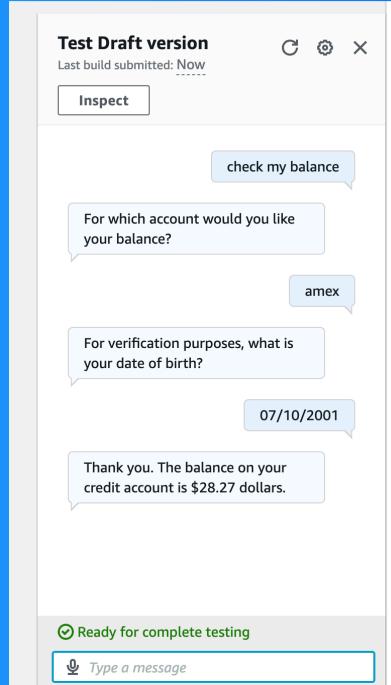




Connect a Chatbot with Lambda



Rishi Shrivastava





Rishi Shrivastava
NextWork Student

NextWork.org

Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is a service that allows developers to build conversational chatbots and voice assistants. It uses deep learning to understand natural language and speech, making it easy to create engaging and lifelike conversational experiences.

How I used Amazon Lex in this project

I learned about Amazon Lex by creating, customizing and configuring it.

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

I didn't expect making projects like this will be so much fun.

This project took me...

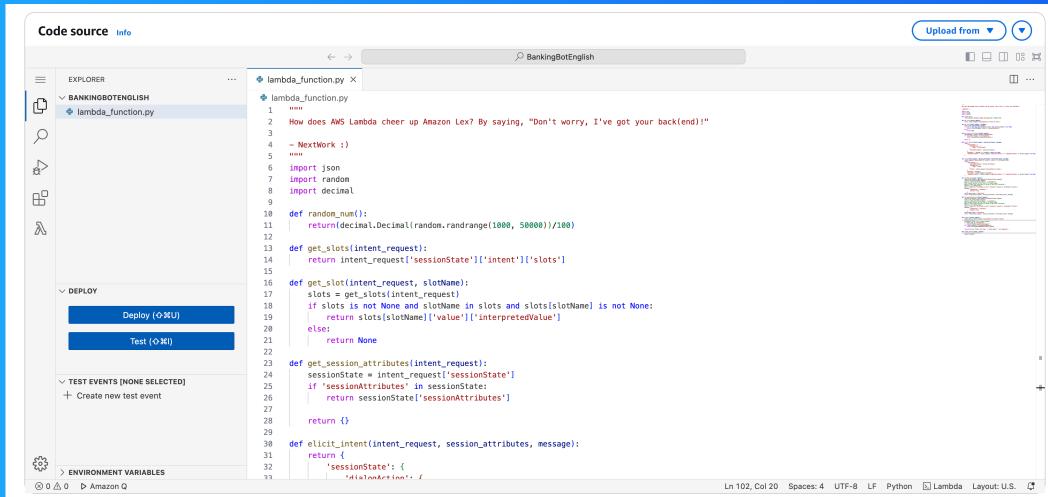
It took me less than a hour to make this project.



AWS Lambda Functions

AWS Lambda is a service that lets you run code in the cloud without needing to manage any computers/servers Lambda will manage them for you.

In this project, I created a Lambda function to run the code in response to events. It's like a tiny program that sits idle until something triggers it, then executes the code you've written.



The screenshot shows the AWS Lambda function editor interface. On the left, the 'EXPLORER' sidebar lists a project named 'BANKINGBOTENGLISH' containing a file 'lambda_function.py'. Below it, the 'DEPLOY' section has 'Deploy (OK!)' and 'Test (OK!)' buttons. Under 'TEST EVENTS [NONE SELECTED]', there is a '+ Create new test event' option. At the bottom, 'ENVIRONMENT VARIABLES' are listed with 'Amazon Q' selected. The main area displays the Python code for the Lambda function:

```
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
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     return {}
28
29 def elicit_intent(intent_request, session_attributes, message):
30     return {
31         'sessionState': {
32             'dialogAction': 'ElicitIntent',
33             'message': message
34         }
35     }
```



Rishi Shrivastava
NextWork Student

NextWork.org

Chatbot Alias

An alias is a friendly name or shortcut for a specific resource, Lambda function version. It simplifies resource identification by providing a more memorable name instead of the memorable name instead of the resource's complex identifier.

TestBotAlias is 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 the languages section and added a lambda function.

Alias language support: English (US)

▼ **Lambda function - optional**
This Lambda function is invoked for initialization, validation, and fulfillment.

Source: BankingBotEnglish

Lambda function version or alias: \$LATEST

[Learn more about Lambda](#)

Cancel **Save**



Rishi Shrivastava
NextWork Student

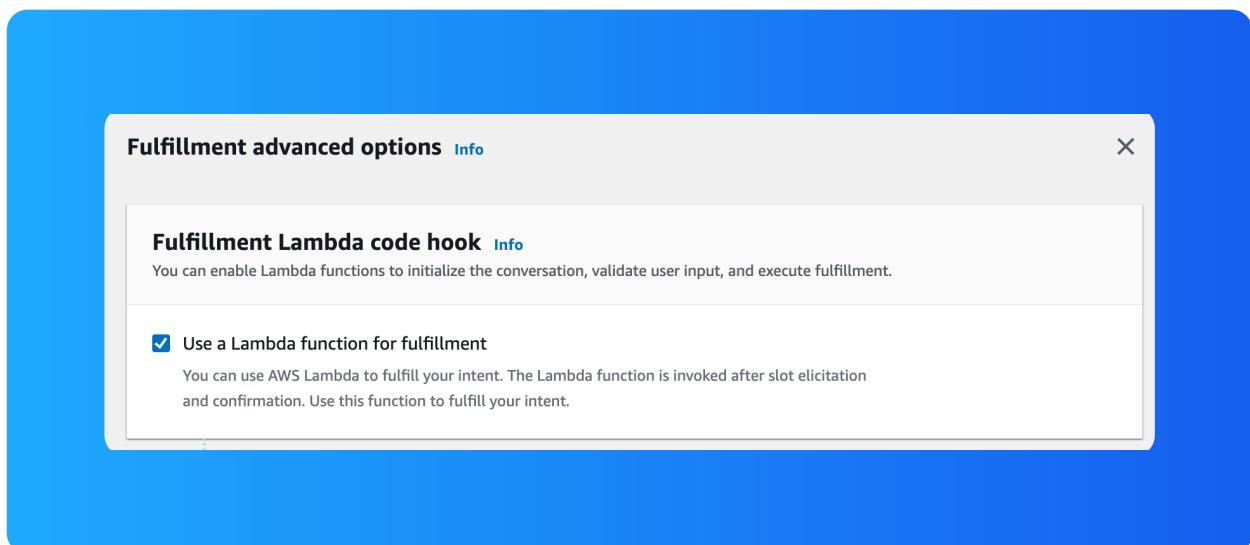
NextWork.org

Code Hooks

Code hooks 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're used to handle more complex actions that the basic chatbot setup can't do on its own.

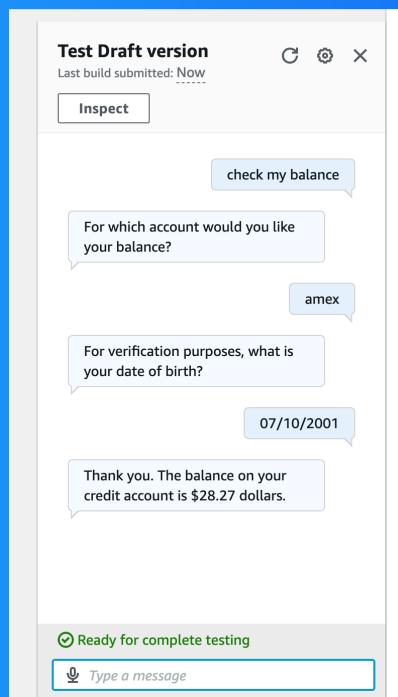
I could find code hooks at the intents tab under fulfillment section.





The final result!

I've set up my chatbot to trigger Lambda and return a random dollar figure when i entered my dateofbirth and for the verification.





NextWork.org

Everyone should be in a job they love.

Check out nextwork.org for
more projects

