

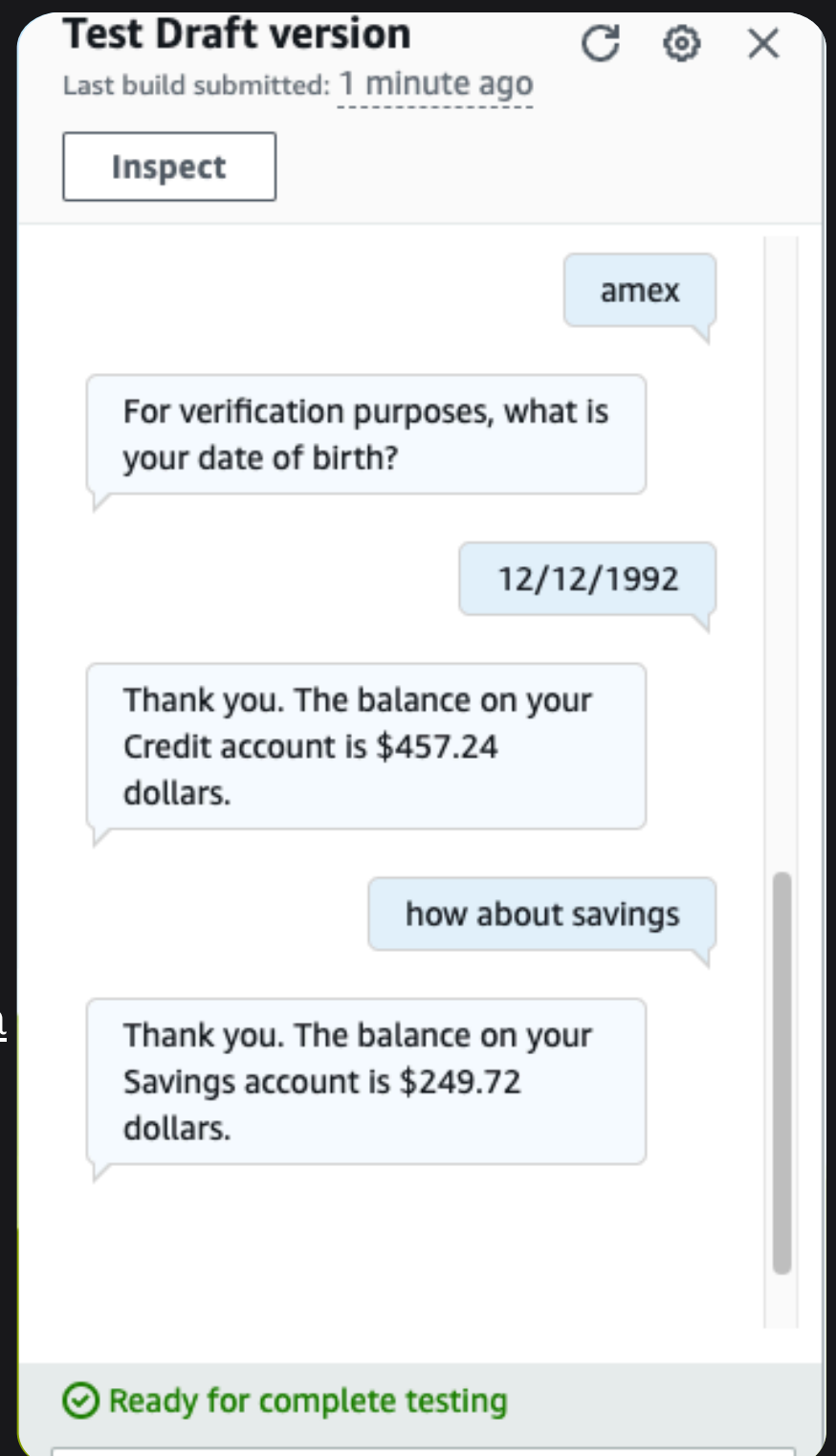
How I built a chatbot with Amazon Lex

that can remember user info!



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What is Amazon Lex?

What it does:

- It helps to build chatbots capable of understanding and responding to human language, whether it's spoken or typed.

Why it's useful:

- It makes it easier to create chatbots that can handle customer inquiries, automate tasks, and provide information without needing human intervention all the time.

How I'm using it in today's project:

- In this project, I'm using Amazon Lex to create BankerBot, which remembers your birthday (so you don't have to give it again) by using a handy technique called context carryover.



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Context Tags

- Context tags are tools for Amazon Lex to remember specific pieces of information gathered from a conversation, and reuse that information throughout the session with its user.
- There are two types of context tags, they are output tags and input context tags.
- I created an output context tag called contextCheckBalance and I created this in the intent CheckBalance.

A look at output contexts

Add new context tag ×

Context tag name

contextCheckBalance

Expires after

5 turns, or 90 seconds

Cancel Add



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A Follow-Up Intent



- I created a new intent called **FollowupCheckBalance**. The purpose of this intent is to let the user check another account balance without having to provide their date of birth again.
- This intent is related to the previous intent I made, **CheckBalance**, because FollowUpCheckBalance will only get triggered after the user has checked their balance once already (i.e triggered CheckBalance)
- I created an input context, **contextCheckBalance**, that is using the exact same tag as the output context tag I've set up in the CheckBalance intent. What this means is, input information we are looking for in this intent (FollowUpCheckBalance) can now be retrieved from the CheckBalance intent through this tag.

A look at input contexts



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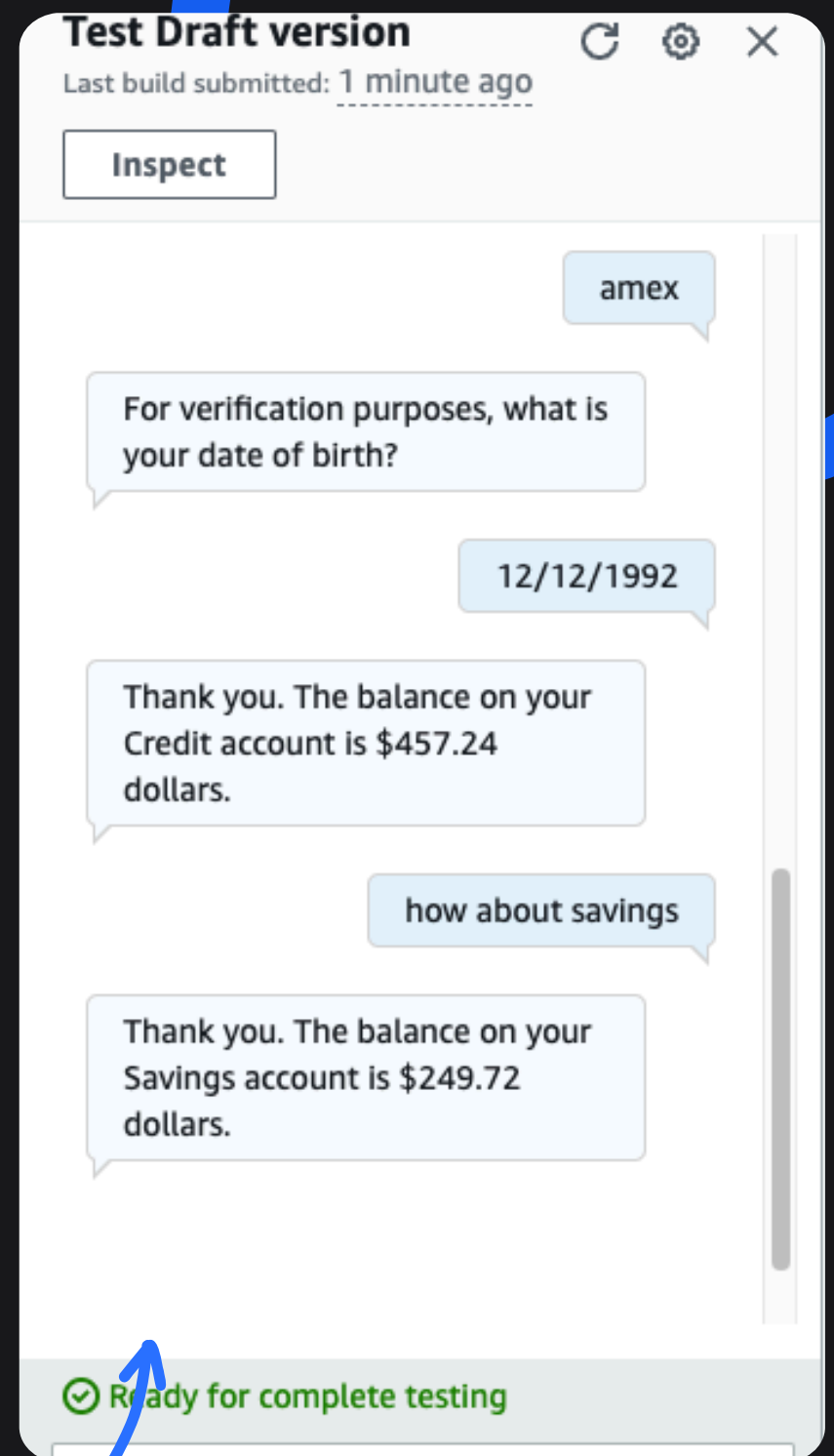


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Context Tags in Action

- Conversation time! I built and tested my bot after creating the context tags and new intent.
- To see the context tags and the follow-up in intent in action, I first triggered the CheckBalance intent, then I followed up with the utterance **“What about savings”** to trigger FollowUpCheckBalance.

If I had gone straight to trying to trigger FollowUpCheckBalance without setting up any context, my chatbot would not have the context needed to fulfill the conversation. As a result, it will return the FallbackIntent i.e. let the user know it doesn't understand the request being made.



**My chatbot now carries
over the user's date of
birth to the next intent!**



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My Key Learnings

01

Context tags are very useful and easy to add to intents

02

The difference between input and output context tags is:

- Input Context Tags: Used before the data is processed.
- Output Context Tags: Used after the data is processed.
- Input Context Tags: Help in interpreting and processing data received by a system.
- Output Context Tags: Help in interpreting and processing data generated by a system.

03

I created the input context in FollowupCheckBalance by using the CheckBalance Output context information

04

A requirement for triggering FollowupCheckBalance is having the user's date of birth saved, without it, the intent may not function correctly.

05

I learnt about context tags and security risks during verification



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Final thoughts...

- This project took me 30 minutes. Writing documentation took me 25 minutes.
- Delete EVERYTHING at the end! Let's keep this project free :)
- One thing I didn't expect was the use of context tags
- In the next phase of this project, I'm excited to level up my Lex bot one more time by creating an intent that can help users transfer funds between accounts. I'm also using AWS CloudFormation to recreate my bot in seconds!



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