



Build a Chatbot with Custom Slots



Kyra Edwards

The screenshot shows the Amazon Lex console interface. At the top, there are tabs for 'Draft version' (selected), 'English (US)', and 'Successfully built'. A note says 'English (US) has not built changes.' with 'Build' and 'Test' buttons. On the left, a sidebar lists intents: 'CheckBalance' (Unused), 'FallbackIntent', and 'WelcomeIntent'. The main area shows the configuration for the 'CheckBalance' intent.

Response to acknowledge the user's request:
Message: -

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

Prompt for slot: dateOfBirth
Message: For verification purposes, what is your date ... Slot type AMAZON.Date

Confirmation Info

Active



Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is a fully managed artificial intelligence (AI) service with advanced natural language models to design, build, test, and deploy conversational interfaces in applications.

How I used Amazon Lex in this project

Today I used amazon lex to create a banker bot. So far, you can ask the bot how much money you have and it will ask from which account and what your birthday is for security purposes

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

One thing I didn't expect was how case-sensitive everything was. When creating the slots i used a capital 'A' for accountType when it was supposed to be lowercase. but the error message was very clear on what was wrong and I was able to fix it

This project took me...

This project took my about an hour only because I had to figure out what was wrong in the case-sensitive issue



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Slots

Slots are pieces of information that a chatbot needs to complete a user's request.

I created a custom slot to fit specific needs. So it's list of values that Amazon Lex uses to train the machine learning

This slot type has restricted slot values, which means only the values that you specify will count as a valid accountType. Otherwise, Amazon Lex will use machine learning to accept other values that

The screenshot shows the Amazon Lex Slot Type Values configuration interface. On the left, there's a sidebar with 'Slot types (1)' and a single item named 'accountType' (status: Unsaved). The main panel title is 'Successfully built language English (US) in bot: BankerBot'. It shows the 'Slot type values' section with a search bar and three entries: 'Checking', 'Savings', and 'Credit'. Each entry has a 'Value' field and a 'Delete' button. Below the entries, there's a note about character limits and a checkbox for 'Use slot values as custom vocabulary'.



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Connecting slots with intents

I associated my custom slot with CheckBalance, which grabs the slot contents from account Type so they can be used in CheckBalance without stating which account I am talking about.

The screenshot shows the Amazon Lex console interface for the 'CheckBalance' intent. The top navigation bar includes 'Draft version', 'English (US)', 'Successfully built', and 'Build/Test' buttons. The left sidebar lists intents: 'CheckBalance' (selected), 'FallbackIntent', and 'WelcomeIntent'. The main area displays the intent configuration:

- Response to acknowledge the user's request:** Message: -
- Slots (2) - optional**:
 - 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
- Confirmation**: Active



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Slot values in utterances

I included slot values in some of the utterances (i.e. user inputs) by going down to the slots pane and adding them there. For example, I added the date of birth slot so the bot will ask for your date of birth.

By adding custom slots in utterances I was able to set the bot up to answer questions based on banking

The screenshot shows a bot testing interface with a blue header bar. The header contains the text "Test Draft version" and "Last build submitted: 3 minutes ago". Below the header is a button labeled "Inspect". The main area is a conversation log:

- User message: "I want to check my balance please."
- Bot response: "For which account would you like your balance?"
- User message: "checkings"
- Bot response: "For verification purposes, what is your date of birth?"
- User message: "02/10/2001"
- Bot status: "Intent CheckBalance is fulfilled"
- Bot status: "Ready for complete testing"
- Input field placeholder: "Type a message"



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