



Build a Chatbot with Custom Slots



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The screenshot shows a blue-themed user interface for configuring a chatbot. At the top, there's a header with the title "Slots (2) - optional" and an "Info" link. Below the header, a sub-header says "Information that a bot needs to fulfill the intent. The bot prompts for slots required for intent fulfillment, in priority order below." To the right of this text is a "Add slot" button. Below the sub-header is a search bar labeled "Filter". Underneath the search bar are two slot entries, each consisting of a message template, a slot type, and a delete button ("X").

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

Introducing Today's Project!

I used Amazon Lex to create custom slots in the chatbot. From setting up the intent to answer user's greetings, the chatbot has now been improved to give or record responses based on specific utterances provided by the user.

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.

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

I didn't expect how engaging this project would be. Compared to part one, this delved deeper into the topic, creating a more complex chatbot with each step.

This project took me...

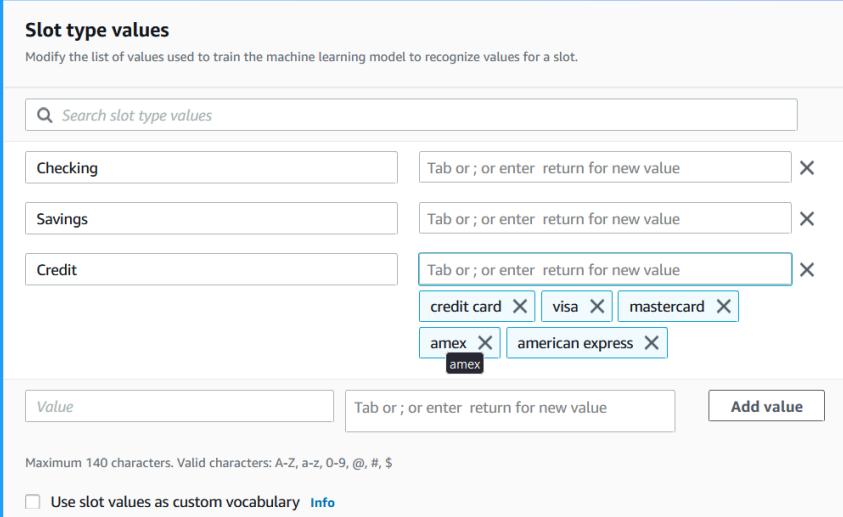
This project took me about 30 minutes.

Slots

Slots are pieces of information that the chatbot needs to fulfill the user's request. In simpler terms, they're like blanks in a form that need to be filled out.

By adding custom slots in utterances, my chatbot's users can interact with the chatbot in more meaningful ways. The chatbot can give responses or record responses based on specific utterances provided by the user.

In this project, I created a custom slot type to get the user's account type.



The screenshot shows the 'Slot type values' configuration screen. At the top, it says 'Slot type values' and '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 several input fields for slot values:

- 'Checking' (with a note: 'Tab or ; or enter return for new value')
- 'Savings' (with a note: 'Tab or ; or enter return for new value')
- 'Credit' (with a note: 'Tab or ; or enter return for new value')
 - 'credit card' (with an 'X')
 - 'visa' (with an 'X')
 - 'mastercard' (with an 'X')
 - 'amex' (with an 'X')
 - 'american express' (with an 'X')
 - 'amex' (in a separate row)

At the bottom, there is a 'Value' input field, a note 'Tab or ; or enter return for new value', and a 'Add value' button. A note at the bottom states 'Maximum 140 characters. Valid characters: A-Z, a-z, 0-9, @, #, \$'. There is also a checkbox for 'Use slot values as custom vocabulary' with an 'Info' link.

Connecting slots with intents

This slot type has restricted slot values, which means only the values that I have explicitly specified will count as valid accountTypes.

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

▼ **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.

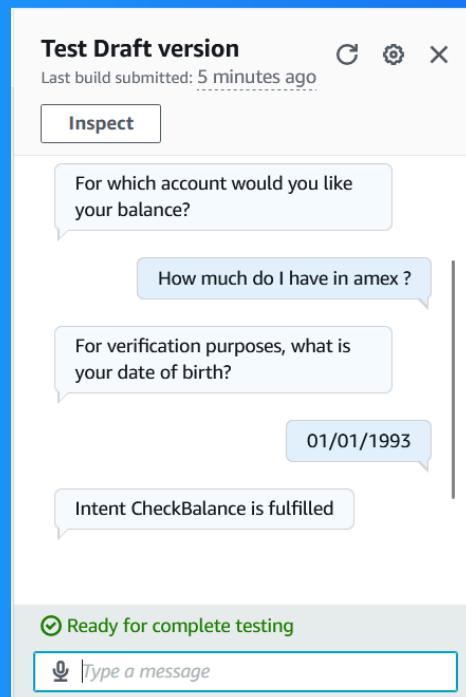
Filter

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

Add slot

Slot values in utterances

I included slot values in some of the utterances by using the "{}". For example, in "How much do I have in {accountType} ?" Amazon Lex will not have to prompt the user asking for their accountType anymore if a word fits what's expected.





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