



Add Custom Slots to a Lex Chatbot

AZ

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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.

Filter

<p>▶ Prompt for slot: accountType <small>Message: For which account would you like your balan...</small></p>	Slot type <small>accountType</small>	X
<p>▶ Prompt for slot: dateOfBirth <small>Message: For verification purposes, what is your date ...</small></p>	Slot type <small>AMAZON.Date</small>	X

Introducing Today's Project!

In today's project, I set up a new intent to check user's account balance and added custom slots to get user's details like account type and birthday for verification purposes.

What is Amazon Lex?

Amazon Lex is an AWS AI service for building conversational interfaces for applications using voice and text. With Lex, you can build chatbots that can act as virtual assistants for your applications and can help businesses to enhance user experience

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

I didn't expect that when a user mentions the account type they want to check balance in the chat, Amazon Lex automatically stores that information of the user with the relevant slot type so it saves time for the user.

This project took me...

Since I already did part one of this project, it took 15 minutes.

Slots

Slots are pieces of information the chatbot needs to complete a user's request. Amazon Lex has already available slot types for common information but you can create your custom slot types to fit your specific needs.

By adding custom slots in utterances, my chatbot's users can save time as Amazon Lex will automatically fill in that information and won't need to prompt the user for their accountType anymore.

In this project, I created a custom slot type to get the chatbot to ask user's for their bank account type and birthday for verification.

The screenshot shows the 'Slot type values' configuration page for a custom slot type. The title 'Slot type values' is at the top, followed by a sub-instruction: 'Modify the list of values used to train the machine learning model to recognize values for a slot.' Below this is a search bar labeled 'Search slot type values'. The main area contains a table where values are listed in two columns: 'Value' and 'Return for new value'. The 'Value' column contains 'Checking', 'Savings', and 'Credit'. The 'Return for new value' column contains 'Tab or ; or enter' followed by a list of card names: 'credit card', 'visa', 'mastercard', 'amex', and 'american express'. At the bottom of the table are buttons for 'Add value' and 'Delete'. A note below the table specifies character limits and valid characters. A checkbox for 'Use slot values as custom vocabulary' is also present.

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

Maximum 140 characters. Valid characters: A-Z, a-z, 0-9, @, #, \$

Use slot values as custom vocabulary [Info](#)

Connecting slots with intents

This slot type has restricted slot values, which means only the values you specify will count as a valid accountType. Otherwise, Amazon Lex will start accepting values outside of the ones we specified and offer account types to user we don't offer.

I associated my custom slot with CheckBalance, which is a new intent for checking user's bank account balance.

The screenshot shows the 'Slots' configuration for an intent. It lists two optional slots:

- 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

Slot values in utterances

I included slot values in some of the utterances (i.e. user inputs) by adding a slot name and it's custom slot value 'accountType' we created. For example, the bot will ask the user for which account type, they want to check balance.

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Inspect X

Summary JSON input and output

Intent

CheckBalance

Slots	Elicitation
accountType	Savings
dateOfBirth	-

Active contexts **Number of turns or seconds**



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