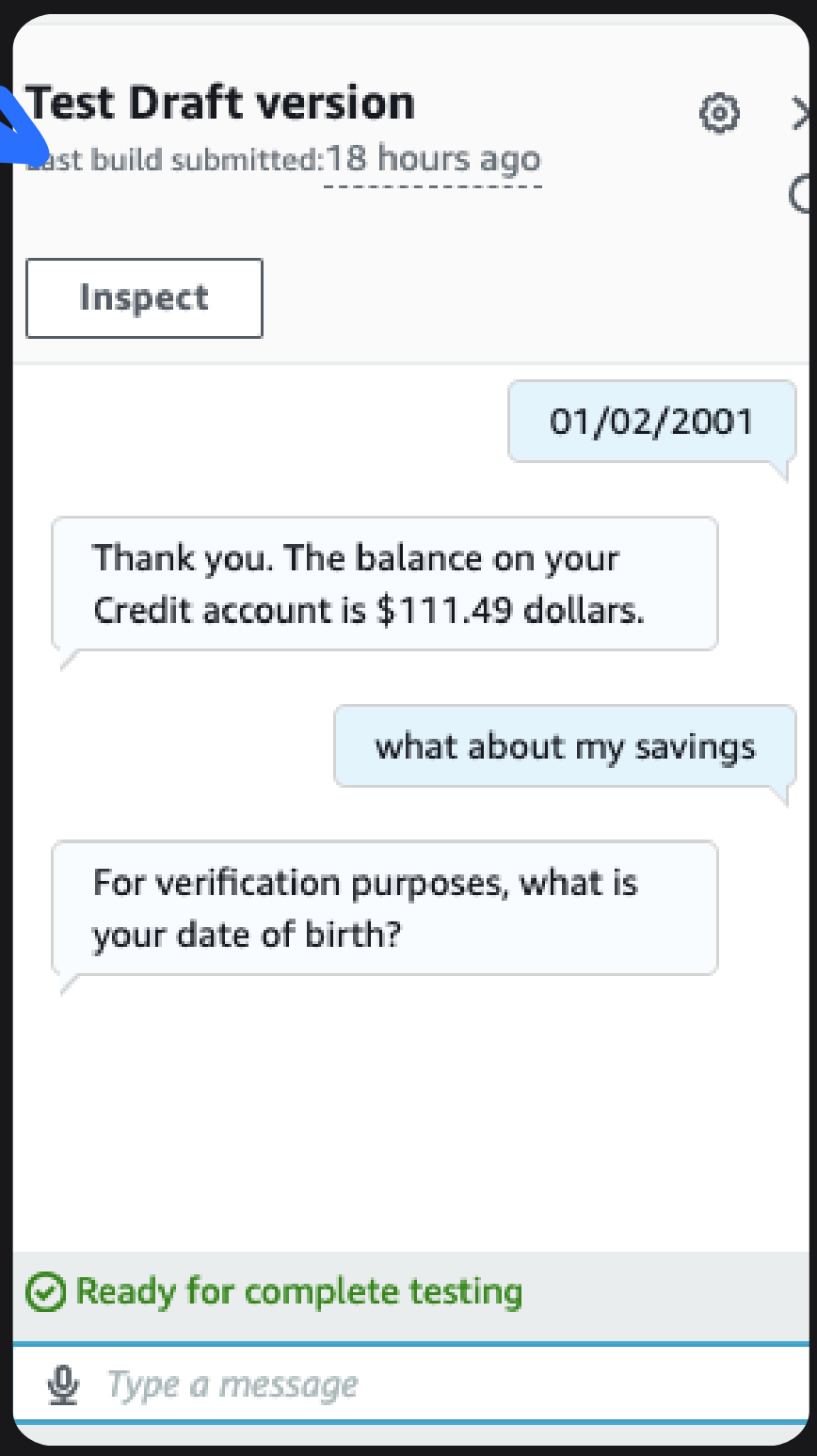
NEXTWORK

How I built a chatbot with Amazon Lex

featuring custom slots!



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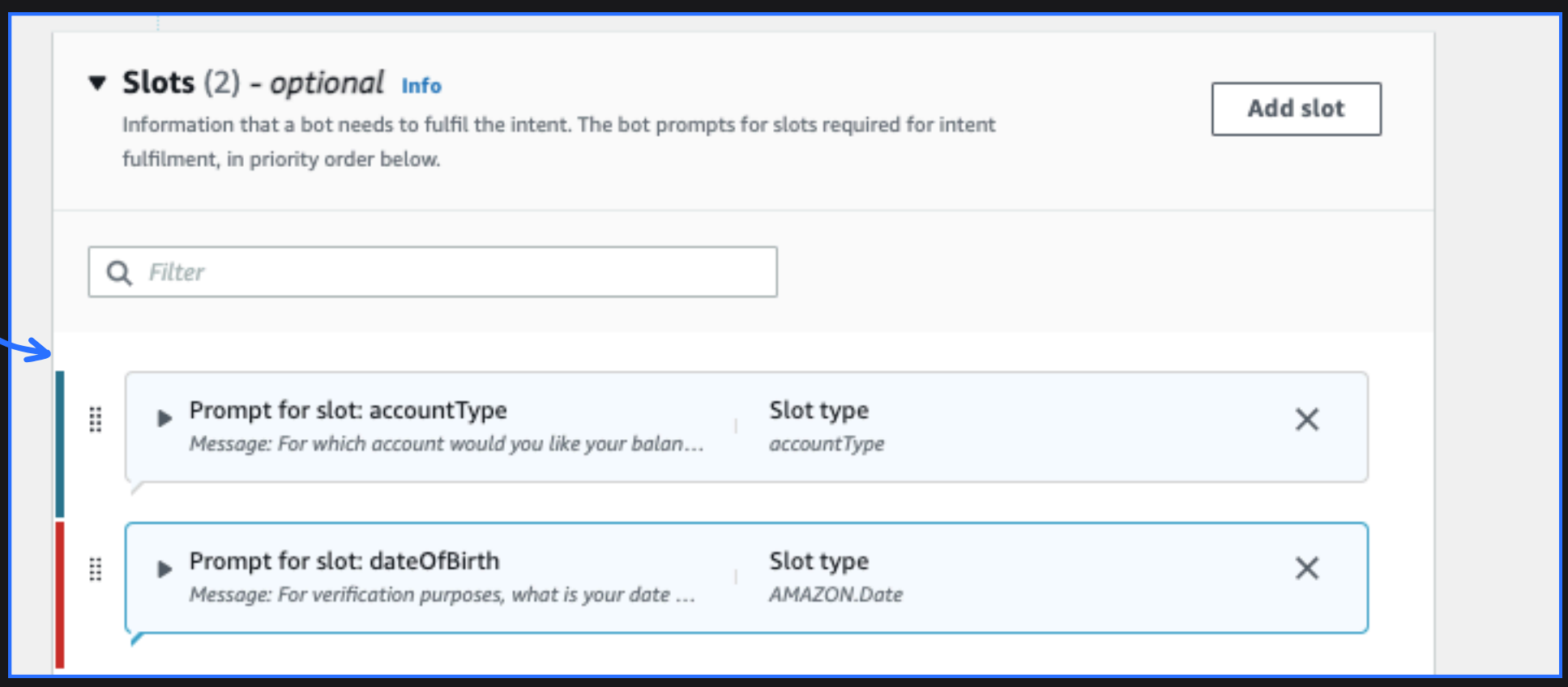
Create custom slots

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

- In this project, I created a **custom slot** to represent the different account types that a banking customer could have, A custom slot type was required as the default slot types did not accommodate for account types (e.g. Checking, Savings, Credits).

- I then associated the custom slot with a new intent, CheckBalance, which is a new intent that will help my bank's customers check its user's account balances.

My custom slots



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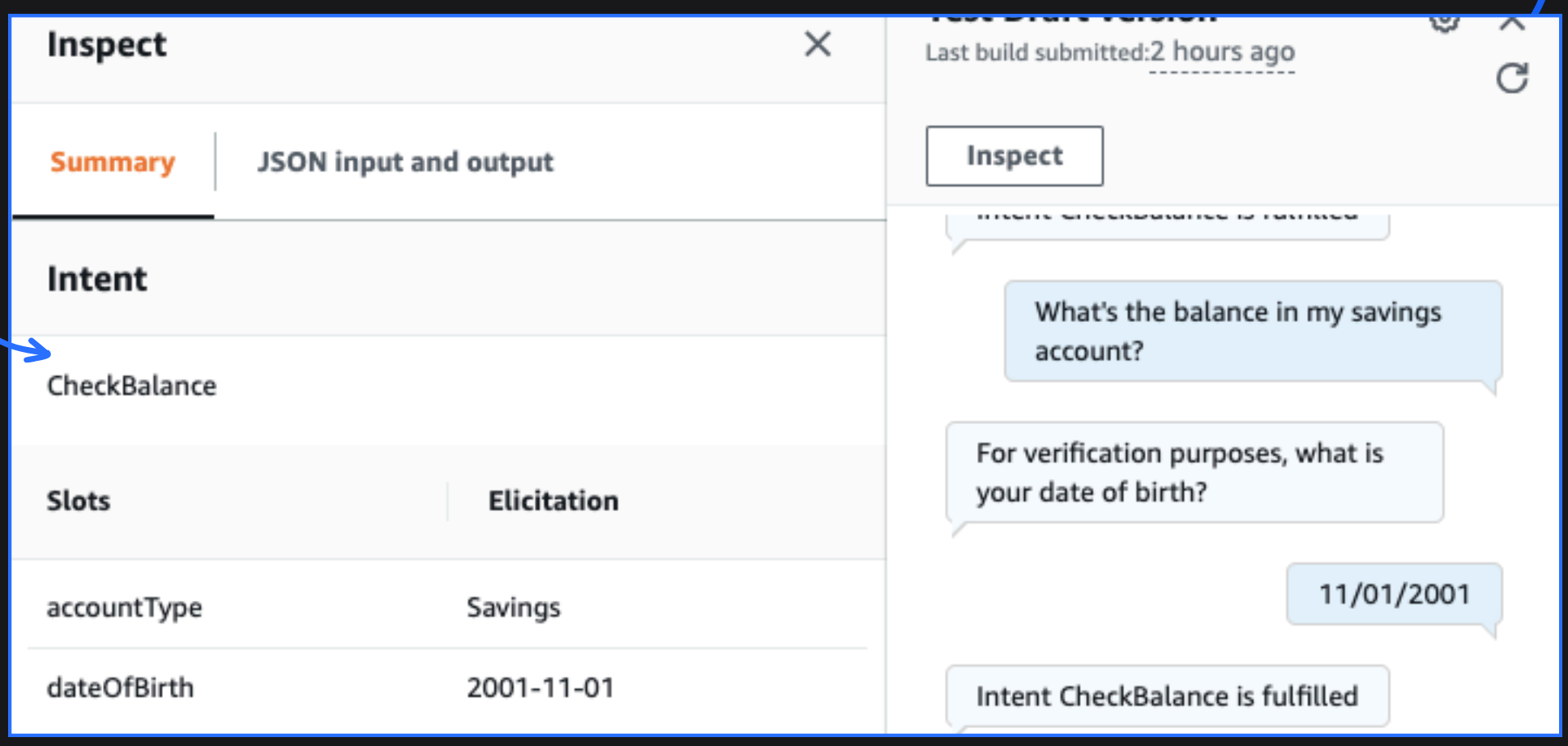
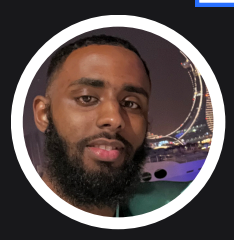
Simplifying the user experience

- I included slot values in some of the utterances (i.e. user inputs) for this intent too. For example, I defined the utterance "What's the balance in my {accountType} account?" This is an example of an utterance that expects the slot accountType.

- By adding custom slots in the utterance, the user experience is enhanced- the bot will automatically register which account type the user is trying to check, and will not ask for it again. This saves the user's time and makes the conversation much more efficient.



Slot values getting recognised in a conversation



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My Key Learnings

01 Slots are pieces of information that a chatbot needs to complete a user's request, similar to blanks in a form.

02 What are slot types define the kind of data a slot can hold such as dates, times or custom slot values. Custom slot types are user-defined categories specific to particular needs (e.g. account number format).

03 I used a custom slot type in this project today to represent different bank account types (Checking, Credit and Savings) to ensure accurate recognition and handling of these specific categories.

04 I parsed my custom slot in the utterance by including the slot value {accountType} in a prompt. For example, in "What's the balance in my {accountType} account?", Lex recognises and fills in the account type from the user's input.

05 In this project I learned how to add and use another slot from the user's date of birth (dateOfBirth). This helps verifying the user's identity before providing sensitive information like account balances by incorporating the slot type AMAZON.Date for dateOfBirth. The chatbot can ask for and validate the user's birth date seamlessly, ensuring an extra layer of security in the interaction. I have the same interaction when I call my bank which is amazing to see.

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Final thoughts...

- This project took me around 35 minutes. Writing documentation took me 20 minutes.

- Delete EVERYTHING at the end! Let's keep this project free :)

- In the next phase of this project, we're enhancing BankerBot's memory with context carryover, allowing it to remember key details like the user's birthday during a session for a smoother experience. I'll also set up a new flow for transferring money between accounts!

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