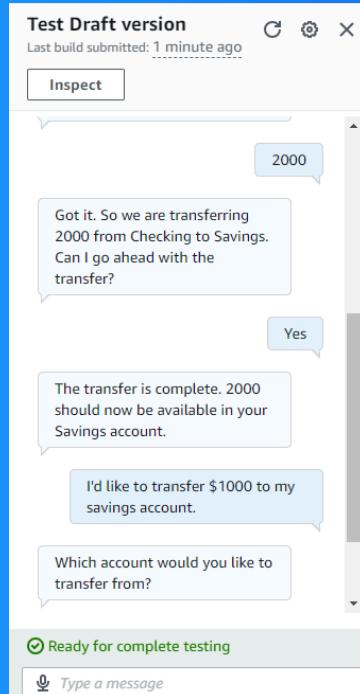




Build a Chatbot with Multiple Slots



Emmanuel Enalpe III





Introducing Today's Project!

What is Amazon Lex?

AWS CloudFormation is a service that gives you an easy way to create and set up AWS resources.

How I used Amazon Lex in this project

I used Amazon Lex in today's project by creating and configuring multiple slots with a shared slot type. I also implement a confirmation prompt, use the conversation flow and visual builder, and automate bot deployment with CloudFormation.

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.

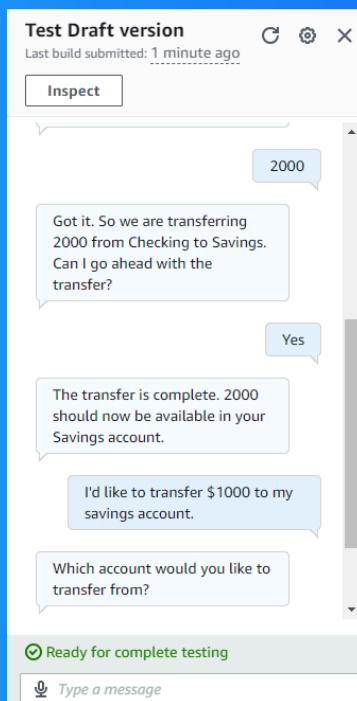
This project took me...

Completing this project took me about 40–50 minutes to set up and configure the options for this last series of building a chatbot.



TransferFunds

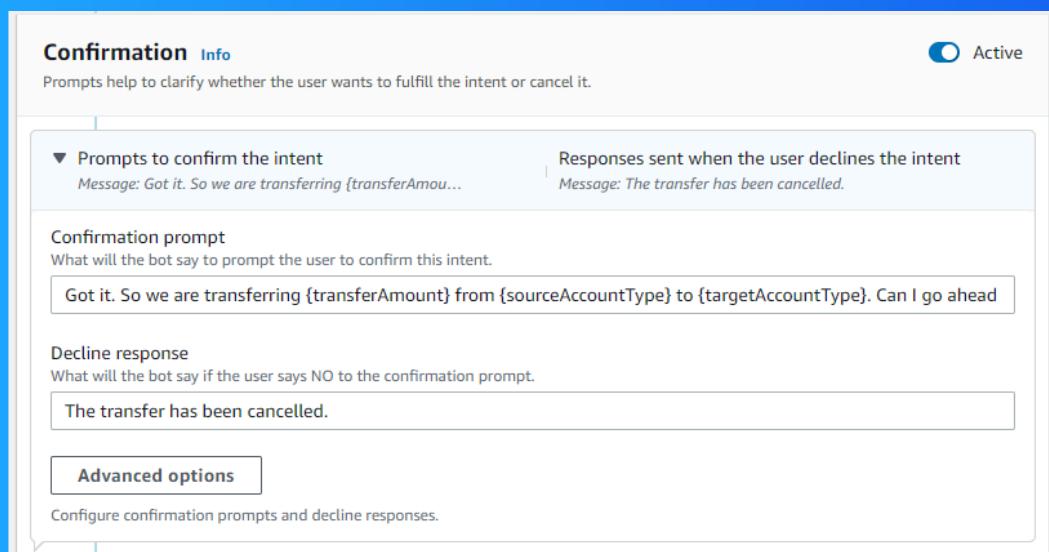
An intent I created for my chatbot was TransferFunds, which will make a transfer process between bank accounts.



Using multiple slots

For this intent, I had to use the same slot type twice. This is because, it targets the same slot with different slot names.

I also learnt how to create confirmation prompts, which are prompts that typically repeat back information for the user to confirm. e.g., "Are you sure you want to do x?" If the user confirms the intent, the bot fulfills the intent.

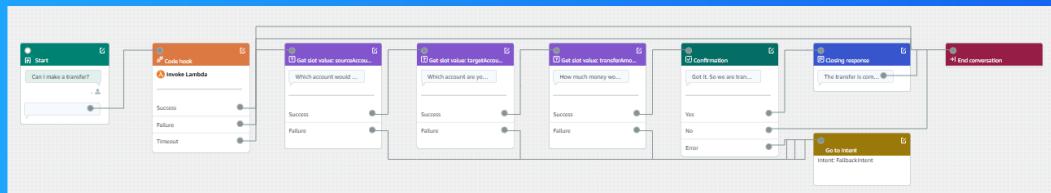




Exploring Lex features

Lex also has a special conversation flow feature that shows every step in a conversation in a logical, chronological order.

You could also set up your intent using a visual builder! A visual builder transforms your setup page into a flow chart to visualize the flow of your created intent.



AWS CloudFormation

AWS CloudFormation is a service that gives you an easy way to create and set up AWS resources.

I used CloudFormation to make a chatbot in an easy way with the use of a template.

| 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 | Now | Delete |
| FollowupCheckBalance | Intent to allow a follow-up balance check request without authentication | Now | Edit |
| CheckBalance | Intent to check the balance in the specified account type | Now | Edit |
| Welcome | Welcome intent | Now | Edit |
| FallbackIntent | Default fallback intent when no other intent matches | Now | Edit |



The final result!

Re-building my bot with CloudFormation took me 5-10 minutes compared to the manual building of a chatbot.

There was an error after I deployed my bot! The error was about permission access denied. I fixed this by creating a new permission on the lambda function that I created.

Add 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.

Statement ID
Enter a unique statement ID to differentiate this statement within the policy.

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

Source ARN
The ARN for a resource. Find the ARN in the related service console.

Action
Choose an action to allow.



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