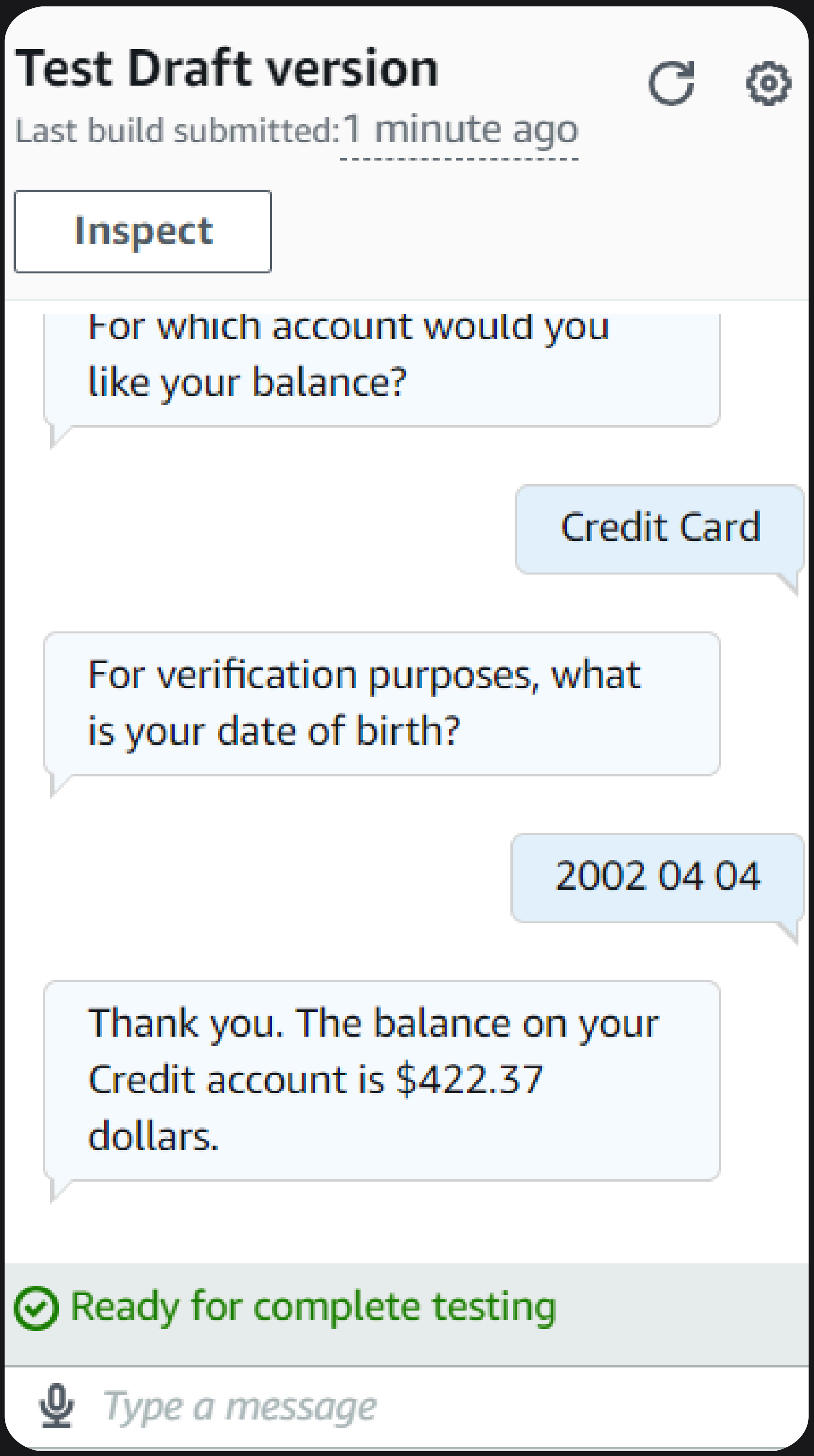
NEXTWORK

How I connected my chatbot with AWS Lambda!



For which account would you like your balance?

Credit Card

For verification purposes, what is your date of birth?

2002 04 04

Thank you. The balance on your Credit account is $422.37 dollars.

Sadeesha Perera
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What is Amazon Lex?

What it does:

- Amazon Lex is a service for building conversational interfaces using voice and text, powered by the same deep learning technologies as Amazon Alexa.

Why it's useful:

- Amazon Lex makes it easy to create chatbots and voice assistants that understand natural language, improving customer interactions and automating tasks.

How I'm using it in today's project:

- In this project, I'm using Amazon Lex to create BankerBot, a chatbot that helps users check their account balances and verify their identity using their birthday.

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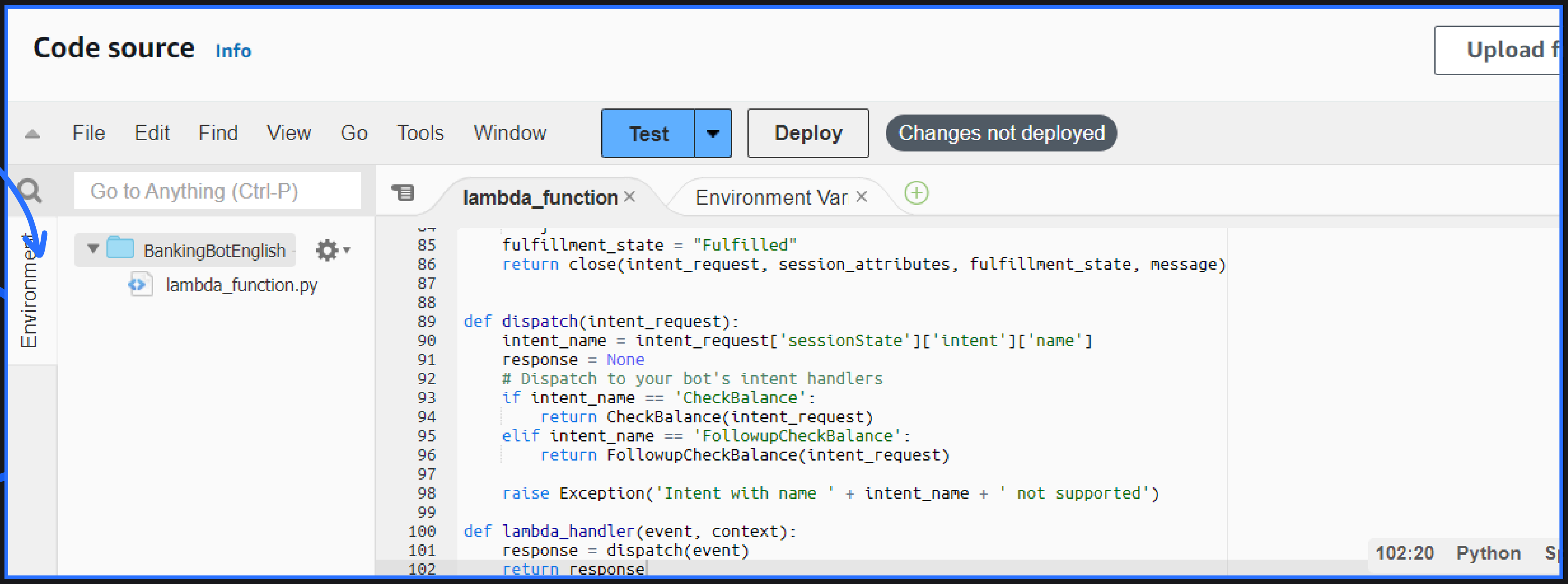
Using AWS Lamba

- AWS Lambda is an AWS service that lets you run code without managing servers. It scales automatically and is ideal for handling backend tasks and responding to events in real time, making it cost-effective and scalable for various applications.

- In this project, a Lambda function was created (BankingBotEnglish NextWork.py) to simulate account balance queries. This integration allows the chatbot to fetch dynamic data, like account balances, which it can 't do natively, enhancing its functionality

A peek into the Python code I uploaded into AWS Lambda!



```python
    fulfillment_state = "Fulfilled"
    return close(intent_request, session_attributes, fulfillment_state, message)


def dispatch(intent_request):
    intent_name = intent_request['sessionState']['intent']['name']
    response = None
    # Dispatch to your bot's intent handlers
    if intent_name == 'CheckBalance':
        return CheckBalance(intent_request)
    elif intent_name == 'FollowupCheckBalance':
        return FollowupCheckBalance(intent_request)

    raise Exception('Intent with name ' + intent_name + ' not supported')

def lambda_handler(event, context):
    response = dispatch(event)
    return response
```

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Connecting Lambda with Lex

There were two steps to connecting the Lambda function with my chatbot:

Step 1

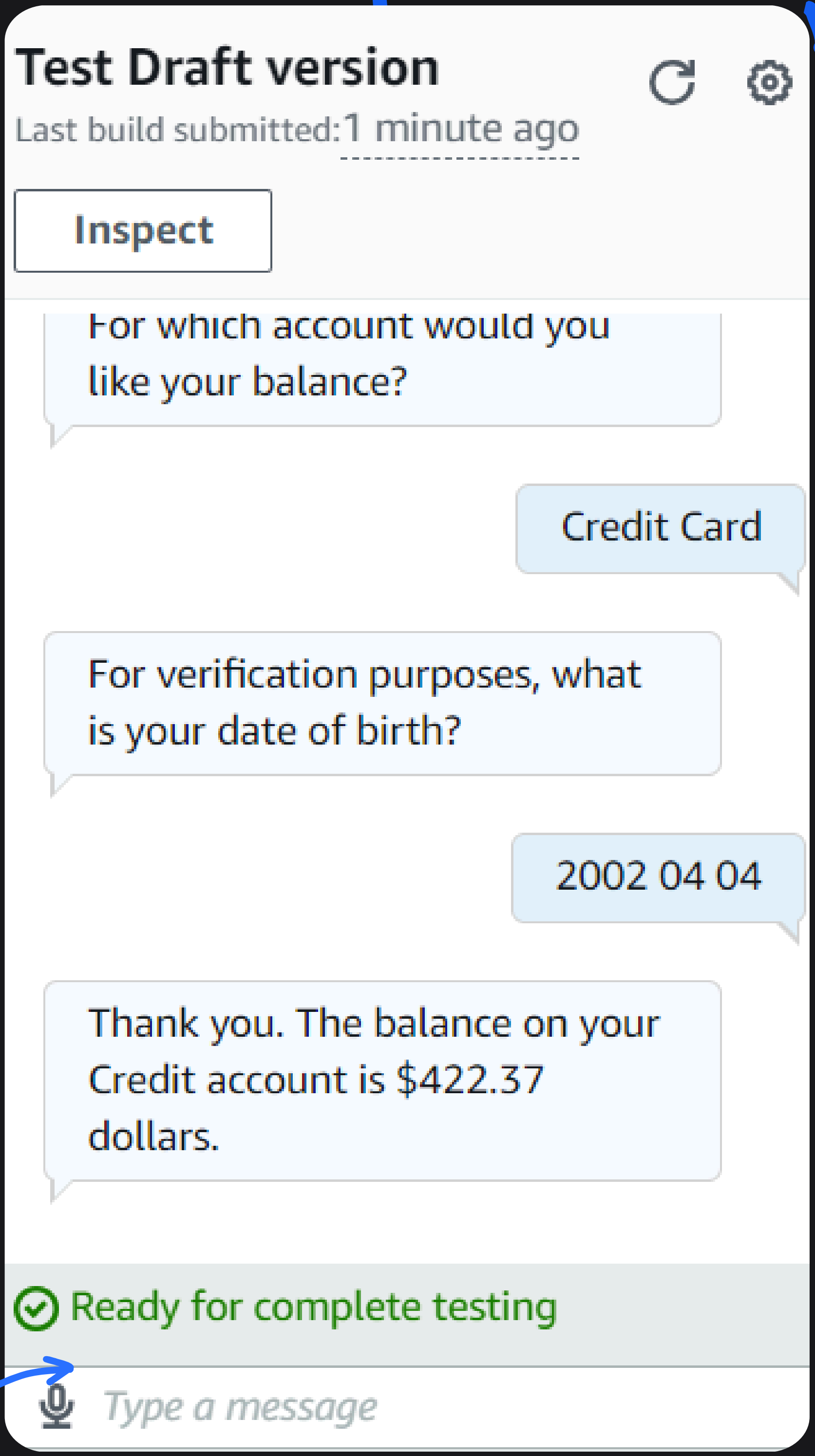
- To connect Lambda with my chatbot alias, I selected the Lambda function in Lex and associated it with the bot's alias for seamless integration.

Step 2

- A code hook is a configuration in Lex that links intents to Lambda functions, enabling the bot to perform complex actions beyond basic responses.
- In this project, I had to use code hooks because the CheckBalance intent required dynamic retrieval of account balances from Lambda. This interaction couldn 't be handled solely within Lex.

After connecting Lambda with my Lex bot, users could ask for their account balances, and the chatbot would retrieve and display this information dynamically using Lambda.

WOW



Test Draft version

Last build submitted: 1 minute ago

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Ready for complete testing

My chatbot now returns a bank balance number thanks to Lambda!

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My Key Learnings

01

AWS Lambda is a serverless computing service provided by AWS, allowing developers to run code without provisioning or managing servers. It automatically scales based on demand and executes code in response to events, making it ideal for building scalable and cost-effective applications.

02

When you need your Amazon Lex chatbot to perform actions beyond basic responses, like retrieving real-time data or integrating with external systems.

03

I connect them by configuring Lex intents to trigger Lambda functions for advanced processing and data retrieval.

04

Always test Lambda integrations thoroughly to ensure seamless interaction between Amazon Lex and external services for chatbot functionality.

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Final thoughts...

- This project took me about 30 minutesto complete. Writing documentation took me an additional 40 minutes.
- Delete EVERYTHING at the end! Let’s keep this project free :)
- One thing I didn’t expect was how straightforward it was to integrate AWS Lambda with Amazon Lex, making the chatbot dynamic and responsive in real time.
- In the next phase of this project, we're enhancing BankerBot' s memory with context carryover! My BankerBot will remember key details like the user's birthday during a session for a smoother experience

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