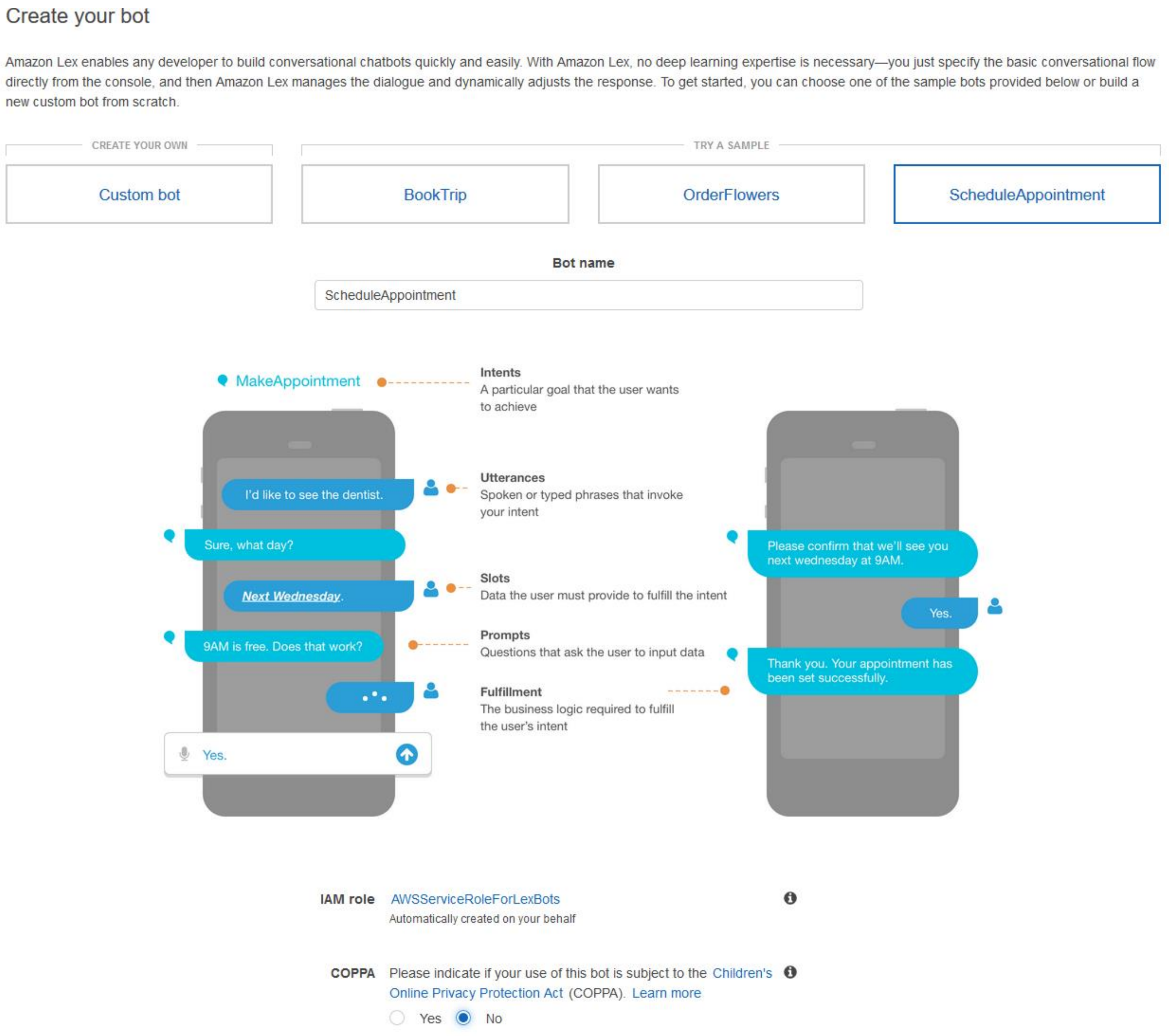
Chatbot Hands on

Laboratório:

1) **Acesse o serviço Amazon Lex pela console e crie o bot ScheduleAppointment usando a Role padrão e selecionando No na opçao de COPPA**



Create your bot

Amazon Lex enables any developer to build conversational chatbots quickly and easily. With Amazon Lex, no deep learning expertise is necessary—you just specify the basic conversational flow directly from the console, and then Amazon Lex manages the dialogue and dynamically adjusts the response. To get started, you can choose one of the sample bots provided below or build a new custom bot from scratch.

Bot name: ScheduleAppointment

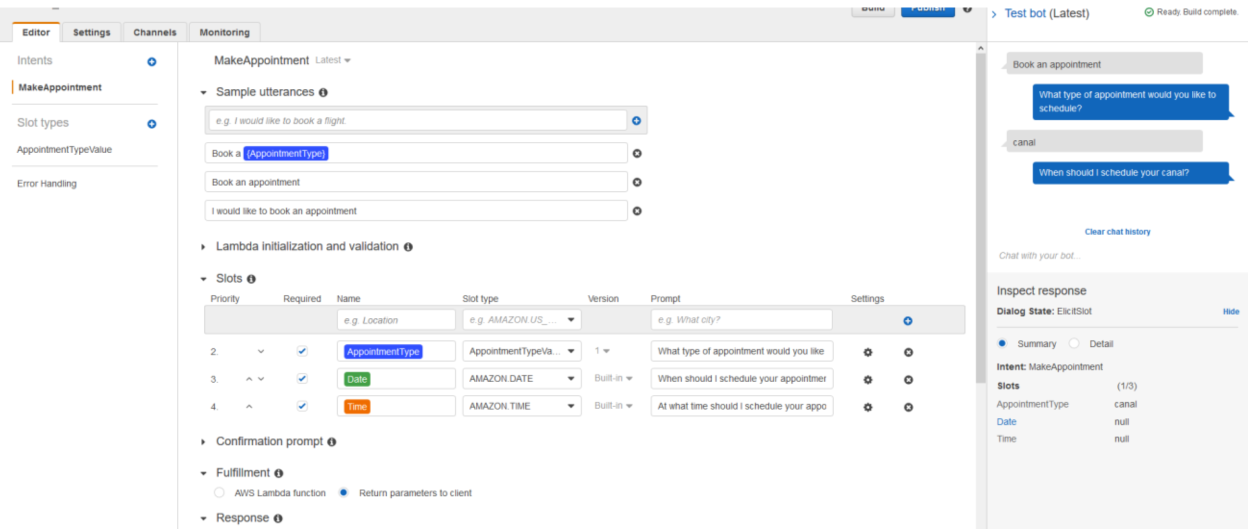
MakeAppointment
Intents
A particular goal that the user wants to achieve
I'd like to see the dentist.
Utterances
Spoken or typed phrases that invoke your intent
Sure, what day?
Next Wednesday.
Slots
Data the user must provide to fulfill the intent
9AM is free. Does that work?
Prompts
Questions that ask the user to input data
Fulfillment
The business logic required to fulfill the user's intent
Yes.
Please confirm that we'll see you next wednesday at 9AM.
Yes.
Thank you. Your appointment has been set successfully.

IAM role: AWSServiceRoleForLexBots
Automatically created on your behalf

COPPA: Please indicate if your use of this bot is subject to the Children's Online Privacy Protection Act (COPPA). Learn more

○ Yes ● No

Verifique como o bot foi criado e faça algums testes pela console:



MakeAppointment Latest

Sample utterances

e.g. I would like to book a flight.

Book a {AppointmentType}

Book an appointment

I would like to book an appointment

Lambda initialization and validation

Slots

Priority	Required	Name	Slot type	Version	Prompt	Settings
		e.g. Location	e.g. AMAZON.US_...		e.g. What city?	
2.	✓	AppointmentType	AppointmentTypeVa...	1	What type of appointment would you like	
3.	✓	Date	AMAZON.DATE	Built-in	When should I schedule your appointmer	
4.	✓	Time	AMAZON.TIME	Built-in	At what time should I schedule your appo	

Confirmation prompt

Fulfillment

○ AWS Lambda function ● Return parameters to client

Response

Book an appointment

What type of appointment would you like to schedule?

canal

When should I schedule your canal?

Clear chat history

Chat with your bot...

Inspect response

Dialog State: ElicitSlot Hide

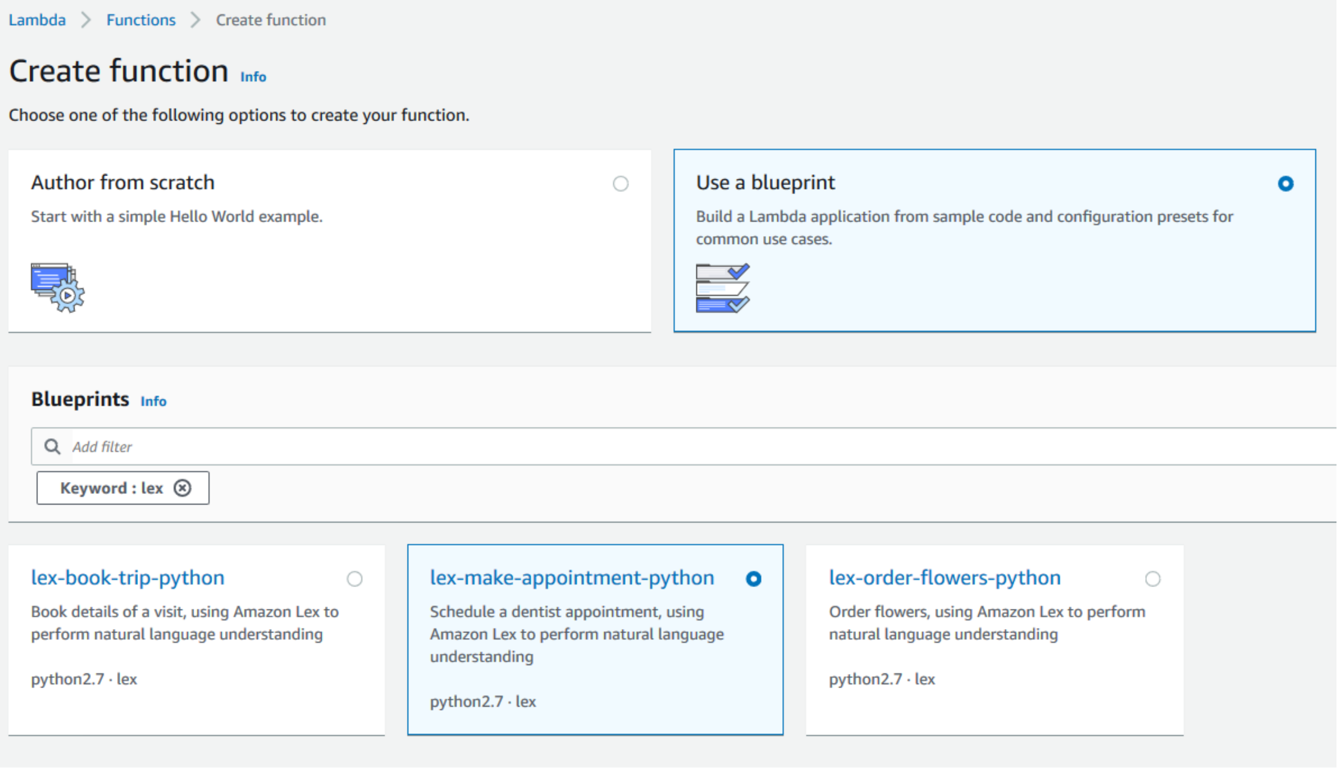
● Summary ○ Detail

Intent: MakeAppointment

Slots	(1/3)
AppointmentType	canal
Date	null
Time	null

2) Atualize o bot adicionando um Lambda Code Hook e Fulfillment usando uma Lambda Function

Crie uma função lambda pelo Console usando o Blueprint lex-make-appointment



Create function

Choose one of the following options to create your function.

○ Author from scratch
Start with a simple Hello World example.

● Use a blueprint
Build a Lambda application from sample code and configuration presets for common use cases.

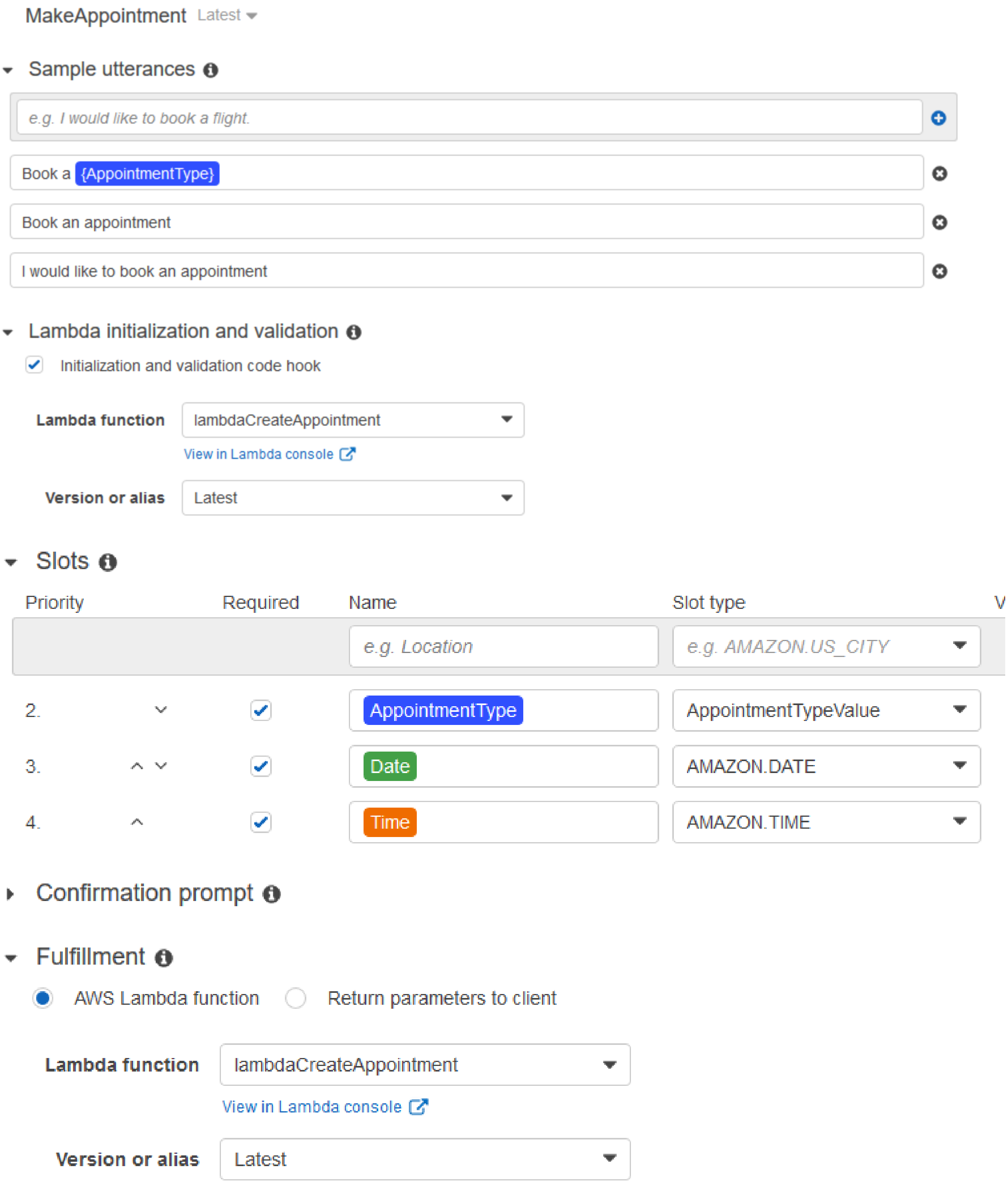
Blueprints

○ lex-book-trip-python
Book details of a visit, using Amazon Lex to perform natural language understanding
python2.7 · lex

● lex-make-appointment-python
Schedule a dentist appointment, using Amazon Lex to perform natural language understanding
python2.7 · lex

○ lex-order-flowers-python
Order flowers, using Amazon Lex to perform natural language understanding
python2.7 · lex

Atualize, faça a **Build** do seu bot e teste



MakeAppointment Latest

Sample utterances

e.g. I would like to book a flight.

Book a {AppointmentType}

Book an appointment

I would like to book an appointment

Lambda initialization and validation

☑ Initialization and validation code hook

Lambda function lambdaCreateAppointment

View in Lambda console

Version or alias Latest

Slots

Priority	Required	Name	Slot type	V
		e.g. Location	*e.g. AMAZON.US_CITY*	
2.	☑	AppointmentType	AppointmentTypeValue	
3.	☑	Date	AMAZON.DATE	
4.	☑	Time	AMAZON.TIME	

Confirmation prompt

Fulfillment

● AWS Lambda function ○ Return parameters to client

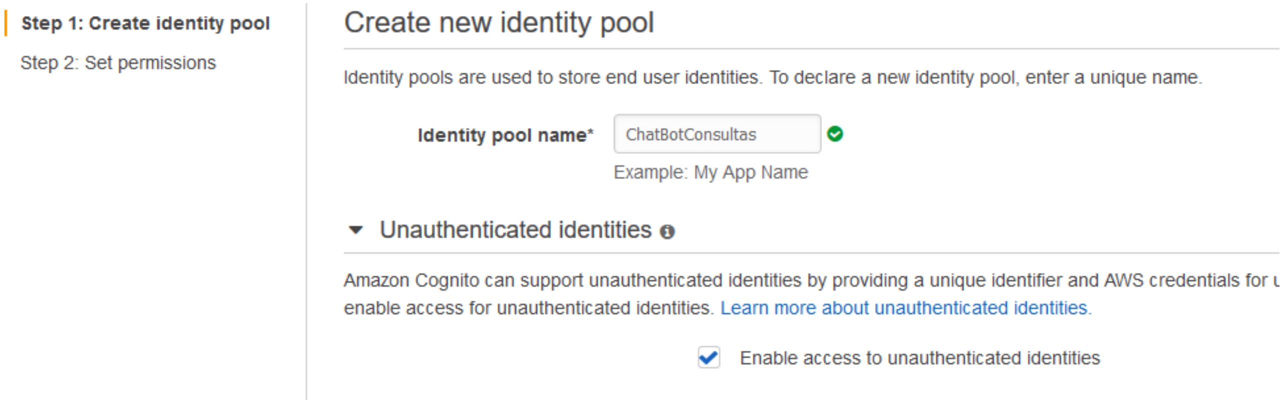
Lambda function lambdaCreateAppointment

View in Lambda console

Version or alias Latest

3) Configure o Cognito pela Console para integrar com uma interface Web

Crie uma nova Identity Pool (habilite a opção de acesso não autenticado para o fim de testes):



Create new identity pool

Identity pools are used to store end user identities. To declare a new identity pool, enter a unique name.

Identity pool name* ChatBotConsultas

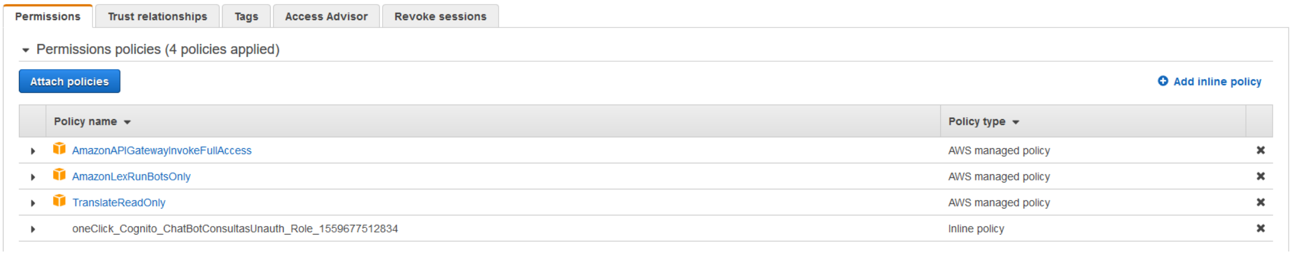
Example: My App Name

Unauthenticated identities

Amazon Cognito can support unauthenticated identities by providing a unique identifier and AWS credentials for u
enable access for unauthenticated identities. Learn more about unauthenticated identities.

☑ Enable access to unauthenticated identities

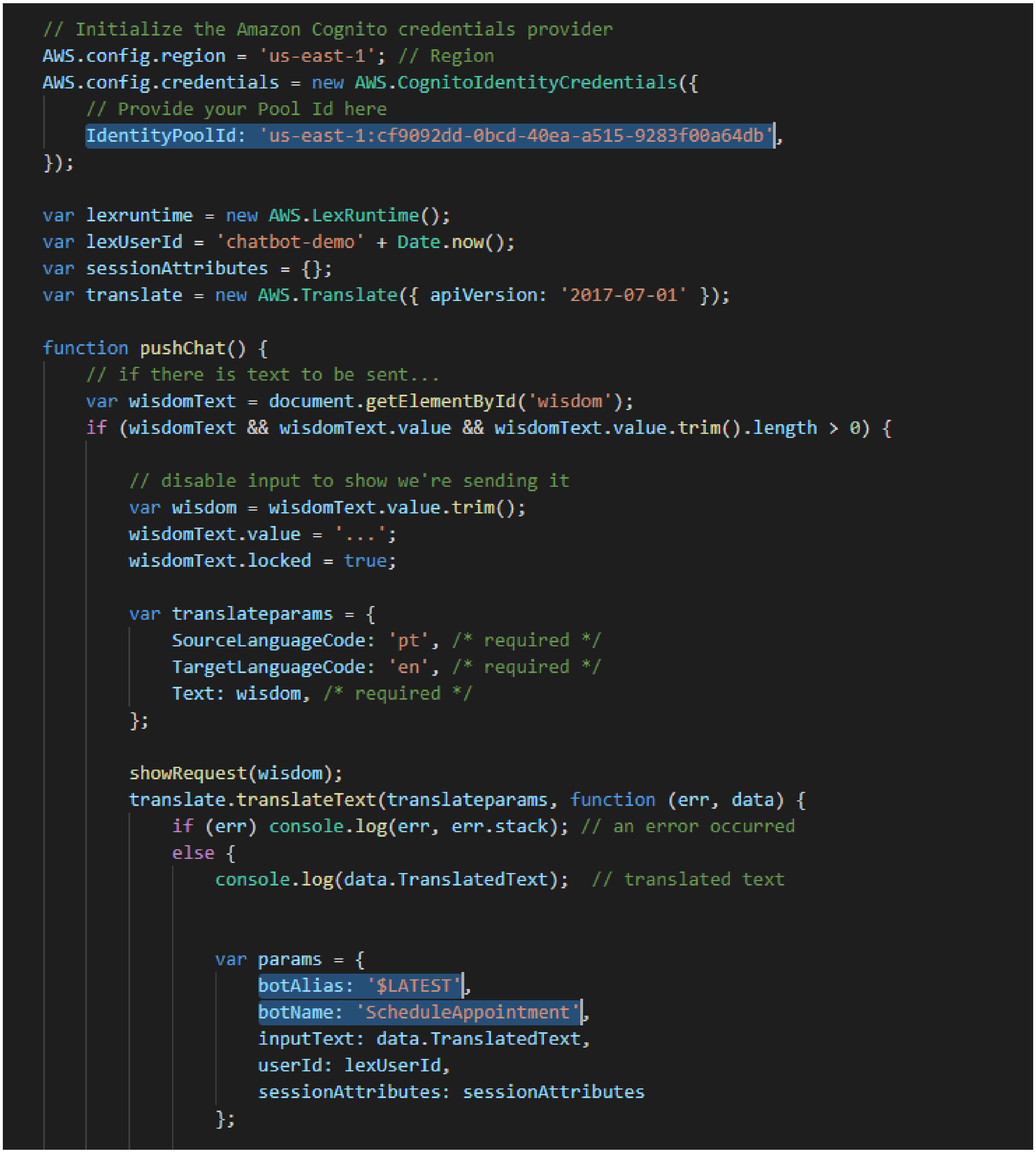
O Cognito irá criar uma role para seu novo Identity Pool, altere essa role e adicone as permissões AmazonLexRunBotsOnly e TranslateReadOnly



Permissions policies (4 policies applied)

Policy name	Policy type	
AmazonAPIGatewayInvokeFullAccess	AWS managed policy	✖
AmazonLexRunBotsOnly	AWS managed policy	✖
TranslateReadOnly	AWS managed policy	✖
oneClick_Cognito_ChatBotConsultasUnauth_Role_1559677512834	Inline policy	✖

Atualize o script com as informações do seu bot:



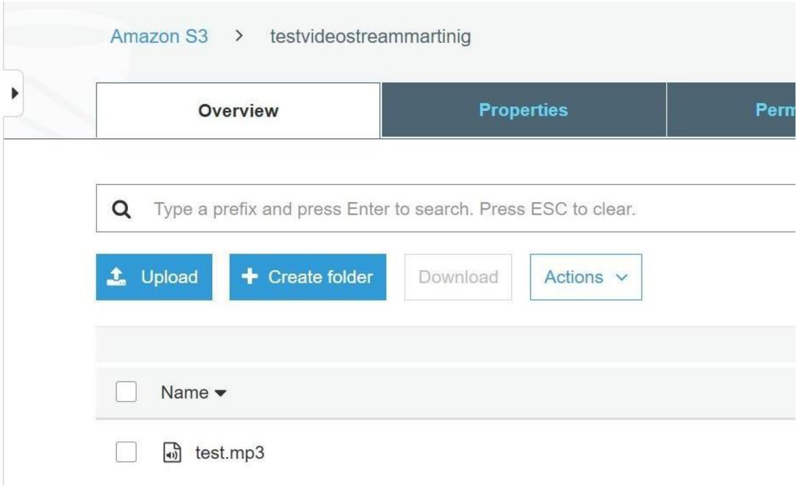
```
// Initialize the Amazon Cognito credentials provider
AWS.config.region = 'us-east-1'; // Region
AWS.config.credentials = new AWS.CognitoIdentityCredentials({
    // Provide your Pool Id here
    IdentityPoolId: 'us-east-1:cf9092dd-0bcd-40ea-a515-9283f00a64db',
});

var lexruntime = new AWS.LexRuntime();
var lexUserId = 'chatbot-demo' + Date.now();
var sessionAttributes = {};
var translate = new AWS.Translate({ apiVersion: '2017-07-01' });

function pushChat() {
    // if there is text to be sent...
    var wisdomText = document.getElementById('wisdom');
    if (wisdomText && wisdomText.value && wisdomText.value.trim().length > 0) {

        // disable input to show we're sending it
        var wisdom = wisdomText.value.trim();
        wisdomText.value = '...';
        wisdomText.locked = true;

        var translateparams = {
            SourceLanguageCode: 'pt', /* required */
            TargetLanguageCode: 'en', /* required */
            Text: wisdom, /* required */
        };

        showRequest(wisdom);
        translate.translateText(translateparams, function (err, data) {
            if (err) console.log(err, err.stack); // an error occurred
            else {
                console.log(data.TranslatedText);  // translated text


                var params = {
                    botAlias: '$LATEST',
                    botName: 'ScheduleAppointment',
                    inputText: data.TranslatedText,
                    userId: lexUserId,
                    sessionAttributes: sessionAttributes
                };
```

4) Crie uma nova intent para o bot e utilize o amazon translate para tradução do diálogo (Exemplo: verificar resultados de exames)

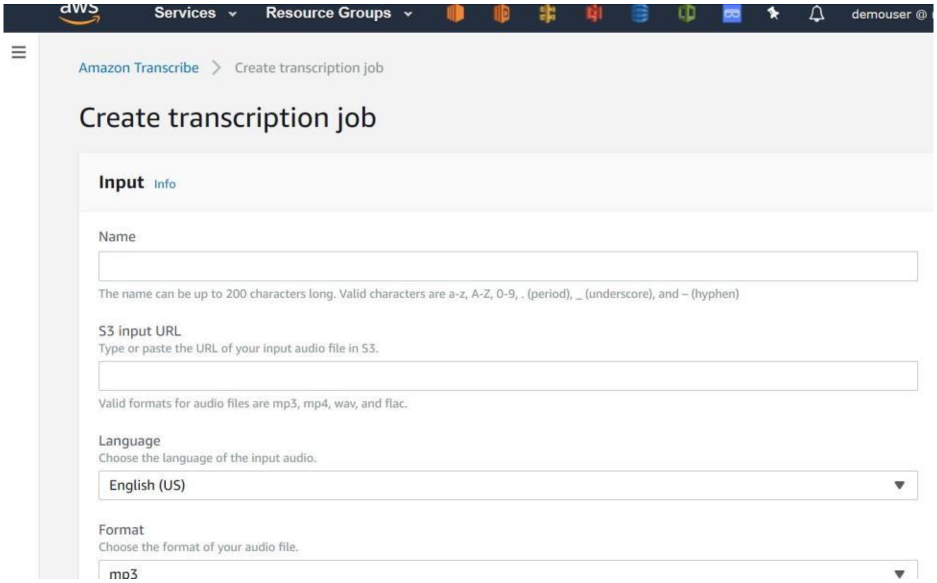
a. Crie uma nova intent para o bot;
b. Adicione um novo tipo de slot;
c. Utilize o lambda para validar os inputs (opcional);
d. Faça o deploy do bot;
e. Atualize as permissões e o script;

5) Utilize o Amazon Transcribe para converter aúdio em texto (opcional)

Faça o upload de um arquivo em um bucket S3:


Amazon S3 > testvideostreammartinig
Overview
Properties
Perm
Type a prefix and press Enter to search. Press ESC to clear.
Upload
Create folder
Download
Actions
Name
test.mp3

Crie um transcription Job no Amazon Transcribe:



Amazon Transcribe > Create transcription job

Create transcription job

Input Info

Name

The name can be up to 200 characters long. Valid characters are a-z, A-Z, 0-9, . (period), _ (underscore), and – (hyphen)

S3 input URL
Type or paste the URL of your input audio file in S3.

Valid formats for audio files are mp3, mp4, wav, and flac.

Language
Choose the language of the input audio.
English (US) ▼

Format
Choose the format of your audio file.
mp3 ▼

Faça o download do arquivo JSON no bucket de destino e verifique o texto.

Documentação e material extra:

Documentação Amazon Lex: https://docs.aws.amazon.com/lex/latest/dg/what-is.html

Documentação Amazon Translate: https://docs.aws.amazon.com/translate/latest/dg/what-is.html

Documentação Amazon Transcribe: https://docs.aws.amazon.com/transcribe/latest/dg/what-is-transcribe.html

Example: Integrating with a Web site: https://docs.aws.amazon.com/lex/latest/dg/ex-web.html

Deploy a Web UI for Your Chatbot: https://aws.amazon.com/pt/blogs/machine-learning/deploy-a-web-ui-for-your-chatbot/

Create a translator chatbot using Amazon Translate and Amazon Lex: https://aws.amazon.com/pt/blogs/machine-learning/create-a-translator-chatbot-using-amazon-translate-and-amazon-lex/

Create a Question and Answer Bot with Amazon Lex and Amazon Alexa: https://aws.amazon.com/pt/blogs/machine-learning/creating-a-question-and-answer-bot-with-amazon-lex-and-amazon-alexa/

Enhance Your Amazon Lex Chatbots with Responses: https://aws.amazon.com/pt/blogs/machine-learning/enhance-your-amazon-lex-chatbots-with-responses/

Integrating an Amazon Lex Bot with Facebook Messenger: https://docs.aws.amazon.com/lex/latest/dg/fb-bot-association.html

Monitorando Amazon Lex com Amazon CloudWatch
https://docs.aws.amazon.com/lex/latest/dg/monitoring-aws-lex-cloudwatch.html