Chatbot by using Amazon Alexa

Abstract:

Amazon Alexa is an AWS service for building conversational interfaces for applications using voice and text. With Amazon Alexa, the same conversational engine that powers Amazon Alexa is now available to any developer, enabling you to build sophisticated, natural language chatbots into your new and existing applications. Amazon Alexa provides the deep functionality and flexibility of natural language understanding (NLU) and automatic speech recognition (ASR) so you can build highly engaging user experiences with lifelike, conversational interactions, and create new categories of products.

Amazon Alexa enabled any developer to build conversational chatbots quickly. With Amazon Alexa, no deep learning expertise is necessary—to create a bot, you just specify the basic conversation flow in the Amazon Alexa console. Amazon Alexa manages the dialogue and dynamically adjusts the responses in the conversation. Using the console, you can build, test, and publish your text or voice chatbot. You can then add the conversational interfaces to bots on mobile devices, web applications, and chat platforms (for example, Facebook Messenger).

Amazon Alexa provides pre-built integration with AWS Lambda, and you can easily integrate with many other services on the AWS platform, including Amazon Cognito, AWS Mobile Hub, Amazon CloudWatch, and Amazon DynamoDB. Integration with Lambda provides bots access to pre-built serverless enterprise connectors to link to data in SaaS applications, such as Salesforce, HubSpot, or Marketo.

Existing System:

The past few years have seen the release of a new wave of products, such as Amazon's Alexa platform, that harness artificial intelligence (AI) and can be built into existing web and mobile applications. Amazon has recently unbundled the technology that powers Alexa, allowing these services to be used outside of Amazon hardware.

In a two-hour hands-on training, Terren Peterson walks you through using two of these services—Amazon Polly, a service that turns text into lifelike speech in a number of languages, and Amazon Alexa, which enables you to build conversational interfaces into any application using voice and text—to quickly and easily build your own chatbot. You'll explore the capabilities of these services, especially when used together, and learn how to leverage them within existing digital applications to create artificial agents.

Proposed System:

Amazon Alexa enables you to build applications using a speech or text interface powered by the same technology that powers Amazon Alexa. Following are the typical steps you perform when working with Amazon Alexa

1. Create a bot and configure it with one or more intents that you want to support. Configure the bot so it understands the user's goal (intent), engages in conversation with the user to elicit information, and fulfils the user's intent.

2. Test the bot. You can use the test window client provided by the Amazon Alexa console.

3. Publish a version and create an alias.

4. Deploy the bot. You can deploy the bot on platforms such as mobile applications or messaging platforms such as Facebook Messenger.

Software Tools:

1.AWS Lambda

2.AWS IAM

3.AWS CloudFront

4.AWS CloudWatch

5.AWS CLI

6.Python 3

7.VS code

Hardware Tools:

1.Laptop

2.Os-windows 11

3.8GB RAM

4.4GB ROM

5.Fast Internet Connectivity