



Save User Info with your Chatbot



Gabriel Taveira Mazer

The screenshot shows a "Test Draft version" window with the following interaction history:

- User message: Check my savings balance
- System response: For verification purposes, what is your date of birth?
- User message: 21/03/1999
- System response: Thank you. The balance on your Savings account is \$418.06 dollars.
- User message: What about checking?
- System response: Thank you. The balance on your Checking account is \$236.24 dollars.

At the bottom, there is a green checkmark icon and the text "Ready for complete testing".



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Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is a service for building conversational interfaces using voice and text. It enables chatbots to understand and respond to natural language, making it useful for automating interactions like customer service and other user queries.

How I used Amazon Lex in this project

I used Amazon Lex today to implement context carryover between intents. I added context tags to retain user data between CheckBalance and FollowupCheckBalance, allowing for smoother user interaction without having to ask for the same information.

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

One unexpected aspect was how seamlessly context tags worked to retain information across intents, allowing smoother interactions without repeatedly prompting the user for the same information.

This project took me...

The project took around 2 hours to complete, including setting up the Lambda function, creating new intents, and configuring the context carryover between CheckBalance and FollowupCheckBalance.

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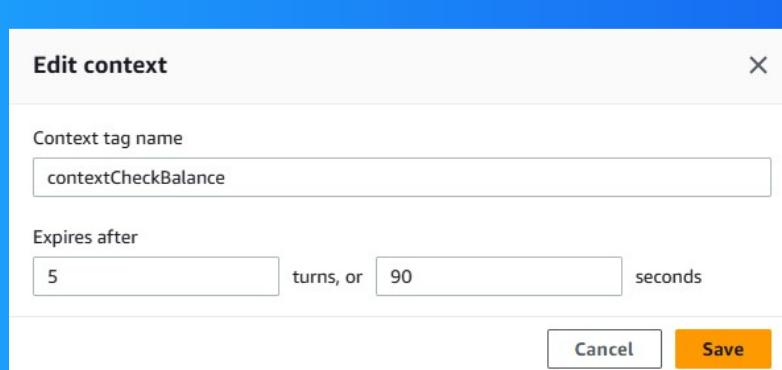
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Context Tags

Context tags are markers used to store information between different user interactions in Amazon Lex. They help the chatbot remember key details, such as account type, across multiple intents or conversation turns, improving the conversation.

There are two types of context tags: output and input. Output tags store information after an intent is triggered, while input tags enable subsequent intents to retrieve that information, allowing the bot to carry details across multiple interactions

I created an output context tag called contextCheckBalance. This context tag was created in the CheckBalance intent.





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FollowUpCheckBalance

I created a new intent called FollowupCheckBalance. The purpose of this intent is to let users check their balance again without being asked for their birthday, using the contextCheckBalance tag to carry over the previous verification.

This intent is connected to the previous intent I made, CheckBalance, because both use the same contextCheckBalance tag, allowing the user's date of birth to carry over without needing re-verification.

The screenshot shows the 'Sample utterances' section of the Amazon Lex console. It includes a 'What's this?' link, a 'Generate utterances' button, a note about permissions, a search bar, a filter dropdown, and a table with four rows of sample utterances. The first row is highlighted in blue.

Preview	Plain text
1 How about my {accountType} account?	1 How about my {accountType} account?
2 What about {accountType} ?	2 What about {accountType} ?
3 And in {accountType} ?	3 And in {accountType} ?
4	4

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Input Context Tag

I created an input context, contextCheckBalance, that carries the dateOfBirth value from CheckBalance intent into FollowupCheckBalance for smooth context transitions.

▼ Default values - *optional*

#contextCheckBalance.dateOfBirth X

Provide a default value, #value for a context value, or [variable] for session variable.

Add default value

Cancel Update slot



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The final result!

To see the context tags and the follow-up intent in action, I said, 'What about checking?' without being asked for my date of birth again.

If I had tried to trigger FollowUpCheckBalance without setting context, my chatbot wouldn't have the context needed. As a result, it would trigger FallbackIntent, informing the user that the request isn't understood.

The screenshot shows the Microsoft Bot Framework Emulator interface. On the left, there is an 'Inspect' tool window. The 'Summary' tab is selected, showing the intent 'FollowupCheckBalance'. Below it, the 'Slots' section lists 'accountType' as 'Checking' and 'dateOfBirth' as '1999-03-21'. The 'Active contexts' section shows 'contextCheckBalance' with a value of '4 turns or 76s'. To the right of the inspect window is a 'Test Draft version' pane. It shows a conversation where the user says 'Check my savings balance', the bot asks for the date of birth ('For verification purposes, what is your date of birth?'), the user replies '21/03/1999', and the bot responds with 'Thank you. The balance on your Savings account is \$418.06 dollars.' The user then asks 'What about checking?', and the bot responds with 'Thank you. The balance on your Checking account is \$236.24 dollars.' At the bottom of the inspect window, a green button says 'Ready for complete testing'.



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