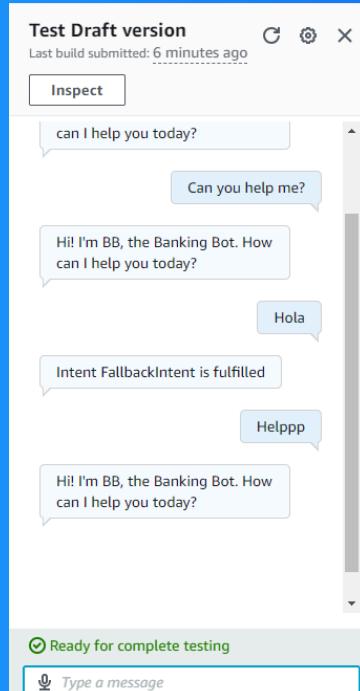




Build a Chatbot with Amazon Lex



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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 powers chatbots and virtual assistants with automatic speech recognition and natural language understanding, making it easier to automate customer interactions.

How I used Amazon Lex in this project

I used Amazon Lex in today's project by setting up a chatbot with basic responses for welcome and fallback intents that are triggered based on the user's input.

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

The only thing I didn't expect from this project is how easy it is to set up a chatbot with Amazon Lex due to its pre-built features that can meet your needs depending on how you use them

This project took me...

Completing this project took me about 40–50 minutes to set up and configure the options for the chatbot I created.



Setting up a Lex chatbot

I created my chatbot from scratch with Amazon Lex. Setting it up took me about 5–10 minutes. Setting up includes creating a chat bot, adding language to the bot, and selecting which voice interaction will be used as the voice of the chat bot.

While creating my chatbot, I also created a role with basic permissions because it calls other AWS services and will integrate Lex with another service called Lambda.

In terms of the intent classification confidence score, I kept the default value of 0.40. This means that the chatbot needs to be at least 40% confident that it understands the user's input to give a confident response.

The screenshot shows a modal dialog titled "Add language to bot" with the following fields:

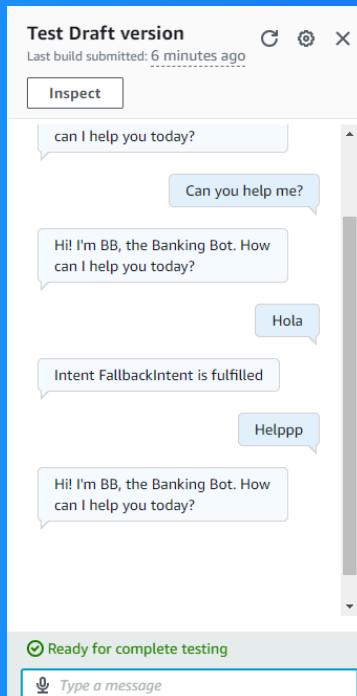
- Language:** English (US)
- Select language:** English (US)
- Description - optional:** (empty text area)
- Voice interaction:** The text-to-speech voice that your bot uses to interact with users. Set to "Matthew".
- Voice sample:** A text input field containing "Hello, my name is Matthew. Let me know how I can assist you." with a "Play" button next to it.
- Intent classification confidence score threshold:** A text input field set to "0.40".

At the bottom of the dialog are "Cancel", "Add another language", and "Done" buttons.

Intents

Intents are what the user wants to accomplish or achieve in their chatbot discussion.

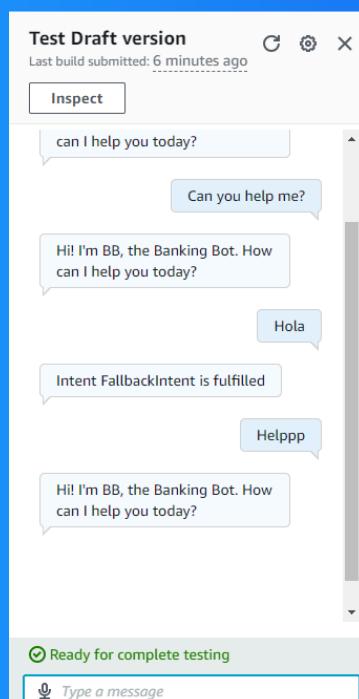
I created my first intent, WelcomeIntent, to welcome the user when they say hello or related words or phrases.



FallbackIntent

I launched and tested my chatbot, which could respond successfully if I entered the keywords or phrases that were expected to be entered by the user.

My chatbot returned the error message 'Intent FallbackIntent is fulfilled' when I entered a word that was not in the keywords that I input. This error message occurred because the chatbot could not recognize the response from the user.





Configuring FallbackIntent

FallbackIntent is a default intent in every chatbot that gets triggered when the chatbot fails to fetch at least 40% of the user's response.

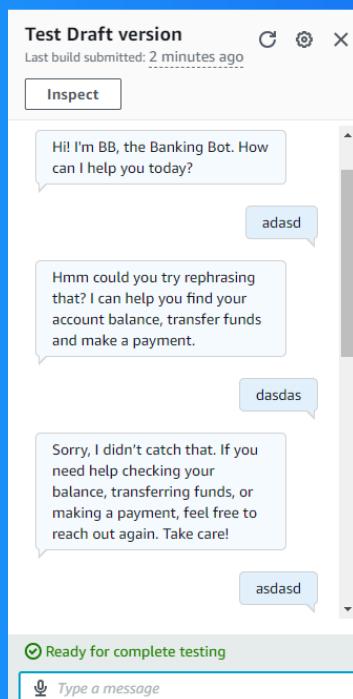
I wanted to configure FallbackIntent to give a clear or detailed response to the user if the chatbot fails to understand the response.



Variations

To configure FallbackIntent, I created multiple variations of the closing response that will trigger when it fails to understand the response from the user.

I also added variations! What this means for an end user is that they will receive different closing responses if their responses are not understood by the chatbot.





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