

# Build a Chatbot with Custom Slots



Dineshraj Dhanapathy

▼ **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.

Add slot

Filter

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

# Introducing Today's Project!

I used Amazon Lex to create a chatbot that captures user inputs with custom slots, processes CheckBalance intent, and provides accurate responses, ensuring a seamless and efficient user experience.

## What is Amazon Lex?

Amazon Lex is a service for building chatbots using AI and NLP. It enables voice and text interactions, integrates with AWS, and automates tasks, making it useful for customer support and automation.

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

One thing I didn't expect in this project was how fine-tuning slot values and utterances greatly impacts accuracy, requiring multiple adjustments to ensure the chatbot correctly understands user inputs.

## This project took me...

This project took me a few hours to complete, including setting up intents, defining custom slots, testing utterances, and refining responses to ensure the chatbot accurately understands and processes user inputs.

# Slots

Slots are required pieces of information a chatbot needs to fulfill a request. In Amazon Lex, you can use built-in slot types like date and time or create custom ones to match your specific needs.

By adding custom slots in utterances, my chatbot's users get a more personalized experience, as it accurately captures specific details, reduces confusion, and ensures precise responses to their queries.

In this project, I created a custom slot type to capture specific user inputs that aren't covered by Amazon Lex's built-in types, ensuring accurate recognition and better handling of unique data requirements.

**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	

**Add value**

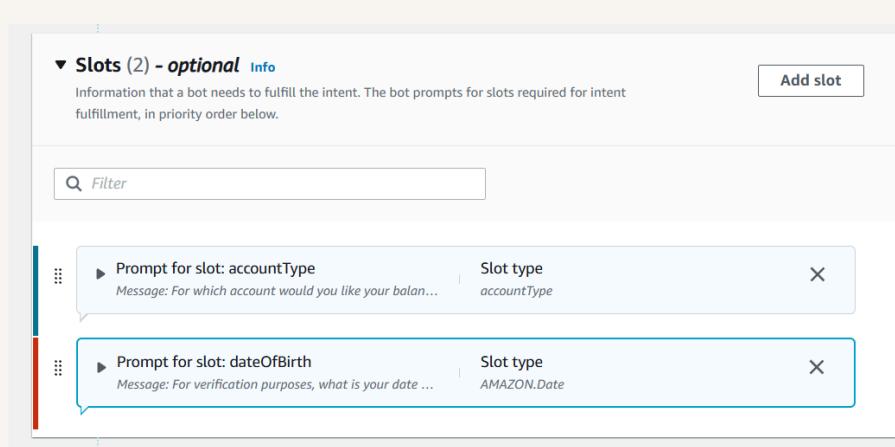
Value Tab or ; or enter return for new value Add value

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

# Connecting slots with intents

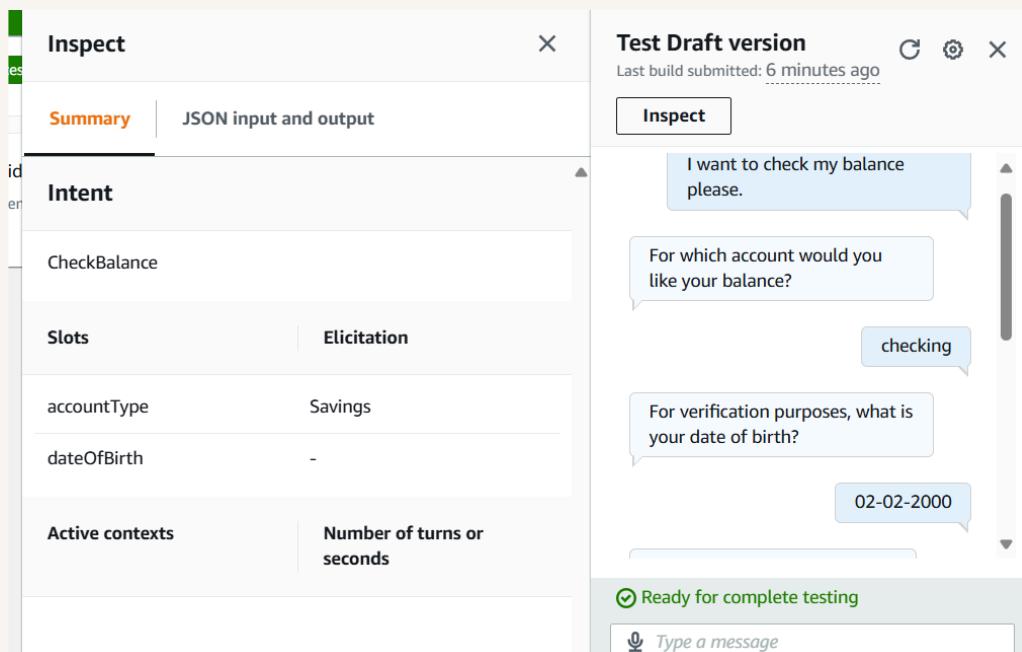
This slot type has restricted slot values, which means the chatbot only accepts predefined values for this slot, ensuring user input matches expected options and improving accuracy in responses and actions.

I associated my custom slot with CheckBalance, which is an intent that allows users to check their account balance by providing required details like account type and date of birth, ensuring accurate and efficient responses.



# Slot values in utterances

I included slot values in some of the utterances (i.e., user inputs) by using placeholders like {accountType} to capture specific details. For example, "What's the balance in my {accountType} account?"





NextWork.org

# Everyone should be in a job they love.

Check out nextwork.org for  
more projects

