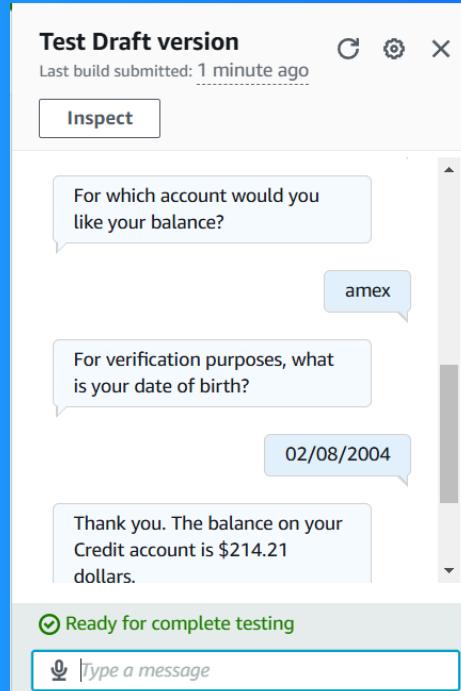




Connect a Chatbot with Lambda



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Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is a service for building conversational interfaces using voice and text. It is useful because it enables the creation of intelligent chatbots that can understand and respond to user input, helping automate customer interactions and stream

How I used Amazon Lex in this project

I used Amazon Lex to build a chatbot that interacts with users, processes their inputs, and retrieves information like account balances by triggering a Lambda function for dynamic responses.

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

One thing I didn't expect in this project was the complexity of configuring the code hooks and integrating the Lambda function smoothly with Amazon Lex for dynamic responses.

This project took me...

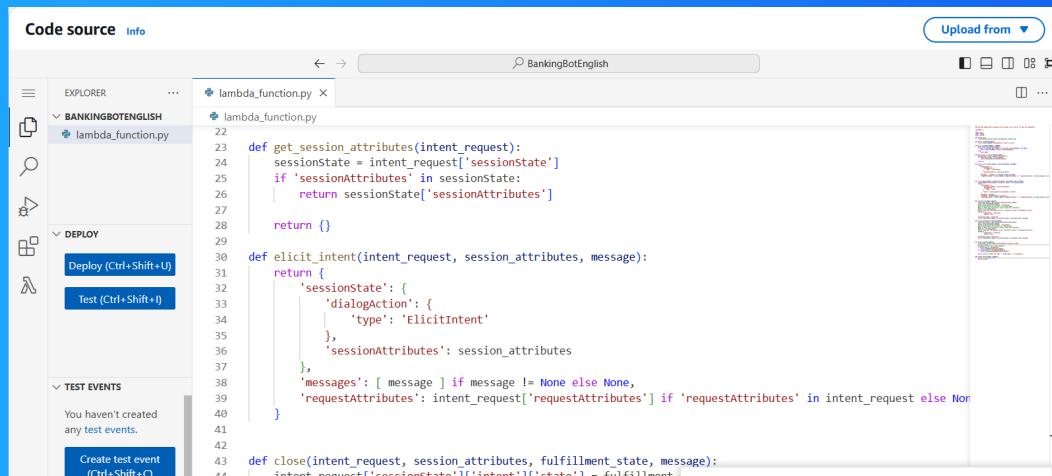
This project took me about 20-30 minutes to complete, including setting up Amazon Lex, creating Lambda functions, and testing the integration.



AWS Lambda Functions

AWS Lambda is a serverless compute service that lets you run code in response to events without provisioning or managing servers.

In this project, I created a Lambda function to process user inputs from Amazon Lex, perform necessary actions like querying data, and return dynamic responses to fulfill the chatbot's intents.



The screenshot shows the AWS Lambda function editor interface. The left sidebar has sections for EXPLORER, DEPLOY (with Deploy and Test buttons), and TEST EVENTS (with a note: "You haven't created any test events"). The right pane is titled "Code source" and shows the file "lambda_function.py". The code is as follows:

```
def get_session_attributes(intent_request):
    sessionState = intent_request['sessionState']
    if 'sessionAttributes' in sessionState:
        return sessionState['sessionAttributes']

    return {}

def elicit_intent(intent_request, session_attributes, message):
    return {
        'sessionState': {
            'dialogAction': {
                'type': 'ElicitIntent'
            },
            'sessionAttributes': session_attributes
        },
        'messages': [ message ] if message != None else None,
        'requestAttributes': intent_request['requestAttributes'] if 'requestAttributes' in intent_request else None
    }

def close(intent_request, session_attributes, fulfillment_state, message):
    intent_request['sessionState']['intent']['state'] = fulfillment_state
```



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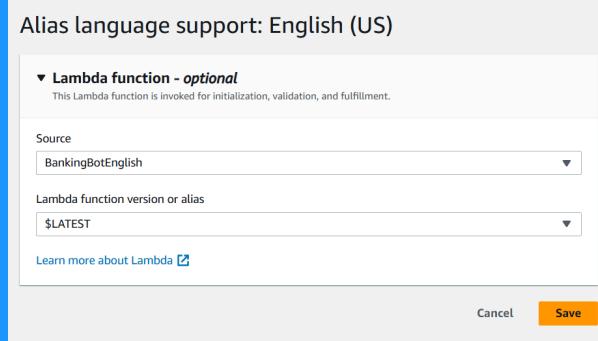
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Chatbot Alias

An alias is a pointer to a specific version of a Lambda function, making version management easier.

TestBotAlias is a versioned alias for the Amazon Lex bot, allowing you to manage and test different versions of the bot during development without affecting the production environment.

To connect Lambda with my BankerBot, I visited TestBotAlias and linked it to my Lambda function in the settings.





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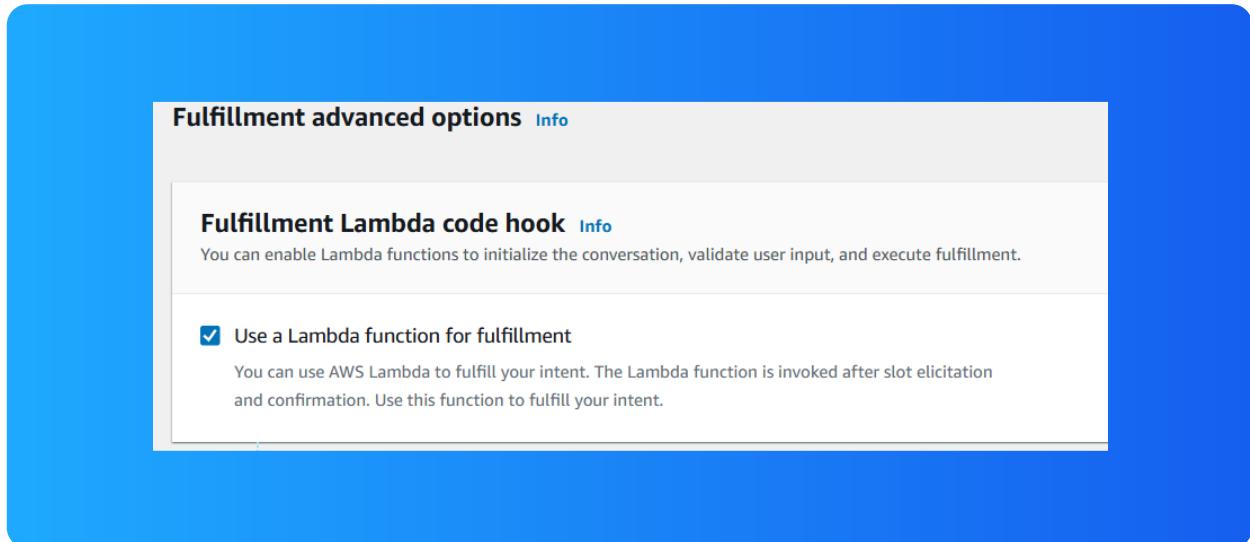
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Code Hooks

A code hook is a mechanism in Amazon Lex that allows you to trigger a Lambda function for fulfillment, validation, or to process user input dynamically during a conversation.

Even though I already connected my Lambda function with my chatbot's alias, I had to use code hooks because they allow me to process the user input, validate data, and dynamically generate responses based on the interaction.

I could find code hooks at the **Fulfillment** section of my chatbot's intent settings, where I associated the Lambda function to handle the intent's fulfillment.



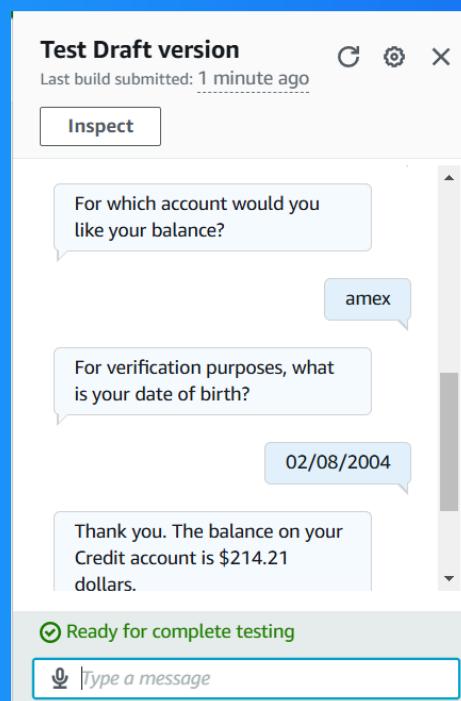


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The final result!

I've set up my chatbot to trigger Lambda and return a random dollar figure when the user asks to check their account balance.





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