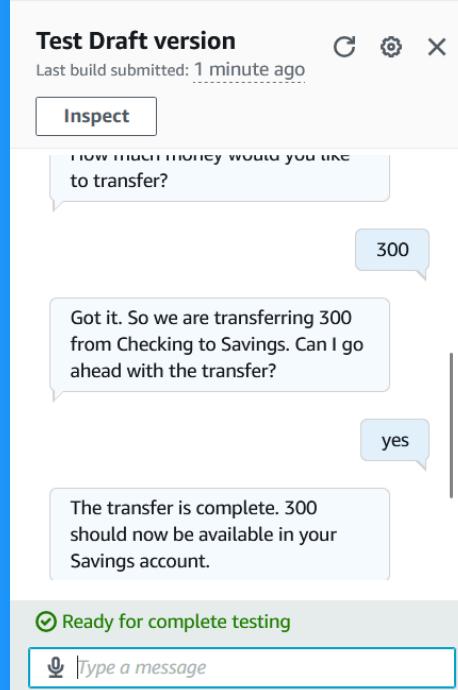




Build a Chatbot with Multiple Slots



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Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is an AWS product that uses AI to create powerful and dynamic chatbots that can be used to enhance customer experience. This AI-powered service creates a smooth and easy experience to set-up a chatbot for applications and websites.

How I used Amazon Lex in this project

I used Amazon Lex alongside CloudFormation to deploy the bot in a few clicks.

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

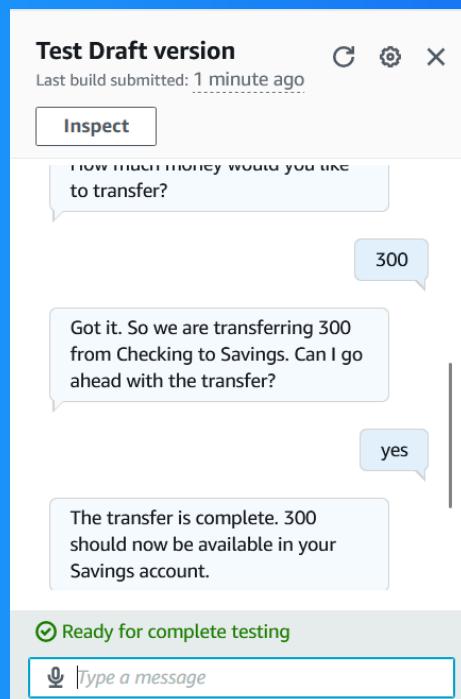
I didn't expect the jump in difficulty with regards to discovering various settings and parameters on my own.

This project took me...

1 hour and 30 minutes.

TransferFunds

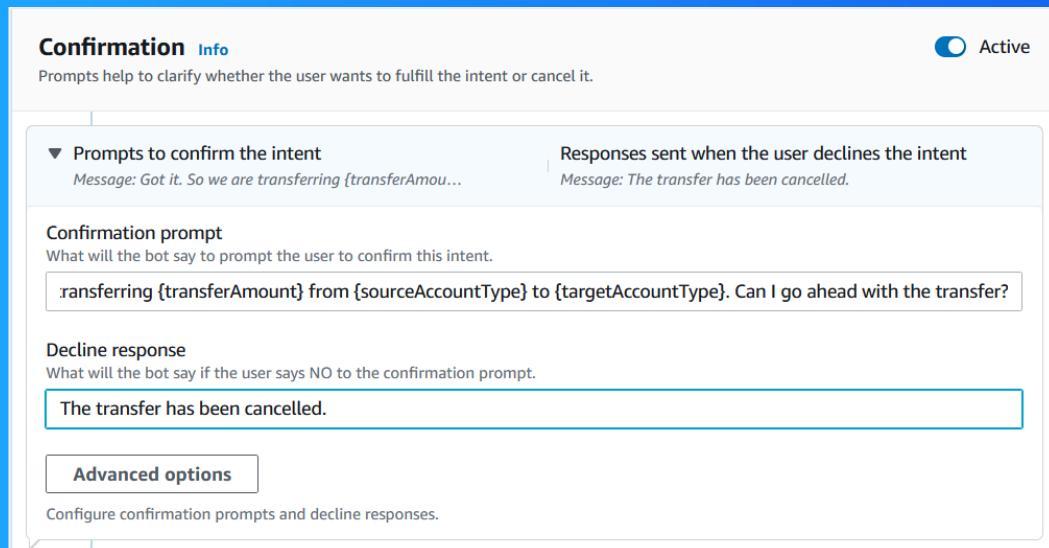
An intent I created for my chatbot was TransferFunds, which transfers a specified amount from one account to another upon request.



Using multiple slots

For this intent, I had to use the same slot type twice. This is because the user needs to specify two different accounts of the same slot type to indicate what are the source and target account types.

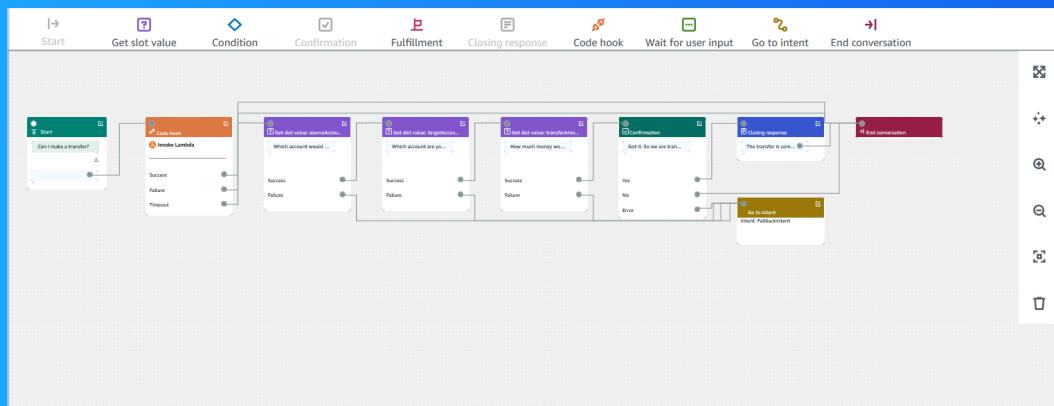
I also learnt how to create confirmation prompts, which are final checks for the user to confirm the information. If the user confirms the information, the intent is fulfilled. If the user declines, then the bot responds with a decline response.



Exploring Lex features

Lex also has a special conversation flow feature that will preview a sample conversation in logical, chronological order. You can add recommended responses in a single click with the blank 'ghost like' responses which can be edited.

You could also set up your intent using a visual builder! A visual builder helps you build intents from scratch, organize the flow of conversation, and visualize the logic of your chatbot.



AWS CloudFormation

AWS CloudFormation is service that gives users a simplified way to set up AWS resources.

I used CloudFormation to automatically set-up and deploy the chatbot I had previously set up manually.

Intents (5) Info		
An intent represents an action that the user wants to perform.		
<input type="text"/> Search intents		
Name	Description	Last edited
TransferFunds	Help user transfer funds between bank accounts	1 minute ago
FollowupCheckBalance	Intent to allow a follow-up balance check request without authentication	1 minute ago
CheckBalance	Intent to check the balance in the specified account type	1 minute ago
Welcome	Welcome intent	1 minute ago
FallbackIntent	Default fallback intent when no other intent matches	1 minute ago

The final result!

Re-building my bot with CloudFormation took me around 2 minutes

There was an error after I deployed my bot! The error was indicating that I had problems with permissions I fixed this by creating a new lambda function and redirecting the bot's alias to use the new function. Then I edited the function's permissions

Edit policy statement

AWS account
Grant permissions to another AWS account, user, or role.

AWS service
Grant permissions to another AWS service.

Function URL
Grant permissions to invoke your function through the function URL.

Service
The AWS service to grant permissions to.
Other ▾

Statement ID
Enter a unique statement ID to differentiate this statement within the policy.
custom-permissions-lex-chatbot

Principal
The service principal for this AWS service. [Learn more](#)
lexv2.amazonaws.com

Source ARN
The ARN for a resource. Find the ARN in the related service console.
arn:aws:lex:ap-southeast-2:084828560751:bot-alias/*

Action
Choose an action to allow.
lambda:InvokeFunction ▾



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