



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.

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!

What is Amazon Lex?

Amazon Lex is a service for building conversational interfaces using voice and text. It powers chatbots and virtual assistants with automatic speech recognition and natural language understanding, making it easier to automate customer interactions.

How I used Amazon Lex in this project

I used Amazon Lex in today's project by setting up a chatbot with custom slots to check account balances and transfer money between accounts.

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 the chatbot I created.

Slots

Slots are information that a chatbot needs to complete a user's request. Slots are often predefined categories like location, date, or item type that help the chatbot understand and fulfill the request more effectively.

In this project, I created a custom slot type to provide specific information based on the user's inquiry (for example, bank account).

This slot type has restricted values, meaning that only specific options or values that are specified will be counted as valid.

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

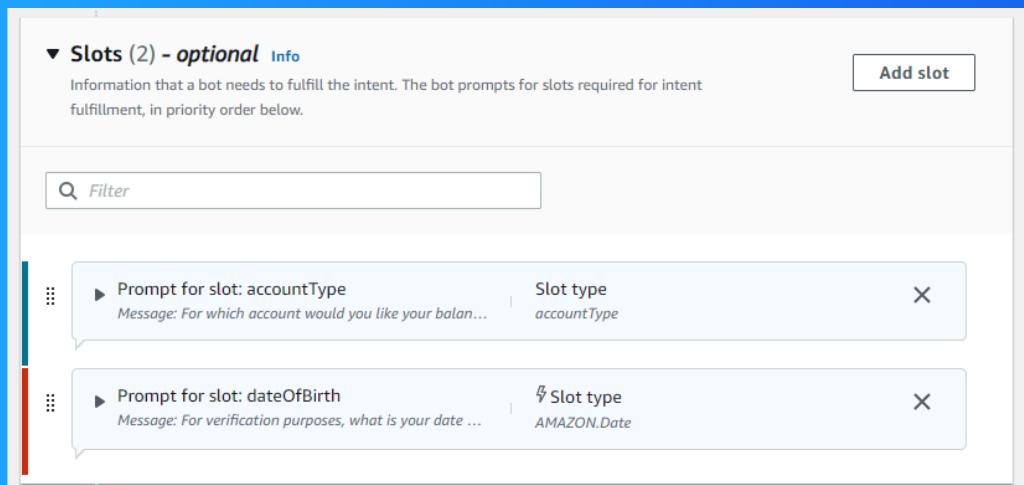
Maximum 140 characters. Valid characters: A-Z, a-z, 0-9, @, #, \$

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



Connecting slots with intents

I associated my custom slot with CheckBalance, which now identifies slot values directly from the user's input. When a word matches the expected accountType slot value, Lex automatically fills it in, eliminating the need for additional user prompts a



Slot values in utterances

I included slot values in some utterances (i.e., user inputs) by specifying keywords that match slot types. For example, mentioning checking account or savings account automatically fills the accountType slot.

By adding custom slots in utterances, I ensured that specific keywords could directly map to slot values. For instance, mentioning “checking account” or “savings account” automatically fills the accountType slot.

The screenshot shows the NextWork platform's 'Inspect' feature. On the left, there's a sidebar with tabs for 'Summary' (which is selected) and 'JSON input and output'. Below this are sections for 'Intent' (set to 'CheckBalance'), 'Slots' (with 'accountType' set to 'Savings' and 'dateOfBirth' set to '-'), and 'Active contexts' (with 'Number of turns or seconds' listed). To the right, a 'Test Draft version' window is open, showing a conversation log. The log starts with a user message: 'For which account would you like your balance?'. The bot responds with 'Checking'. The user then asks for verification purposes, asking for the date of birth, to which the bot replies with '04/07/2001'. The user then asks for the balance in the savings account, and the bot replies with 'Intent CheckBalance is fulfilled'. Finally, the user asks for verification purposes again, and the bot replies with 'For verification purposes, what is your date of birth?'. At the bottom of the test window, a green status bar says 'Ready for complete testing'.



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