**NO.1** You provide an Azure API Management managed web service lo clients. The back end web service implements HTTP Strict Transport Security (HSTS).
Every request to the backend service must include a valid HTTP authorization header.
You need to configure the Azure API Management instance with an authentication policy.
Which two policies can you uses? Each correct answer presents a complete solution
NOTE: Each correct selection is worth one point.

**A.** Certificate Authentication

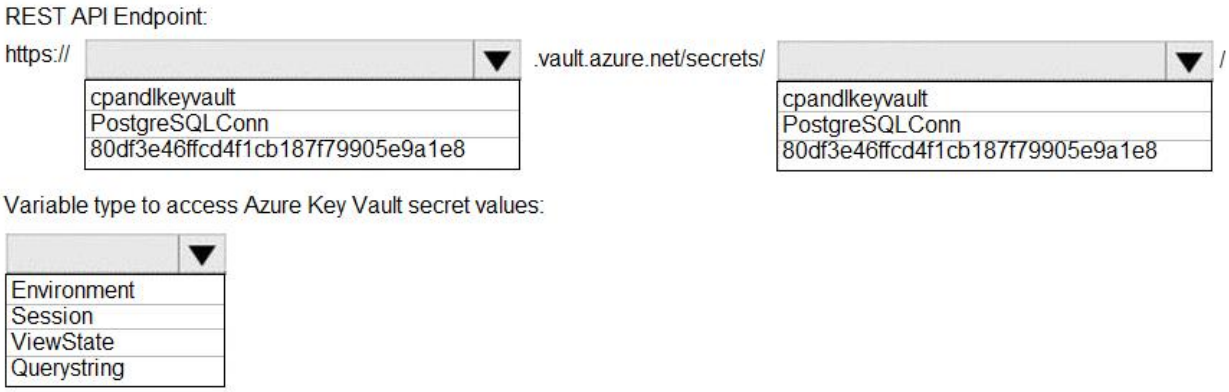
**B.** OAuth Client Credential Grant

**C.** Digest Authentication

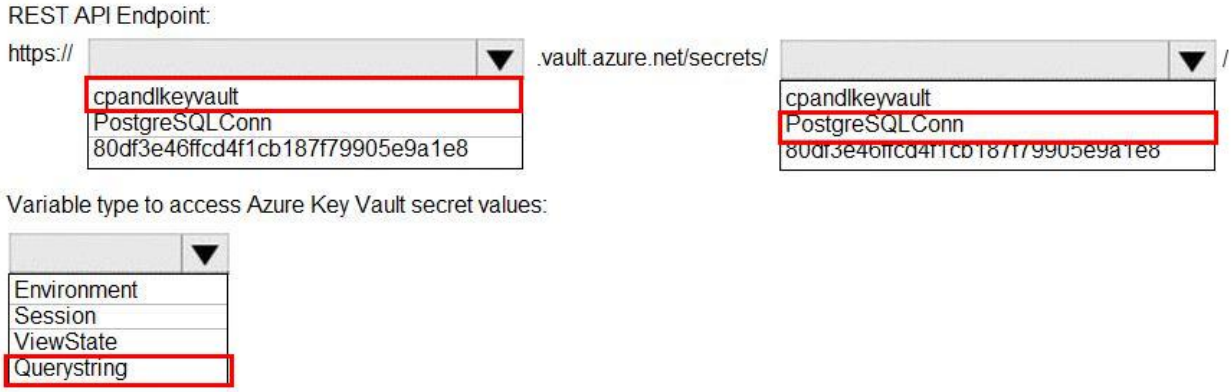
**D.** Basic Authentication

***Answer:*** B,C

**NO.2** You need to retrieve the database connection string.
Which values should you use? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.



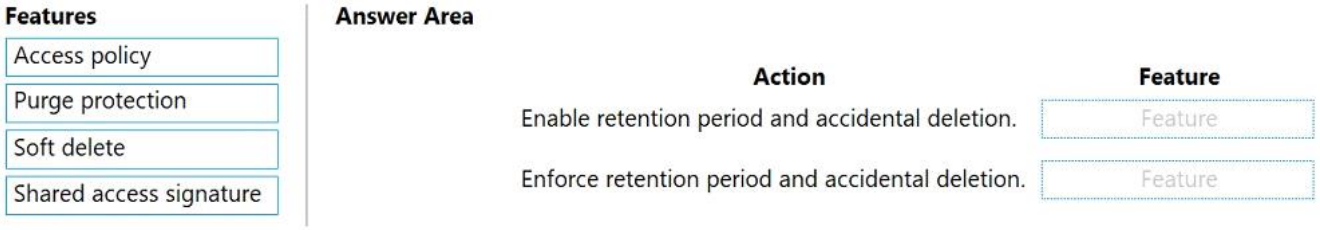

***Answer:***



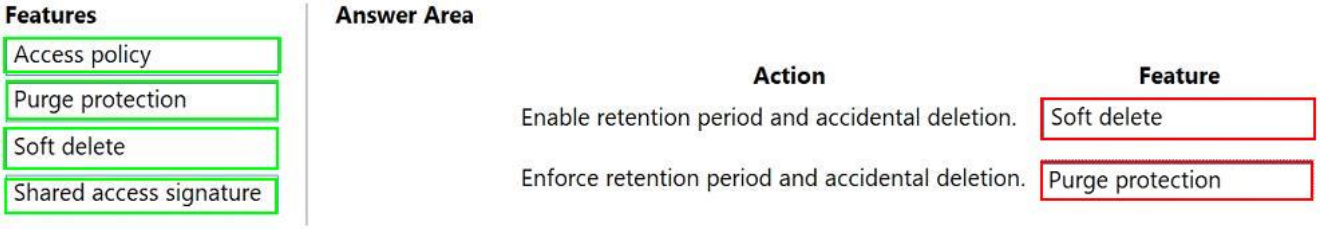

Reference:
https://docs.microsoft.com/en-us/rest/api/keyvault/getsecret/getsecret

**NO.3** You are developing an application to securely transfer data between on-premises file systems and Azure Blob storage. The application stores keys, secrets, and certificates in Azure Key Vault. The application uses the Azure Key Vault APIs.
The application must allow recovery of an accidental deletion of the key vault or key vault objects.
Key vault objects must be retained for 90 days after deletion.
You need to protect the key vault and key vault objects.
Which Azure Key Vault feature should you use? To answer, drag the appropriate features to the

correct actions. Each feature may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.




***Answer:***




Reference:
https://docs.microsoft.com/en-us/azure/key-vault/general/soft-delete-overview

**NO.4** You are implementing an Azure API app that uses built-in authentication and authorization functionality.
All app actions must be associated with information about the current user.
You need to retrieve the information about the current user.
What are two possible ways to achieve the goal? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

**A.** environment variables
**B.** /.auth/login endpoint
**C.** HTTP headers
**D.** /.auth/me HTTP endpoint

***Answer:*** C,D
A: After App Service Authentication has been configured, users trying to access your API are prompted to sign in with their organizational account that belongs to the same Azure AD as the Azure AD application used to secure the API. After signing in, you are able to access the information about the current user through the HttpContext.Current.User property.
C: While the server code has access to request headers, client code can access GET /.auth/me to get the same access tokens (
Reference:
https://docs.microsoft.com/en-us/azure/app-service/app-service-web-tutorial-auth-aad
https://docs.microsoft.com/en-us/sharepoint/dev/spfx/web-parts/guidance/connect-to-api-secured-with-aad

**NO.5** Your company is developing an Azure API.
You need to implement authentication for the Azure API. You have the following requirements:
All API calls must be secure.
Callers to the API must not send credentials to the API.
Which authentication mechanism should you use?

**A.** Client certificate
**B.** Anonymous
**C.** Managed identity
**D.** Basic
***Answer:*** C
Explanation:
Use the authentication-managed-identity policy to authenticate with a backend service using the managed identity of the API Management service. This policy essentially uses the managed identity to obtain an access token from Azure Active Directory for accessing the specified resource. After successfully obtaining the token, the policy will set the value of the token in the Authorization header using the Bearer scheme.
Reference:
https://docs.microsoft.com/bs-cyrl-ba/azure/api-management/api-management-authentication-policies

**NO.6** You are developing an app that manages users for a video game. You plan to store the region, email address, and phone number for the player. Some players may not have a phone number. The player's region will be used to load-balance data.
Data for the app must be stored in Azure Table Storage.
You need to develop code to retrieve data for an individual player.
How should you complete the code? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

```
public class PlayerEntity : TableEntity
{
   public PlayerEntity()
   {
   }
   public PlayerEntity(string region, string email)
   {
     ParitionKey = [ ▼ ] ;
                   email
                   phone
                   region
     RowKey=       [ ▼ ] ;
                   email
                   phone
                   region
   }
     public string Phone { get; set; }
   }
   public class Player
   }

protected PlayerEntity player;
async void GetPlayer(string cs, [ ▼ ] table, string pk, string rk)
                                 CloudTable
                                 CloudTableClient
                                 TableEntity
                                 TableEntityAdapter
{
   [ ▼ ]
   TableEntity query =TableEntity.Retrieve<PlayerEntity>(pk, rk);
   TableOperation query =TableOperation.Retrieve<PlayerEntity>(pk,rk);
   TableResult query =TableQuery.Retrieve<PlayerEntity>(pk,rk);
   TableResultSegment query =TableResult.Retrieve<PlayerEntity>(pk, rk);

   [ ▼ ]
   TableEntity data =await table.ExecuteAsync(query);
   TableOperation data =await.table.ExeucteAsync(query);
   TableQuery data =await table.ExecuteAsync(query);
   TableResult data =await table.ExecuteAsync(query);
 player=data.Result as PlayerEntity;
 }
}
```

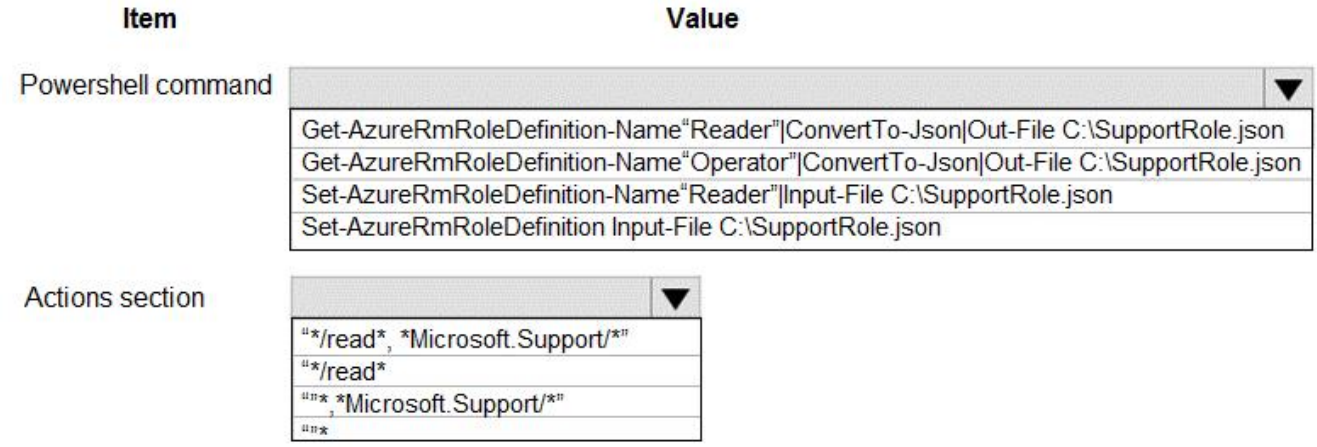
***Answer:***

```
public class PlayerEntity : TableEntity
{
   public PlayerEntity()
   {
   }
   public PlayerEntity(string region, string email)
   {
     ParitionKey = [ email | phone | region ] ;
     RowKey=       [ email | phone | region ] ;
   }
     public string Phone { get; set; }
   }
   public class Player
   }

protected PlayerEntity player;
async void GetPlayer(string cs, [ CloudTable | CloudTableClient | TableEntity | TableEntityAdapter ] table, string pk, string rk)
{
   [ TableEntity query =TableEntity.Retrieve<PlayerEntity>(pk, rk);
   | TableOperation query =TableOperation.Retrieve<PlayerEntity>(pk,rk);
   | TableResult query =TableQuery.Retrieve<PlayerEntity>(pk,rk);
   | TableResultSegment query =TableResult.Retrieve<PlayerEntity>(pk, rk); ]

   [ TableEntity data =await table.ExecuteAsync(query);
   | TableOperation data =await.table.ExeucteAsync(query);
   | TableQuery data =await table.ExecuteAsync(query);
   | TableResult data =await table.ExecuteAsync(query); ]
  player=data.Result as PlayerEntity;
  }
}
```

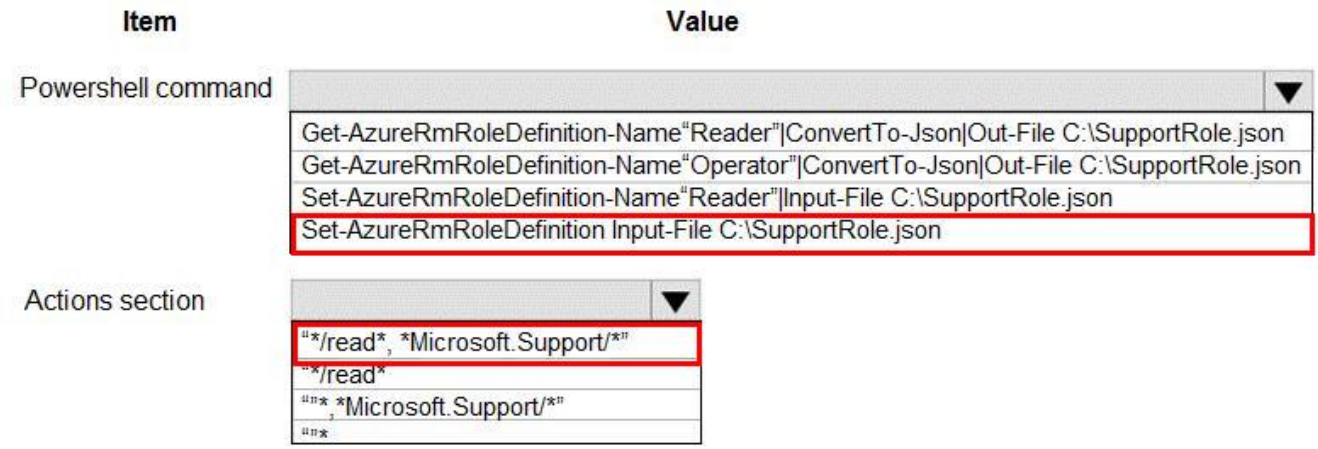
Reference:
https://docs.microsoft.com/en-us/rest/api/storageservices/designing-a-scalable-partitioning-strategy-for-azure-table-storage

**NO.7** Your company is migrating applications to Azure. The IT department must allow internal developers to communicate with Microsoft support.
The service agents of the IT department must only have view resources and create support ticket

permissions to all subscriptions. A new custom role must be created by reusing a default role definition and changing the permissions.
You need to create the custom role.
To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.




***Answer:***




Reference:
https://docs.microsoft.com/en-us/azure/role-based-access-control/custom-roles-powershell

**NO.8** A development team is creating a new REST API. The API will store data in Azure Blob storage. You plan to deploy the API to Azure App Service.
Developers must access the Azure Blob storage account to develop the API for the next two months. The Azure Blob storage account must not be accessible by the developers after the two-month time period.
You need to grant developers access to the Azure Blob storage account.
What should you do?

**A.** Generate a shared access signature (SAS) for the Azure Blob storage account and provide the SAS to all developers.

**B.** Provide all developers with the access key for the Azure Blob storage account. Update the API to include the Coordinated Universal Time (UTC) timestamp for the request header.

**C.** Create and apply a new lifecycle management policy to include a last accessed date value. Apply the policy to the Azure Blob storage account.

**D.** Grant all developers access to the Azure Blob storage account by assigning role-based access

control (RBAC) roles.

***Answer:*** A

Reference:

https://docs.microsoft.com/en-us/azure/storage/common/storage-sas-overview

**NO.9** A company is developing a solution that allows smart refrigerators to send temperature information to a central location. You have an existing Service Bus.

The solution must receive and store messages until they can be processed. You create an Azure Service Bus instance by providing a name, pricing tier, subscription, resource group, and location.

You need to complete the configuration.

Which Azure CLI or PowerShell command should you run?

A.
```
az servicebus namespace create
    - -resource-group fridge-rg
    - -name fridge-ns
    - -location fridge-loc
```

B.
```
az servicebus queue create
 --resource-group fridge-rg
 --namespace-name fridge-ns
 --name fridge-q
```

C.
```
connectionString-$(az servicebus namespace authorization-rule keys list
    --resource-group fridge-rg
    --fridge-ns fridge-ns
    --name RootManageSharedAccessKey
    --query primaryConnectionString --output tsv)
```

D.
```
 az group create
    --name fridge-rg
    --location fridge-log
```

**A.** Option D

**B.** Option B

**C.** Option A

**D.** Option C

***Answer:*** B

Explanation:

A service bus instance has already been created (Step 2 below). Next is step 3, Create a Service Bus queue.

Note:

Steps:

Step 1: # Create a resource group

resourceGroupName="myResourceGroup"

az group create --name $resourceGroupName --location eastus

Step 2: # Create a Service Bus messaging namespace with a unique name

namespaceName=myNameSpace$RANDOM

az servicebus namespace create --resource-group $resourceGroupName --name $namespaceName --location eastus

Step 3: # Create a Service Bus queue
az servicebus queue create --resource-group $resourceGroupName --namespace-name $namespaceName --name BasicQueue
Step 4: # Get the connection string for the namespace
connectionString=$(az servicebus namespace authorization-rule keys list --resource-group $resourceGroupName --namespace-name $namespaceName --name RootManageSharedAccessKey --query primaryConnectionString --output tsv)
Reference:
https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-quickstart-cli

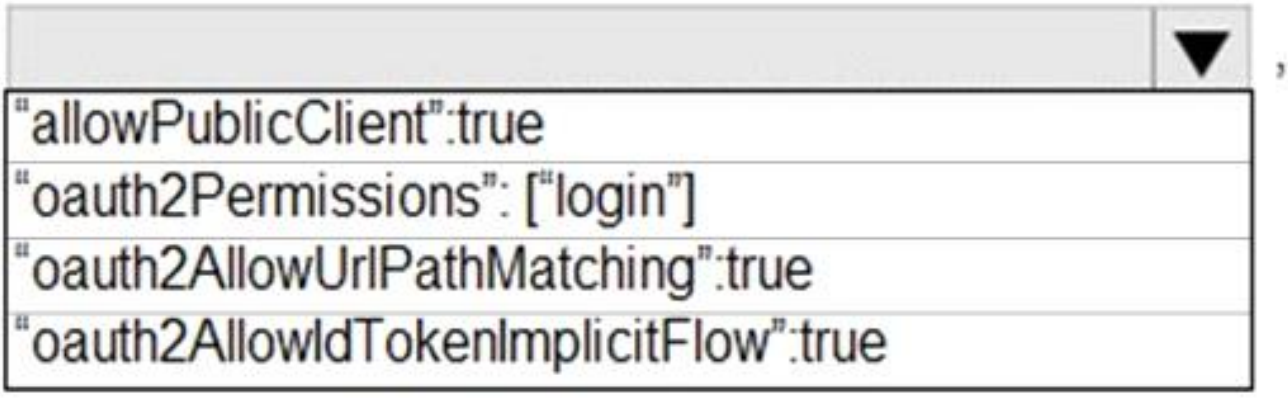
**NO.10** Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this question, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
Margie's Travel is an international travel and bookings management service. The company is expanding into restaurant bookings. You are tasked with implementing Azure Search for the restaurants listed in their solution.
You create the index in Azure Search.
You need to import the restaurant data into the Azure Search service by using the Azure Search .NET SDK.
Solution:
1. Create a SearchServiceClient object to connect to the search index.
2. Create a DataContainer that contains the documents which must be added.
3. Create a DataSource instance and set its Container property to the DataContainer.
4. Set the DataSources property of the SearchServiceClient.
Does the solution meet the goal?
**A.** No
**B.** Yes
***Answer:*** A
Explanation:
Use the following method:
1. - Create a SearchIndexClient object to connect to the search index
2. - Create an IndexBatch that contains the documents which must be added.
3. - Call the Documents.Index method of the SearchIndexClient and pass the IndexBatch.
Reference:
https://docs.microsoft.com/en-us/azure/search/search-howto-dotnet-sdk

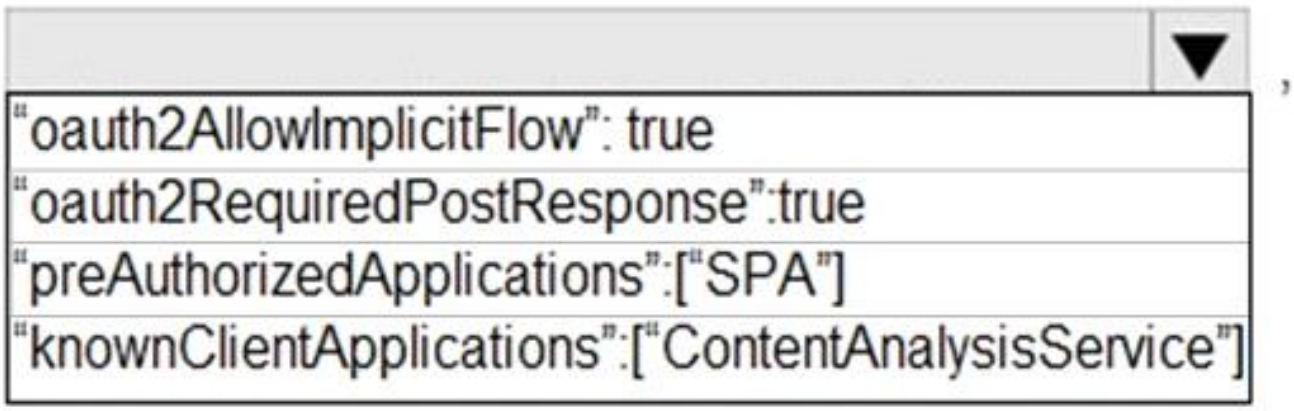
**NO.11** You are developing an Azure solution.
You need to develop code to access a secret stored in Azure Key Vault.
How should you complete the code segment? To answer, drag the appropriate code segments to the correct locations. Each code segment may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.


***Answer:***

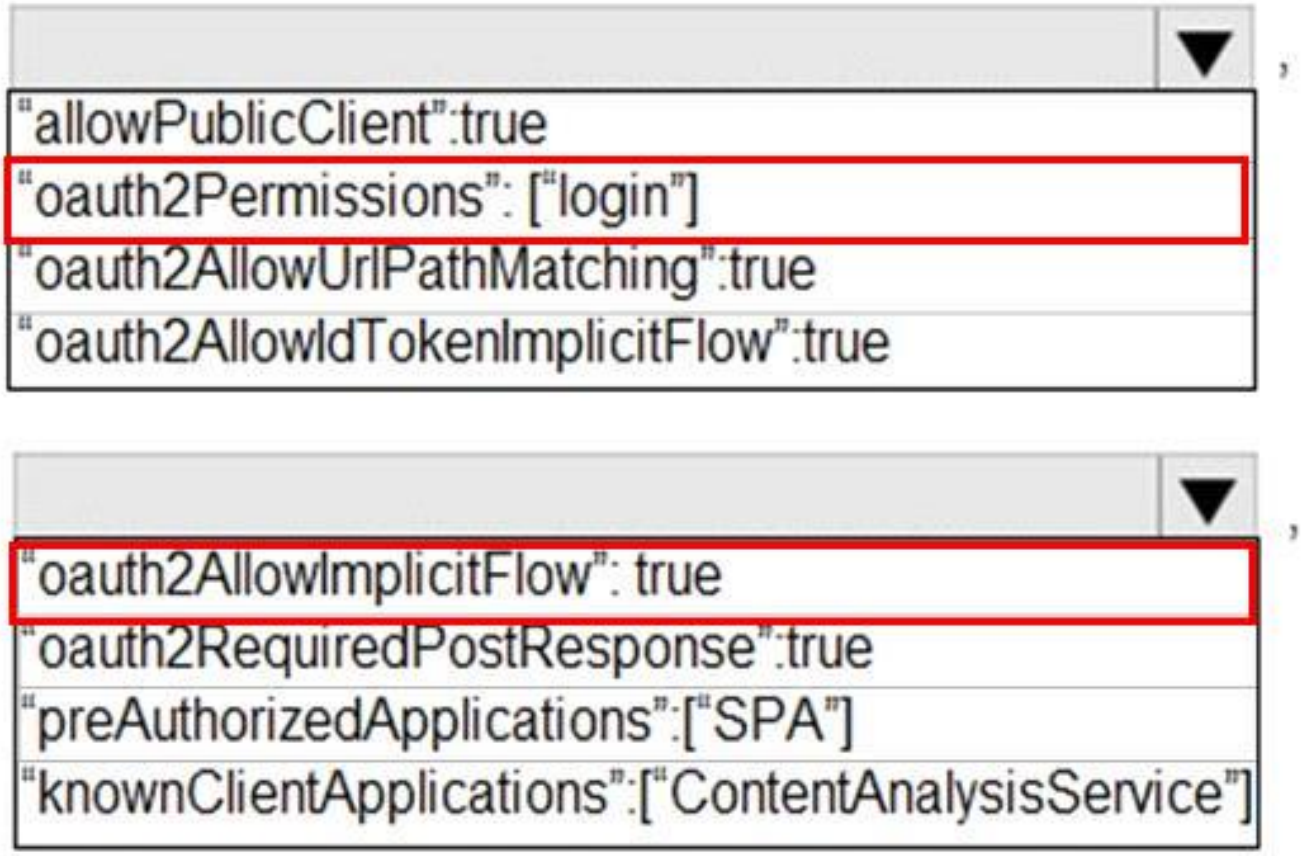

Reference:
https://docs.microsoft.com/en-us/azure/key-vault/secrets/quick-create-net

**NO.12** You need to add code at line AM09 to ensure that users can review content using ContentAnalysisService.
How should you complete the code? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.



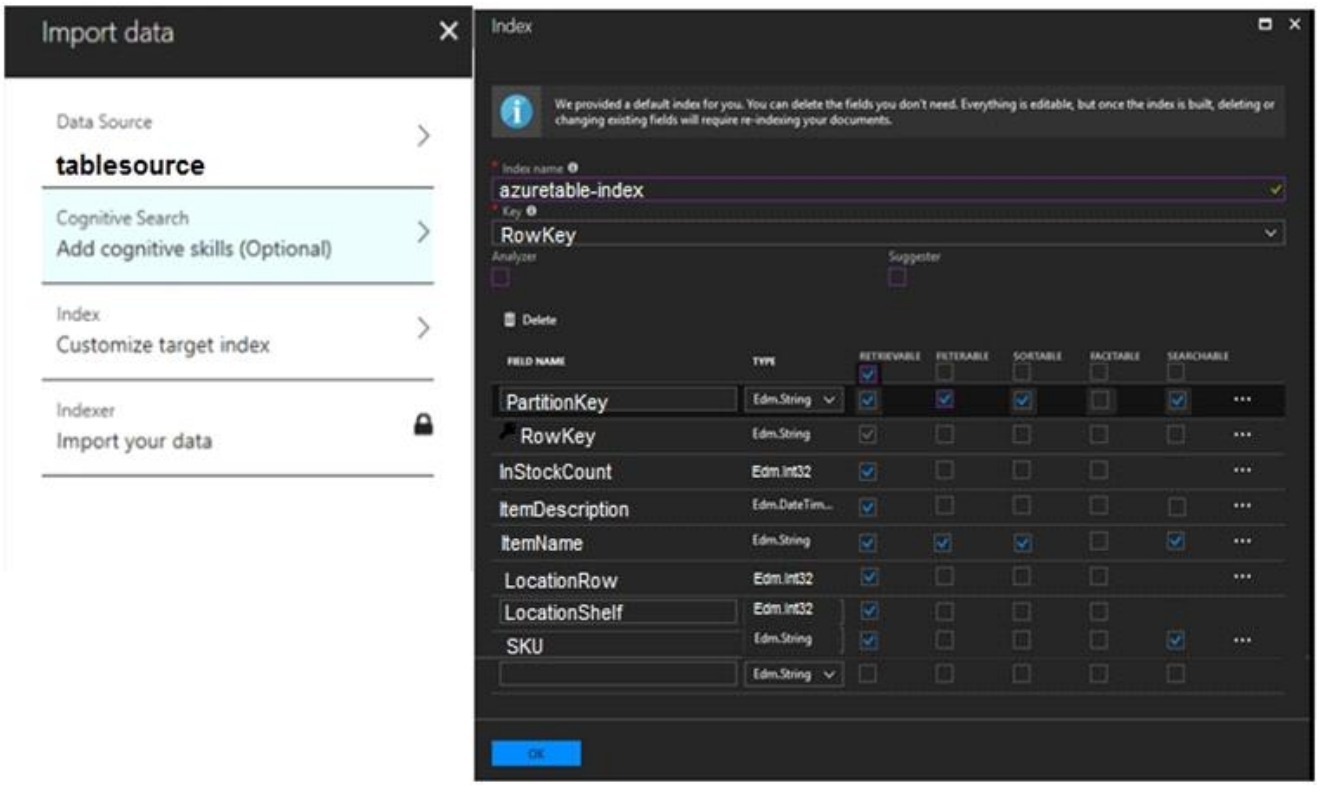




***Answer:***

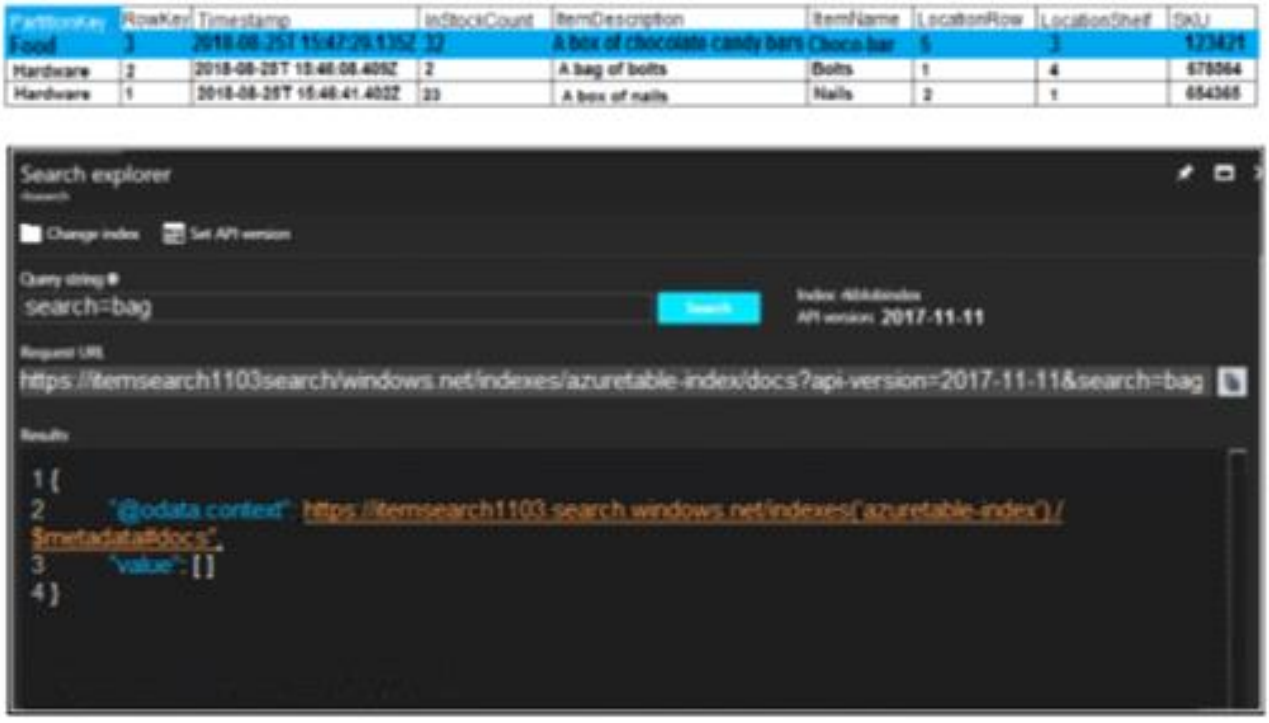



Reference:
https://docs.microsoft.com/en-us/azure/active-directory/develop/reference-app-manifest

**NO.13** You are validating the configuration of an Azure Search indexer.
The service has been configured with an indexer that uses the Import Data option. The index is configured using options as shown in the Index Configuration exhibit. (Click the Index Configuration tab.)




You use an Azure table as the data source for the import operation. The table contains three records with item inventory data that matches the fields in the Storage data exhibit. These records were imported when the index was created. (Click the Storage Data tab.) When users search with no filter, all three records are displayed.




When users search for items by description, Search explorer returns no records. The Search Explorer exhibit shows the query and results for a test. In the test, a user is trying to search for all items in the table that have a description that contains the word bag. (Click the Search Explorer tab.)
You need to resolve the issue.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE: Each correct selection is worth one point.

| | Yes | No |
|---|---|---|
| You can resolve the issue by recreating the search index with the same settings for all fields except ItemDescription. Select the SEARCHABLE option for this field | ○ | ○ |
| You can resolve the issue by selecting the index, editing the ItemDescription field, and selecting the SEARCHABLE option for the field. | ○ | ○ |
| You can resolve the issue by running the indexer. | ○ | ○ |
| You can resolve the issue by changing the query string in Search explorer to `bag of` to return the correct results | ○ | ○ |

***Answer:***

| | Yes | No |
|---|---|---|
| You can resolve the issue by recreating the search index with the same settings for all fields except ItemDescription. Select the SEARCHABLE option for this field | ○ | ○ |
| You can resolve the issue by selecting the index, editing the ItemDescription field, and selecting the SEARCHABLE option for the field. | ○ | ○ |
| You can resolve the issue by running the indexer. | ○ | ○ |
| You can resolve the issue by changing the query string in Search explorer to `bag of` to return the correct results | ○ | ○ |

Reference:
https://docs.microsoft.com/en-us/azure/search/search-what-is-an-index
https://docs.microsoft.com/en-us/azure/search/search-indexer-overview

**NO.14** You are developing an application that uses a premium block blob storage account. You are optimizing costs by automating Azure Blob Storage access tiers.
You apply the following policy rules to the storage account. You must determine the implications of applying the rules to the dat
a. (Line numbers are included for reference only.)

```
01 {
02   "rules":
03     {
04       "name": "agingDataRule",
05       "enabled": true,
06       "type": "Lifecycle",
```

**Answer Area**


***Answer:***

**Answer Area**


**NO.15** You need to ensure that the solution can meet the scaling requirements for Policy Service.
Which Azure Application Insights data model should you use?

**A.** an Application Insights event

**B.** an Application Insights trace

**C.** an Application Insights metric

**D.** an Application Insights dependency

***Answer:*** C

Explanation:

Application Insights provides three additional data types for custom telemetry:

Trace - used either directly, or through an adapter to implement diagnostics logging using an instrumentation framework that is familiar to you, such as Log4Net or System.Diagnostics.

Event - typically used to capture user interaction with your service, to analyze usage patterns.

Metric - used to report periodic scalar measurements.

Scenario:

Policy service must use Application Insights to automatically scale with the number of policy actions that it is performing.

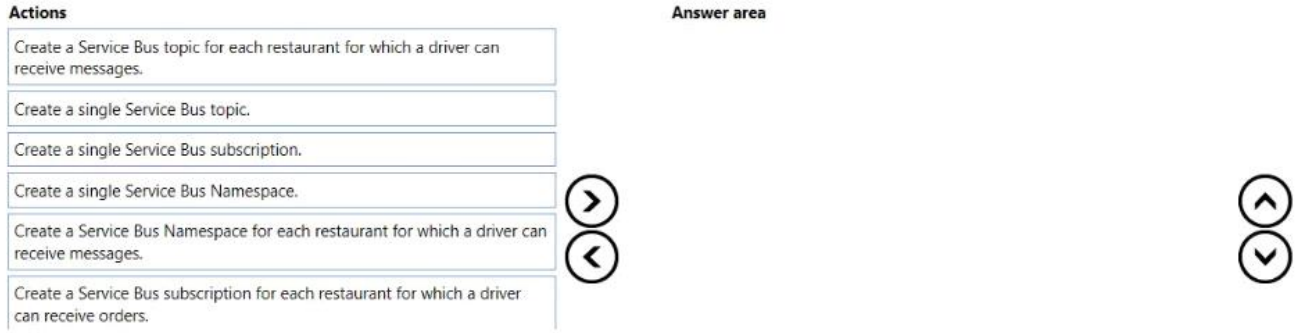
Reference:

https://docs.microsoft.com/en-us/azure/azure-monitor/app/data-model

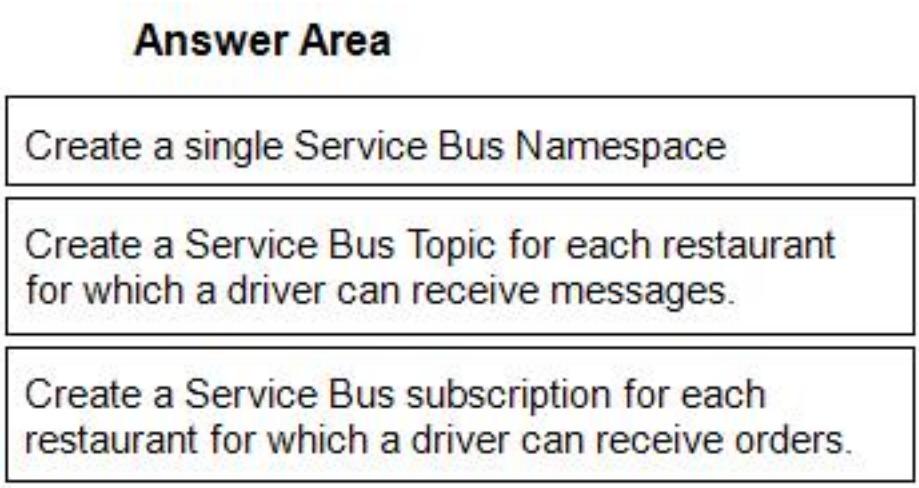
**NO.16** You develop software solutions for a mobile delivery service. You are developing a mobile app that users can use to order from a restaurant in their are a. The app uses the following workflow:

1. A driver selects the restaurants for which they will deliver orders.
2. Orders are sent to all available drivers in an area.
3. Only orders for the selected restaurants will appear for the driver.
4. The first driver to accept an order removes it from the list of available orders.

You need to implement an Azure Service Bus solution.
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.




***Answer:***




1 - Create a single Service Bus Namespace
2 - Create a Service Bus Topic for each restaurant for which a driver can receive messages.
3 - Create a Service Bus subscription for each restaurant for which a driver can receive orders.
Reference:
https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview

**NO.17** You develop and deploy an Azure App Service web app. The app is deployed to multiple regions and uses Azure Traffic Manager. Application Insights is enabled for the app.
You need to analyze app uptime for each month.
Which two solutions win achieve the goal? Each correct answer presents a complete solution
NOTE: Each correct selection is worth one point

**A.** Application Insights alerts
**B.** Azure Monitor logs
**C.** Azure Monitor metrics
**D.** Application Insights web tests

***Answer:*** A,D

Reference:
https://azure.microsoft.com/en-us/blog/creating-a-web-test-alert-programmatically-with-application-insights/

**NO.18** You develop Azure solutions.
You must connect to a No-SQL globally-distributed database by using the .NET API.
You need to create an object to configure and execute requests in the database.
Which code segment should you use?

**A.** new Container(EndpointUri, PrimaryKey);

**B.** new CosmosClient(EndpointUri, PrimaryKey);

**C.** new Database(Endpoint, PrimaryKey);

***Answer:*** B
Explanation:
Example:
// Create a new instance of the Cosmos Client
this.cosmosClient = new CosmosClient(EndpointUri, PrimaryKey)
//ADD THIS PART TO YOUR CODE
await this.CreateDatabaseAsync();
Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/sql-api-get-started

**NO.19** A software as a service (SaaS) company provides document management services. The company has a service that consists of several Azure web apps. All Azure web apps run in an Azure App Service Plan named PrimaryASP.
You are developing a new web service by using a web app named ExcelParser. The web app contains a third-party library for processing Microsoft Excel files. The license for the third-party library stipulates that you can only run a single instance of the library.
You need to configure the service.
How should you complete the script? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

## Answer Area

```
Set-AzAppServicePlan `
  -ResourceGroupName $rg `
  -Name "PrimaryASP" `
```

[ ▼ ]

- NumberOfSites 1
- PerSiteScaling $true
- TargetWorkerCount = 1
- MaxNumberOfWorkers = 1
- SiteConfig.NumberOfWorkers = 1

```
$app = Get-AzWebApp `
  -ResourceGroupName $rg `
  -Name "ExcelParser"
$app.
```

[ ▼ ]

- NumberOfSites 1
- PerSiteScaling $true
- TargetWorkerCount = 1
- MaxNumberOfWorkers = 1
- SiteConfig.NumberOfWorkers = 1

```
Set-AzWebApp $app
```

***Answer:***

## Answer Area

```
Set-AzAppServicePlan `
  -ResourceGroupName $rg `
  -Name "PrimaryASP" `
```

| |
|---|
| NumberOfSites 1 |
| PerSiteScaling $true |
| TargetWorkerCount = 1 |
| MaxNumberOfWorkers = 1 |
| SiteConfig.NumberOfWorkers = 1 |

```
$app = Get-AzWebApp `
  -ResourceGroupName $rg `
  -Name "ExcelParser"
$app.
```

| |
|---|
| NumberOfSites 1 |
| PerSiteScaling $true |
| TargetWorkerCount = 1 |
| MaxNumberOfWorkers = 1 |
| SiteConfig.NumberOfWorkers = 1 |

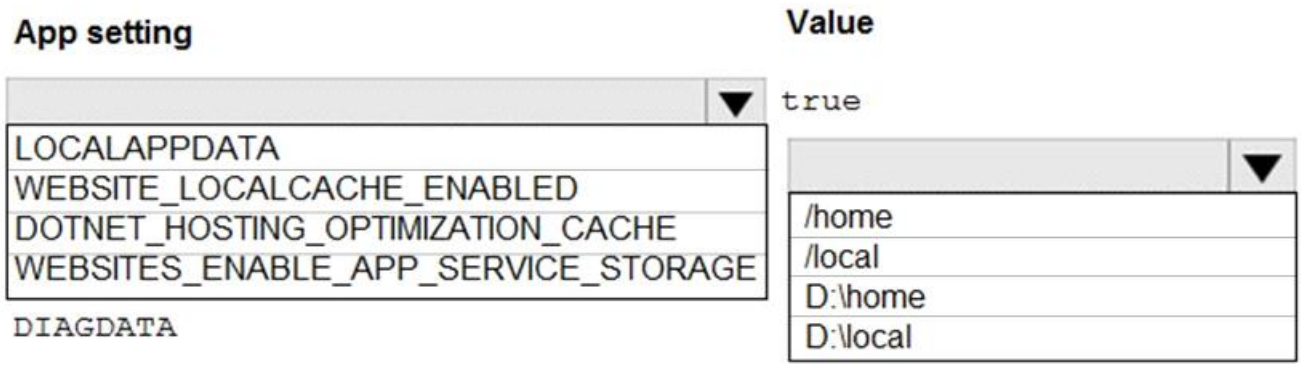
```
Set-AzWebApp $app
```

Reference:
https://docs.microsoft.com/en-us/azure/app-service/manage-scale-per-app

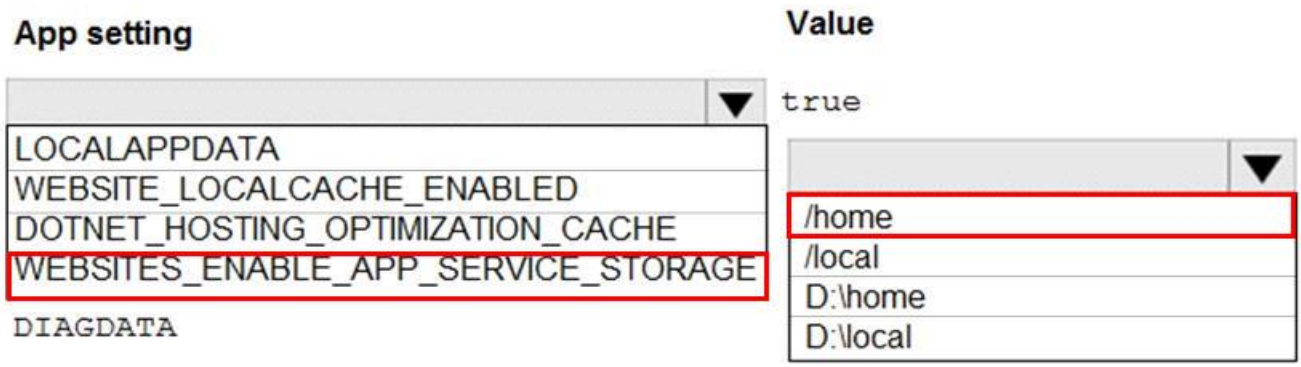
**NO.20** You are developing an ASP.NET Core web application. You plan to deploy the application to Azure Web App for Containers.
The application needs to store runtime diagnostic data that must be persisted across application restarts. You have the following code:

```
public void SaveDiagData(string data)
{
     var path = Environment.GetEnvironmentVariable("DIAGDATA")
     File.WriteAllText(Path.Combine(path, "data"), data);
}
```

You need to configure the application settings so that diagnostic data is stored as required.
How should you configure the web app's settings? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.




***Answer:***




Reference:
https://docs.microsoft.com/en-us/azure/app-service/containers/app-service-linux-faq

**NO.21** You are developing a project management service by using ASP.NET. The service hosts conversations, files, to-do lists, and a calendar that users can interact with at any time.
The application uses Azure Search for allowing users to search for keywords in the project data.
You need to implement code that creates the object which is used to create indexes in the Azure Search service.
Which two objects should you use? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

**A.** SearchIndexClient
**B.** SearchServiceClient
**C.** SearchService
**D.** SearchCredentials

***Answer:*** A,B
Explanation:

The various client libraries define classes like Index, Field, and Document, as well as operations like Indexes.Create and Documents.Search on the SearchServiceClient and SearchIndexClient classes.
Example:
The sample application we'll be exploring creates a new index named "hotels", populates it with a few documents, then executes some search queries. Here is the main program, showing the overall flow:

```
/ This sample shows how to delete, create, upload documents and query an index
static void Main(string[] args)
{
IConfigurationBuilder builder = new ConfigurationBuilder().AddJsonFile("appsettings.json");
IConfigurationRoot configuration = builder.Build();
SearchServiceClient serviceClient = CreateSearchServiceClient(configuration);
Console.WriteLine("{0}", "Deleting index...\n");
DeleteHotelsIndexIfExists(serviceClient);
Console.WriteLine("{0}", "Creating index...\n");
CreateHotelsIndex(serviceClient);
ISearchIndexClient indexClient = serviceClient.Indexes.GetClient("hotels");
```

Reference:
https://docs.microsoft.com/en-us/azure/search/search-howto-dotnet-sdk

**NO.22** You need to implement a solution to resolve the retail store location data issue.
Which three Azure Blob features should you enable? Each correct answer presents pan ol the solution.
NOTE Each correct selection is worth one point

**A.** Soft delete
**B.** Snapshots
**C.** Immutability
**D.** Object replication
**E.** Change feed
**F.** Versioning

***Answer:*** C,D,F

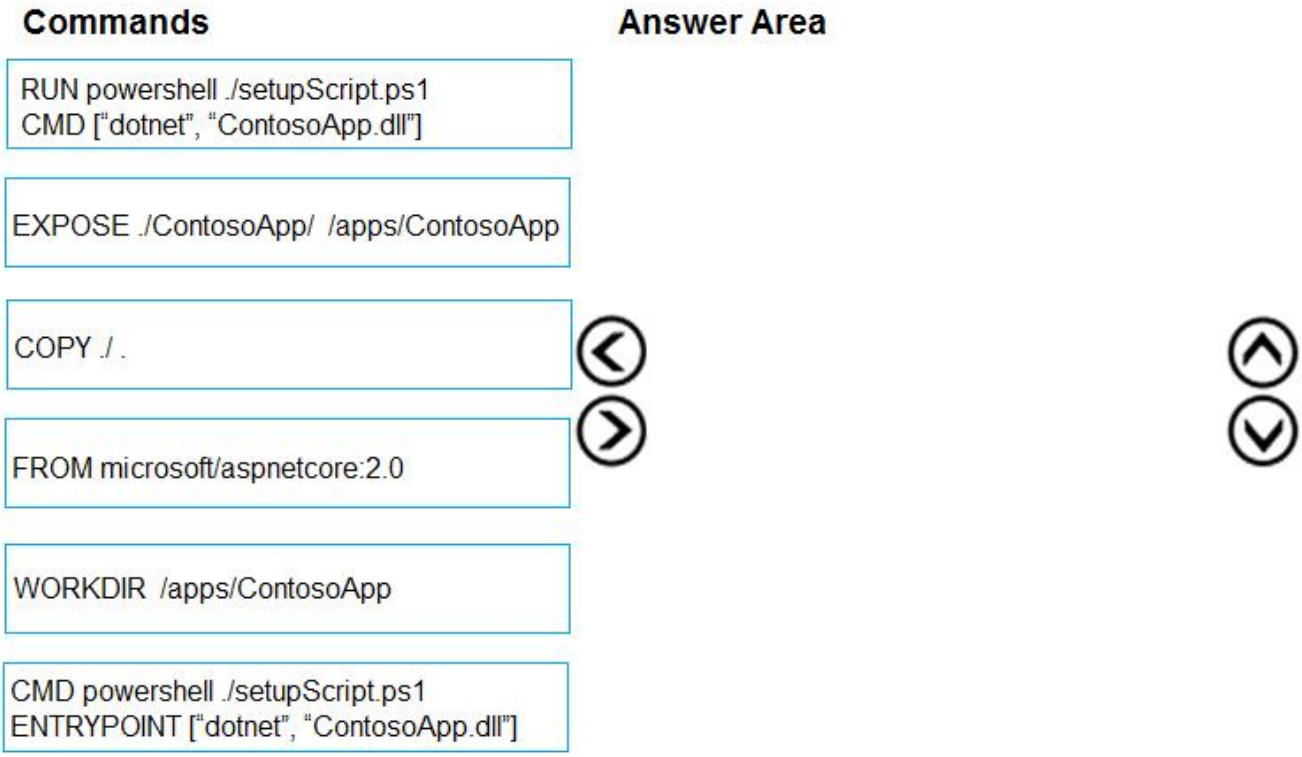
**NO.23** You need to configure the ContentUploadService deployment.
Which two actions should you perform? Each correct answer presents part of the solution.
NOTE: Each correct selection is worth one point.

**A.** Add the following markup to line CS24:
osType: Windows
**B.** Add the following markup to line CS23:
types: Public
**C.** Add the following markup to line CS24:
osType: Linux
**D.** Add the following markup to line CS23:
types: Private

***Answer:*** D
Explanation:

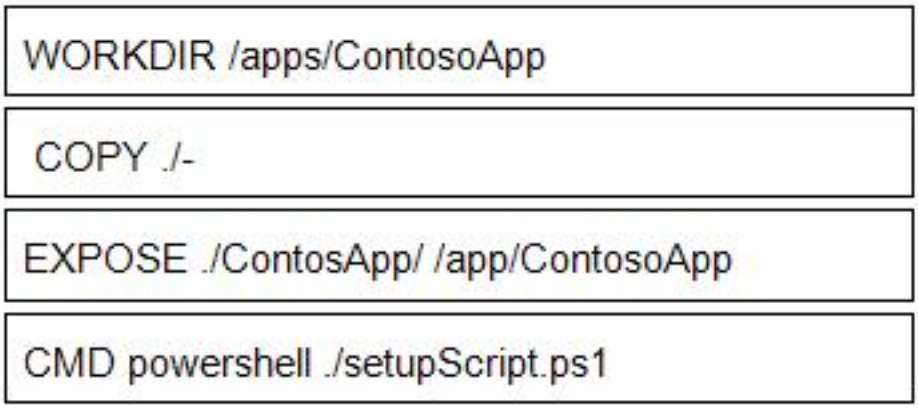
Scenario: All Internal services must only be accessible from Internal Virtual Networks (VNets)
There are three Network Location types - Private, Public and Domain
Reference:
https://devblogs.microsoft.com/powershell/setting-network-location-to-private/

**NO.24** You plan to create a Docker image that runs as ASP.NET Core application named ContosoApp. You have a setup script named setupScript.ps1 and a series of application files including ContosoApp.dll.
You need to create a Dockerfile document that meets the following requirements:
* Call setupScript.ps1 when the container is built.
* Run ContosoApp.dll when the container starts.
The Docker document must be created in the same folder where ContosoApp.dll and setupScript.ps1 are stored.
Which four commands should you use to develop the solution? To answer, move the appropriate commands from the list of commands to the answer area and arrange them in the correct order.




***Answer:***

**Answer Area**




1 - WORKDIR /apps/ContosoApp
2 - COPY ./-
3 - EXPOSE ./ContosApp/ /app/ContosoApp
4 - CMD powershell ./setupScript.ps1
Reference:
https://docs.microsoft.com/en-us/azure/app-service/containers/tutorial-custom-docker-image

**NO.25** Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
You develop Azure solutions.
You must grant a virtual machine (VM) access to specific resource groups in Azure Resource Manager .
You need to obtain an Azure Resource Manager access token.
Solution: Use the Reader role-based access control (RBAC) role to authenticate the VM with Azure Resource Manager.
Does the solution meet the goal?

**A.** Yes

**B.** No

***Answer:*** B
Explanation:
Instead run the Invoke-RestMethod cmdlet to make a request to the local managed identity for Azure resources endpoint.
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/tutorial-windows-vm-access-arm