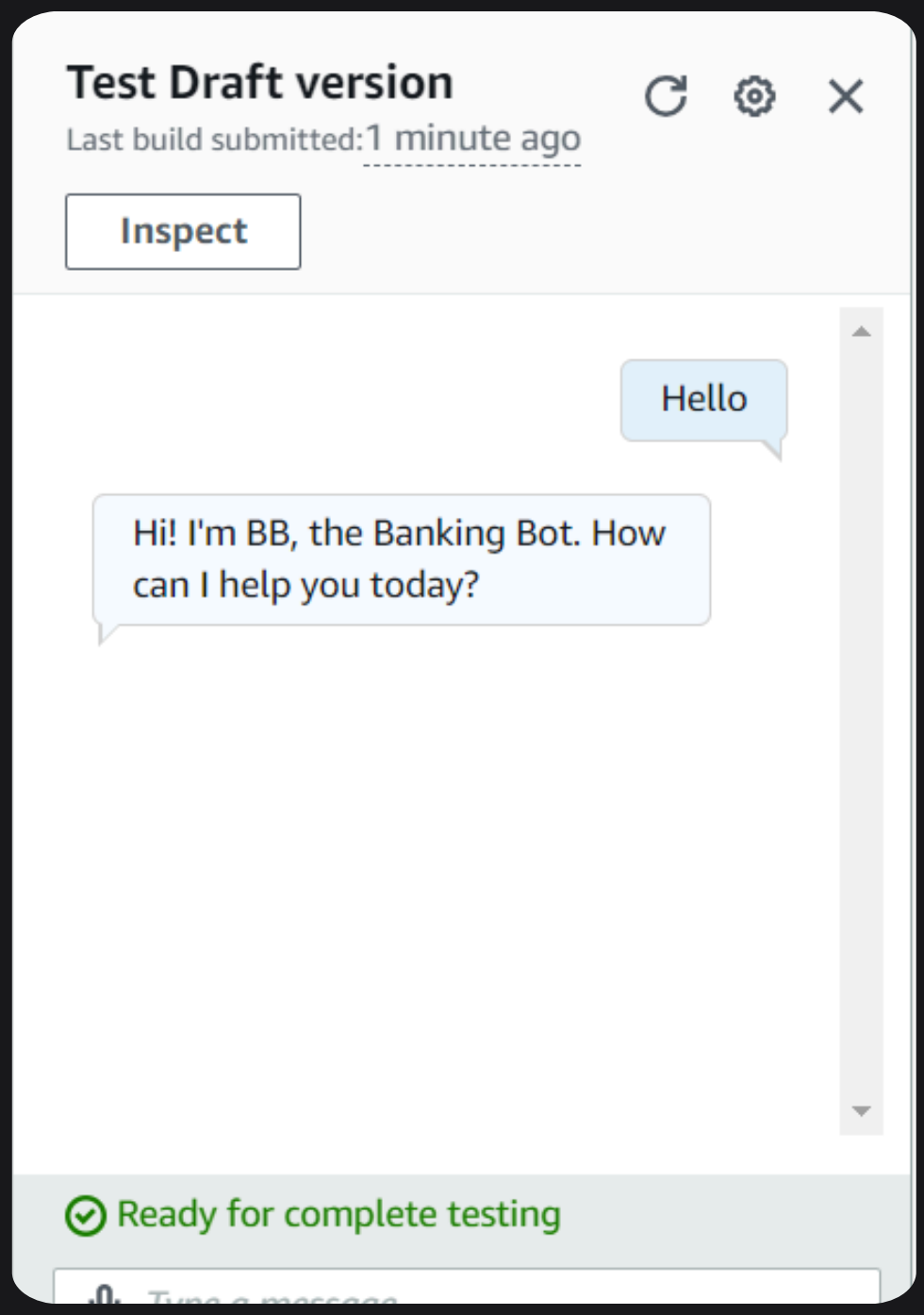
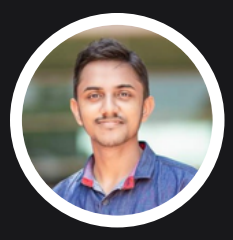
NEXTWORK

How I built a chatbot with Amazon Lex





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What is Amazon Lex?

What it does:

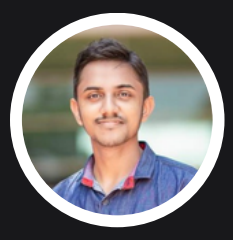
- Amazon Lex builds conversational interfaces using voice and text, enabling chatbots and virtual assistants to understand and respond to natural language.

Why it's useful:

- It simplifies creating intelligent chatbots and virtual assistants, enhancing user interactions with natural language processing and seamless integration with other AWS services.

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

- In this project, I' m using Amazon Lex to create BankerBot, a chatbot that assists users with common banking queries and transactions .



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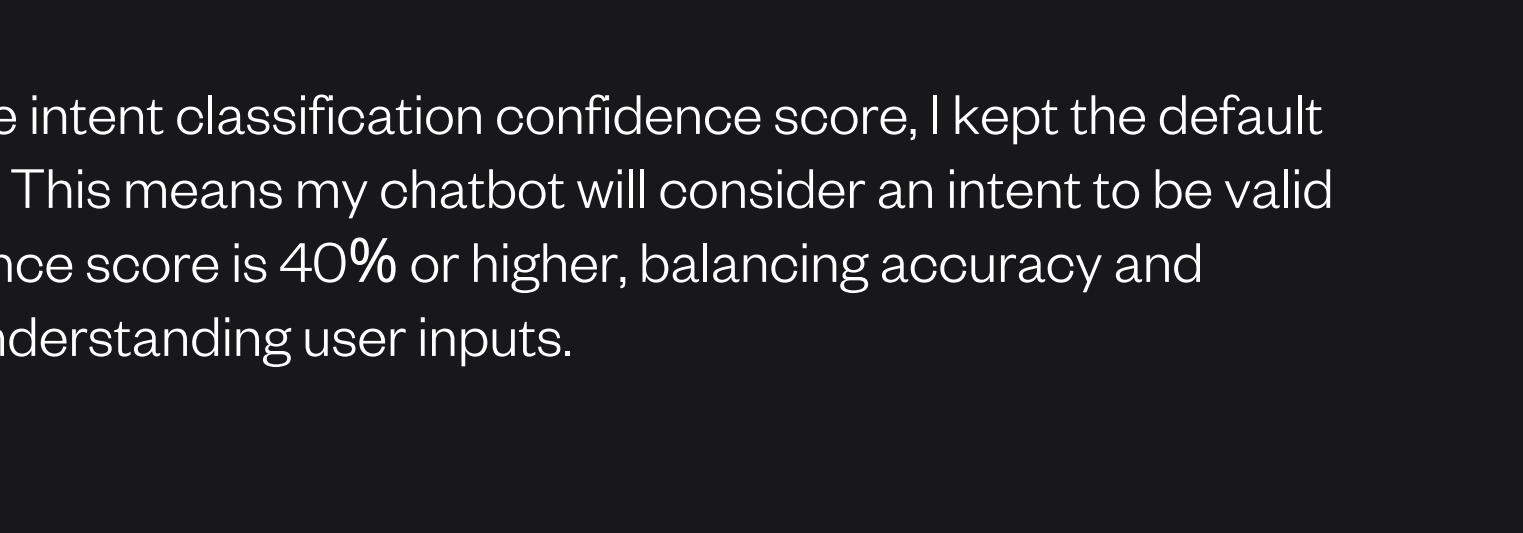
Set up a Lex chatbot

- I created BankerBot from scratch and used most default settings on Lex.
- In terms of the intent classification confidence score, I kept the default value of 0.40. This means my chatbot will consider an intent to be valid if the confidence score is 40% or higher, balancing accuracy and flexibility in understanding user inputs.

Setting up my Lex chatbot...



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Create an intent in Lex

- Intents are predefined purposes or goals that users express through their inputs, which the chatbot recognizes and responds to accordingly.

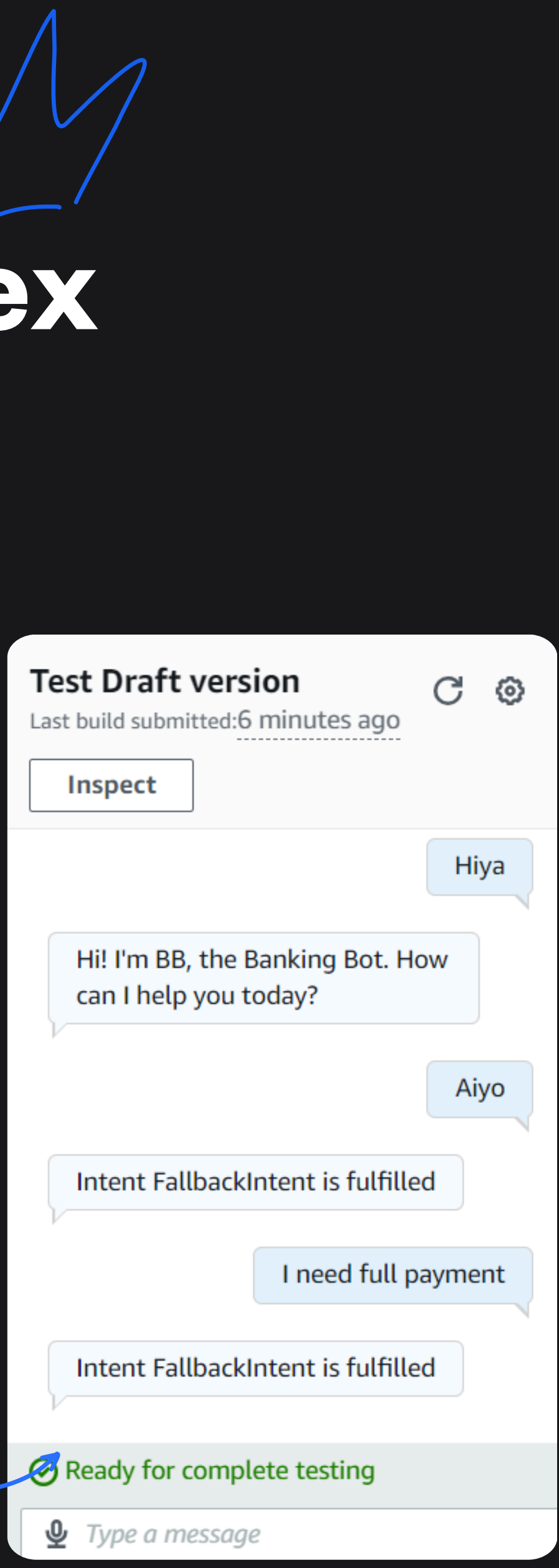
- My first intent, WelcomeIntent, was created to reply with a greeting if a query is asked

- To set up this intent, I set a name and details added sample utterances (ex: hi, hello...) then put a closing response ("Hi! I'm BB, the Banking Bot. How can I help you today?")

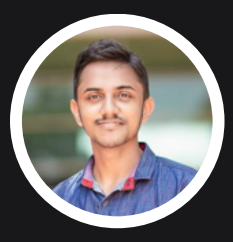
- I launched and tested the chatbot, which could still respond if I entered the utterance that I created and the words nearest to the utterance.

- However, the chatbot returned the error message "Intent FallbackIntent is fulfilled" when I entered completely different query

- This error message occurred because the FallbackIntent was default to unrecognized utterance.



My first test of the chatbot



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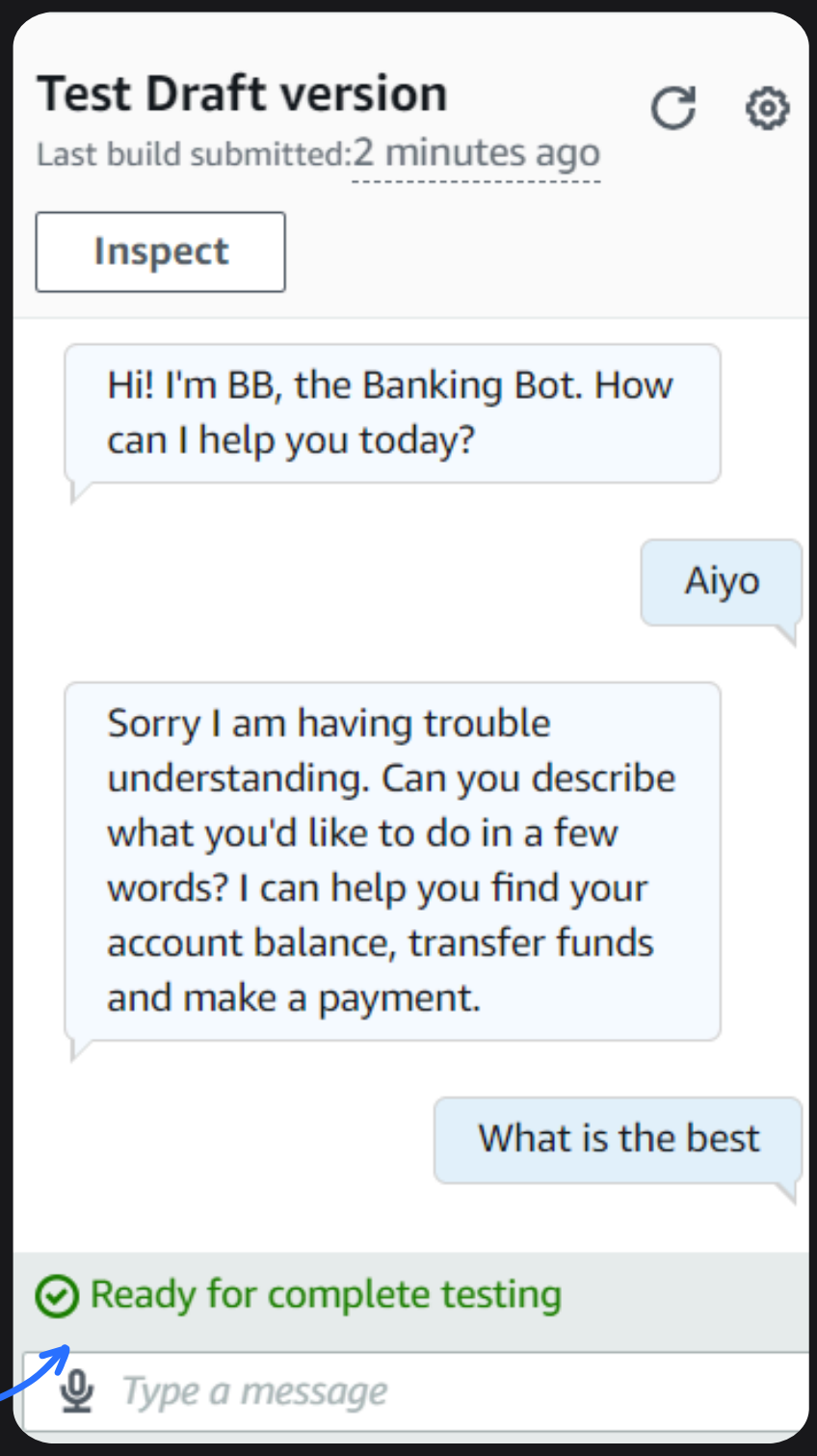
Manage FallbackIntent

- FallbackIntent is a default intent in every chatbot that gets triggered when an unrecognized utterance is found
- I wanted to configure FallbackIntent because the default response was not relevant.
- To configure FallbackIntent, I had to add a closing message to the FallbackIntent
- I also added variations for the responses.



Perfect! The error message is now much clearer, and there are variations too

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My Key Learnings

01 Amazon Lex is a service for building chatbots and virtual assistants that understand and respond to natural language through voice and text, making user interactions more intuitive

02 Intents are predefined purposes or goals that users express through their inputs, which the chatbot recognizes and responds to accordingly.

03 AI/ML in Amazon Lex processes natural language, classifies user intents, and generates accurate responses

04 FallbackIntent is used for the default response if the utterance is unrecognised

05 I learnt two new concepts Intents and uttrerances

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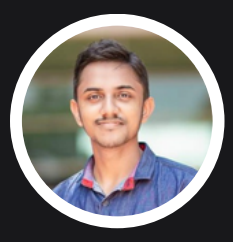
Final thoughts...

- This project took me 20 minutes to develop and 10 minutes for documentations.

- Deleted EVERYTHING at the end! to keep this project free :)

- One thing I didn ’t expect was how effectively Amazon Lex could understand and handle varied user inputs with high accuracy.

- **What’s next?** In the next phase of this project, I'll be adding a new flow that lets users check their account balances and verify their identity with their birthday. I'll be creating a custom slot type to handle the different bank account types. Excited to bring this feature to life and make our BankerBot smarter and more interactive! 🚀👀



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