



Build a Chatbot with Custom Slots



sru anu

▼ **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

▶ 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	Slot type AMAZON.Date	X



Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is a service for creating chatbots using voice and text. It's useful for building natural language interfaces and integrates well with other AWS services.

How I used Amazon Lex in this project

I used Amazon Lex in today's project to build a chatbot that handles user queries through voice and text. I configured intents, slots, and responses to create a seamless conversational experience.

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

One thing I didn't expect was the complexity involved in fine-tuning the fallback intent to handle various unexpected user inputs effectively.

This project took me...

This project took me about a week to complete, including setting up Amazon Lex, configuring intents and slots, and fine-tuning the chatbot's responses.

Slots

Slots are variables in a chatbot that collect and store specific information provided by the user, such as names, dates, or locations. They help guide the conversation and gather details necessary to complete an action or fulfill an intent.

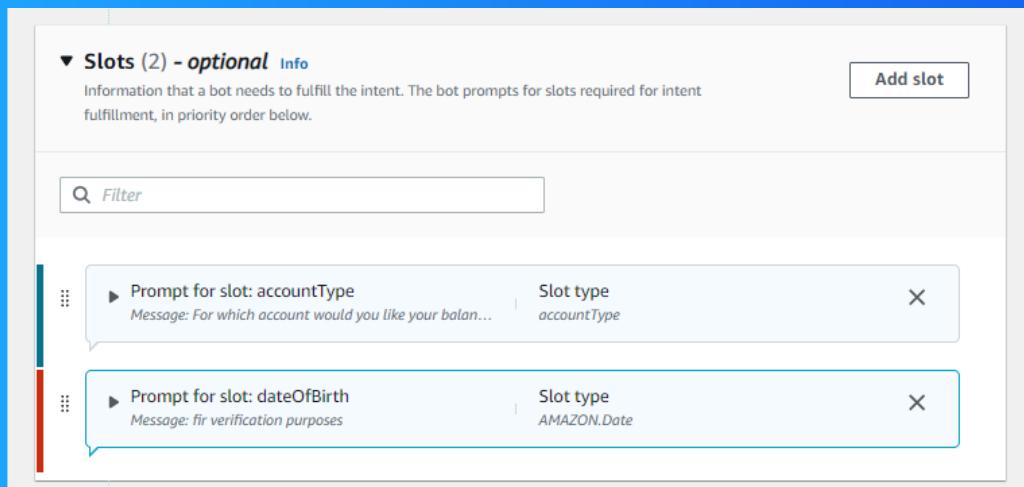
In this project, I created a custom slot type to capture specific user inputs that didn't fit predefined categories. This allowed the chatbot to handle more tailored information and improved its ability to respond accurately based on unique user data

This slot type has restricted slot values, which means the chatbot will only accept inputs from a predefined set of values. If the user enters something outside these values, the bot will prompt them to choose from the allowed options, ensuring accuracy.

The screenshot shows a web-based configuration interface for a 'Slot type values'. The title bar reads 'Slot type values' and includes a subtitle: 'Modify the list of values used to train the machine learning model to recognize values for a slot.' Below the title is a search bar labeled 'Search slot type values'. The main area contains a table with two columns: 'Value' and 'Action'. The 'Value' column lists three categories: 'Checking', 'Savings', and 'Credit'. The 'Action' column provides instructions: 'Tab or ; or enter return for new value' for each row. Under the 'Credit' row, there is a list of card types: 'Credit card', 'visa', 'mastercard', and 'americanexpress', each with a small 'X' icon to its right. At the bottom of the table is a note: 'Maximum 140 characters. Valid characters: A-Z, a-z, 0-9, @, #, \$'. To the right of the table is a large blue decorative element.

Connecting slots with intents

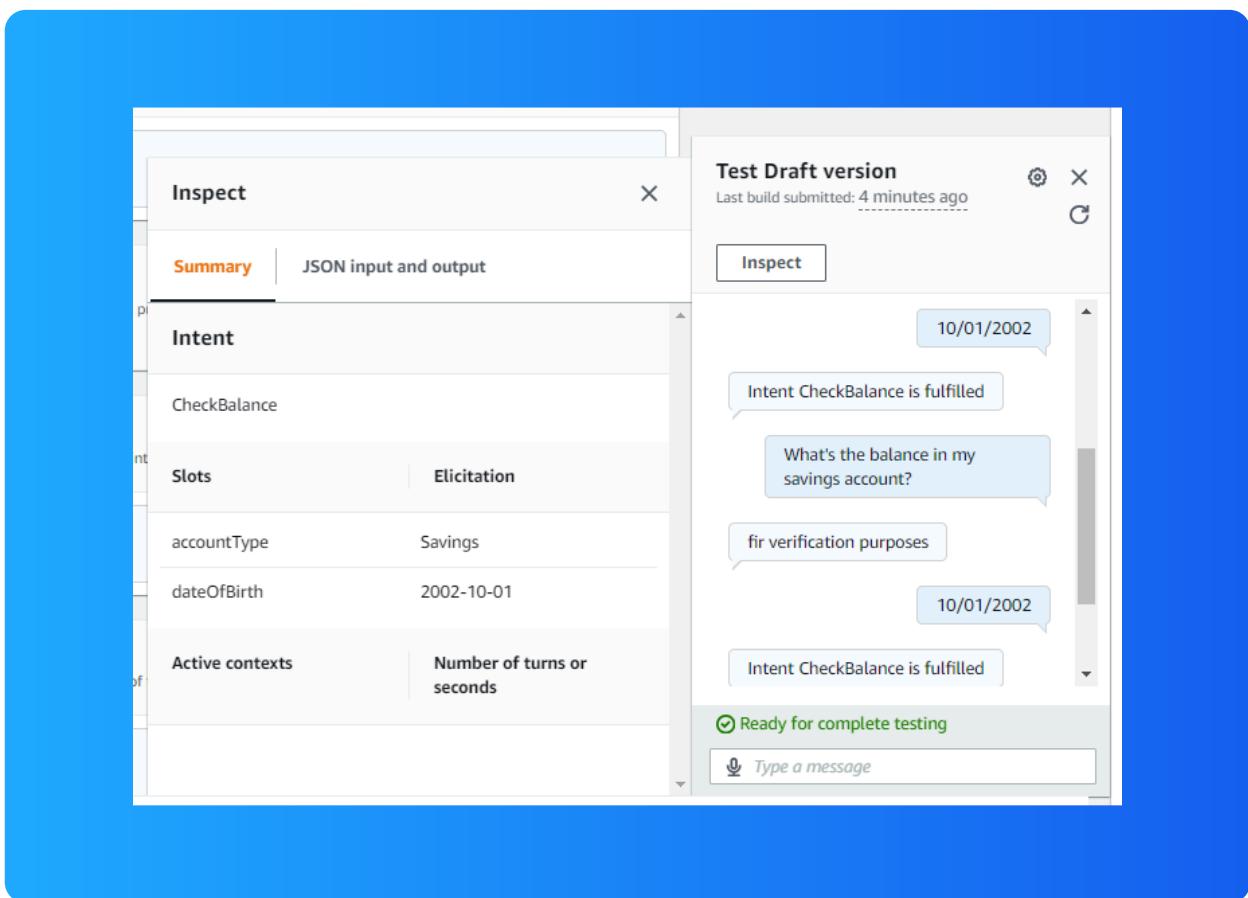
I associated my custom slot with CheckBalance, which allows the chatbot to gather specific details, such as account type or user ID, needed to retrieve and display the user's balance. This ensures the chatbot provides accurate information.



Slot values in utterances

I included slot values in the utterances by adding placeholders for specific information. This allows the chatbot to capture user details within a single input, making the conversation more dynamic and accurate.

By adding custom slots in utterances, I enabled the chatbot to capture specific user information in a single interaction. This ensures smoother conversations, reduces follow-up questions, and enhances response accuracy based on user inputs.





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