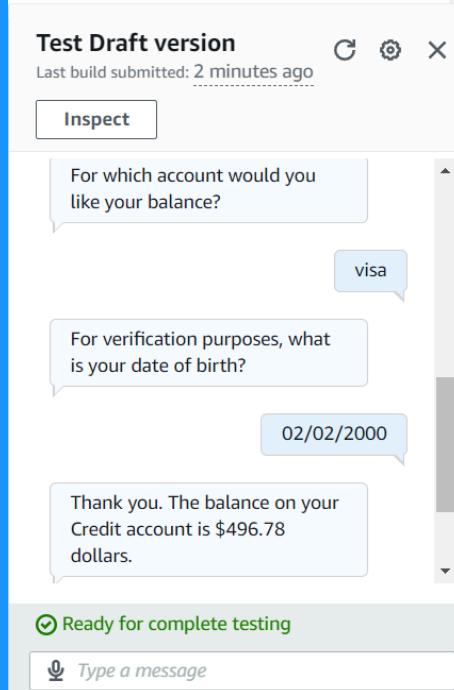




# Connect a Chatbot with Lambda



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# Introducing Today's Project!

## What is Amazon Lex?

Amazon Lex is a service provided by AWS that enables developers to build conversational interfaces using voice and text. It is developer friendly and provides ease in automating customer interactions without the need for large support teams.

## How I used Amazon Lex in this project

In today's project I used Amazon Lex to return a bank balance figure when a user asks for it by configuring a Lambda function and pointing it to the bot using aliases and code hooks to tell Lex which intent will use the Lambda function.

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

I was surprised at how easy it was to configure a Lambda function and connect it to my bot.

## This project took me...

I completed this project in approximately 30-35 minutes.



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# AWS Lambda Functions

AWS Lambda is a service that lets you run code in the cloud without needing to manage any servers. Lambda runs the code when needed and scales automatically.

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

The screenshot shows the AWS Lambda function editor interface. The left sidebar lists the project structure: 'EXPLORER' (BankingBotEnglish), 'TEST EVENTS [NONE SELECTED]', and 'ENVIRONMENT VARIABLES'. The main area displays the 'lambda\_function.py' file content:

```
#!/usr/bin/python
# coding: utf-8

# Standard library imports
import json
import random
import decimal
from random import uniform
from decimal import Decimal as d

# Third party imports
# None

# Local application imports
# None

# Global variables
# None

# Function definitions
def lambda_handler(event, context):
    # Your code here
    pass

# Test function
def test_lambda():
    # Your test code here
    pass
```

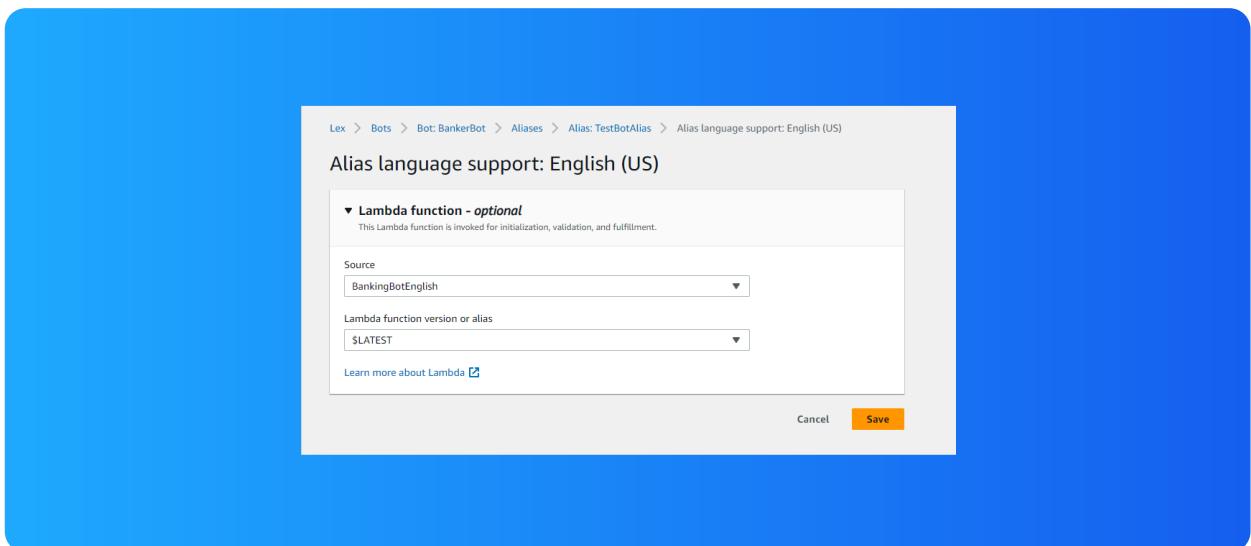
A status bar at the bottom indicates: Ln 68 Col 38 Spaces: 4 UTF-8 LF Python Lambda Layout: US.

# Chatbot Alias

An alias is a pointer for a specific version of the bot. So when connecting Lex with other AWS services or your custom applications, those external resources will connect to an alias, which will point to the specific version of the bot.

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

To connect Lambda with my BankerBot, I visited my bot's TestBotAlias and selected English (US) from the languages panel, which then led to a Lambda function panel, wherein I chose BankingBotEnglish as the Source for my Lambda function.

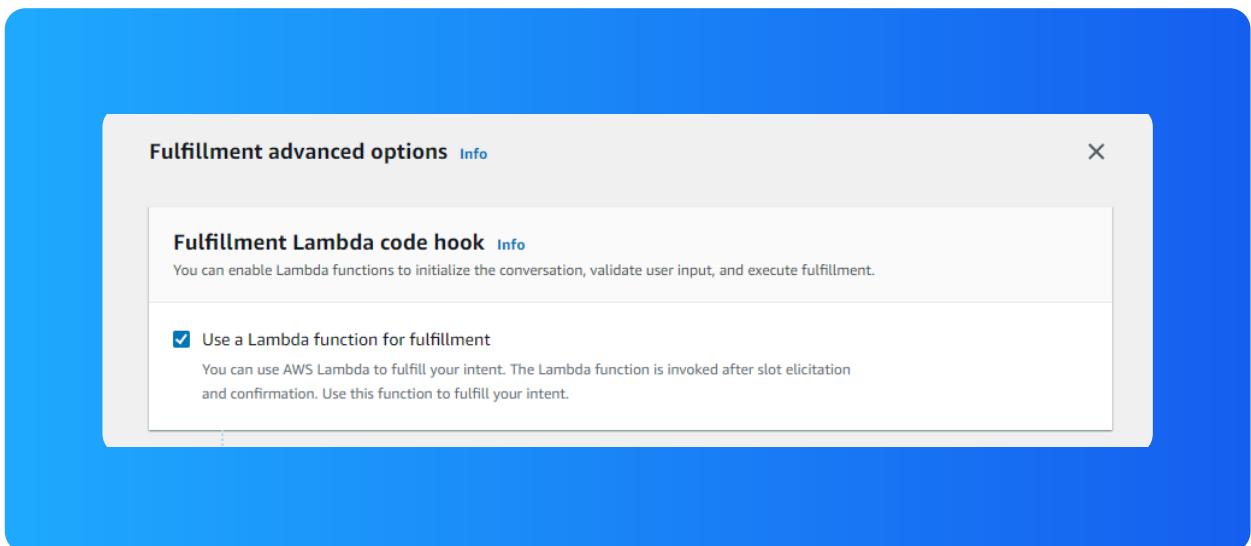


# Code Hooks

A code hook is used to connect the chatbot to custom Lambda functions for doing specific tasks during a conversation. These specific tasks are complex in nature like: like checking data from a database or making decisions based on past conversations.

Even though I already connected my Lambda function with my chatbot's alias, I had to use code hooks because, Lex doesn't know which intent inside BankerBot will actually use the Lambda function.

I could find code hooks under the Fulfilment Lambda code hook panel in the advanced options of the Fulfilment panel.



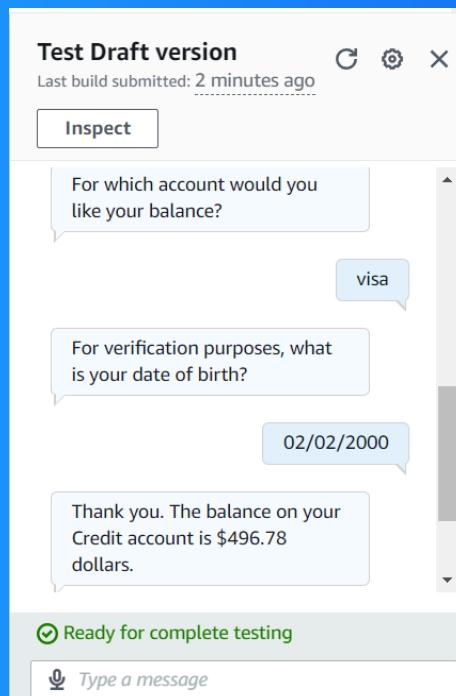
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# The final result!

I've set up my chatbot to trigger Lambda and return a random dollar figure when ask it : "check my balance" and it will as me my DOB for verification purposes and only then will return a bank balance figure.





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