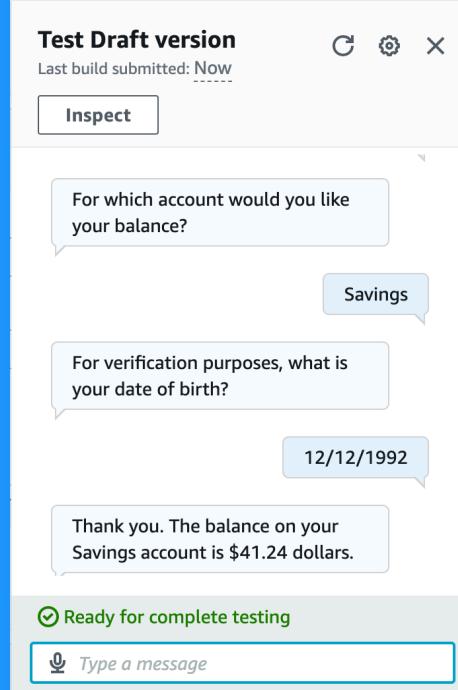




Connect a Chatbot with Lambda



imly04@proton.me



Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is a tool that allows anyone to create a chatbot that can be used by customers/users 24/7, it can act as a virtual assistant and automate tasks for users, with high customisation and ease of use.

How I used Amazon Lex in this project

I used Amazon Lex to add an additional function which linked my previously created BankerBot to utilize code that generated a random number to act as Bank account number.

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

I did not expect for Amazon Lex and Lambda to be so simple to link.

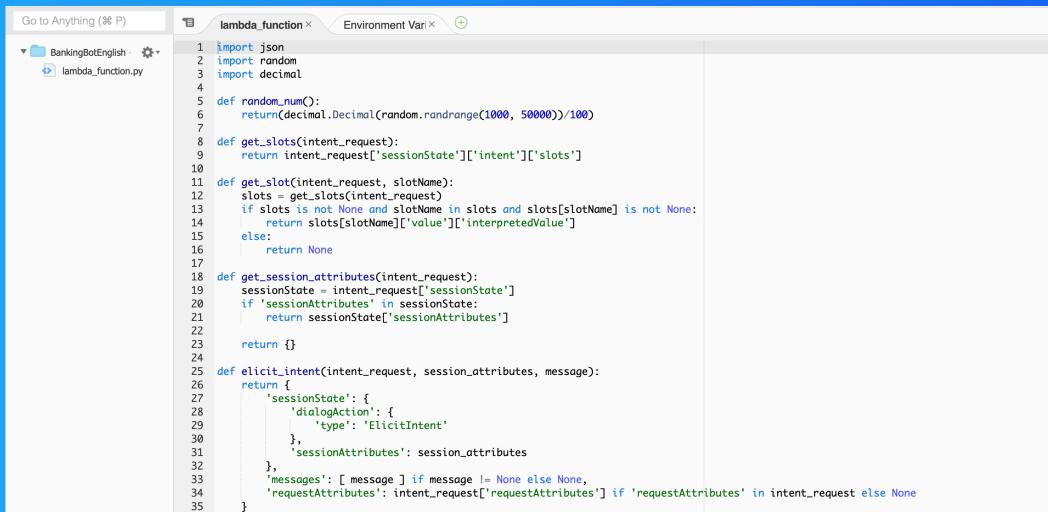
This project took me...

It took me 45 minutes to complete.

AWS Lambda Functions

AWS Lambda is a service from Amazon that allows you run code in the cloud without managing any computers/servers.

In this project, I created a Lambda function to generate random bank balance numbers.



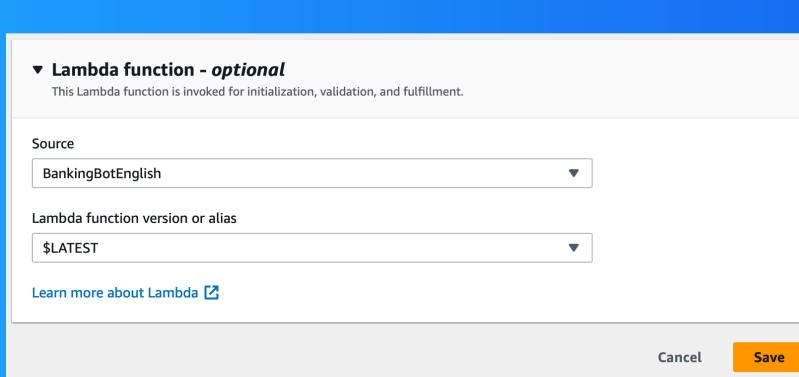
```
Go to Anything (⌘ P) lambda_function Environment Vari +  
BankingBotEnglish λ *+  
lambda_function.py  
  
1 import json  
2 import random  
3 import decimal  
4  
5 def random_num():  
6     return(decimal.Decimal(random.randrange(1000, 50000))/100)  
7  
8 def get_slots(intent_request):  
9     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     else:  
23         return {}  
24  
25 def elicit_intent(intent_request, session_attributes, message):  
26     return {  
27         'sessionState': {  
28             'dialogAction': {  
29                 'type': 'ElicitIntent'  
30             },  
31             'sessionAttributes': session_attributes  
32         },  
33         'messages': [ message ] if message != None else None,  
34         'requestAttributes': intent_request['requestAttributes'] if 'requestAttributes' in intent_request else None  
35     }
```

Chatbot Alias

An alias is a copy of your current bot but it separate from the main bot and allows for developers and testers to push new untested features or changes.

TestBotAlias is the default version of a BankerBot (for example) which is specifically used for testing or development.

To connect Lambda with my BankerBot, I visited my bot's TestBotAlias and linked the source of my Lambda function to my TestBotAlias.

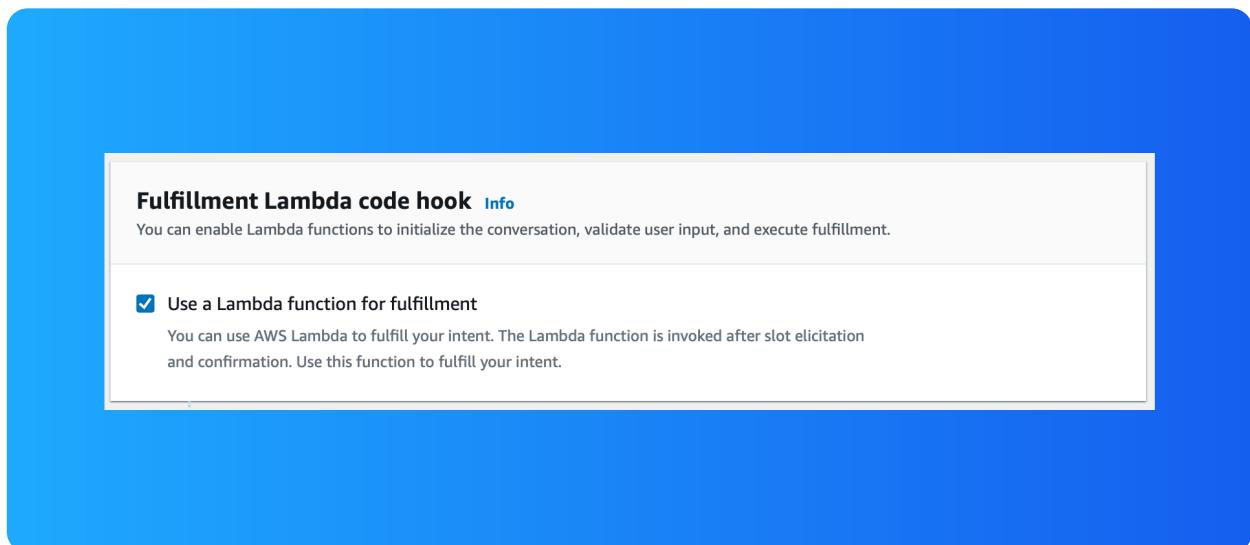


Code Hooks

A code hook is a feature that allows you to connect your Amazon Lex chatbot to Lambda function which allows the chatbot to complete complex problems such as checking data from a database.

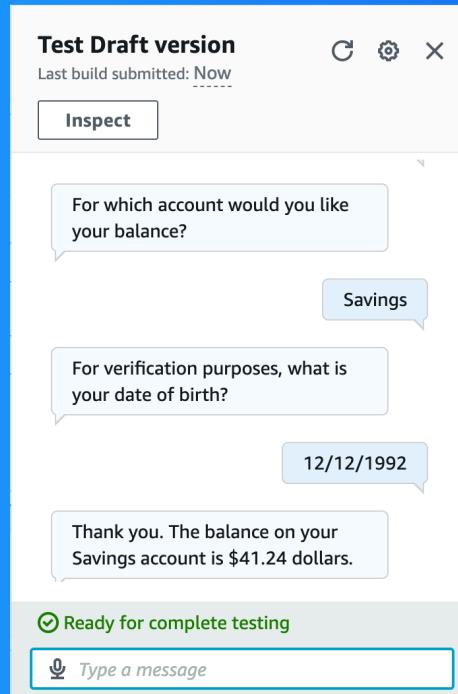
Even though I already connected my Lambda function with my chatbot's alias, I had to use code hooks because the chatbot is incapable of creating random numbers by itself and requires an external source to generate those numbers.

I could find code hooks at in the advanced options of confirmation and fulfillment sections.



The final result!

I've set up my chatbot to trigger Lambda and return a random dollar figure when ask to check my balance after specifying which account, the bot requests for a birthdate for verification, then returns a random dollar amount to the user.





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