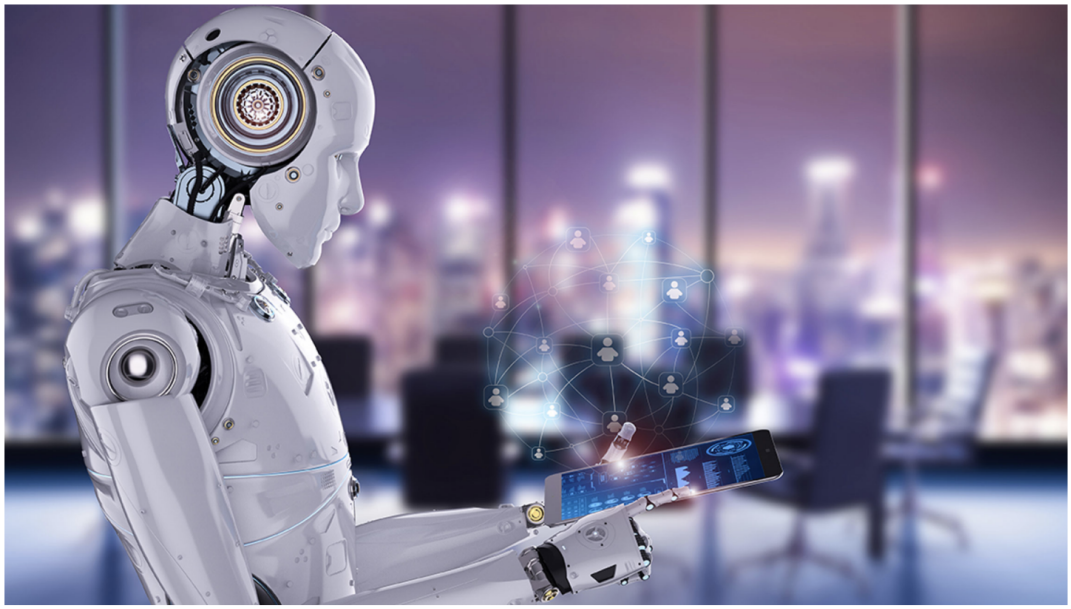
Robo Advisor

 Challenge 15



> "In this Challenge, I combine my new AWS (Amazon Web Services) skills with existing Python superpowers to create a bot that will recommend an investment portfolio for a retirement plan "

Table of content

Overview of the project and project goals

Using the power of machine learning and NLP to disrupt finance and improve the customer experience, we are creating a robo advisor. Both existing and potentially new customers will be able to use this robo advisor to get investment portfolio recommendations for retirement.

Following main tasks were accomplished:

1. Configure the initial robo advisor: Define an Amazon Lex bot with a single intent that establishes a conversation about requirements to suggest an investment portfolio for retirement.

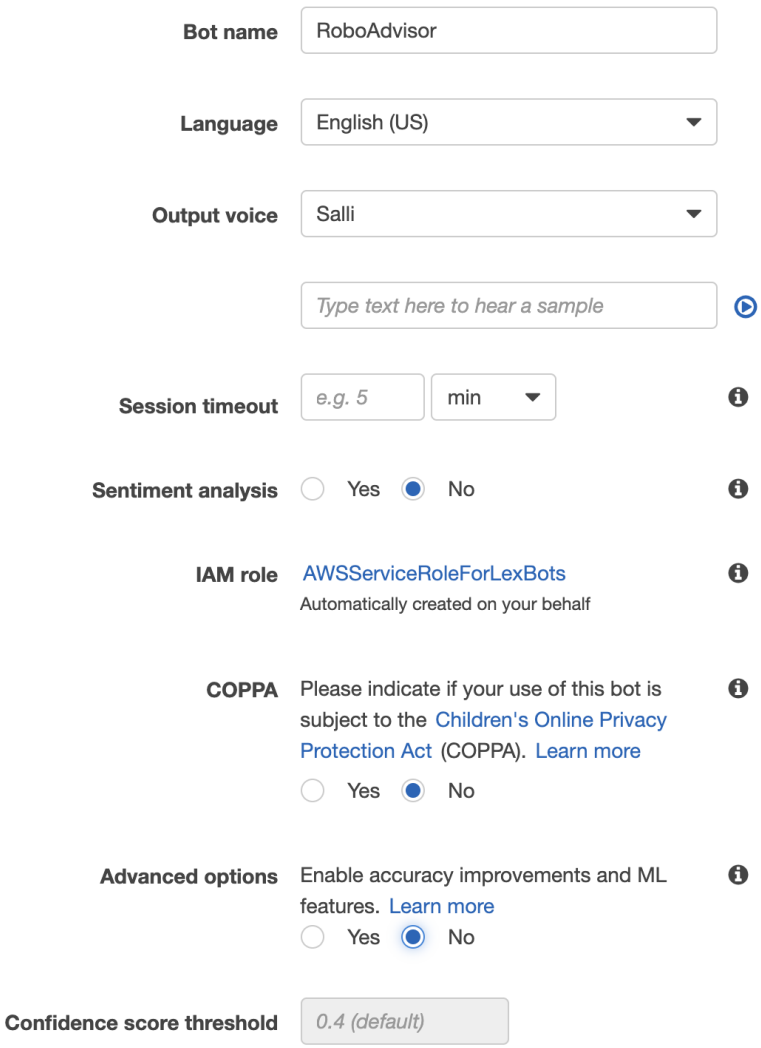
2. Build and test the robo advisor: Make sure that your bot works and accurately responds during the conversation with the user.

3. Enhance the robo advisor with an Amazon Lambda function: Create an Amazon Lambda function that validates the user's input and returns the investment portfolio recommendation. This includes testing the Amazon Lambda function and integrating it with the bot.

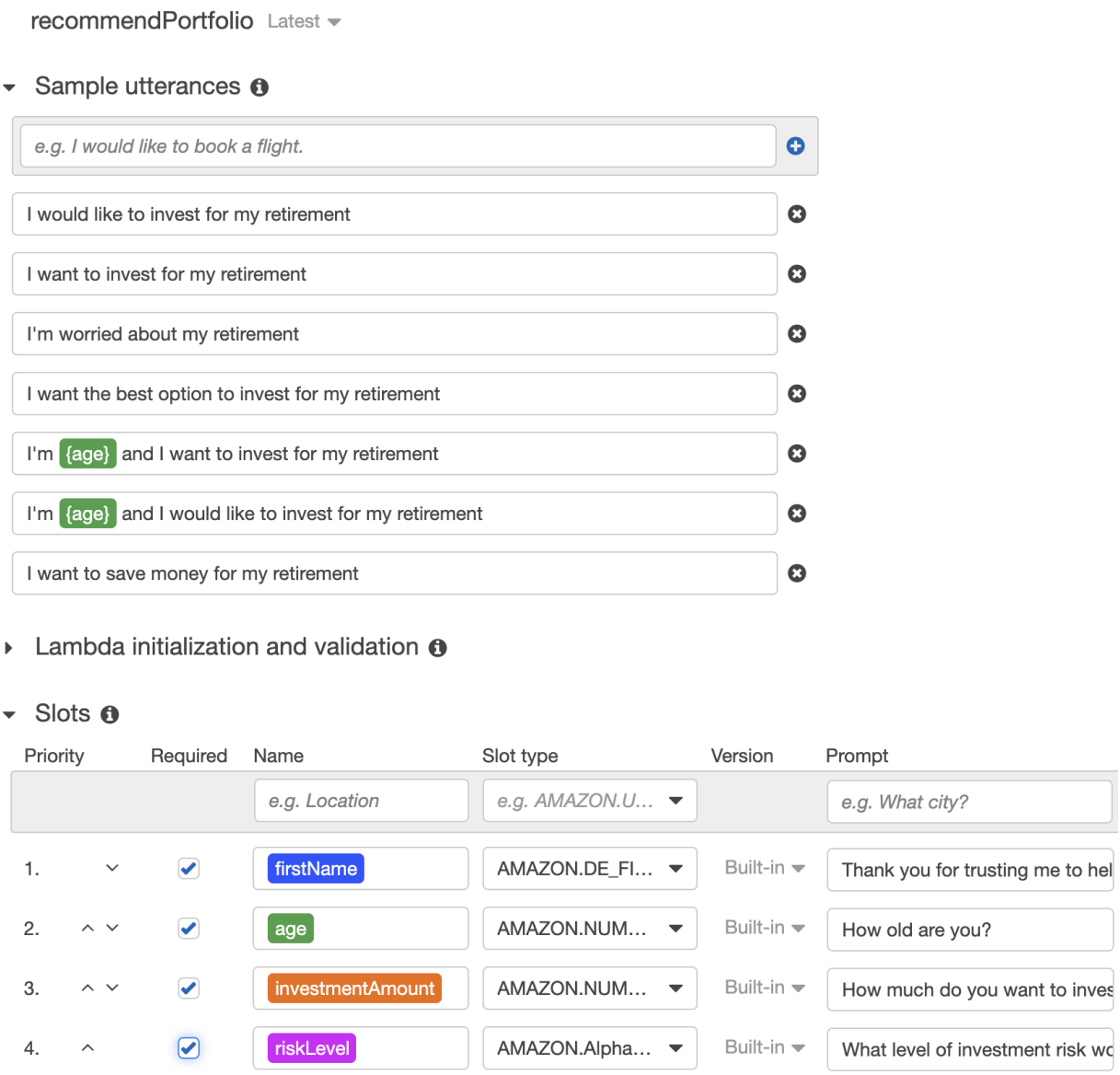
Software version control

Amazon Lex is used to create the bot

Step 1: Initiate the bot

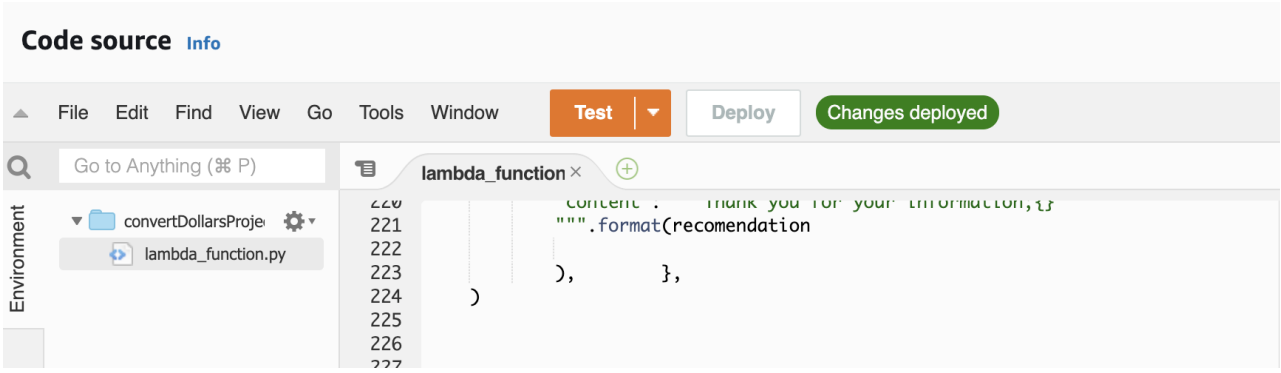


Step 2: Create the intent



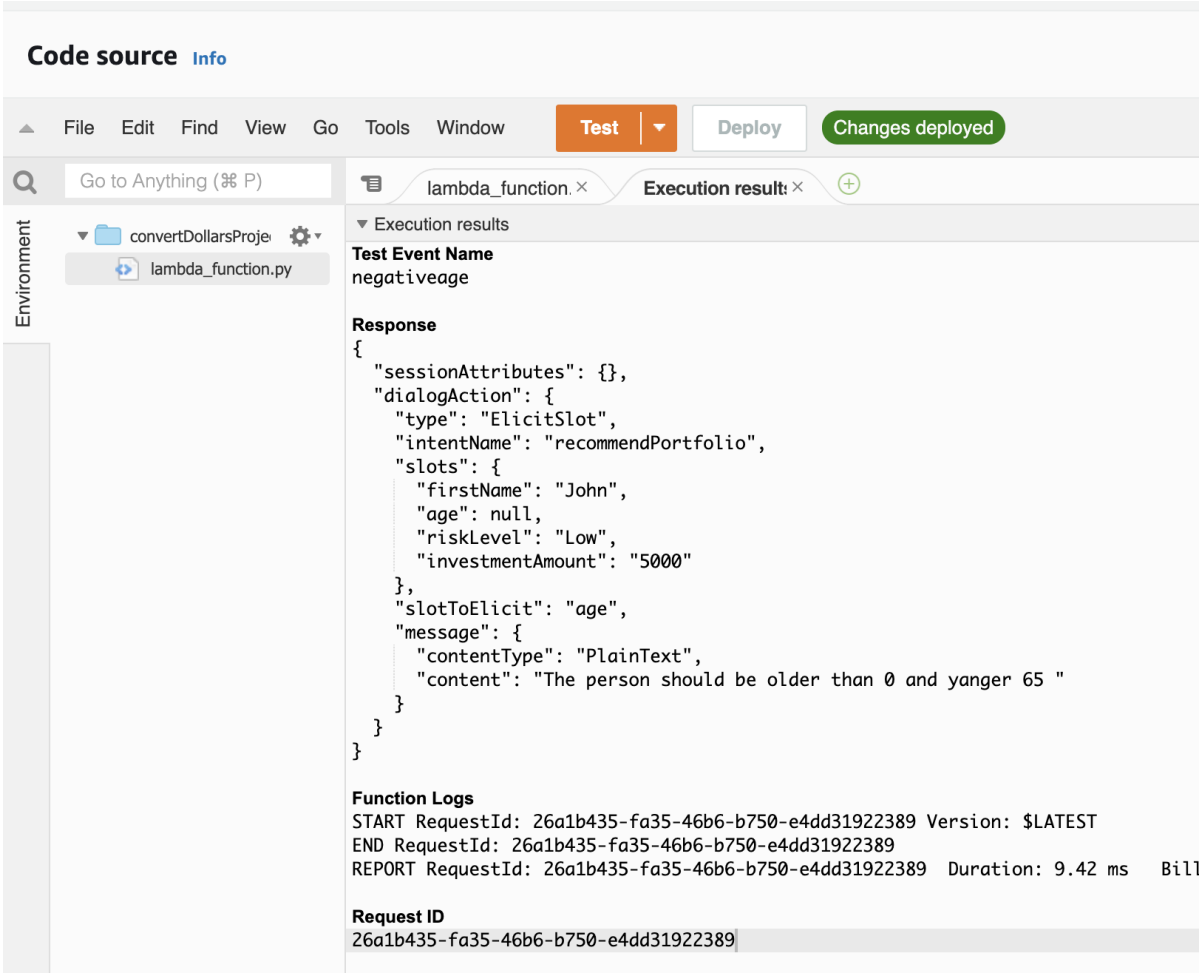
Step 3: Create Lambda

Amazon Lambda is used to enhance original bot



Step 4: Test Lambda

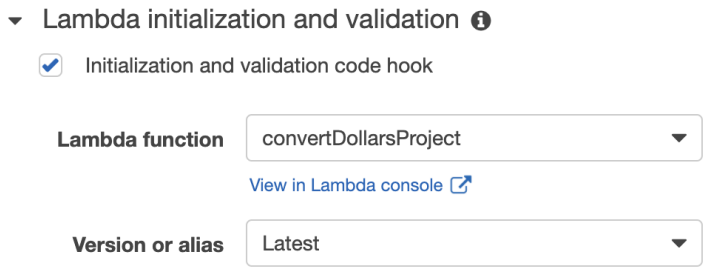
You can find Test Files in the repo in separate folder. On the following picture "negative age" mistake was tested and code passed.



On the following video you can see this code deployed with the bot:

https://user-images.githubusercontent.com/80833988/124698952-beaadd80-de9e-11eb-96a0-6cefdd348d8b.mov

Step 4: Deploy Lambda



Libraries

- Following libraries were imported

```
# Import the required libraries and dependencies

from datetime import datetime
from dateutil.relativedelta import relativedelta
```

Work with GitHub

- Repository created on GitHub
- Files were committed using command line
- File with code for Lambda function included lambda_function.py

How to install

- Save remote repo from GitHub to your computer (Desktop): in Terninal type:

```
cd desktop
```

```
git clone https://github.com/nataliaburrey/Robo_Advisor.git
```

now you can find repo on your desktop

- Choose [lambda_function.py] file to see the code for Enhanced Robo Advisor.

Working Bot Demonstration

Initial robo advisor

> " Define an Amazon Lex bot with a single intent that establishes a conversation about requirements to suggest an investment portfolio for retirement. "

https://user-images.githubusercontent.com/80833988/124681906-6bc12e00-de7e-11eb-98b9-d48959155925.mov

Enhanced Robo Advisor

> " Create an Amazon Lambda function that validates the user's input and returns the investment portfolio recommendation. This includes testing the Amazon Lambda function and integrating it with the bot. "

https://user-images.githubusercontent.com/80833988/124681923-77acf000-de7e-11eb-8e8a-9eaf4253ffd6.mov

Helps recruiters

The project was created in collaboration with Berkeley Fintech Bootcamp team

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