



# Build a Chatbot with Custom Slots



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▼ **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

<p>▶ Prompt for slot: accountType <small>Message: For which account would you like your balan...</small></p>	Slot type <small>accountType</small>	X
<p>▶ Prompt for slot: dateOfBirth <small>Message: For which account would you like your balan...</small></p>	Slot type <small>AMAZON.Date</small>	X



# Introducing Today's Project!

## What is Amazon Lex?

It's a great tool for building chatbots which are specific for required tasks.

## How I used Amazon Lex in this project

We used to create custom slots for the intents and also tried to create a slot 'dateofbirth' using the inbuilt library of amazon predefined slots.

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

Lex is a great tool for beginners who want to do simple projects or create their own chatbots for their websites etc.

## This project took me...

It took me around 45min to complete this part of the project along with the documentation. I had my difficulties to get along with the new terms such as slots ,utterances but gave some time to understand by reading online documentation for the same.

# Slots

Slots are like blanks of information that the chatbot will seek to require the fulfillment of an intent

In this project, I created a custom slot type to represent the different account types that a banking customer can have such as checking , savings,credit etc . A custom slot type was required as the default slot types did not check the account types.

This slot type has restricted slot values, meaning it only accepts specific, predefined values. Users must input one of these values for the slot to validate successfully, improving accuracy and control over inputs.

**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 Rupay X	
	AMEX X MasterCard X	

Value       Tab or ; or enter return for new value

# Connecting slots with intents

I associated my custom slot with CheckBalance, which helps the chat bot to understand the type of account i am trying to check the balance for and also for verification purposes it asks for the dateofbirth of the user.

▼ **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

**Add slot**

<p>Prompt for slot: accountType</p> <p>Message: For which account would you like your balan...</p>	Slot type <i>accountType</i>	X
<p>Prompt for slot: dateOfBirth</p> <p>Message: For which account would you like your balan...</p>	Slot type <i>AMAZON.Date</i>	X

# Slot values in utterances

I included slot values in some of the utterances such as Whats the balance in my {accountType} account?. Here if the user mentions the account type for checking balance the bot will automatically understand which account type the user is trying .

By adding custom slots in utterances, save's the user's time for not redundantly asking for the type of account .

The screenshot shows the NextWork platform interface. On the left, there is an 'Inspect' tool window with tabs for 'Summary' (which is selected) and 'JSON input and output'. The 'Summary' tab displays the 'Intent' section for 'CheckBalance' and the 'Slots' section, which includes 'accountType' (Elicitation: 'Savings') and 'dateOfBirth' (Elicitation: '-'). Below these are sections for 'Active contexts' and 'Number of turns or seconds'. On the right, there is a 'Test Draft version' window titled 'Last build submitted: 3 minutes ago'. It shows a conversation log with the following messages:  
User: For verification purposes, what is your date of birth?  
Bot: 14/11/2002  
User: Intent CheckBalance is fulfilled  
User: what's the balance in my savings account  
User: For verification purposes, what is your date of birth?  
Bot: Ready for complete testing  
A message input field at the bottom is labeled 'Type a message'.



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