



# Connect a Chatbot with Lambda



Sohan M

**Test Draft version** G ⚙ X  
Last build submitted: 5 minutes ago

**Inspect**

ACCOUNT BALANCE, TRANSFER FUNDS  
and make a payment.

can you please check the savings  
balance

For verification purposes, what  
is your date of birth?

14/11/2002

Thank you. The balance on your  
Savings account is \$74.43  
dollars.

Ready for complete testing

Type a message

A screenshot of a chatbot interface titled 'Test Draft version'. The interface shows a conversation between a user and a bot. The user asks for a savings balance, and the bot asks for the date of birth. The user provides the date of birth (14/11/2002), and the bot responds with the account balance (\$74.43). A green checkmark indicates the bot is ready for testing. The interface includes standard controls like inspect, gear, and close buttons.



# Introducing Today's Project!

## What is Amazon Lex?

Amazon Lex is a conversational AI service on AWS that allows developers to build, test, and deploy chatbots like BankerBot. With features like TestBotAlias and code hooks, Lex integrates easily with Lambda for custom responses.

## How I used Amazon Lex in this project

In today's project, I used Amazon Lex to build BankerBot by setting up intents for banking queries and adding restricted slot types to control user inputs. I also configured a Lambda function in the TestBotAlias for handling custom responses.

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

One thing which really intrigued me is the ability to integrate different AWS Services to build an application or software etc. Also aliasing is such an useful feature which helps in updating the versions without impacting the original one.

## This project took me...

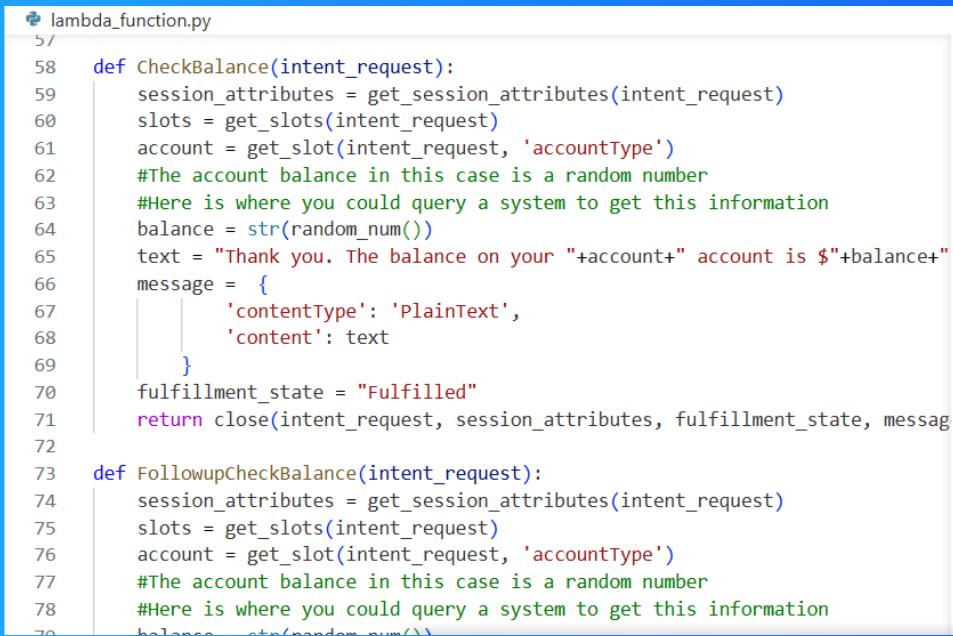
This part opf the project took me around 60 minutes as there were lot of parts where I needed to understand such as the terms and the Lambda code to connect it the chatbot.



# AWS Lambda Functions

AWS Lambda is an AWS service that helps to run code without having the headache of managing servers. It can auto scale according to the requirements.

In this project, I created a Lambda function to generate the user's bank balance. In this example a random figure is generated but in real world the Lambda function can be connected to a bank's database to retrieve the actual balance.



lambda\_function.py

```
5/
58 def CheckBalance(intent_request):
59     session_attributes = get_session_attributes(intent_request)
60     slots = get_slots(intent_request)
61     account = get_slot(intent_request, 'accountType')
62     #The account balance in this case is a random number
63     #Here is where you could query a system to get this information
64     balance = str(random_num())
65     text = "Thank you. The balance on your "+account+" account is $" +balance+
66     message = {
67         'contentType': 'PlainText',
68         'content': text
69     }
70     fulfillment_state = "Fulfilled"
71     return close(intent_request, session_attributes, fulfillment_state, messag
72
73 def FollowupCheckBalance(intent_request):
74     session_attributes = get_session_attributes(intent_request)
75     slots = get_slots(intent_request)
76     account = get_slot(intent_request, 'accountType')
77     #The account balance in this case is a random number
78     #Here is where you could query a system to get this information
79     balance = str(random_num())
```

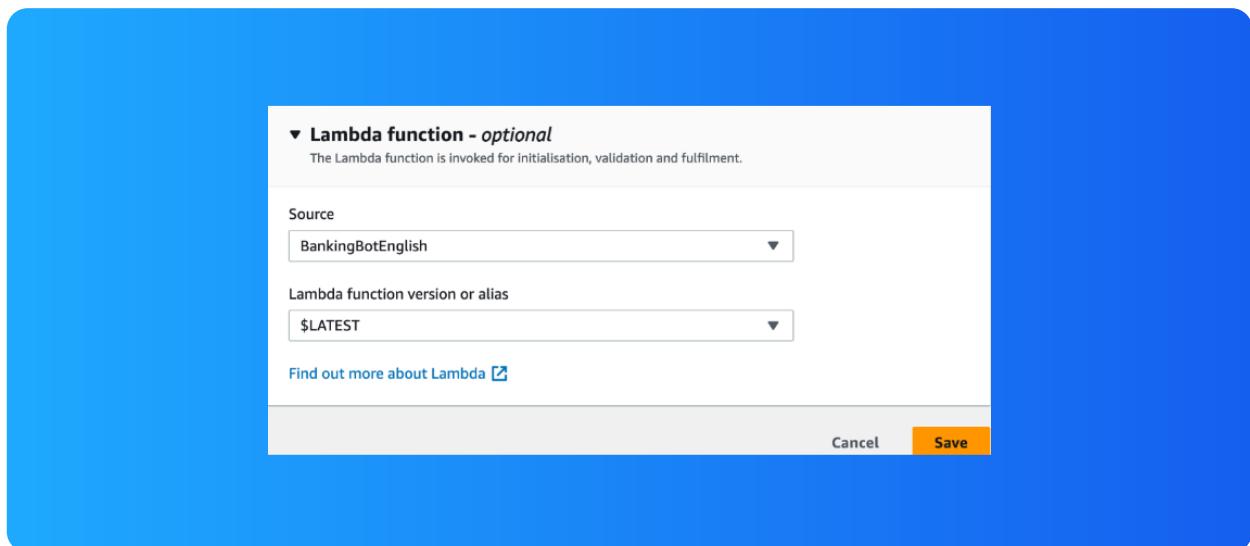


# Chatbot Alias

An alias is like a pointer that points the AWS services such as AWS lambda to the chatbot . It acts a a connector that connects all the services at one point thereby decreasing the developer's time and reducing errors.

TestBotAlias is a specific version or label assigned to a chatbot in Amazon Lex, allowing developers to test, manage, and deploy different iterations without impacting the main production bot.

"To connect Lambda with my BankerBot, I visited my bot's TestBotAlias and configured the Lambda function to handle intents, enabling custom responses and logic for user interactions."



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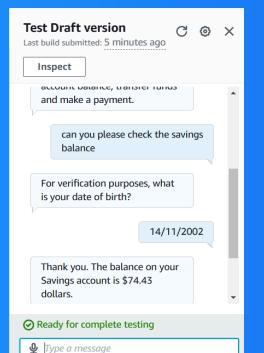
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# Code Hooks

A code hook is a piece of code that can be connected to my chatbot to perform functions/actions that my chatbot cannot do alone by default.

Even though I already connected my Lambda function with my chatbot's alias, I had to use code hooks because the chatbot is not able to calculate /return bank balance figure on its own.

"I could find code hooks in the Amazon Lex console under the settings for each intent. These hooks allow integration with AWS Lambda functions to execute custom code during conversation flow."



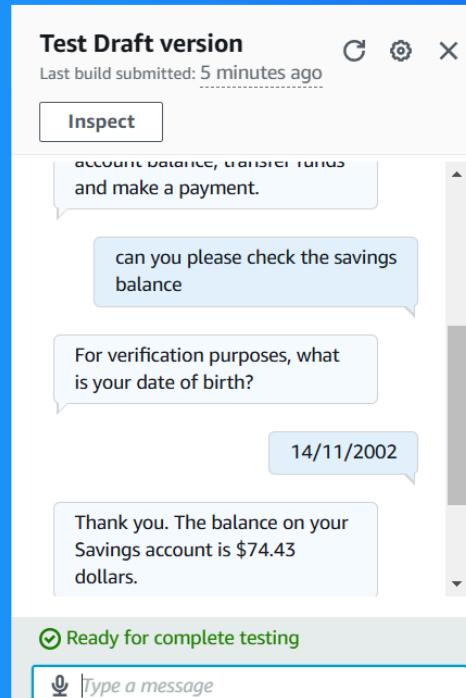


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# The final result!

I've set up my chatbot to trigger Lambda and return a random dollar figure when the user asks to check the balance of any type of account and the Lambda service runs in the background using the code it generates a random number between 1 and 500.





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