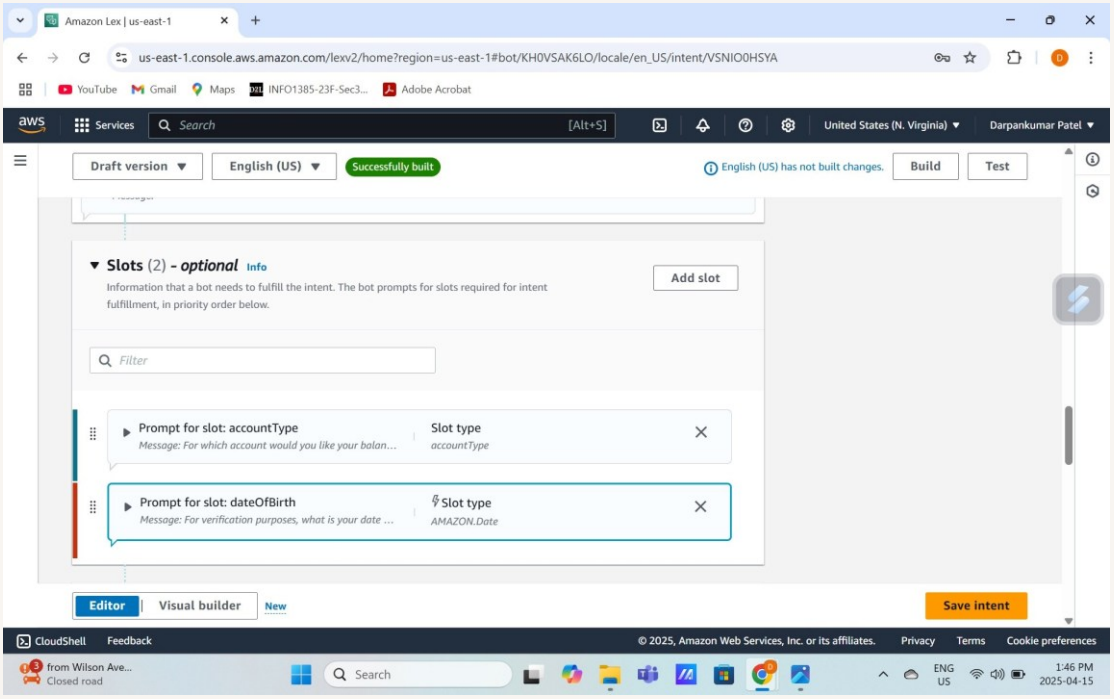
Add Custom Slots to a Lex Chatbot



Introducing Today's Project!

I used Amazon Lex to build a BankerBot for the CheckBalance intent. Created a custom slot for accountType (Checking, Savings, Credit) in utterances like “Check my {accountType} balance.” Restricted slots for accuracy, collecting user details.

What is Amazon Lex?

Amazon Lex is an AWS service for building chatbots with voice/text, using Alexa’s tech. It simplifies creating conversational interfaces, understands natural language, and automates tasks. Custom slots ensure accuracy, improving user experience.

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

One thing I didn’t expect in this project was how restricting slot values could prevent unintended user inputs. It was eye-opening to see how easily a bot could misinterpret user messages without tight control over expected responses.

This project took me...

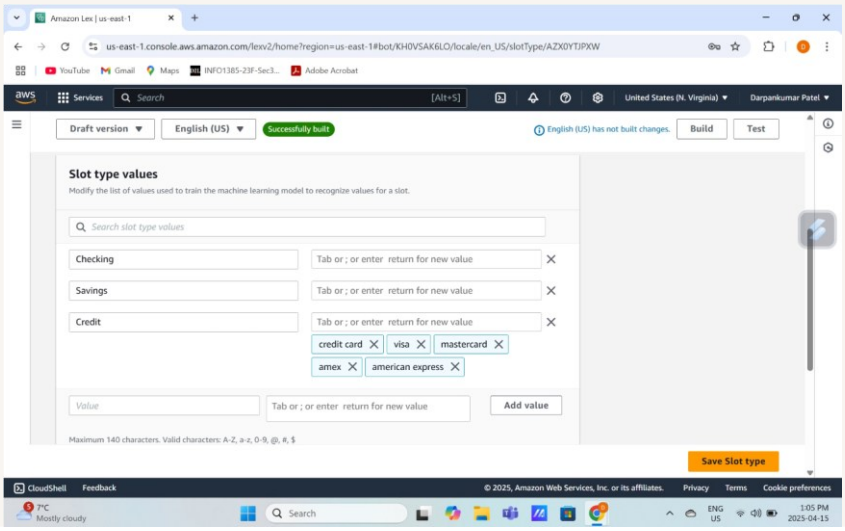
This project took me about 1 hour. Most of the time was spent setting up the custom slot type, testing utterances, and fine-tuning responses to make sure the chatbot understood inputs correctly and responded naturally.

Slots

Slots are pieces of info a chatbot needs to fulfill a user’s request, like blanks to fill. For example, booking a table requires slots like restaurant name, date, time, and party size. Amazon Lex offers built-in or custom slot types.

By adding custom slots in utterances, my chatbot's users can provide specific details, like account types, seamlessly. This ensures clear, accurate interactions, as the bot only accepts valid inputs, reducing confusion and enhancing the experience.

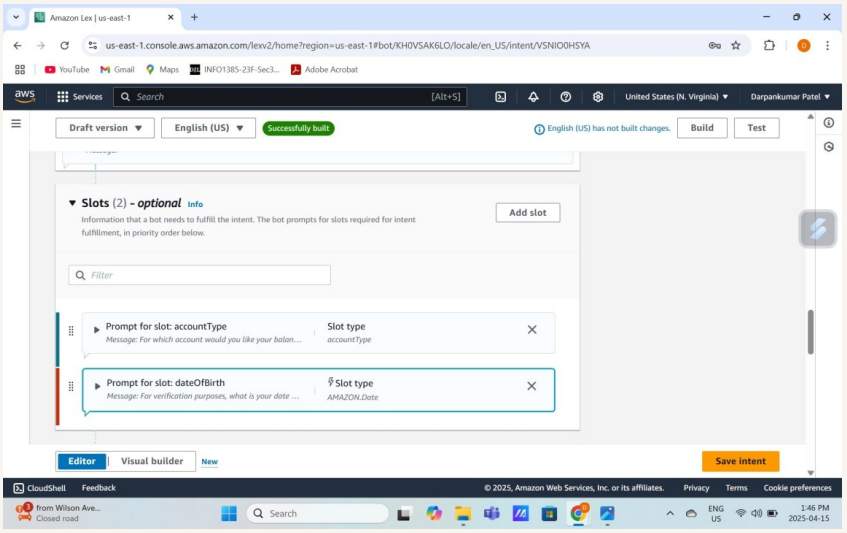
In this project, I created a custom slot type to capture unique user inputs not covered by Amazon Lex's standard slots, like specific restaurant preferences or special requests, ensuring the chatbot collects and processes tailored data accurately.



Connecting slots with intents

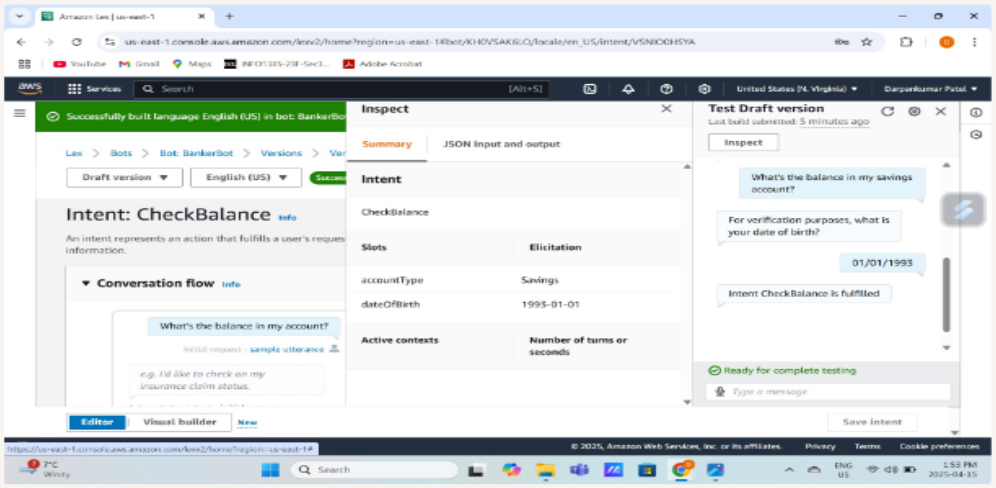
This slot type has restricted slot values, which means Amazon Lex only accepts set inputs like Checking, Savings, or Credit. It stops the chatbot from allowing other values via machine learning, ensuring accurate talks about offered accounts.

I associated my custom slot with CheckBalance, which is an intent that lets users query their bank account balance. It prompts for the account type—Checking, Savings, or Credit—and retrieves the balance for the specified account.



Slot values in utterances

I included slot values in some of the utterances (i.e. user inputs) by adding {accountType} where users specify their account type. For example, “Check my {accountType} balance” captures Checking, Savings, or Credit directly from the input.


Successfully built language English (US) in bot: BankerBot
Inspect
Summary
JSON input and output
Intent
CheckBalance
Slots
Elicitation
accountType
Savings
dateOfBirth
1995-01-01
Active contexts
Number of turns or seconds
Test Draft version
Last build submitted: 5 minutes ago
Inspect
What's the balance in my savings account?
For verification purposes, what is your date of birth?
01/01/1995
Intent CheckBalance is fulfilled
Ready for complete testing
Type a message
Intent: CheckBalance
Conversation flow
What's the balance in my account?
Editor
Visual builder
Save intent