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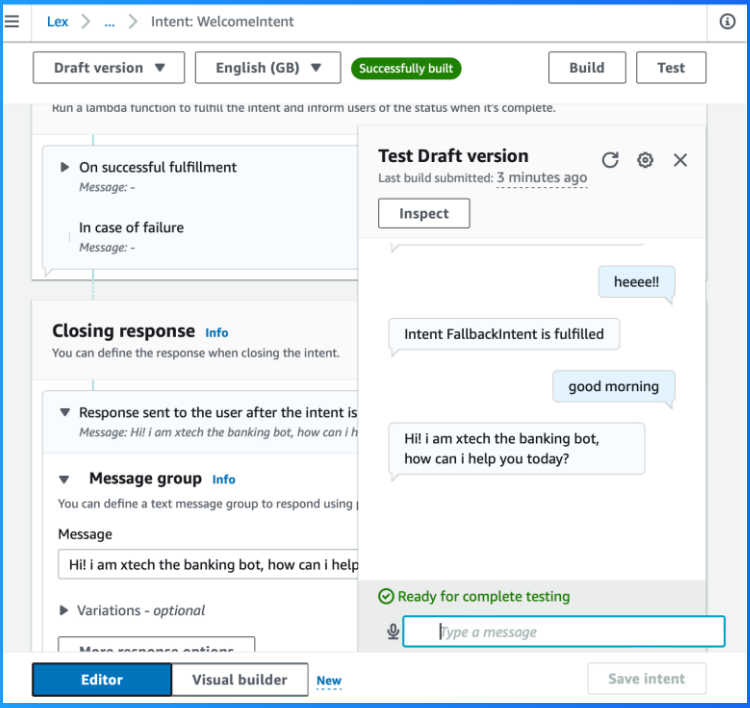
Build a Chatbot with Amazon Lex

V victor ibhafidon



Lex > ... > Intent: WelcomeIntent

Draft version ▼ | English (GB) ▼ | Successfully built | Build | Test

Run a lambda function to fulfill the intent and inform users of the status when it's complete.

▶ On successful fulfillment
Message: -

In case of failure
Message: -

Closing response Info
You can define the response when closing the intent.

▼ Response sent to the user after the intent is
Message: Hi! i am xtech the banking bot, how can i h

▼ **Message group** Info
You can define a text message group to respond using

Message
Hi! i am xtech the banking bot, how can i help

▶ Variations - *optional*

Test Draft version
Last build submitted: 3 minutes ago
Inspect

heeee!!

Intent FallbackIntent is fulfilled

good morning

Hi! i am xtech the banking bot, how can i help you today?

Ready for complete testing

Type a message

Editor | Visual builder | New | Save intent

Introducing Today's Project!

What is Amazon Lex?

Amazon Lex enables developers to build conversational interfaces, such as chatbots. It's useful because it simplifies the creation of natural language understanding (NLU) and automatic speech recognition (ASR) capabilities, allowing users to interact

How I used Amazon Lex in this project

I used Amazon Lex to create a chatbot with intents like WelcomeIntent and FallbackIntent. I configured the bot to handle user greetings and unclear inputs, tested it for accuracy, and integrated it with response messages to improve interaction.

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

I didn't expect was the complexity of fine-tuning the FallbackIntent. It required more attention to ensure it handled a wide range of unrecognized inputs effectively without causing user frustration. It shows importance of detailed config & testing

This project took me...

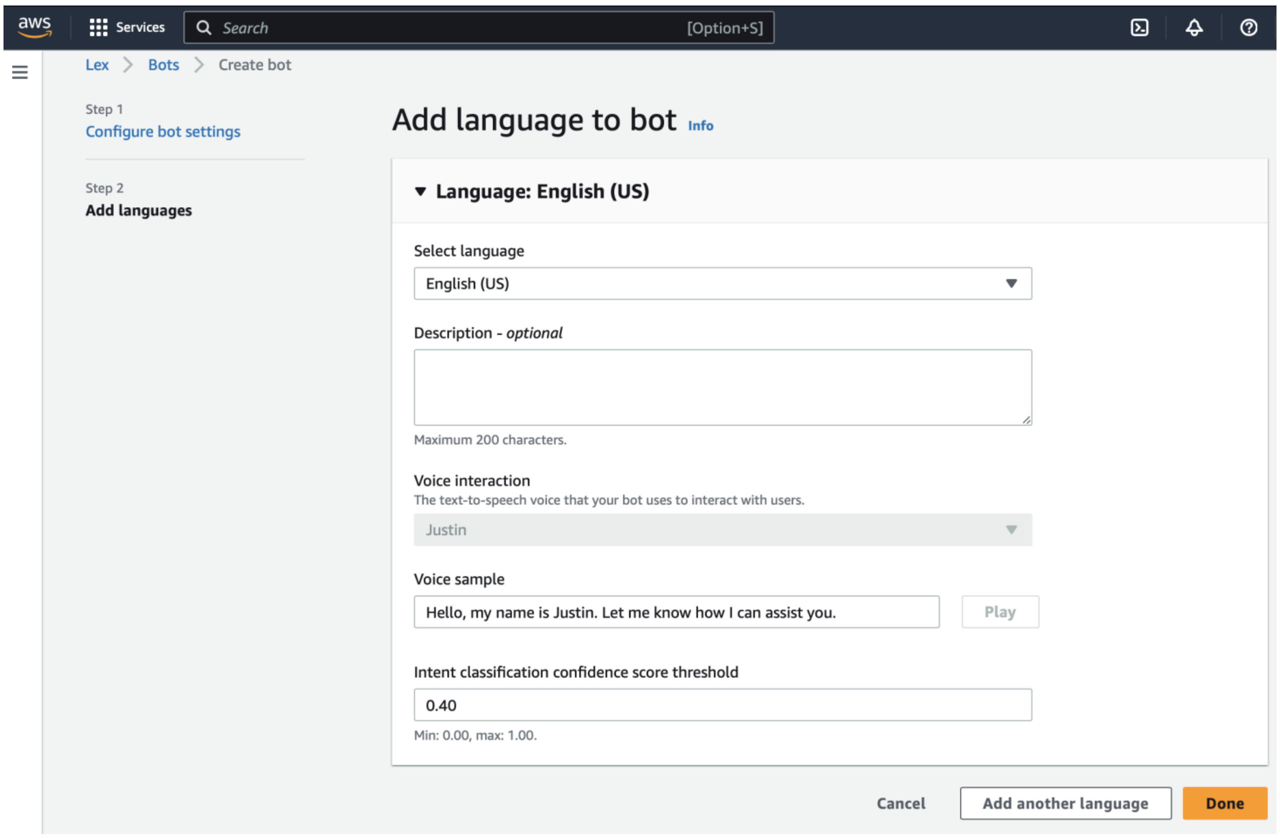
The project took me approximately 30 mins to complete. This included setting up the Amazon Lex bot, defining intents, testing responses, and refining configurations to ensure accurate and helpful interactions.

Setting up a Lex chatbot

I created my chatbot from scratch with Amazon Lex, setting it up took me about 5 mins

While creating my chatbot, I also created a role with basic permissions because because Amazon Lex needs permission to interact with other AWS services on my behalf. ensure that the chatbot has the minimum required access to perform essential opps

intent classification confidence score, I kept the default value of 0.40. so that amazon Lex will consider an intent to be a match if the confidence score of the user's input matching an intent is 0.40 or higher.



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.
Justin

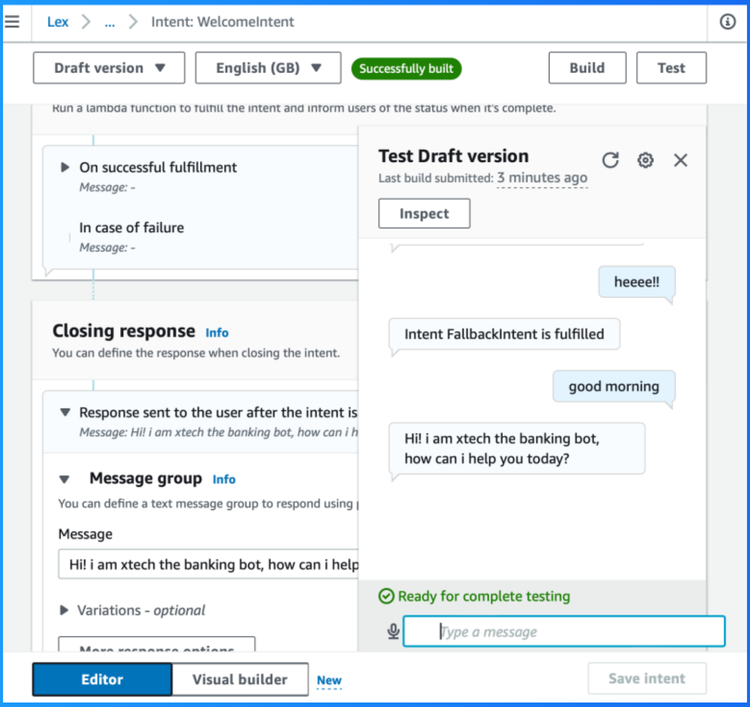
Voice sample
Hello, my name is Justin. Let me know how I can assist you.

Intent classification confidence score threshold
0.40
Min: 0.00, max: 1.00.

Intents

Intents are the core actions a chatbot recognizes and responds to. They represent what the user wants to achieve, like booking a flight or ordering food, guiding the chatbot in understanding user requests and providing appropriate responses.

I created my first intent, WelcomeIntent, to greet users when they interact with the chatbot for the first time. It triggers a welcoming message that introduces the bot, explains its capabilities, and guides users on how to start their interaction.



Lex > ... > Intent: WelcomeIntent

Draft version ▼ | English (GB) ▼ | Successfully built | Build | Test

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▶ Variations - *optional*

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heeee!!

Intent FallbackIntent is fulfilled

good morning

Hi! i am xtech the banking bot, how can i help you today?

Ready for complete testing

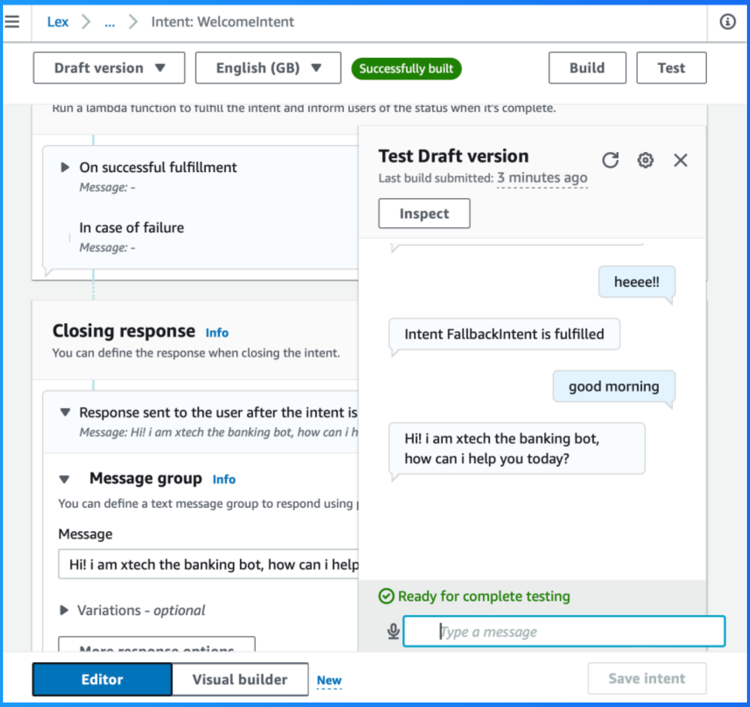
Type a message

Editor | Visual builder | New | Save intent

FallbackIntent

I launched and tested my chatbot, which could respond successfully if I enter "hello" or "hello! I need help." These greetings match the sample utterances defined for the WelcomeIntent, allowing the chatbot to recognize the user's intent and provide

My chatbot returned the error Intent FallbackIntent is fulfilled when I entered "heeee!!" because the input didn't match any defined intents or utterances, triggering the fallback intent, which handles unrecognized or unclear user input.



Run a lambda function to fulfill the intent and inform users of the status when it's complete.

On successful fulfillment
Message: -

In case of failure
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Response sent to the user after the intent is
Message: Hi! i am xtech the banking bot, how can i h

Message group Info
You can define a text message group to respond using

Message
Hi! i am xtech the banking bot, how can i help

Variations - optional

Test Draft version
Last build submitted: 3 minutes ago

heeee!!

Intent FallbackIntent is fulfilled

good morning

Hi! i am xtech the banking bot, how can i help you today?

Ready for complete testing

Type a message

Configuring FallbackIntent

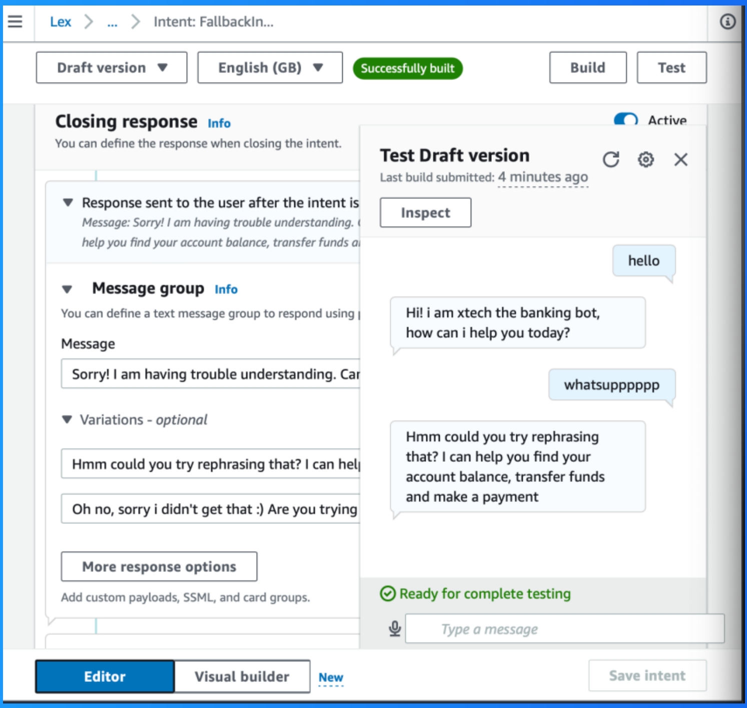
FallbackIntent is a default intent in every chatbot that gets triggered when the user's input doesn't match any of the defined intents with sufficient confidence. It acts as a catch-all for unrecognized or unclear inputs, providing a default response

I wanted to configure FallbackIntent because it ensures that the chatbot can handle unexpected or unrecognized user inputs gracefully. By providing a default response, it guides users back to the intended flow, improves user experience.

Variations

To configure FallbackIntent, I added a set of sample utterances that users might say when the bot doesn't understand their request. I then defined a response message to guide users and help them rephrase their query or provide more context.

I also added variations! What this means for an end user is that the chatbot can recognize and respond to a broader range of similar inputs. Variations are alternative ways of expressing the same intent, helping the bot understand diverse phrasing


Lex > ... > Intent: FallbackIn...

Draft version ▼ English (GB) ▼ Successfully built Build Test

Closing response Info
You can define the response when closing the intent.

Active

Response sent to the user after the intent is
Message: Sorry! I am having trouble understanding.
help you find your account balance, transfer funds a

Message group Info
You can define a text message group to respond using

Message
Sorry! I am having trouble understanding. Car

Variations - optional
Hmm could you try rephrasing that? I can hel
Oh no, sorry i didn't get that :) Are you trying

More response options
Add custom payloads, SSML, and card groups.

Test Draft version
Last build submitted: 4 minutes ago
Inspect

hello
Hi! i am xtech the banking bot, how can i help you today?
whatsuppppp
Hmm could you try rephrasing that? I can help you find your account balance, transfer funds and make a payment

Ready for complete testing
Type a message

Editor Visual builder New Save intent

Everyone should be in a job they love.

Check out nextwork.org for more projects