Exam : **AZ-201**

Title : Microsoft Azure Developer Advanced Solutions

Version : DEMO

1.Topic 1, Case Study A

Background

Best For You Organics Company is a global restaurant franchise that has multiple locations. The company wants to enhance user experiences and vendor integrations. The company plans to implement automated mobile ordering and delivery services.

Best For You Organics hosts an Azure web app at the URL https://www.bestforyouorgdnics.com. Users can use the web app to browse restaurant locations, menu items, nutritional, information, and company information. The company developed and deployed a cross-platform mobile app.

Requirements

Chatbot

You must develop a cbatbot by using the Bot Builder SDK and Language Understanding Intelligence Service (LUIS). The chatbot must allow users to order food for pickup or delivery.

The chatbot must meet the following requirements:

• Ensure that chatbot endpoint can be accessed only by the Bot framework connector

• Use natural language processing and speech recognition so that users can interact with the chatbot by using text and voice. Processing must be server-based.

• Alert users about promotions at local restaurants.

• Enable users to place an order for delivery or pickup t/y using their voice.

• Greet the user upon sign in by displaying a graphical interface that contains action buttons.

• The chatbot greeting interface must match the formatting of the following example:

Welcome to the Restaurant!

John Doe
Sun, Aug 26, 2018

Welcome to Best For You Organics Company! How can we help you today?

Specials: Chicken Marsala

Order Pickup   Order Delivery

Vendor API

Vendors receive and provide updates for the restaurant inventory and delivery services by using Azure API Management hosted APIs. Each vendor uses their own subscription to access each of the APIs. APIs must meet the following conditions:
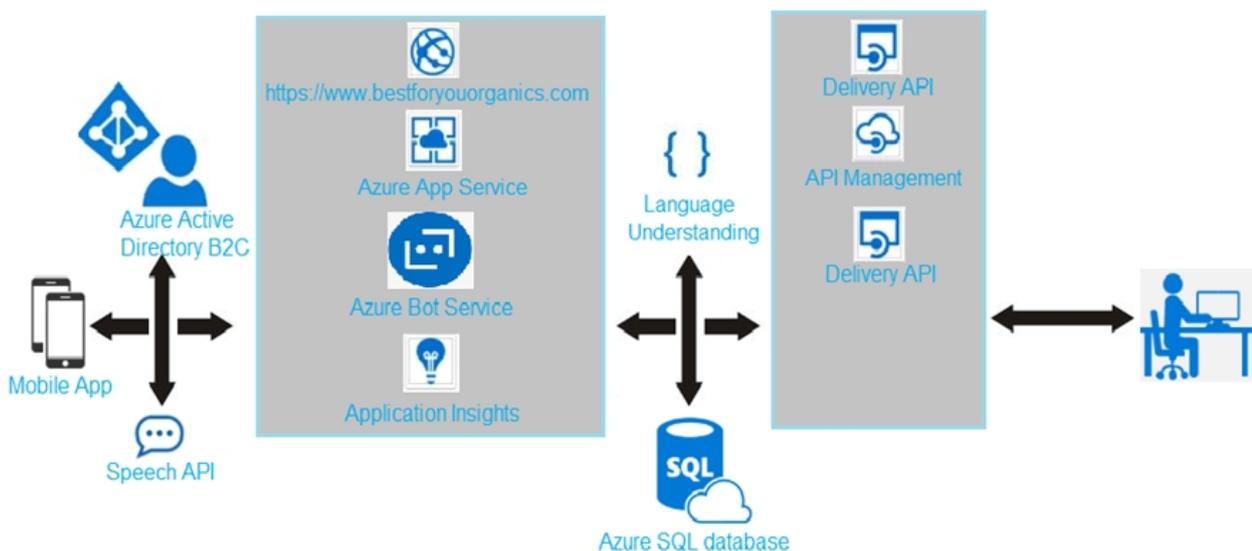
• API usage must not exceed 5,000 calls and 50,000 kilobytes of bandwidth per hour per vendor.

• If a vendor is nearing the number of calls or bandwidth limit, the API must trigger email notifications to the vendor.

• APIs must prevent API usage spikes on a per-subscription basis by limiting the call rate to 100 calls per

minute.

• The Inventory API must be written by using ASP.NET Core and Node.js.

• The API must be updated to provide an interface to Azure SQL Database. Database objects must be managed by using code.

•   The Delivery API must be protected by using the O Auth 2.0 protocol with Azure Active Directory (Azure AD) when called from the Azure web app. You register the Delivery API and web app in Azure AD. You enable O Auth 2.0 in the web app.

• The delivery API must update the Products table, the Vendor transactions table, and the Billing table in a single transaction.

Architecture

The Best For You Organics Company architecture team has created the following diagram depicting the expected deployments into Azure:

Issues

Delivery API

The Delivery API intermittently throws the following exception:

```
"System.Data.Entity.Core.EntityCommandExecutionException: An error occurred while executing the
command definition. See the inner exception for details. --->System.Data.SqlClient.SqlException:
A transport-level error has occurred when receiving results from the server. (provider: Session
Provider, error: 19 - Physical connection is not usable)"
```

App code

Chatbot greeting

The chalbot's greeting does not show the user's name. You need to debug the Chatbot locally.

Language processing

Users report that the bot fails to understand when a customer attempts to order dishes that use Italian names.

Relevant portions of the app files are shown below. Line numbers are included for reference only and include a two-character prefix that denotes the specific file to which they belong.

Startup.cs

```
SU01    namespace DeliveryApi
SU02    {
SU03     public class Startup
SU04     {
SU05       public Startup (Iconfiguration configuration)
SU06       {
SU07        Configuration = configuration ;
SU08       }
SU09      public Iconfiguration Configuration {get ;}
SU10      public void ConfigureServices(IserviceCollection services)
SU11   {
SU12     services.AddDbContext<RestaurantsContext> (opt =>
SU13        opt.UseSqlServer (Configuration.GetSection ("ConnectionStrings") ["RestaurantsD
SU14         sqlServerOptionsAction: sqlOptions =>
SU15         {
SU16           . . .
SU17   }))) ;
SU18   services.AddMvc()
SU19   .SetCompatibilityVersion(CompatibilityVersion.Version_2_1) ;
SU20   }
SU21   public void Configure (IapplicationBuilder app)
SU22     {
SU23      app.UseMvc() ;
SU24     }
SU25   }
SU26 }
```

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution. Determine whether the solution meets the stated goals.

You need to meet the vendor notification requirement.

Solution: Configure notifications in the Azure API Management instance.

Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation:

Use a custom outbound Azure API Management policy.

Scenario:

If a vendor is nearing the number of calls or bandwidth limit, the API must trigger email notifications to the vendor.

(API usage must not exceed 5,000 calls and 50,000 kilobytes of bandwidth per hour per vendor.)

References:

https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-policies

2.Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution. Determine whether the solution meets the stated goals.

You need to meet the vendor notification requirement

Solution: Update the Delivery API to send emails by using a cloud based email service.

Does the solution meet the goal?

A. Yes

B. No

Answer: B

3.Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution. Determine whether the solution meets the stated goals.

You need to meet the vendor notification requirement

Solution: Update the Delivery API to send emails by using a Microsoft Office 365 SMTP server.

Does the solution meet the goal?

A. Yes

B. No

Answer: B

4.You need to implement the purchase requirement

What should you do?

A. Use the Speech Service API to send the user's voice and the Bot Framework REST API conversation operations to recognize intents.

B. Use the Bot Framework REST API attachment operations to send ttie users voice and the Speech Service API to recognize intents.

C. Use the Direct Line REST API to send the user's voice and the Speech Service API to recognize intents.

D. Use the Bot Framework REST API conversation operations to send the users voice and the Speech Service API to recognize intents.

Answer: D

5.You need to resolve the chatbot issue.

What should you do?

A. Update the bot to store and retrieve state data.

B. Update the bot to overload the Dialog class constructor and invoke the root dialog.

C. Update the bot to pass native metadata to a channel in the Activity object's Channel Data property.

D. Use the Bot Framework Connector to send and receive activities.

Answer: A