



# Build a Chatbot with Custom Slots



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A screenshot of the Amazon Lex slot configuration interface. The interface shows two slots defined for an intent:

- accountType**: Slot type `accountType`. Message: *For which account would you like your balance checked?*
- dateOfBirth**: Slot type `AMAZON.Date`. Message: *For verification purposes, what is your date of birth?*

The interface includes a search bar labeled "Filter" and a button labeled "Add slot".

# Introducing Today's Project!

## What is Amazon Lex?

Amazon Lex is a service that allows users to develop chatbot applications that are capable of understanding and responding to human language, whether it's voice or text

## How I used Amazon Lex in this project

I used Amazon Lex to develop a chatbot with a CheckBalance intent that allows the user to check their account balance after providing an account type to the chatbot by using Custom Slot Types; this account would be used in the utterances to the user

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

I wasn't expecting how fun it would be to add on different types of slots and observing the built-in slot types from Amazon; this gave me new ideas for future chatbot applications

## This project took me...

This project took me almost an hour to finish, which included the time to document my research and findings

# Slots

Slots are small pieces of data that the chatbot will need to complete a user's request

In this project, I created a custom slot type to have my chatbot recognize what type of banking account the user is asking for information on; in this situation I provided only 3 types of accounts (Checking, Savings & Credit)

This slot type has restricted slot values, which means that the chatbot will only recognize specific values that it's been given for the slot; any other value is unrecognized if the user enters those values

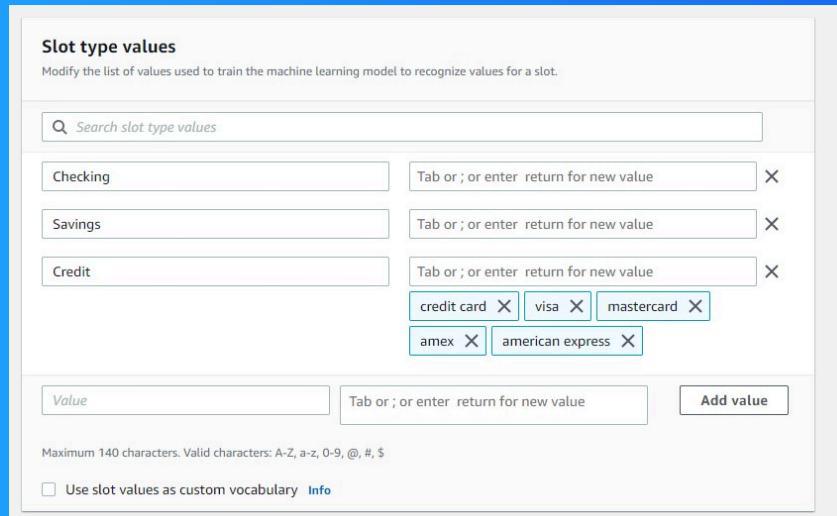
**Slot type values**  
Modify the list of values used to train the machine learning model to recognize values for a slot.

Search slot type values

Checking	Tab or ; or enter return for new value	X			
Savings	Tab or ; or enter return for new value	X			
Credit	Tab or ; or enter return for new value	X			
credit card	X	visa	X	mastercard	X
amex	X	american express	X		

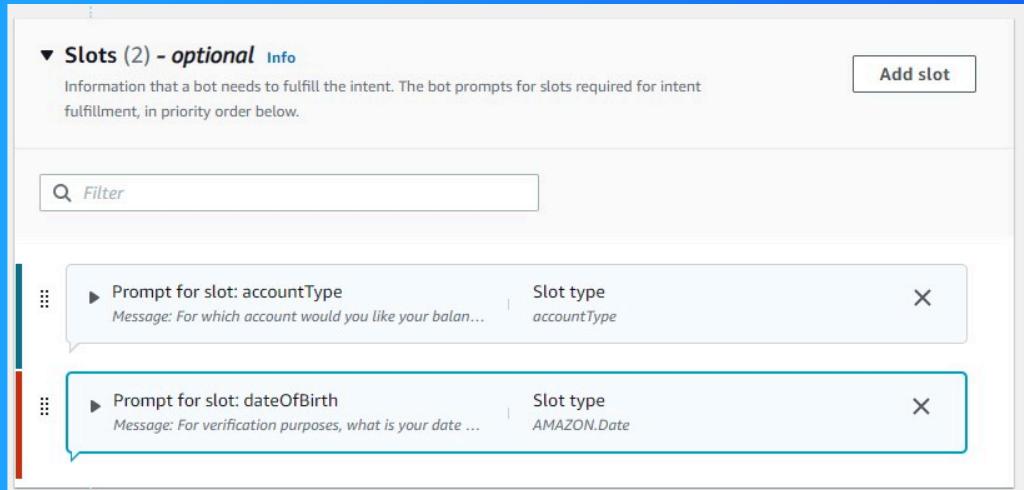
Value      Tab or ; or enter return for new value      Add value

Maximum 140 characters. Valid characters: A-Z, a-z, 0-9, @, #, \$  
 Use slot values as custom vocabulary [Info](#)



# Connecting slots with intents

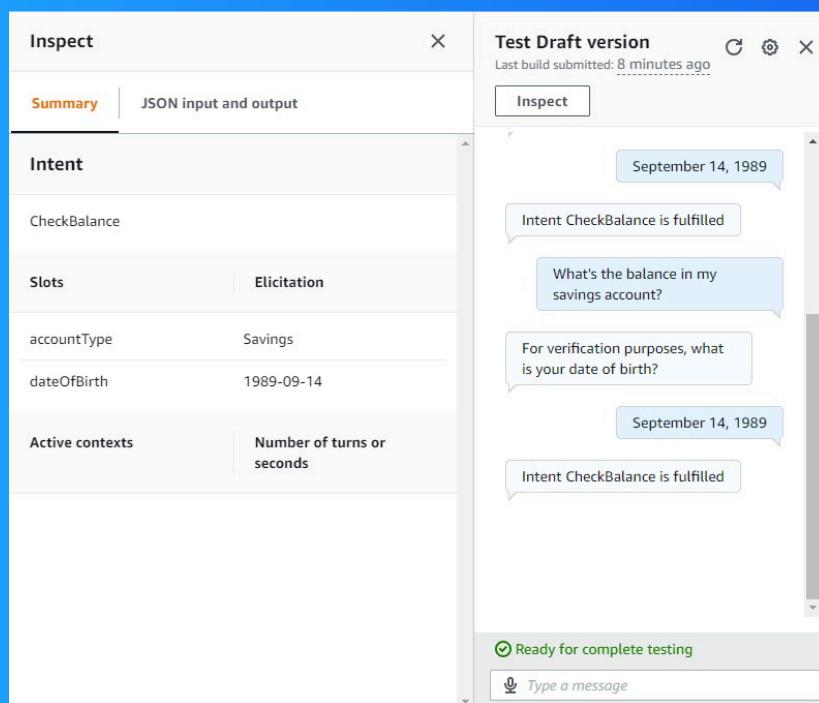
I associated my custom slot with CheckBalance, which checks what the balance is in the account type that's provided by the user's utterance



# Slot values in utterances

I included slot values in some of the utterances by going to the Slots section and used the Add Slot button; from there I developed the AccountType and dateOfBirth prompts that would capture the user's input and use them for the chat session

By adding custom slots in utterances the chatbot can understand information such as the accountType without prompting the user, which makes the conversation intuitive and easy for the user





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