Webinar Series on Remote Learning

TITLE

Using Amazon Lex to create a chatbot in an AWS Educate Classroom

BRIEF SYNOPSIS

Amazon Lex is a service for building conversational interfaces into any application using voice and text. With Amazon Lex, you can quickly build sophisticated, natural language, conversational bots called chatbots. Join this tutorial to receive a step-by-step guide to using Amazon Lex to build a transactional and interactive chatbot for taking coffee orders.

Join this webinar for:

- A brief introduction to Amazon Lex, some use cases, and the AWS Management Console
- How students in AWS Educate Classrooms can navigate to and use Amazon Lex
- Steps to create intents, utterances, prompts, slots, and error handling within Amazon Lex
- How educators can review student work

SPEAKER

Ryan Little

SPEAKER BIO:

Technical Program Manager, AWS WWPS

DURATION

41 min

TIMESTAMPS

0:00 – Speaker Introductions

1:36 – Intro to Amazon Lex: CoffeeBot Demo

4:15 – Amazon Lex Use Cases and Customers

8:16 – Accessing Amazon Lex from the AWS Educate Starter Account

10:42 – Getting Started with Amazon Lex

14:58 – Intents

22:20 – Slot Types

33:44 – Building your Chatbot

34:04 – Testing your Chatbot

38:14 - Checking student work through AWS Educate Classroom

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FAQs

Q: What is Amazon Lex?
A: Amazon Lex is a service for building conversational interfaces using voice and text. Powered by the same conversational engine as Alexa, Amazon Lex provides high quality speech recognition and language understanding capabilities, enabling addition of sophisticated, natural language 'chatbots' to new and existing applications. Amazon Lex reduces multi-platform development effort, allowing you to easily publish your speech or text chatbots to mobile devices and multiple chat services, like Facebook Messenger, Slack, Kik, or Twilio SMS. Native interoperability with AWS Lambda, AWS MobileHub and Amazon CloudWatch and easy integration with many other services on the AWS platform including Amazon Cognito, and Amazon DynamoDB makes bot development effortless.

Q: How can I get started with Amazon Lex?
A: To start using Amazon Lex, simply sign into the AWS Management Console and navigate to "Lex" under the "Artificial Intelligence" category. You must have an Amazon Web Services account to start using Amazon Lex. If you do not already have one, you will be prompted to create one during the sign-up process. Please refer to the Amazon Lex Getting Started Guide for more information.

Q: What are the most common use cases for Amazon Lex?
A: The most common use-cases include:

- Informational bot – build an automated customer support agent or bot that answers questions
- Application/Transactional bot – build a stand-alone pizza ordering agent or a travel bot
- Enterprise Productivity bot – build custom bots to connect to enterprise data resources
- Device Control bot– use Amazon Lex to issue control commands to connected devices

FAQs

Q: How does Amazon Lex work with other AWS services?
A: Amazon Lex leverages AWS Lambda for Intent fulfillment, Amazon Cognito for user authentication, and Amazon Polly for text to speech. In addition, AWS Mobile Hub can be used to automatically provision bots from a template.

Q: Do I have to be a machine learning expert to use Amazon Lex?
A: No machine learning expertise is necessary to use Amazon Lex. Developers can declaratively specify the conversation flow and Amazon Lex will take care of the speech recognition and natural language understanding functionality. Developers provide some sample utterances in plain English and the different parameters (slots) that they would like to collect from their user with the corresponding prompts. The language model gets built automatically.

Q: In which AWS regions is Amazon Lex available?
A: For a list of the supported Amazon Lex AWS regions, please visit the AWS Region Table for all AWS global infrastructure. Also for more information, see Regions and Endpoints in the AWS General Reference.

Q: What is the maximum bandwidth supported on Amazon Lex?
A: Amazon Lex scales to your needs and does not impose bandwidth constraints.

Q: Is Amazon Lex a managed service?
A: Amazon Lex is a completely managed service so you don't have to manage scaling of resources or maintenance of code. Your interaction schema and language models are automatically backed up. We also provide comprehensive versioning capability for easy rollback. Amazon Lex architecture does not require storage or backups of end user data.

Q: When do I use Amazon Polly vs. Amazon Lex?
A: Amazon Polly converts text inputs to speech. Amazon Lex is a service for building conversational interfaces using voice and text.

Q: Does Amazon Lex get more intelligent over time?
A: Yes. Amazon Lex uses deep learning to improve over time.

FAQs

Q: I was in the Amazon Lex preview program. Now that Amazon Lex is GA, what happens to my account?

A: On April 19, 2017, Amazon Web Services announced that Amazon Lex exited Preview and entered General Availability. As such, we will be terminating the Amazon Lex Preview Program on May 1, 2017. Usage will be charged as per the pricing plan starting May 1st. Your first 12 months for the free tier will start on May 1st. Please note that Amazon Lex is now supported under Developer Support, Business Support and Enterprise Support plans. You can also post your queries on the public Amazon Lex forums.

RESOURCES

Amazon Lex - Amazon Lex is a service for building conversational interfaces into any application using voice and text.

Amazon Lex User Guide – Getting Started with Amazon Lex

AWS Educate – AWS Educate gives students and educators access to content and programs that enable them to skill up for cloud careers in growing fields. AWS Educate also connects companies hiring for cloud skills to qualified student job seekers with the AWS Educate Job Board.

AWS Educate Office Hours for Educators and Students – Webinars, office hours, and training sessions for educators and students

AWS User Groups - User groups are peer-to-peer communities which meet regularly to share ideas, answer questions, and learn about new services and best practices.