

Build a Chatbot with Custom Slots



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▼ Slots (2) - optional [Info](#)

Information that a bot needs to fulfill the intent. The bot prompts for slots required for intent fulfillment, in priority order below.

Q Filter

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▶ Prompt for slot: accountType

Message: For which account would you like your balan...

Slot type
accountType

×

⋮

▶ Prompt for slot: dateOfBirth

Message: For verification purposes, what is your date ...

Slot type
AMAZON.Date

×

Introducing Today's Project!

I used Lex for making a basic bankingBot that greets the user and allows them to check their account type's balance through simple prompting and fallback messages.

What is Amazon Lex?

Amazon Lex is a chatbot service that is provided by AWS. This is particularly useful if you use AWS services as Lex can be very easily integrated into you other AWS services like Lamdba.

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

One thing I did not expect was how robust the error handling and fallback systems were in this service.

This project took me...

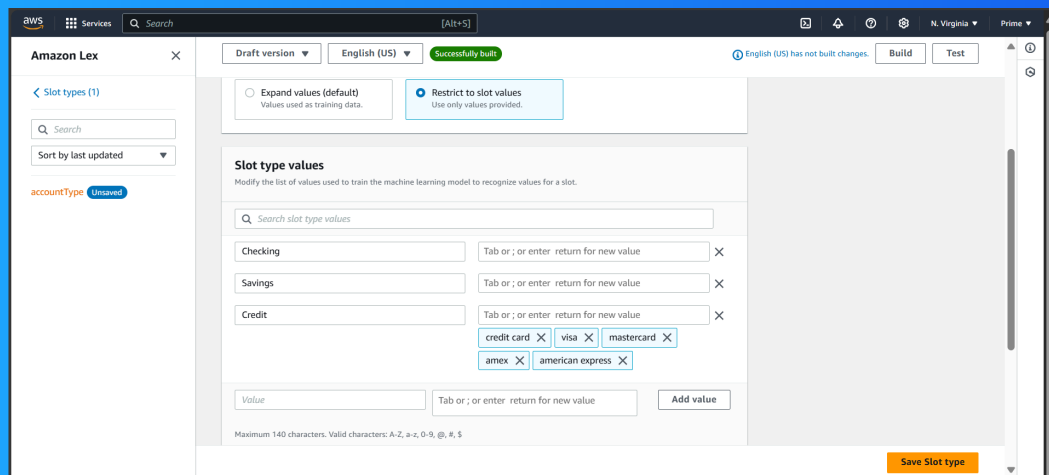
This project took me 45 minutes.

Slots

Slots are essentially pieces of information that our chatbot needs to complete a user's request. It is like blanks that need to be filled.

By adding custom slots in utterances, my chatbot's users can find out the balance in their difference accounts. The slots verify the user by automatically detecting the account type and DOB from the conversation after prompting the user.

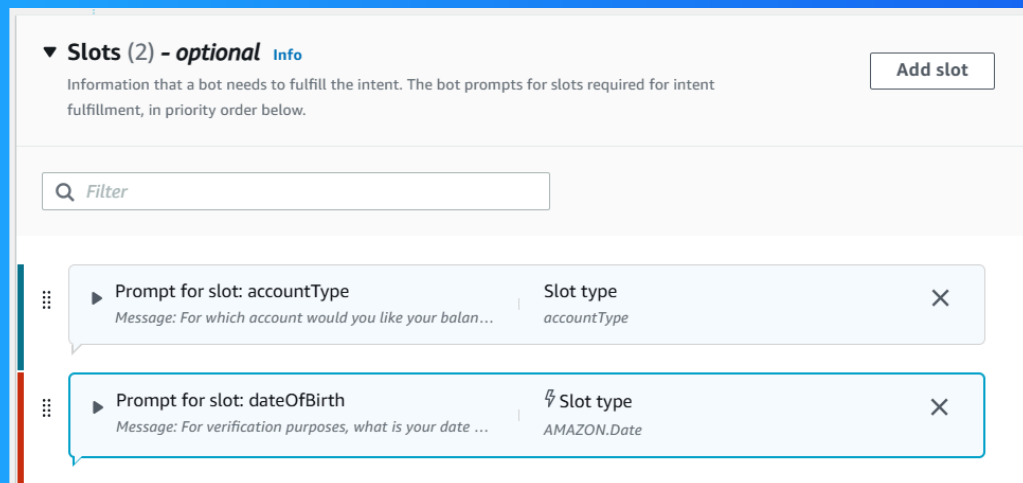
In this project, I created a custom slot type to find out the account type of the user to fullfill their bank related queries.



Connecting slots with intents

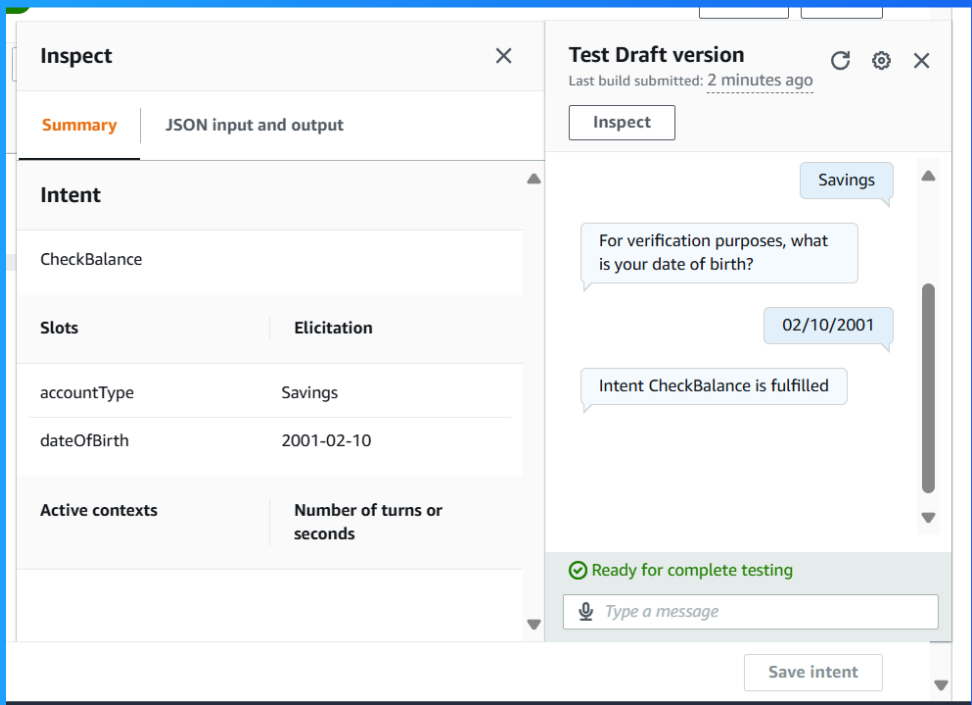
This slot type has restricted slot values, which means that we prevent Amazon Lex from using ML to respond to users with knowledge outside of our slots. This will prevent the users from talking about things we do not offer through our chatbot.

I associated my custom slot with CheckBalance, which is going to check the account balance of a user when requested. To accomplish this we link our intent with slots.



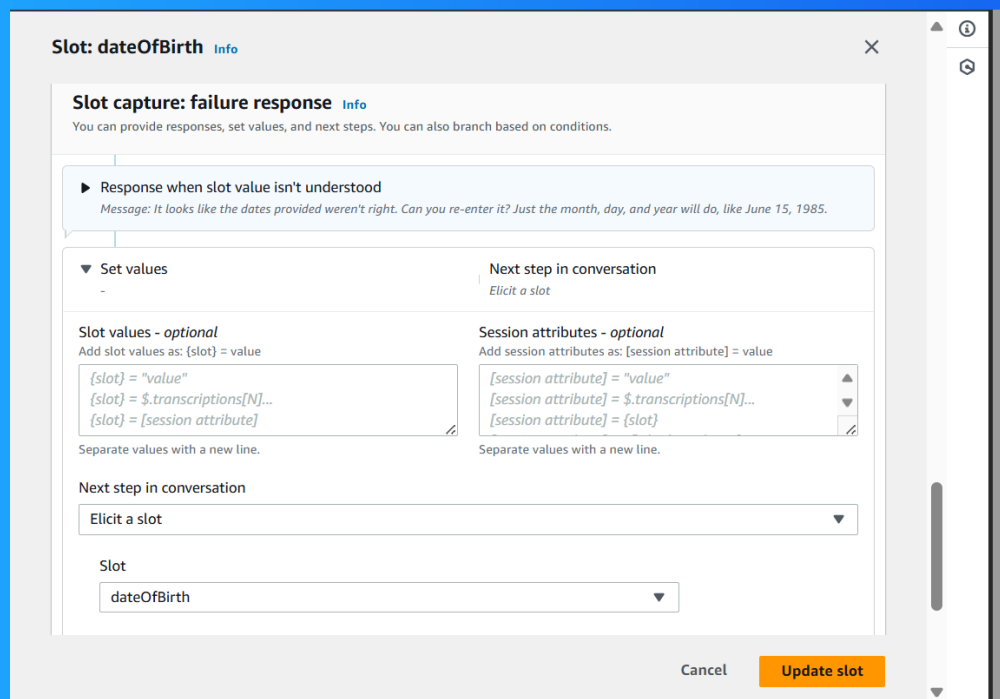
Slot values in utterances

I included slot values in some of the utterances (i.e. user inputs by using the {} sign. For example: Balance in {accountType}



Handling failures in slot values

I also used failure responses to prevent the chatbot from defaulting to the FallbackIntent and continue asking the user for their DOB. A default setting I changed was adding a Next step in the dataOfBirth slot and setting it to Elicit a slot.



Slot: dateOfBirth Info

Slot capture: failure response Info

You can provide responses, set values, and next steps. You can also branch based on conditions.

► **Response when slot value isn't understood**

Message: It looks like the dates provided weren't right. Can you re-enter it? Just the month, day, and year will do, like June 15, 1985.

▼ **Set values**

Next step in conversation
Elicit a slot

Slot values - optional
Add slot values as: {slot} = value

`{slot} = "value"`
`{slot} = $.transcriptions[N]...`
`{slot} = [session attribute]`

Separate values with a new line.

Session attributes - optional
Add session attributes as: [session attribute] = value

`[session attribute] = "value"`
`[session attribute] = $.transcriptions[N]...`
`[session attribute] = {slot}`

Separate values with a new line.

Next step in conversation

Elicit a slot

Slot

dateOfBirth

Cancel Update slot