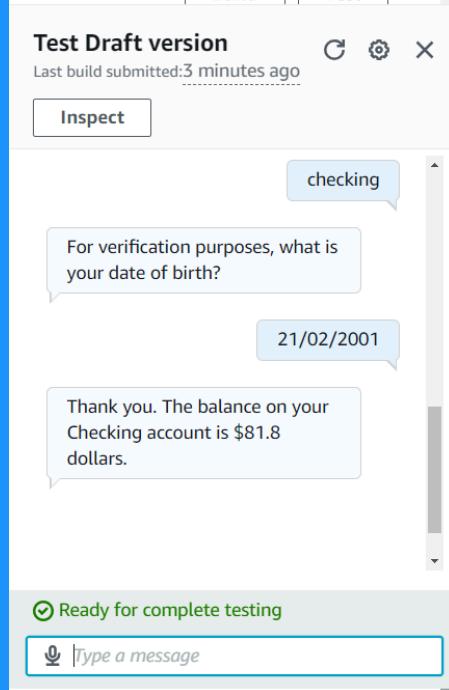




Connect a Chatbot with Lambda



tahirgroot@gmail.com





TA

tahirgroot@gmail.com
NextWork Student

NextWork.org

Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is a service for building conversational interfaces using voice and text. It provides advanced natural language understanding and automatic speech recognition, making it easy to create lifelike chatbots without deep AI expertise.

How I used Amazon Lex in this project

I used Amazon lex to build conversational interfaces, specifically chatbots and voice assistants. It handles the natural language understanding (NLU) part of the process, determining the user's intent from their input.

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

n/a

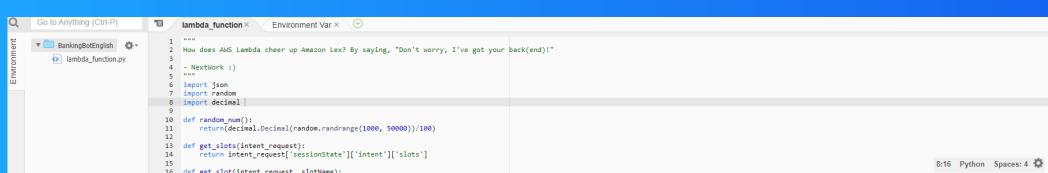
This project took me...

30minutes

AWS Lambda Functions

AWS Lambda is a serverless compute service that lets you run code without provisioning or managing servers. It automatically manages the computing resources for you, allowing you to focus on writing code.

In this project, I created a Lambda function to generate the users' bank balance, automatically generating random figures and can be used to extract bank balance from a database. The Amazon Lex chatbot, on its own would not be able to generate a bank



The screenshot shows a code editor window with a blue header bar. The title bar says "lambda_function" and "Environment Var". The code editor pane contains the following Python code:

```
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):
```

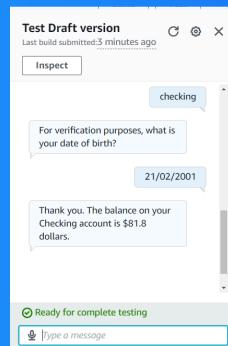
The status bar at the bottom right of the code editor shows "8:16 Python Spaces:4".

Chatbot Alias

An alias is a pointer to a specific version of an AWS Lambda function, allowing you to manage traffic distribution and deployments without affecting the underlying code.

TestBotAlias is a special alias automatically created in Amazon Lex V2 that points to the Draft version of your bot. It's intended for testing purposes only and has limitations on the number of runtime requests.

To connect Lambda with my BankerBot, I visited my bot's TestBotAlias and navigated to the "Code Hook" section. Here, I specified my Lambda function's ARN, granting it necessary permissions to interact with the bot and access relevant data.

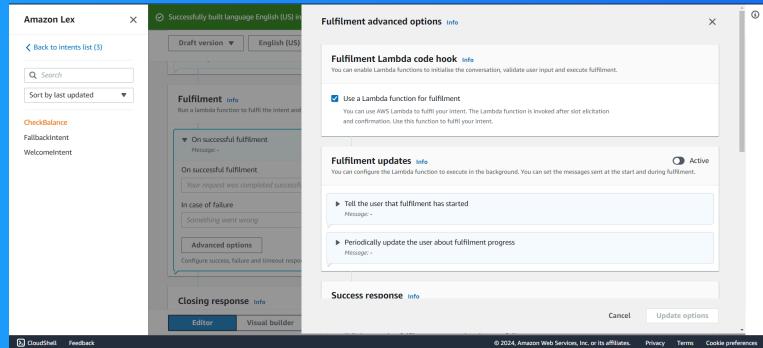


Code Hooks

A code hook is a point in a chatbot's conversation flow where you can integrate custom logic using a Lambda function. This allows you to perform complex tasks, validate user input, or customize the bot's response based on specific conditions.

Even though I already connected my Lambda function with my chatbot's alias, I had to use code hooks because they allow precise control over when Lambda is invoked, ensuring optimal performance and accurate responses based on specific user intents

I could find code hooks at the intent level within the chatbot's configuration. Specifically, within each intent's settings, there's an option to add a Lambda function as a code hook, allowing me to execute custom logic when that intent is triggered.



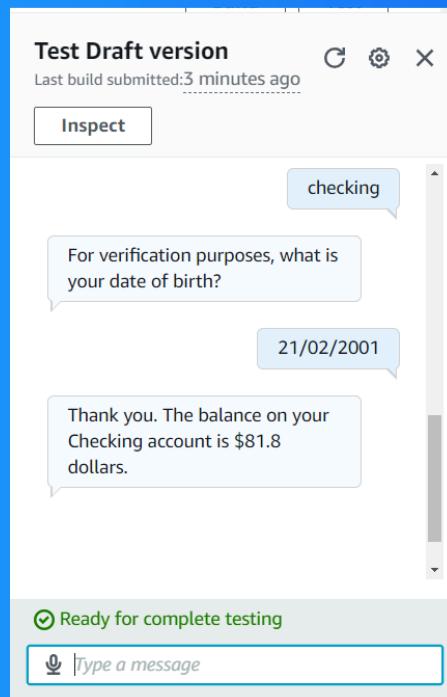
TA

tahirgroot@gmail.com
NextWork Student

NextWork.org

The final result!

I've set up my chatbot to trigger Lambda and return a random dollar figure when the user explicitly asks for their bank balance. The Lambda function generates a random number as a currency string before returning it to the chatbot.





NextWork.org

Everyone should be in a job they love.

Check out nextwork.org for
more projects

