specific version of a bot.

TestBotAlias is the default version of the bot for testing and development.

To connect Lambda with my Bankerbot, I visited my bot's Aliases and attached the BankingBotEnglish lambda function to my bot under the Alias language support.



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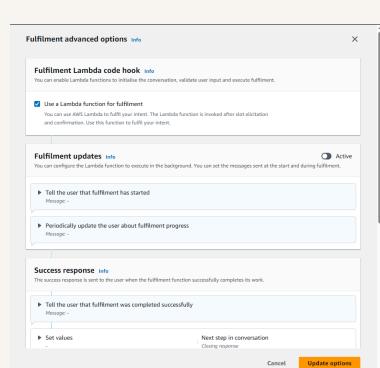
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Code Hooks

A code hook connects lambda functions to the chat bot.

Even though I already connected my Lambda function with my chatbot's alias, I had to use code hooks because it needs to specify which intent the function should run on.

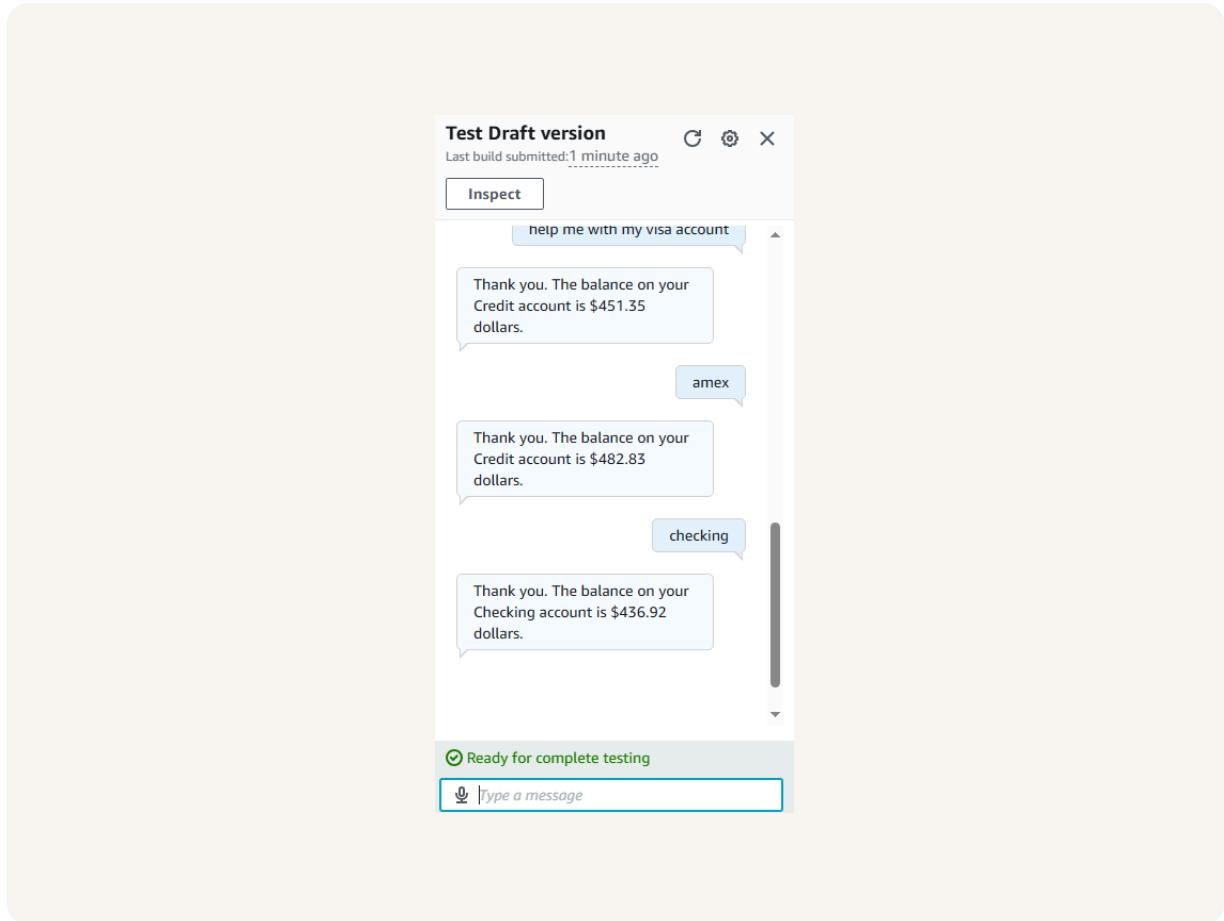
I could find code hooks within the advanced options of an intent.





The final result!

I've set up my chatbot to trigger Lambda and return a random dollar figure when it is provided with a specific type of account.





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