



# Connect a Chatbot with Lambda



Kyra Edwards

**Test Draft version**      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?

02/10/2001

Thank you. The balance on your Credit account is \$96.45 dollars.

Ready for complete testing

Type a message

A screenshot of a chatbot interface titled "Test Draft version". It shows a conversation between a user and a bot. The user asks for account balance, the bot responds with "amex". The user asks for date of birth, the bot responds with "02/10/2001". The bot then confirms the balance is \$96.45. A green checkmark indicates the bot is ready for testing.



Kyra Edwards  
NextWork Student

[NextWork.org](http://NextWork.org)

# Introducing Today's Project!

## What is Amazon Lex?

Amazon Lex is a service offered by AWS (Amazon Web Services) that enables developers to build conversational interfaces and chatbots using voice and text.

## How I used Amazon Lex in this project

I used Amazon Lex in this project to build a banker bot. Users can ask how much money they have in their account and the bot will tell them.

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

One thing I didn't expect from this project is again, how easy everything is. The only part that can be seen as a little difficult is creating the Lambda function.

## This project took me...

This took me about 50 minutes. But it only takes me this long each time because I am figuring out where everything is at each step.



# AWS Lambda Functions

AWS Lambda is a service that lets you run code without provisioning or managing servers. Lambda runs your code only when needed and scales automatically, from a few requests per day to thousands per second.

In this project, I created a Lambda function to give users quick answers about their account balances. Lambda will pass this random number to Lex, who will then push the bank balance figure to the user through your chatbot.

Successfully updated the function BankingBotEnglish.

Code source Info

File Edit Find View Go Tools Window Test Deploy

.zip file

Amazon S3 location

Environment

lambda\_function Environment Vari x

```
1 """
2 How does AWS Lambda cheer up Amazon Lex? By saying, "Don't worry, I've got your back(end)!"
3
4 - NextWork :)
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 {
32         'sessionState': {
33             'sessionAttributes': f
```



Kyra Edwards  
NextWork Student

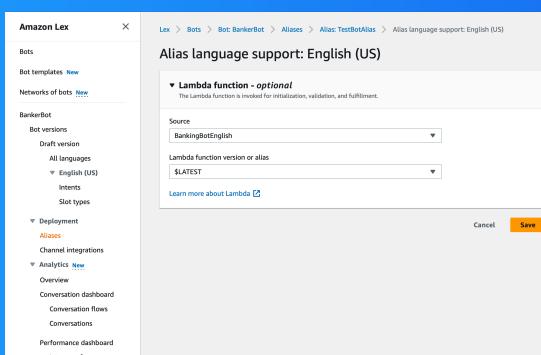
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# Chatbot Alias

An alias is a pointer to the specific version of your bot that you want to use. Instead of always updating your apps to connect to the newest version of the bot, you can just update the alias to point to that new version.

TestBotAlias is a default version of your bot that's made for testing or development.

To connect Lambda with my BankerBot, I visited my bot's TestBotAlias and selected English(US). After that, in the source section, I chose my Lambda function BankingBotEnglish and left the Lambda function version or alias field at the default \$LATEST





Kyra Edwards  
NextWork Student

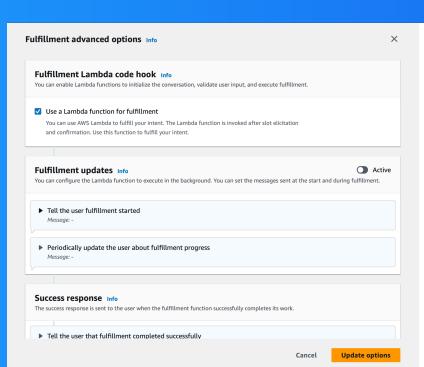
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# Code Hooks

A code hook is used to connect your chatbot to custom Lambda functions for doing specific tasks during a conversation. They're used to handle more complex actions that the basic chatbot setup can't do on its own, like 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 they make your chatbot smarter and more useful by allowing it to perform these extra steps seamlessly during chats.

I could find code hooks in the fulfillment section in the intent. I then chose advanced options and under the Fulfilment Lambda code hook panel, I checked the checkbox next to Use a Lambda function for fulfillment.





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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 asks for their balance.

**Test Draft version** G ⚙ X  
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**Inspect**

For which account would you like your balance?

amex

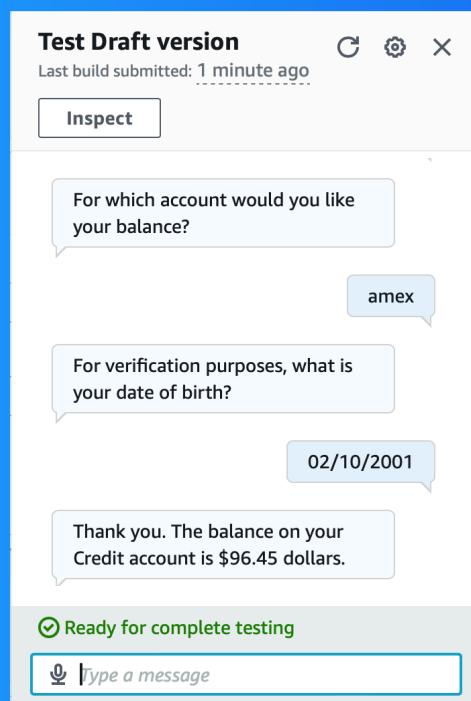
For verification purposes, what is your date of birth?

02/10/2001

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