Develop an Alexa Skill for COVID-19 Recommendations

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Introduction:

This project deals with an application of AI, where from the conversation with the user, AI could guide them by covid 19 recommendations. This is really helpful in the kind of pandemic happening now, since maintaining social distance is must, to get rid of the deadly virus. But with the help of AI, the information about how people feel could be accessed and fed into the model to give better recommendations

Tools and Technologies used:

DynamoDB - for storing the information

API gateway - for storing data from alexa(user input) to dynamodb through url
Alexa - for conversing with user and get the information needed while giving best suited recommendations

Lambda function - The working part which connects API gateway to DynamoDB, collecting data though API gateway and push it to the table created in DynamoDB

Process:

Alexa Developer Console

Created an alexa skill and named it as 'covid guide'

Chose 'hello world' template to begin.

Intents for getting name, age and temperature is made.

Intents for detecting mild, severe and healthy condition is made.

The lambda function for alexa skill is updated for each intent.

The skill is tested for various intents.

AWS Developer Console

DynamoDB:

A table called 'covid' is created

Lambda:

A function called 'covid' created which is based on python.

Create a new role, the role starting with name 'covid-role' was created.

The code is updated to get parameters from url and store in dynamodb

database using boto3 module.

Alexa Skill kit created was added to the lambda function using 'add trigger' with the endpoint of the Skill 'covid guide'.

API Gateway:

Built a new REST API with a new resource named '/covid'.

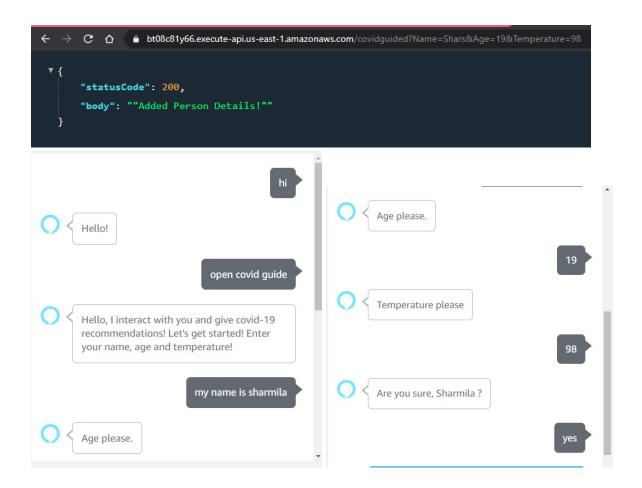
Selected GET method which is connected to the lambda function created(covid).

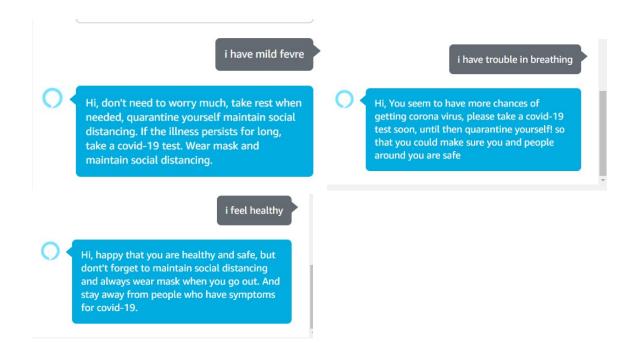
URL Query String parameters are given like Name, Age and Temperature which is the name used for passing parameter value through URL.

Given a mapping template in application/json format.

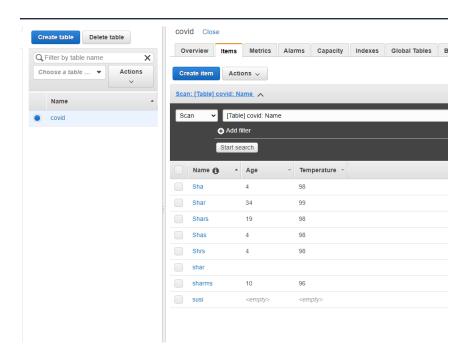
The API is deployed with a new stage and the involve url is used in alexa lambda function to access the Lambda function defined for working with API gateway and dynamoDB.

OUTPUT

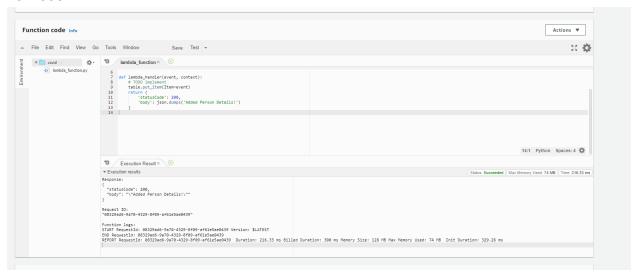


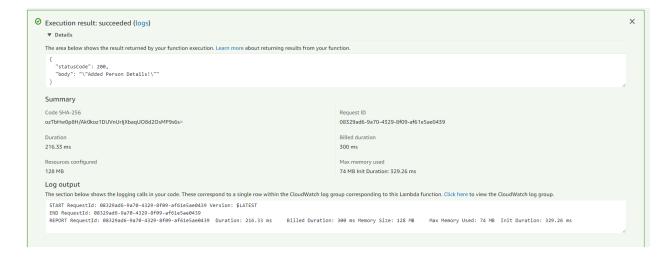


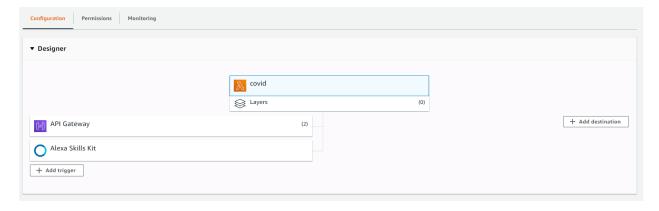
DynamoDB:



Lambda:







API gateway

