

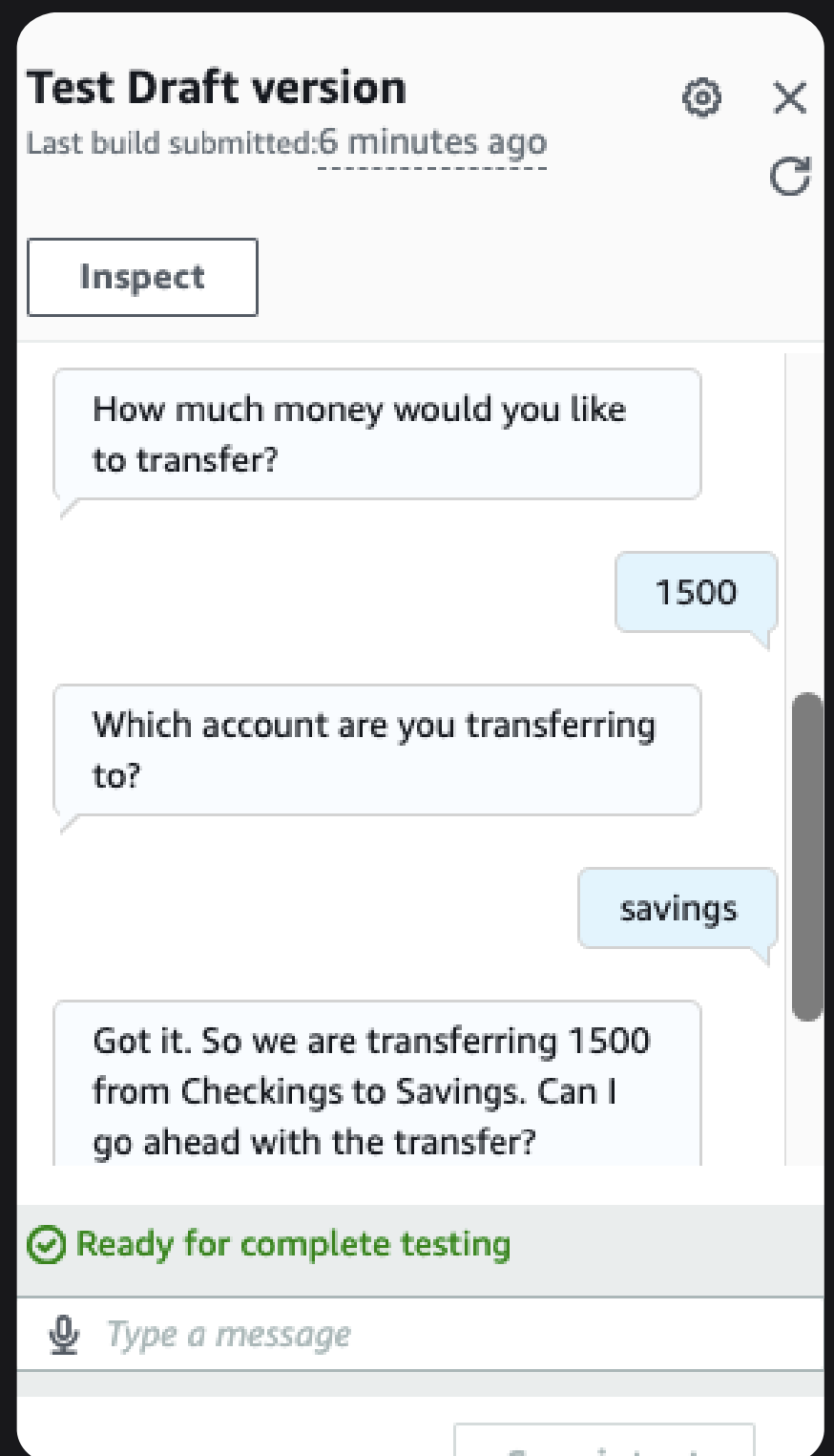
How I built a chatbot with Amazon Lex

with multiple slots!  



Abdigani Awil Mohamed

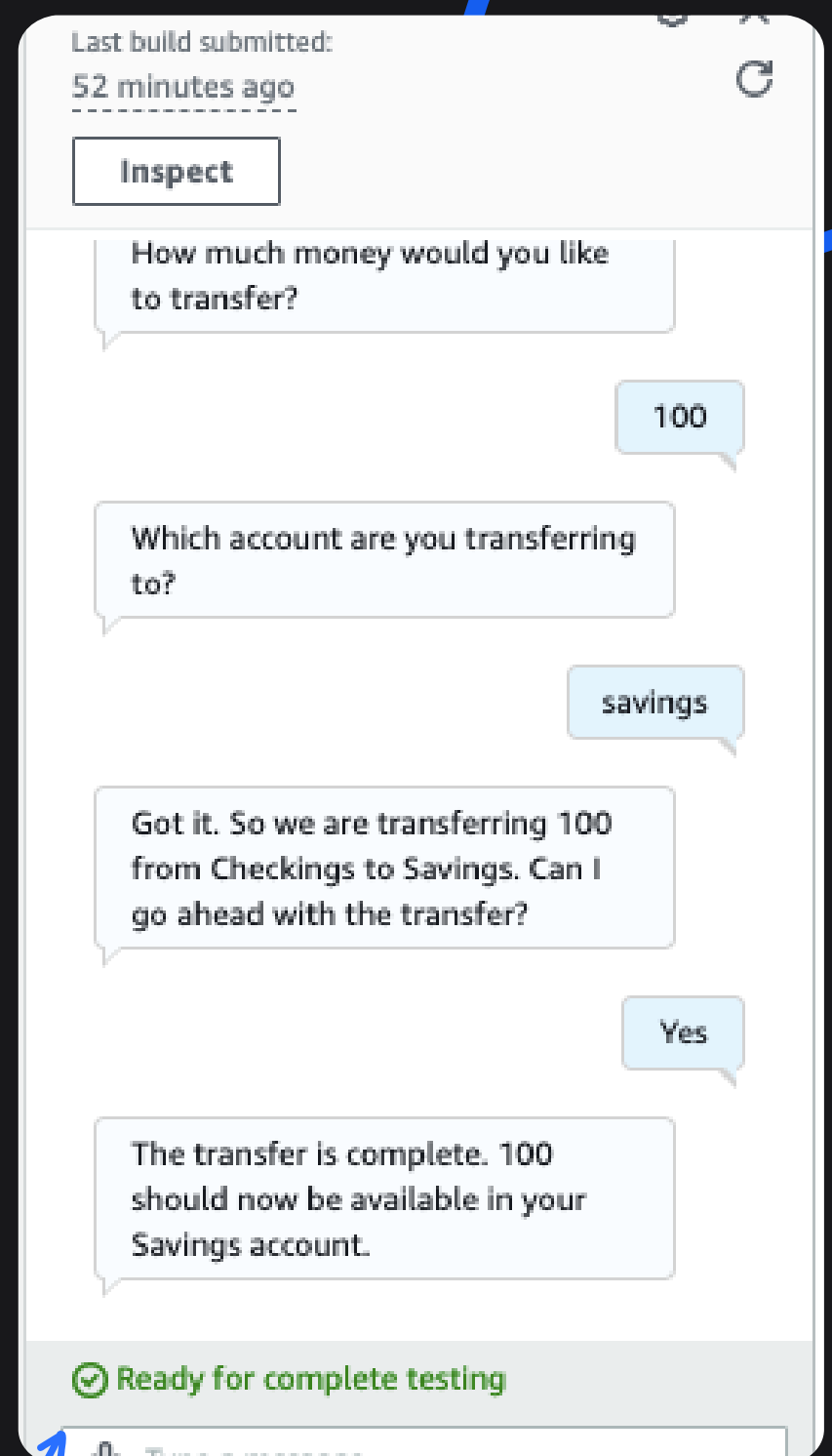
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More slots!

- Slots are pieces of information that my chatbot needs to fulfil an intent.
- The final intent for my chatbot was TransferFunds, which will help the user transfer money between bank accounts.
- For this intent, I had to use the same slot type twice. This is because the TransferFund intent involves two different accounts. The source account (i.e. the account we are transferring the money from) and the target account (i.e. the account that the money will fall in).
- I also learnt how to create confirmation prompts, which are prompts designed for the chatbot to confirm the user's intention to carry out the intent. In this project, a confirmation prompt was used in this chatbot to confirm that the user wants to transfer a specific amount of money between two bank accounts.

A conversation demonstrating the two slots and the confirmation prompts in action!



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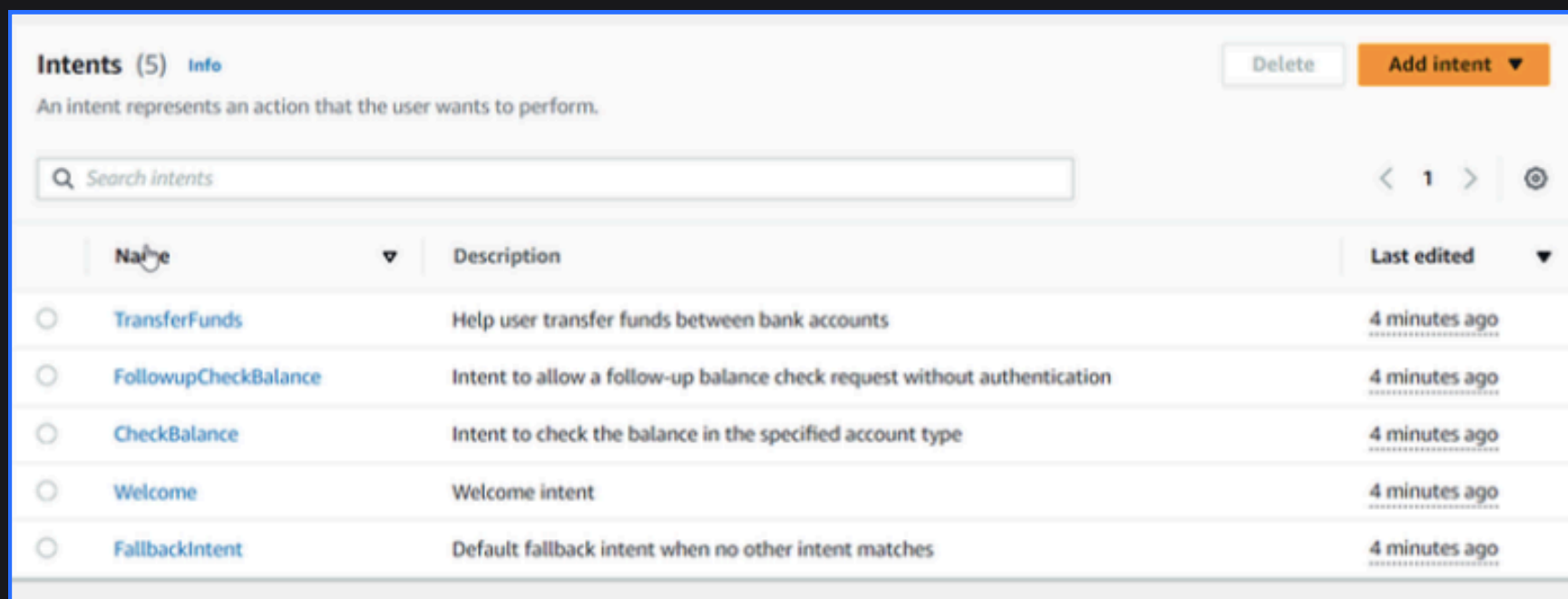
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A LITTLE EXTRA...

Deploying with CloudFormation

- AWS CloudFormation is a service that automates the provisioning and management of your AWS infrastructure.
- As an extension to this project, I learnt how to deploy the entire BankerBot using a single CloudFormation stack.
- Doing this took me less time and effort compared to manually creating each resource.
- Something I learnt from deploying with CloudFormation was the importance of the infrastructure as code. It allows for a repeatable and consistent way to build and deploy my chatbot environment, but the YAML File isn't easy to write if you're not a programmer.

CloudFront
deployed this
for me!



Name	Description	Last edited
TransferFunds	Help user transfer funds between bank accounts	4 minutes ago
FollowupCheckBalance	Intent to allow a follow-up balance check request without authentication	4 minutes ago
CheckBalance	Intent to check the balance in the specified account type	4 minutes ago
Welcome	Welcome intent	4 minutes ago
FallbackIntent	Default fallback intent when no other intent matches	4 minutes ago



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My Key Learnings

01

I used the `accountType` slot type twice in the same intent to specify both the source and target accounts for transfers, ensuring clear distinctions for each step of the transaction.

02

Confirmation prompts typically repeat back information for the user to confirm. If the user confirms the intent, the bot fulfills the intent. If the user declines, then the bot responds with a decline response that you set up.

03

CloudFormation is a service that gives you an easy way to create and set up AWS resources. It creates a CloudFormation template that describes all the resources you want to create and their dependencies as code.

04

I learned the importance of using clear, distinct slot names and how structured automation can enhance deployment efficiency and consistency.



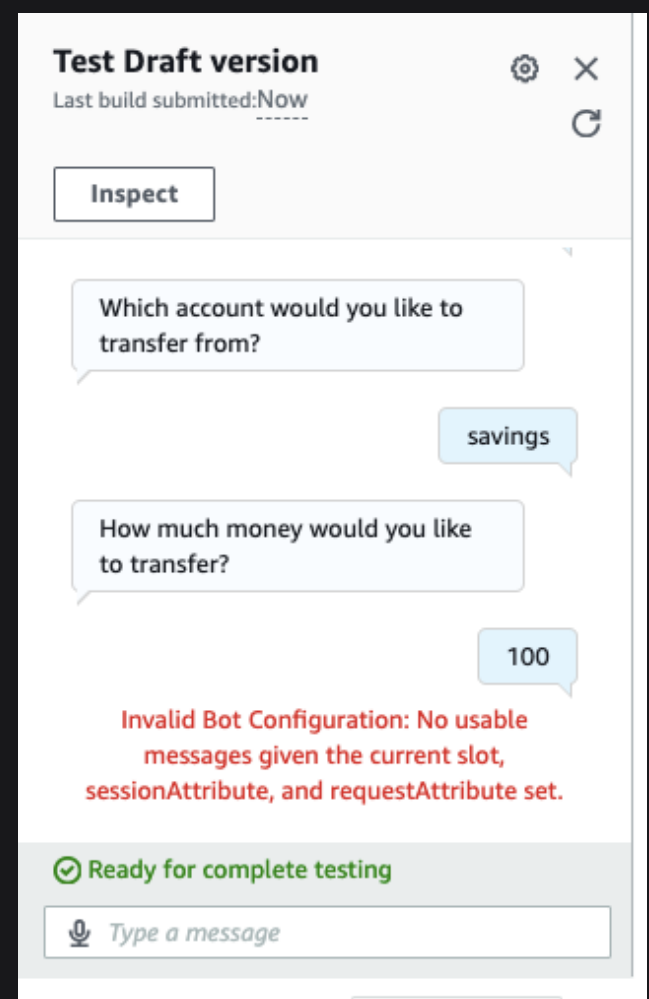
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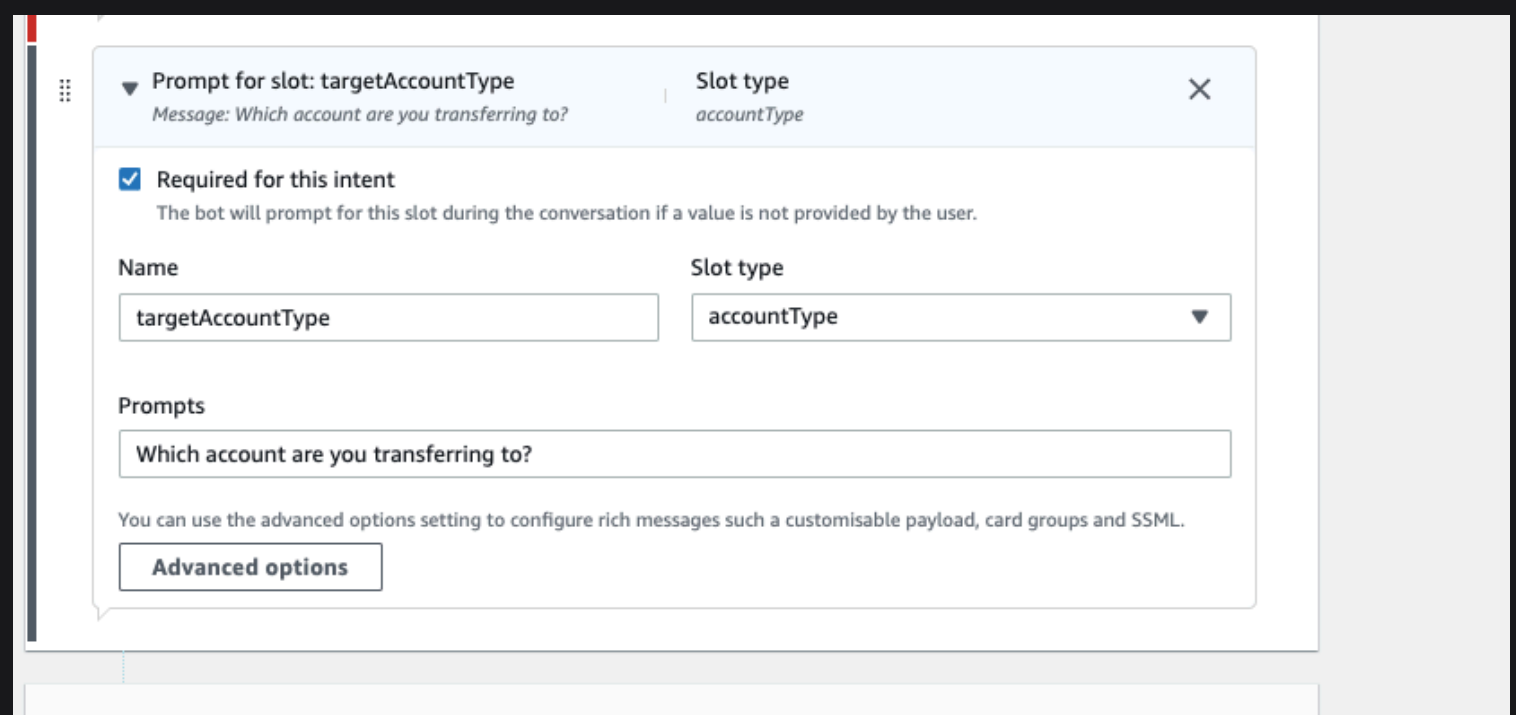
ERROR! 🙄 OMG!

An error I ran into was...

- An error I ran into was the error message “Invalid Bot Configuration: No usable messages given the current slot, sessionAttribute and requestAttribute set.”
- The error message is trying to tell me that my response (“100”) to the chatbot’s prompt “How much money would you like to transfer?” was invalid given my setup of my TransferFunds intent.
- I ran into this error
- ☒ I solved this error by ensuring the “Required for this Intent” box is ticked as when i set up the slot this wasn't set up and this is why they didn't ask me for my targetAccountType.



Screenshot of error here

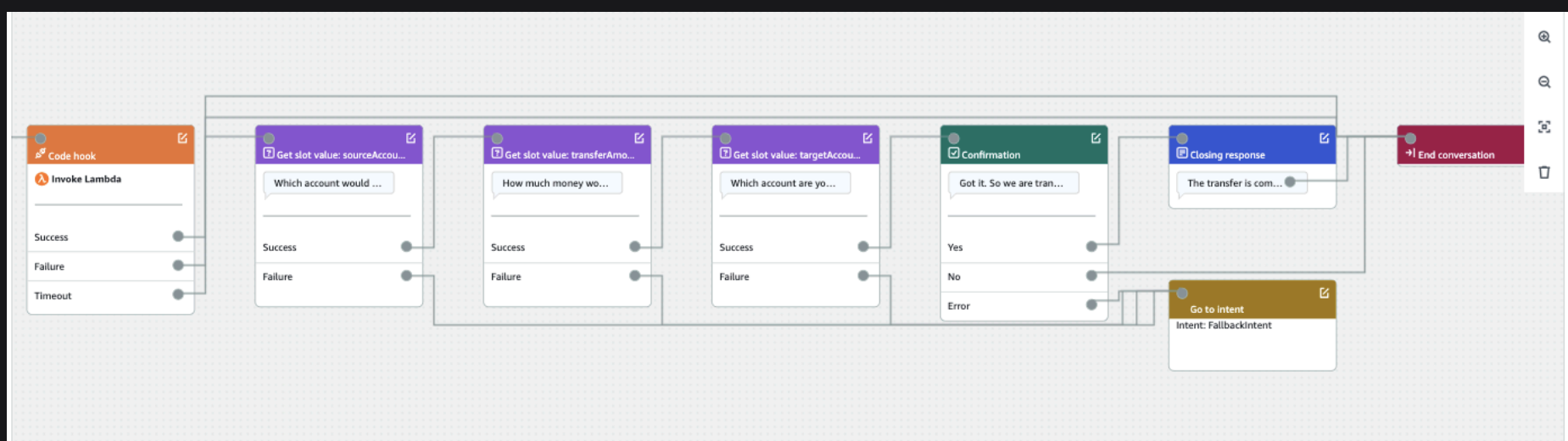


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@abdiganiawil10

Final thoughts...

- This part of the project took me 45 minutes. Writing documentation took me 20 minutes.
- Delete EVERYTHING at the end! Let's keep this project free :)
- An area of Lex I'd like to explore further is the visual editor, connecting your chatbot to an application/database and exploring other types of responses that I could use when setting up an intent (such as acknowledge intent, slot capture success/failure response).



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@abdiganiawil10