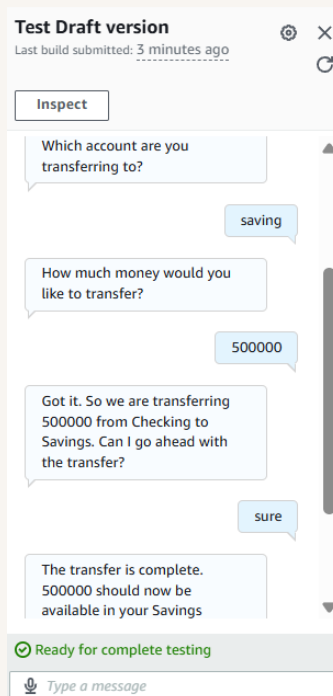




Build a Chatbot with Multiple Slots



lue





Introducing Today's Project!

What is Amazon Lex?

Amazon Lex is an AWS service to build chatbots using voice or text. It understands natural language, manages conversations, and integrates with AWS services, making chatbot creation easier and scalable for customer support and automation.

How I used Amazon Lex in this project

I used Amazon Lex to create a BankingBot that handles balance checks and follow-ups. By setting intents, slots, and context tags, the bot remembers user info like date of birth, enabling smooth, natural conversations without repeating details.

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

One thing I didn't expect was how powerful context tags are in Amazon Lex. They made the chatbot remember user details across intents easily, improving the conversation flow and making interactions feel much more natural and seamless than I thought.



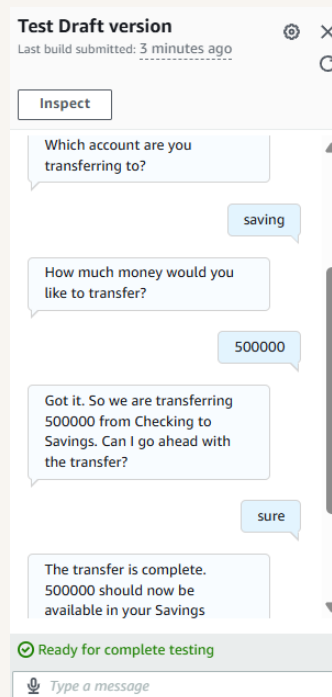
This project took me...

20 mins



TransferFunds

An intent created for my chatbot was TransferFunds, helping users transfer money between their bank accounts, collecting the source and target accounts, the amount to transfer, confirms the details with the user, and completes the transfer if confirm





Using multiple slots

For this intent, I had to use the same slot type twice. This is because both the source and target accounts use the `accountType` slot type, but they collect different information—one for where the funds come from and one for where they go.

I also learnt how to create confirmation prompts, which are messages that repeat back the user's request and ask for confirmation before proceeding. This helps prevent mistakes and ensures the user really wants to complete the requested action.

Confirmation Info

☒ Active

Prompts help to clarify whether the user wants to fulfill the intent or cancel it.

▼ Prompts to confirm the intent

Message: Got it. So we are transferring {transferAmou...

Responses sent when the user declines the intent

Message: The transfer has been cancelled.

Confirmation prompt

What will the bot say to prompt the user to confirm this intent.

Got it. So we are transferring {transferAmount} from {sourceAccountType} to {targetAccountType}. Can I go ahead

Decline response

What will the bot say if the user says NO to the confirmation prompt.

The transfer has been cancelled

Advanced options

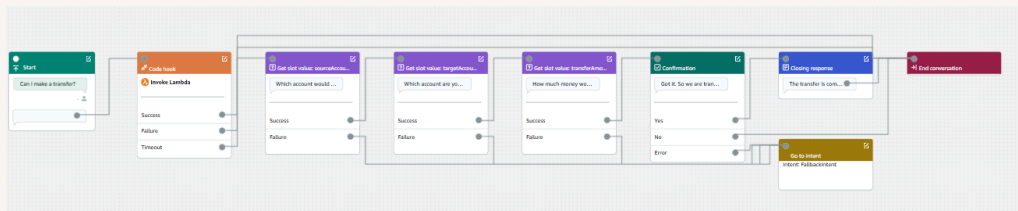
Configure confirmation prompts and decline responses.



Exploring Lex features

Lex also has a special conversation flow feature that lets you control the path a user takes through a conversation by setting conditions, branching, and customizing next steps. This makes complex, multi-turn interactions smoother and more flexible.

I could also set up your intent using a visual builder! A visual builder lets you design your chatbot's conversation flow using blocks and connections, making it easy to see and manage how each part of the conversation links together without coding.

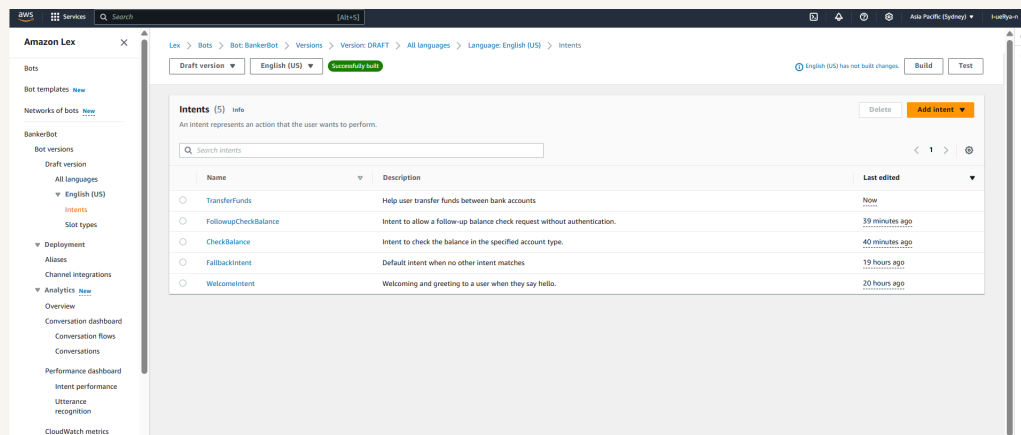




AWS CloudFormation

AWS CloudFormation is a service that lets you model, provision, and manage AWS resources as code, using templates written in JSON or YAML. It automates resource setup, updates, and deletion, saving time and reducing manual effort.

I used CloudFormation to automate the deployment of BankerBot, including its intents like CheckBalance and FollowupCheckBalance. This let me quickly set up the bot and all related AWS resources in seconds, saving time and avoiding manual setup.





The final result!

2 mins

There was an error after I deployed my bot! The error was denied access to the Lambda function. I fixed this by creating a new Lambda, updating the alias, and adding a resource-based policy to grant my chatbot permission to invoke the function.

Add permissions

Edit policy statement

☐ AWS account
Grant permissions to another AWS account, user, or role.

☒ AWS service
Grant permissions to another AWS service.

☐ Function URL
Grant permissions to invoke your function through the function URL.

Service
The AWS service to grant permissions to.

Other

Statement ID
Enter a unique statement ID to differentiate this statement within the policy.

my-custom-permission-awsChatBot

Principal
The service principal for this AWS service. [Learn more](#)

lexv2.amazonaws.com

Source ARN
The ARN for a resource. Find the ARN in the related service console.

arn:aws:lex:us-west-2:471112976395:botalias/*

Action
Choose an action to allow.

lambda:InvokeFunction