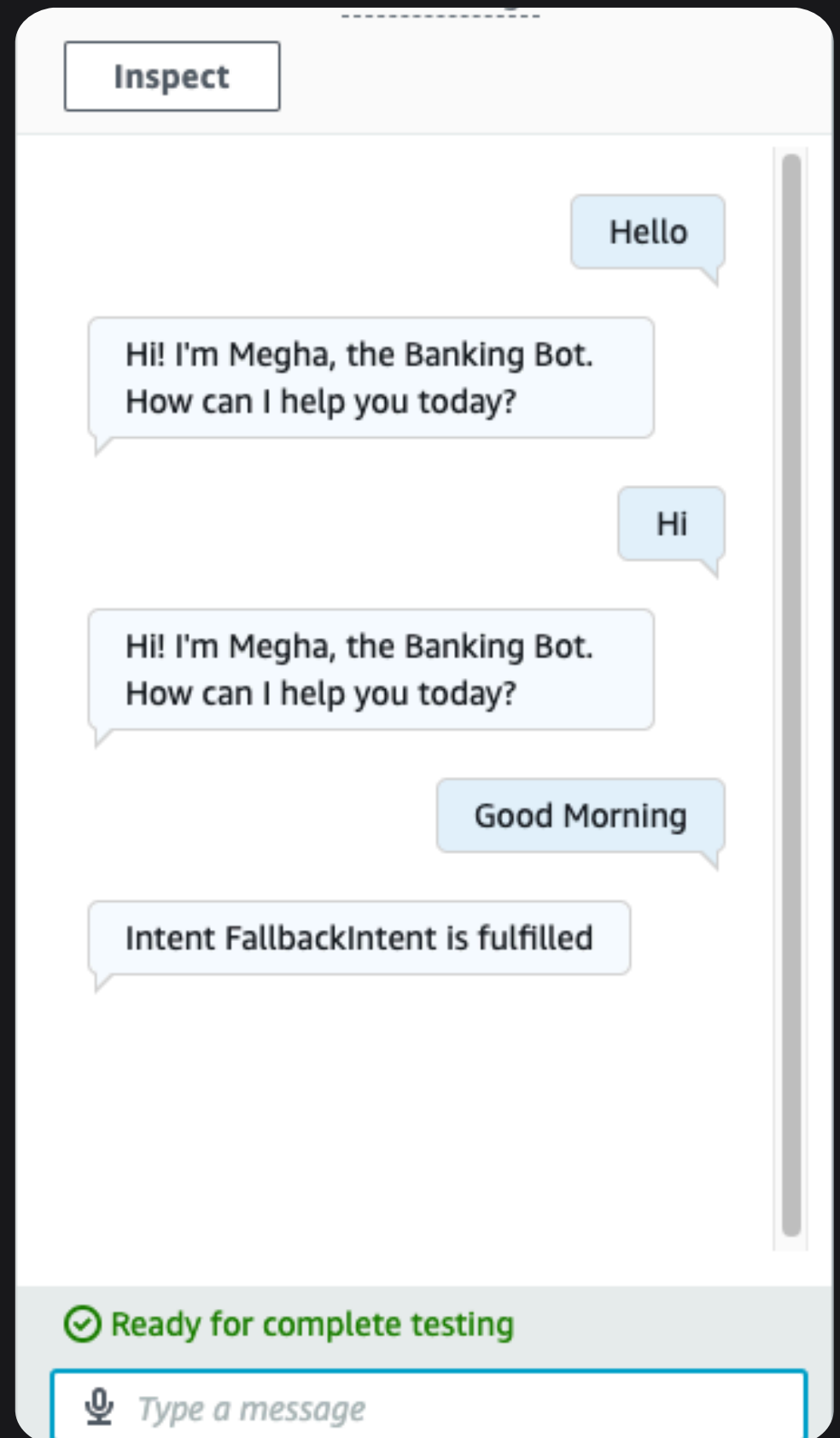


# How I built a chatbot with Amazon Lex



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# What is Amazon Lex?

## What it does:

- Helps you build Voice and Text Chatbots in minutes.

## Why it's useful:

- It uses AI/ML capabilities to classify user intents and understand intents that are beyond what I've programmed.

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

- In this project, I'm using Amazon Lex to create BankerBot, a chatbot that can greet the user and also return error messages if it doesn't quite understand the user's intent.



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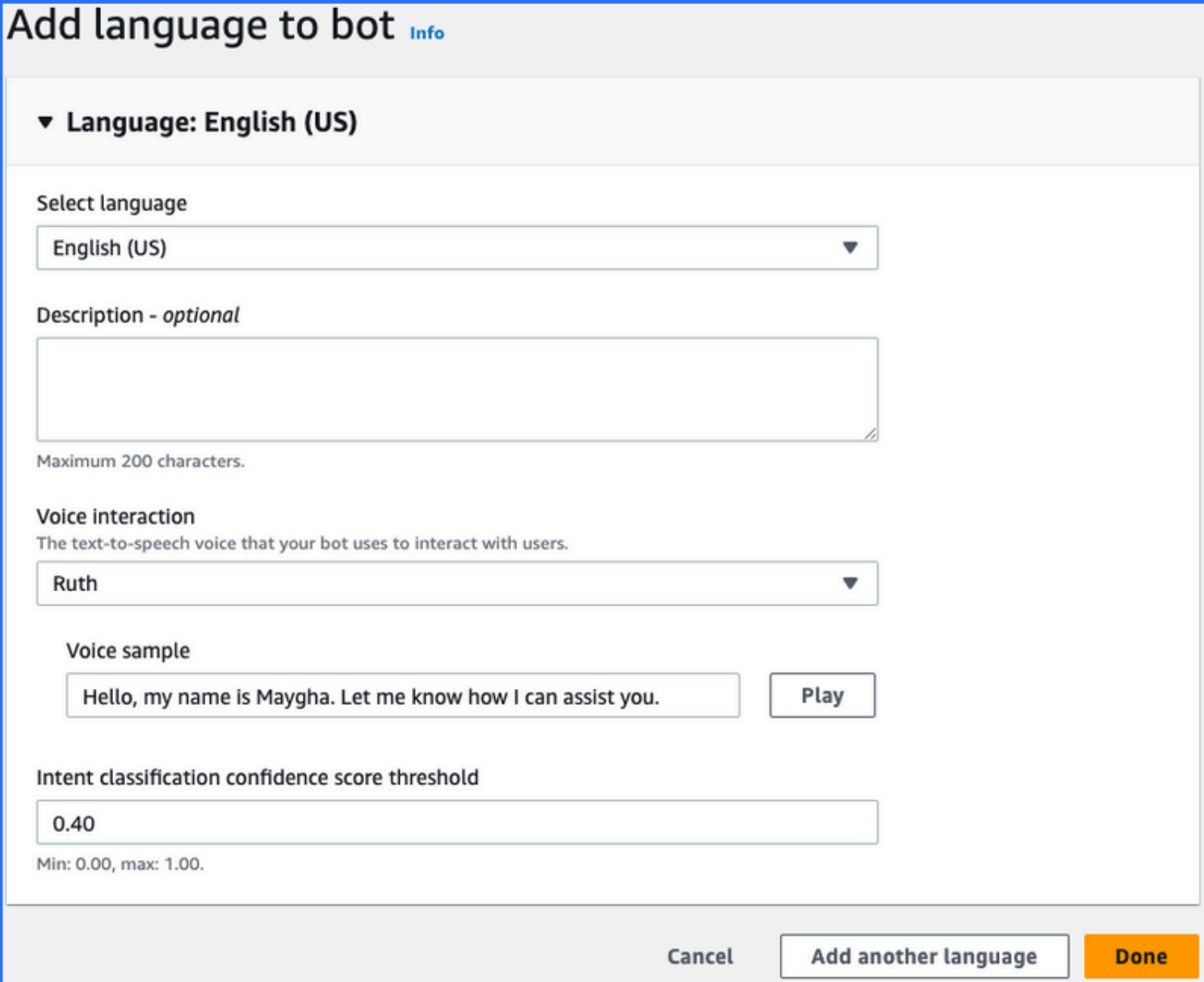


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# Set up a Lex chatbot

- 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. What this means for my chatbot is it should be at least 40% confident about the intent/ goal of the chatbot user to respond. In more technical terms, there should be at least a 40% match between the user's input and an intent I program for my Banker Bot to respond accordingly.

Setting up my Lex  
chatbot...



**Add language to bot** [Info](#)

▼ **Language: English (US)**

Select language

English (US) ▼

Description - *optional*

Maximum 200 characters.

Voice interaction

The text-to-speech voice that your bot uses to interact with users.

Ruth ▼

Voice sample

Hello, my name is Maygha. Let me know how I can assist you. Play

Intent classification confidence score threshold

0.40

Min: 0.00, max: 1.00.

Cancel Add another language Done



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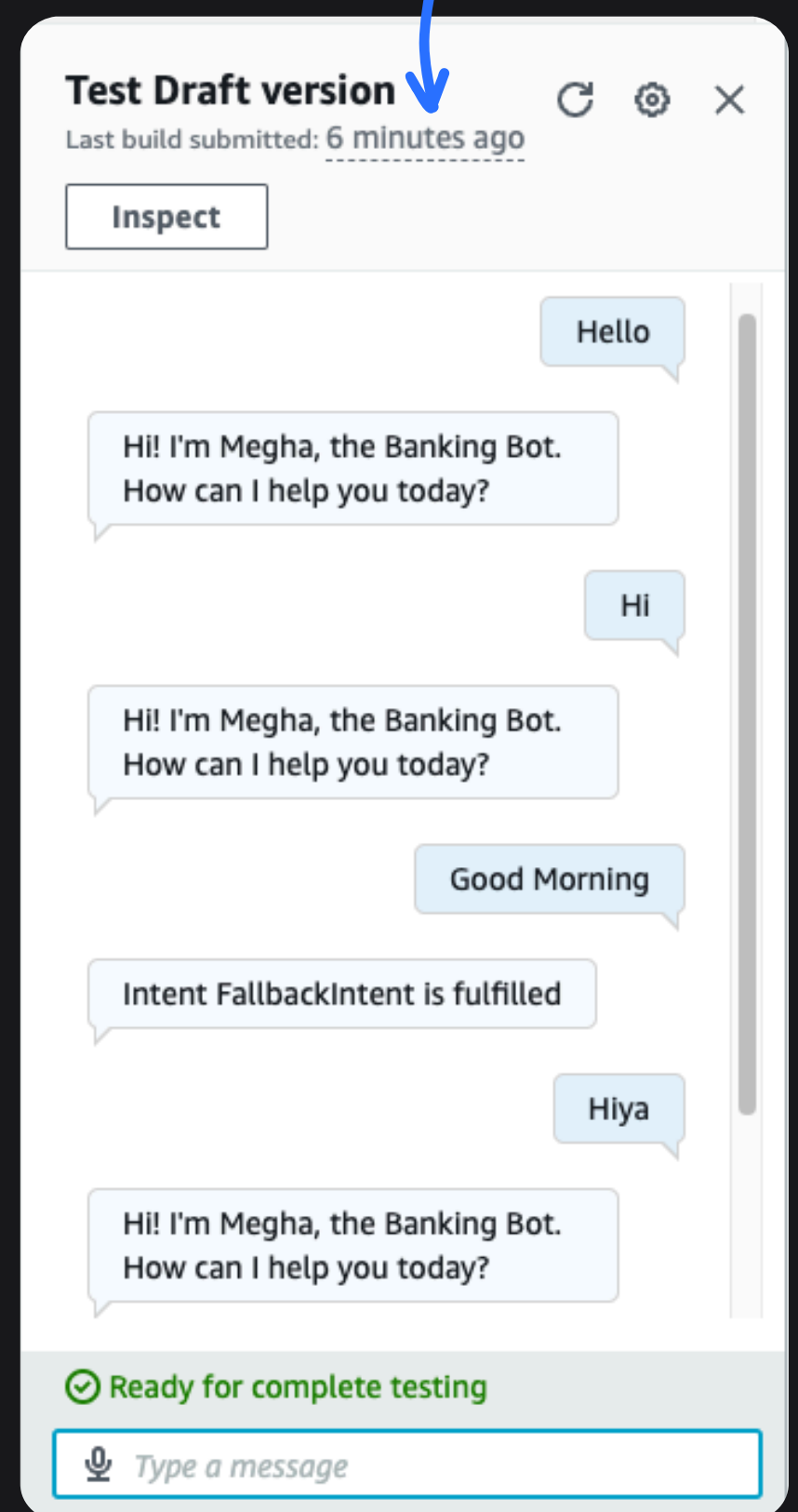


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# Create an intent in Lex

- Intents represent users' goals/purposes for using the chatbot. In Amazon Lex, a chatbot is defined by the intents that it supports.
- My first intent, WelcomeIntent, was created to greet the user when they say Hello.
- To set up this intent, I created sample utterances (eg. "Hi", "Hello", "I need help") and a closing response i.e. how the chatbot will respond.
- I launched and tested the chatbot, which could still respond if I entered similar utterances "Hiya"
- However, the chatbot returned the error message "Intent FallbackIntent is fulfilled" when I entered "Good Morning"
- This error message occurred because my chatbot could not understand the intent of the phrase "Good morning".

My first test of the  
chatbot



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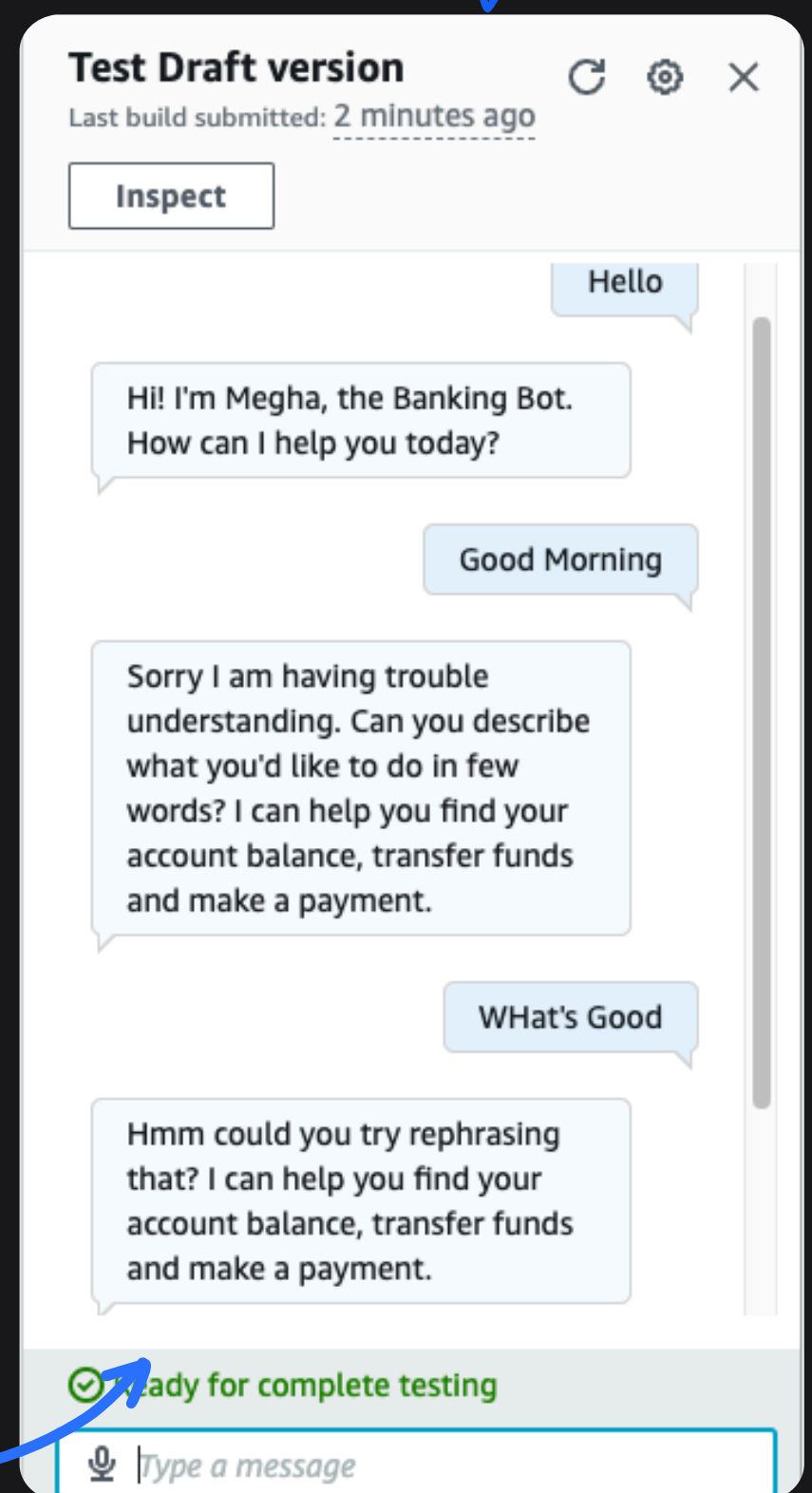


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# Manage FallbackIntent

- FallbackIntent is a default intent in every chatbot that gets triggered when the chatbot does not recognize the user's goal/purpose.
- I wanted to configure FallbackIntent because the default closing response to the user is not easily understood
- To configure FallbackIntent, I had to create my own closing response on the intent's setup page. "Sorry, I am having trouble understanding. Can you describe what you'd like to do in a few words? I can help you find your account balance, transfer funds, and make a payment."
- I also added variations! What this means for an end user is they get to see different forms of the my chatbot's closing response.

**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 platform by Amazon for developing chatbots and voice-enabled applications.

**02**

Intents represent the goals and intentions that users seek to achieve when interacting with AI.

**03**

AI/ML is used in Amazon Lex to train artificial intelligence to engage in and sustain conversations with humans.

**04**

FallbackIntent is used as to backup plan for handling user inputs that the chatbot cannot confidently classify into any specific intent.

**05**

I have discovered that AWS offers various capabilities and serves as a robust tool for developing AI/ML models for everyday applications.



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# Final thoughts...

- This project took me about 50 minutes along with documentation.
- One thing I didn't expect was that building a chatbot could be so easy and this straightforward.
- **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 birthdays. 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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Thanks NextWork for the  
free project guide!

 **NEXTWORK**



ERROR! 👁👁 *OMG!*

# An error I ran into was...

Kudos to me! There 's no error while doing this project.



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