



Add Custom Slots to a Lex Chatbot



Gursimran Singh

The screenshot shows the Amazon Lex console interface for managing slots. At the top, there are three tabs: "Draft version" (with a dropdown arrow), "English (US)" (with a dropdown arrow), and a green button labeled "Successfully built". Below these, a section titled "Slots (2) - optional" is displayed. This section contains two entries:

- 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

At the bottom of the screen, there is a "Confirmation" section with a "Info" link and a toggle switch labeled "Active".



Introducing Today's Project!

In today's project, I used Amazon Lex to build a chatbot from scratch, create custom intents, add slots for user input, and train the bot to respond to greetings and balance inquiries using natural language understanding.

What is Amazon Lex?

Amazon Lex is a service by AWS that helps you build chatbots and voice assistants using natural language understanding. It is useful because it makes it easy to create smart, conversational interfaces that respond naturally to user input.

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

One thing I didn't expect in this project was how simple it was to create and train a functional chatbot using Amazon Lex. The drag-and-drop interface and built-in features made the whole process much smoother than I anticipated.

This project took me...

This project took me about 1 hour to complete. The steps were well-guided, and the Amazon Lex interface made it easy to build, test, and refine the chatbot without much hassle.



Slots

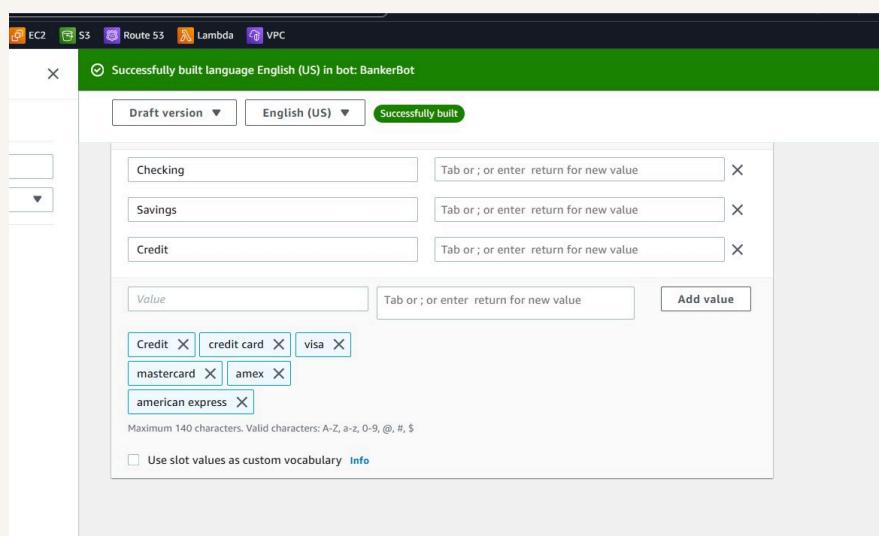
Slots are pieces of info the chatbot collects to fulfill a user's request—like blanks in a form. For example, to book a table, it might ask for date, time, and number of people. You can use built-in slot types or create custom ones for your use case.

By adding custom slots in utterances, my chatbot's users can speak more naturally while still giving the info the bot needs. It helps the chatbot understand specific inputs better and respond more accurately to user requests.

In this project, I created a custom slot type to allow my chatbot to recognize and handle specific types of user input that aren't covered by the built-in slot types, making conversations more accurate and tailored to my needs.

Gursimran Singh
NextWork Student

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Connecting slots with intents

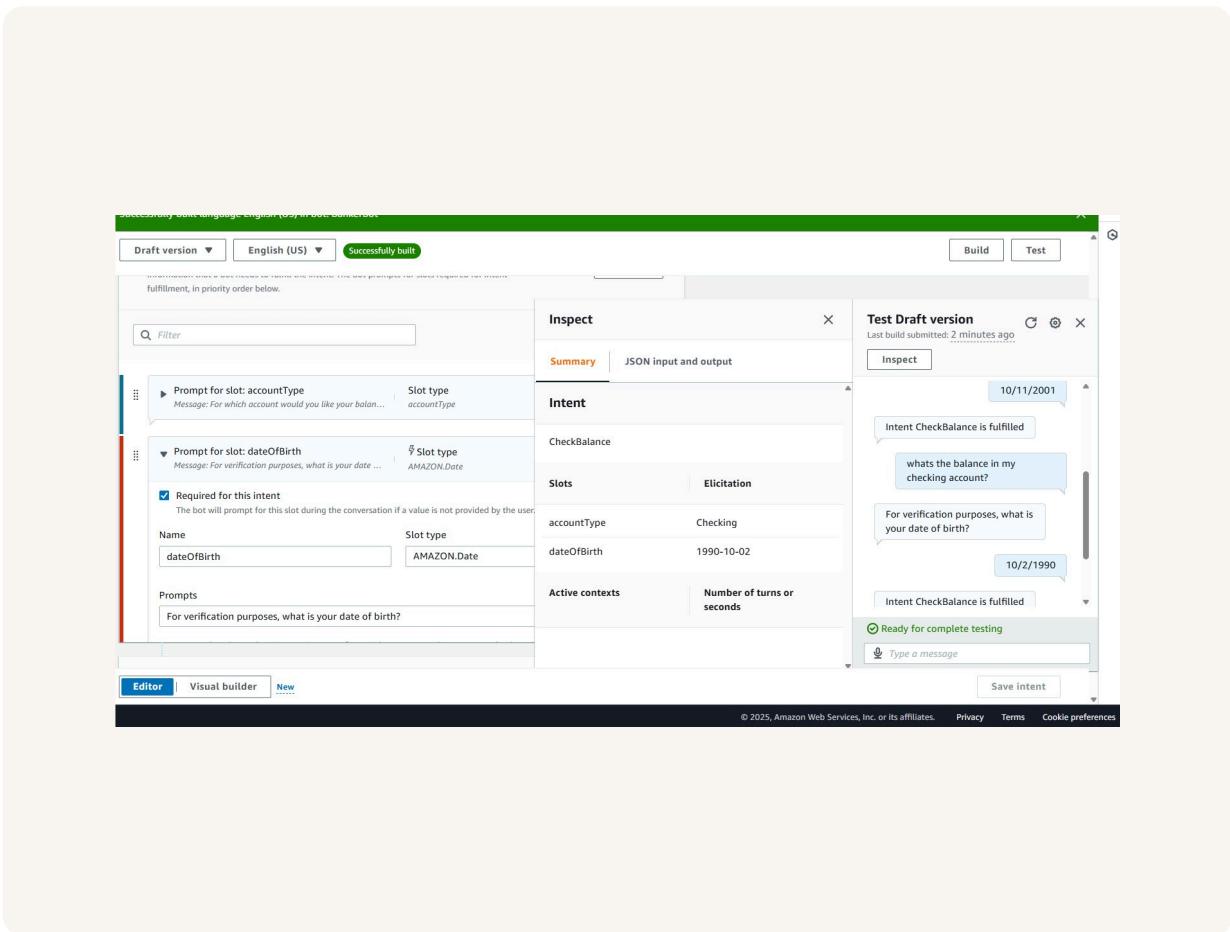
This slot type has restricted slot values, which means the chatbot will only accept responses that exactly match the values I've defined. If a user enters something outside that list, the bot won't recognize it and may ask for clarification.

I associated my custom slot with CheckBalance, which is an intent that helps the chatbot check the balance of a user's account. I also added two slots—one for account type and one for date of birth—for added verification.

The screenshot shows the AWS Lambda interface for managing slots. At the top, there are three buttons: 'Draft version ▾', 'English (US) ▾', and a green button that says 'Successfully built'. Below these, a section titled 'Slots (2) - optional' contains a sub-section for 'accountType'. It includes a 'Filter' input field and a message template: 'Message: For which account would you like your balan...' followed by a 'Slot type' field set to 'accountType'. A red vertical bar is positioned to the left of this entry. Below it is another slot entry for 'dateOfBirth', with a message template: 'Message: For verification purposes, what is your date ...' and a 'Slot type' field set to 'AMAZON.Date'. At the bottom of the slot list, there is a 'Confirmation' section with an 'Info' link and an 'Active' toggle switch.

Slot values in utterances

I included slot values in some of the utterances (i.e. user inputs) by adding placeholders directly into the phrases. For example, I used “What’s my balance in the {accountType} account?” so Lex knows where to expect slot values.





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