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70-532 PRACTICE EXAM

Pass Developing Microsoft Azure Solutions Exam

Product Questions: 269

Version: 14.0

Case Study: 1

Web-based Solution

Background

You are developing a web-based solution that students and teachers can use to collaborate on written assignments. Teachers can also use the solution to detect potential plagiarism, and they can manage assignments and data by using locally accessible network shares.

Business Requirements

The solution consists of three parts: a website where students work on assignments and where teachers view and grade assignments, the plagiarism detection service, and a connector service to manage data by using a network share.

The system availability agreement states that operating hours are weekdays between midnight on Sunday and midnight on Friday.

Plagiarism Service

The plagiarism detection portion of the solution compares a new work against a repository of existing works. The initial dataset contains a large database of existing works. Teachers upload additional works. In addition, the service itself searches for other works and adds those works to the repository.

Technical Requirements

Website

The website for the solution must run on an Azure web role.

Plagiarism Service

The plagiarism detection service runs on an Azure worker role. The computation uses a random number generator. Certain values can result in an infinite loop, so if a particular work item takes longer than one hour to process, other instances of the service must be able to process the work item. The Azure worker role must fully utilize all available CPU cores. Computation results are cached in local storage resources to reduce computation time.

Repository of Existing Works

The plagiarism detection service works by comparing student submissions against a repository of existing works by using a custom matching algorithm. The master copies of the works are stored in Azure blob storage. A daily process synchronizes files between blob storage and a file share on a virtual machine (VM). As part of this synchronization, the ExistingWorkRepository object adds the files to Azure Cache to improve the display performance of the website. If a student's submission is overdue, the Late property is set to the number of days that the work is overdue. Work files can be downloaded by using the Work action of the TeacherController object.

Network Connector

Clients can interact with files that are stored on the VM by using a network share. The network permissions are configured in a startup task in the plagiarism detection service.

Service Monitoring

The CPU of the system on which the plagiarism detection service runs usually limits the plagiarism detection service. However, certain combinations of input can cause memory issues, which results in decreased performance. The average time for a given computation is 45 seconds. Unexpected results during computations might cause a memory dump. Memory dump files are stored in the Windows temporary folder on the VM that hosts the worker role.

Security

Only valid users of the solution must be able to view content that users submit. Privacy regulations require that all content that users submit must be retained only in Azure Storage. All documents that students upload must be signed by using a certificate named DocCert that is installed in both the worker role and the web role.

Solution Development

You use Microsoft Visual Studio 2013 and the Azure emulator to develop and test both the compute component and the storage component. New versions of the solution must undergo testing by using production data.

Scaling

During non-operating hours, the plagiarism detection service should not use more than 40 CPU cores. During operating hours, the plagiarism detection service should automatically scale when 500 work items are waiting to be processed. To facilitate maintenance of the system, no plagiarism detection work should occur during non-operating hours. All ASP.NET MVC actions must support files that are up to 2 GB in size.

Biographical Information

Biographical information about students and teachers is stored in a Microsoft Azure SQL database. All services run in the US West region. The plagiarism detection service runs on Extra Large instances.

Solution Structure

Relevant portions of the solution files are shown in the following code segments. Line numbers in the code segments are included for reference only and include a two-character prefix that denotes the specific file to which the line belongs.

Diagnostics.wadcfg

```
DG01 <?xml version="1.0" encoding="utf-8" ?>
DG02 <DiagnosticMonitorConfiguration
DG03   xmlns="http://schemas.microsoft.com/ServiceHosting/2010/10/DiagnosticsConfiguration"
DG04     configurationChangePollInterval="PT1M"
DG05     overallQuotaInMB="4096">
DG06       <PerformanceCounters bufferQuotaInMB="0" scheduledTransferPeriod="PT30M">
DG07         <PerformanceCounterConfiguration counterSpecifier="\System\Context Switches/
sec" sampleRate="PT30S" />
DG08       </PerformanceCounters>
DG09 </DiagnosticMonitorConfiguration>
```

ExistingWorkRepository.cs

```

EW01 public static class ExistingWorkRepository
EW02 {
EW03     public static void PopulateCache(string subject, string workId)
EW04     {
EW05         var account = Storage.Account();
EW06         var container = account.CreateCloudBlobClient().GetContainerReference("work" + subject);
EW07         var body = container.GetBlockBlobReference(workId).DownloadText();
EW08         var cache = new DataCacheFactory().GetCache(subject);
EW09         cache.Add(workId, body);
EW10     }
EW11 }
```

PlagiarismCalculation.ps1

```

PC01 public class PlagiarismCalculation
PC02 {
PC03     public double Compute(Work essay)
PC04     {
PC05         var score = default(double);
PC06         var account = Storage.Account();
PC07         var cloudTableClient = account.CreateCloudTableClient();
PC08         var cloudBlobClient = account.CreateCloudBlobClient();
PC09         var existingWorks = cloudTableClient.GetTableReference("library").CreateQuery<Work>();
PC10         var container = cloudBlobClient.GetContainerReference("work" + subject);
PC11         foreach (var work in existingWorks.Execute())
PC12         {
PC13             work.Body = container.GetBlockBlobReference(work.PartitionKey).DownloadText();
PC14             score = GetMaxScore(essay, work, score);
PC15         }
PC16         return score;
PC17     }
PC18
PC19     private double GetMaxScore(Work work, Work previousWork, double previous)
PC20     {
PC21         var rootPath = RoleEnvironment.GetLocalResource("ComputeResults").RootPath;
PC22         ...
PC23         return score;
PC24     }
PC25 }
```

SetupNetworkAccess.ps1

```

SN01 $acl = New-AzureAclConfig
SN02 Set-AzureAclConfig -AddRule -ACL $acl -Order 400 -Action permit ` 
    -RemoteSubnet "192.168.5.1/24" -Description "Access for Northwood"
SN03 Set-AzureAclConfig -AddRule -ACL $acl -Order 200 -Action permit ` 
    -RemoteSubnet "10.181.11.1/16" -Description "Access for Contoso, Ltd"
SN04 Get-AzureVM -ServiceName "FileService" -Name "FS" | ` 
    Add-AzureEndpoint -Name "Files" -Protocol tcp -Localport 445 ` 
    -PublicPort 445 -ACL $acl | Update-AzureVM
```

TeacherController.cs

```

TC01 public class TeacherController : Controller
TC02 {
TC03     public ActionResult Work(string workId, string subject)
TC04     {
TC05
TC06     }
TC07     public ActionResult Upload(string workId, string subject)
TC08     {
TC09
TC10     }
TC11     private static bool CheckDay(DateTime dt)
TC12     {
TC13         if ((dt.DayOfWeek == DayOfWeek.Saturday) || (dt.DayOfWeek == DayOfWeek.Sunday))
TC14             return true;
TC15         return false;
TC16     }
TC17     private static CloudQueueMessage BuildMessage(params string[] args)
TC18     {
TC19         return new CloudQueueMessage(string.Join("/", args));
TC20     }
TC21 }
```

Work.cs

```

WK01 public class Work : TableEntity
WK02 {
WK03     public string Body { get; set; }
WK04     public string Author { get; set; }
WK05     public bool IsReference { get; set; }
WK06     public int Late { get; set; }
WK07     [IgnoreProperty]
WK08     public string Subject
WK09     {
WK10         get { return RowKey; }
WK11         set { RowKey = value; }
WK12     }
WK13     [IgnoreProperty]
WK14     public string WorkId
WK15     {
WK16         get { return PartitionKey; }
WK17         set { PartitionKey = value; }
WK18     }
WK19 }
```

WorkerRole.cs

```

WR01 public class WorkerRole : RoleEntryPoint
WR02 {
WR03     public override void Run()
WR04     {
WR05         var account = Storage.Account();
WR06         var queue = account.CreateCloudQueueClient().GetQueueReference("checkwork");
WR07         var service = new PlagiarismCalculation();
WR08         foreach (var queueMessage in GetWork(queue))
WR09         {
WR10             var parts = queueMessage.AsString.Split(new[] {"/"}, StringSplitOptions.None);
WR11             service.Compute(parts[0], parts[1]);
WR12         }
WR13     }
WR14     private IEnumerable<CloudQueueMessage> GetWork(CloudQueue queue)
WR15     {
WR16
WR17     }
WR18 }
```

Question: 1**DRAG DROP**

You need to configure storage for the solution.

What should you do? To answer, drag the appropriate XML segments to the correct locations. Each XML 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.

Markup Segments <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">LocalStorage</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">ComputeResults</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">Content</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">ignoreRoleInstanceStatus</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">cleanOnRoleRecycle</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">TemporaryData</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;">LocalResources</div>	Answer Area <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> < /> < /> < name=" " /> < " = "true" /> < Status ="true" sizeInMB="123" /> < /> </div>
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Answer:

Answer Area



Ref: <http://msdn.microsoft.com/en-us/library/azure/ee758708.aspx>

Question: 2

You are deploying the web-based solution in the West Europe region.

You need to copy the repository of existing works that the plagiarism detection service uses. You must achieve this goal by using the least amount of time.

What should you do?

- A. Copy the files from the source file share to a local hard disk. Ship the hard disk to the West Europe data center by using the Azure Import/Export service.
- B. Create an Azure virtual network to connect to the West Europe region. Then use Robocopy to copy the files from the current region to the West Europe region.
- C. Provide access to the blobs by using the Microsoft Azure Content Delivery Network (CDN). Modify the plagiarism detection service so that the files from the repository are loaded from the CDN.
- D. Use the Asynchronous Blob Copy API to copy the blobs from the source storage account to a storage account in the West Europe region.

Answer: D

Ref: <http://blogs.msdn.com/b/windowsazurestorage/archive/2012/06/12/introducing-asynchronous-cross-account-copy-blob.aspx>

Question: 3

HOTSPOT

You need to find all existing works about World History that are overdue and are stored in the repository. How should you complete the relevant code? To answer, select the appropriate option or options in the

answer area.

Answer Area

```
var root = Storage.Account().TableStorageUri;
var query = root + "library()?$filter=" +
```

"

" +

Late%20gt%200
Late%20lt%200
Late%20ne%20true
Late%20eq%20true

"%20and%20

%20eq%20'World History'" ;

RowKey
WorkID
Subject
PartitionKey

Answer:

Answer Area

```
var root = Storage.Account().TableStorageUri;
var query = root + "library()?$filter=" +
```

"

" +

Late%20gt%200
Late%20lt%200
Late%20ne%20true
Late%20eq%20true

"%20and%20

%20eq%20'World History'" ;

RowKey
WorkID
Subject
PartitionKey

Question: 4

DRAG DROP

You need to insert code at line WR16 to implement the GetWork method.

How should you complete the relevant code? To answer, drag the appropriate code segment to the correct location. 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.

Code Segments	Answer Area
numOfMessages:4	<code>while (true)</code>
numOfMessages:8	<code>{</code>
GetMessages	<code>var messages = queue.</code>
PeekMessages	<code>(</code>
visibilityTimeout:	<code>TimeSpan.FromHours(1));</code>
operationContext:	<code>foreach (var message in messages)</code>
	<code>yield return message;</code>
	<code>}</code>

Answer:

Answer Area

```
while (true)
{
    var messages = queue. GetMessages
    ( numOfMessages:8 , visibilityTimeout:
        TimeSpan.FromHours(1));
    foreach (var message in messages)
        yield return message;
}
```

Question: 5

HOTSPOT

The Compute method in the PlagiarismCalculation class takes a significant amount of time to load existing works from blob storage. To improve performance, the service must load existing works from the cache.

You need to modify the Compute method in the class PlagiarismCalculation.

How should you modify the method? To answer, select the appropriate option or options in the answer area.

Answer Area

```
var existingWorks =  
    cloudTableClient.GetTableReference("library").CreateQuery<Work>();  
  
    var cache = new DataCache(essay.Author);  
    var cache = new DataCache(essay.Subject);  
    var cache = new DataCacheItemKey(essay.Author, "body");  
    var cache = new DataCacheItemKey(essay.Subject, "body");  
  
foreach (var work in existingWorks.Execute())  
{  
  
    work.Body = cache.Get(work.Body).ToString();  
    work.Body = cache.Get(work.RowKey).ToString();  
    work.Body = cache.Get(work.Author).ToString();  
    work.Body = cache.Get(work.PartitionKey).ToString();  
  
    score = compute(essay, work, score);  
}
```

Answer:

Answer Area

```

var existingWorks =
    cloudTableClient.GetTableReference("library").CreateQuery<Work>();
    var cache = new DataCache();
    var cache = new DataCache();
    var cache = new DataCacheItemKey();
    var cache = new DataCacheItemKey();

foreach (var work in existingWorks.Execute())
{
    work.Body = cache.Get(work.Body).ToString();
    work.Body = cache.Get(work.RowKey).ToString();
    work.Body = cache.Get(work.Author).ToString();
    work.Body = cache.Get(work.PartitionKey).ToString();

    score = compute(essay, work, score);
}

```

Question: 6

You update the portion of the website that contains biographical information about students.

You need to provide data for testing the updates to the website.

Which approach should you use?

- A. Use SQL Server data synchronization.
- B. Use the Active Geo-Replication feature of Azure SQL Database.
- C. Use SQL Replication.
- D. Use the Geo-Replication feature of Azure Storage.

Answer: A

Question: 7**HOTSPOT**

You need to configure scaling for the plagiarism detection service.

What should you do? To answer, select the appropriate values in the dialog box in the answer area.

Answer Area

SCALE BY METRIC

NONE	CPU	QUEUE
------	-----	-------

INSTANCE RANGE
A1 (1 CORE, 1.75 GB MEMORY)

1



1
3
5
10

QUEUE NAME

checkwork
input
ready
submitted

TARGET PER MACHINE

100
300
500
1000

Answer:

Answer Area

SCALE BY METRIC

NONE	CPU	QUEUE
------	-----	-------

INSTANCE RANGE
A1 (1 CORE, 1.75 GB MEMORY)

QUEUE NAME

A dropdown menu with the following options: checkedwork, input, ready, and submitted. The option 'checkedwork' is highlighted with a red box.

TARGET PER MACHINE

A dropdown menu with the following options: 100, 300, 500, and 1000. The option '500' is highlighted with a red box.

Question: 8**HOTSPOT**

You need to implement the Work action on the TeacherController object.

How should you complete the relevant code? To answer, select the appropriate options in the answer area.

Answer Area

```

var disposition = string.Format("attachment; filename=\"{0}\\"", workId);
var account = Storage.Account();
var cloudBlobClient = account.CreateCloudBlobClient();
var server = cloudBlobClient.StorageUri;
var blobName = new Uri(string.Format("{0}/{1}/{2}", server,
    "work" + subject,
    workId,
    disposition,
    blobName
    , ));

var blob = cloudBlobClient.GetBlobReferenceFromServer(blobName);
var contentLength = blob.Properties.Length.ToString();
Response.Buffer = false;
Response.AddHeader("Content-Disposition", disposition);
Response.AddHeader("Content-Length", contentLength);
Response.ContentType = "application/octet-stream";
Response.Flush();

blob.DownloadAsStream(
    Response.OutputStream
    Request.InputStream
    blob.OpenRead()
);

HttpContext.ApplicationInstance.CompleteRequest();
return new EmptyResult();

```

Answer:

Answer Area

```

var disposition = string.Format("attachment; filename=\"{0}\\"", workId);
var account = Storage.Account();
var cloudBlobClient = account.CreateCloudBlobClient();
var server = cloudBlobClient.StorageUri;
var blobName = new Uri(string.Format("{0}/{1}/{2}", server,

```

```

    , "work" + subject
    workId
    disposition
    blobName
  );

```

```

    );
    "work" + subject
    workId
    disposition
    blobName
  );

```

```

var blob = cloudBlobClient.GetBlobReferenceFromServer(blobName);
var contentLength = blob.Properties.Length.ToString();
Response.Buffer = false;
Response.AddHeader("Content-Disposition", disposition);
Response.AddHeader("Content-Length", contentLength);
Response.ContentType = "application/octet-stream";
Response.Flush();

blob.DownloadAsStream( 
  );

```

```

  Response.OutputStream
  Request.InputStream
  blob.OpenRead()
);

HttpContext.ApplicationInstance.CompleteRequest();
return new EmptyResult();

```

Question: 9

DRAG DROP

You recently started working with a client named Contoso, Ltd. The client reports that hackers have compromised devices on its network.

You need to ensure that devices from Contoso cannot connect to your corporate network.

How should you complete the relevant Windows PowerShell script? To answer, drag the appropriate Azure PowerShell segment to the correct location. Each Azure PowerShell 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.

PowerShell Segments

100

300

500

192.168.5.1/24

10.181.11.1/16

192.181.5.1/8

Answer Area

```
$acl = New-AzureAclConfig
Set-AzureAclConfig-AddRule-ACL $acl -Action Deny `

-Description "Security Fix" -Order 100

-RemoteSubnet " 10.181.11.1/16 "

Get-AzureVM -ServiceName "FileService" -Name "FS" | `

Set-AzureEndpoint -Name "Files" -Protocol tcp `

-Localport 445 -PublicPort 445 -ACL $acl | Update-AzureVM
```

Answer:

PowerShell Segments

100

300

500

192.168.5.1/24

10.181.11.1/16

192.181.5.1/8

Answer Area

```
$acl = New-AzureAclConfig
Set-AzureAclConfig-AddRule-ACL $acl -Action Deny `

-Description "Security Fix" -Order 100

-RemoteSubnet " 10.181.11.1/16 "

Get-AzureVM -ServiceName "FileService" -Name "FS" | `

Set-AzureEndpoint -Name "Files" -Protocol tcp `

-Localport 445 -PublicPort 445 -ACL $acl | Update-AzureVM
```

Case Study: 2

Contoso, Ltd

Background

Contoso, Ltd. is developing a patient monitoring solution for a hospital. The solution consists of an Azure website and a set of mobile applications that health care providers use to monitor patients remotely. Monitoring devices that run the embedded version of Windows will be attached to patients. The devices will collect information from patients and will transmit real-time continuous data to a service that runs on Azure. The service collects and distributes dat

- The data that the service provides must be accessible by the website and by the mobile applications.

Business Requirements

Patients

All patient data must be stored securely on Azure. Data security must meet or exceed Health Insurance Portability and Accountability Act of 1996 (HIPAA) standards in the United States and must meet or exceed ISO/IEC 27002 data security standards in the rest of the world.

Contractors

Third-party contractors will develop the mobile applications. All contractors must develop the applications by using virtual machines (VMs) that are hosted on Azure. Only authorized contractors and authorized IP addresses are permitted to access the VMs. The contractors can use Near Field Communication (NFC) tags to launch Remote Desktop (RD) connections to the VMs from NFC-enabled devices. For testing purposes, contractors must be able to run multiple instances of mobile applications within the VMs.

Data Collection and Distribution Service

The service must monitor the patient data and send out alerts to health care providers when specific conditions are detected. The service must send the alerts to mobile applications and to the website in real time so that doctors, nurses, and caregivers can attend to the patient. Partner organizations and diagnostic laboratories must be able to securely access the data and the website from remote locations.

Current Issues

A partner that is testing a prototype of the website reports that after signing in to the website, the partner is redirected to the settings page instead of to the home page.

The data from the patient devices is slow to appear on the website and does not always appear. All patient devices online have active connections to the data collection service.

Technical Requirements

Contractors

All contractors will use virtual machines that are initially configured as size A3. Contractors must sign in to the assigned VM by using IP addresses from a list of preapproved addresses.

Data Collection and Distribution Service

All deployed services must send an alert email to watchguard@contoso.com when any of the following conditions is met:

Website and Mobile Devices

The website must be secure and must be accessible only within the hospital's physical grounds. All mobile applications and websites must be responsive. All websites must produce error logs that can be viewed remotely.

Virtual Machines

Application Structure

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

ControllerFile.cs:

```

CF01  using System;
CF02  using System.Collections.Generic;
CF03  using System.Linq;
CF04  using System.Web;
CF05  using System.Web.Mvc;
CF06  namespace WebApplication1.Controllers
CF07  {
CF08      public class HomeController : Controller
CF09      {
CF10          public ActionResult Index()
CF11          {
CF12              ViewBag.Message = "Welcome to Contoso Patient Monitor.";
CF13
CF14              return View();
CF15          }
CF16          ...
CF17      }
CF18  }

```

Web.config

```

WC01 <?xml version="1.0" encoding="utf-8"?>
WC02 <configuration>
WC03     <appSettings>
WC04         <add key="webpages:Version" value="3.0.0.0" />
WC05         <add key="webpages:Enabled" value="false" />
WC06         <add key="ClientValidationEnabled" value="true" />
WC07         <add key="UnobtrusiveJavaScriptEnabled" value="true" />
WC08
WC09     </appSettings>
WC10     <system.web>
WC11         <authentication mode="None" />
WC12         <compilation debug="true" targetFramework="4.5" />
WC13         <httpRuntime targetFramework="4.5" />
WC14
WC15     </system.web>
WC16 </configuration>

```

Question: 10**DRAG DROP**

You need to configure a VM for a new contractor.

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.

Actions	Answer Area
Copy the endpoint port addresses to an NFC tag for the contractor.	
Add the contractor's user names and remote IP addresses to the list of permitted users and addresses in the ACL.	
Obtain the radio frequency identification (RFID) information from the contractor and import the secure key from the RFID device.	
Create an endpoint and configure the ports that the VM will use.	
Select the endpoints that the VM will access.	

Answer:

Create an endpoint and configure the ports that the VM will use.

Obtain the radio frequency identification (RFID) information from the contractor and import the secure key from the RFID device.

Add the contractor's user names and remote IP addresses to the list of permitted users and addresses in the ACL.

Question: 11

HOTSPOT

You run the following Windows PowerShell script. Line numbers are included for reference only.

```
01 Get-AzureSubscription -SubscriptionName ContosoPt1
02 Switch-AzureWebsiteSlot -Name ContosoPt1_2
03 Remove-AzureWebsite -Name ContosoPt1_2 -Slot staging
04 Get-AzureDeployment -ServiceName ContosoPt1_2 -Slot Production | Get-AzureDNS
05 $MyAzureCert = Get-AzureCertificate -ServiceName ContosoPT | Remove-AzureCertificate
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

	Yes	No
After you run this script, a new certificate will be applied to the web site.	<input type="radio"/>	<input type="radio"/>
After you run this script, you must update the custom domain names.	<input type="radio"/>	<input type="radio"/>
After you run this script, you must recreate the staging slot.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

Answer Area

	Yes	No
After you run this script, a new certificate will be applied to the web site.	<input type="radio"/>	<input checked="" type="radio"/>
After you run this script, you must update the custom domain names.	<input type="radio"/>	<input checked="" type="radio"/>
After you run this script, you must recreate the staging slot.	<input checked="" type="radio"/>	<input type="radio"/>

Question: 12

The website does not receive alerts quickly enough.

You need to resolve the issue.

What should you do?

- A. Enable automatic scaling for the website.
- B. Manually Increase the instance count for the worker role.
- C. Increase the amount of swap memory for the VM instance.
- D. Set the monitoring level to Verbose for the worker role.
- E. Enable automatic scaling for the worker role.

Answer: B

Question: 13

HOTSPOT

You need to implement the worker role to support the real-time continuous data-collection service. How should you complete the relevant code? To answer, select the appropriate option or options in the answer area.

Answer Area

```
var https = require('') );
```

http
https
connect

```
var fs = require('fs');
var options = {
  pfx: fs.readFileSync('cert.pfx'),
```

: "password"
key
passphrase
secret
secure

```
};
```

```
var port = process.env.Port || ;
```

8080
8888
80

```
https.createServer(options, function (req, res) {
  res.writeHead(200, {'Content-Type': 'text/plain'});
  res.end('Server Active\n');
}).listen(port);
```

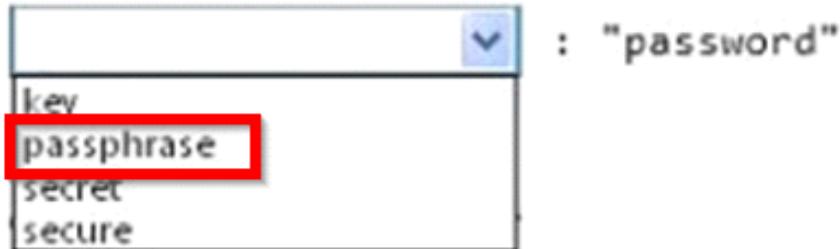
Answer:

Answer Area

```
var https = require('') ;
```

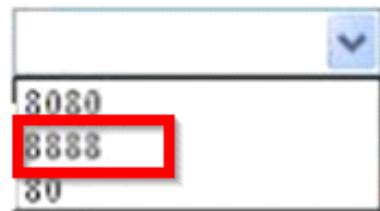


```
var fs = require('fs');
var options = {
  pfx: fs.readFileSync('cert.pfx'),
```



```
};
```

```
var port = process.env.Port || ;
```



```
https.createServer(options, function (req, res) {
  res.writeHead(200, {'Content-Type': 'text/plain'});
  res.end('Server Active\n');
}).listen(port);
```

Question: 14

You need to implement data storage for patient information.

What should you do?

- A. Use the Update Entity operation of the Table Service REST API.
- B. Use the Put Blob operation of the Blob Service REST API.
- C. Use the Put Message operation of the Create Queue REST API.

D. Use the Set Share Metadata operation of the File Service REST API.

Answer: A

Question: 15

You create a VM named cVM_005 for a newly hired contractor.

The contractor reports that the VM runs out of memory when the contractor attempts to test the mobile applications.

You need to double the memory that is available for the VM.

Which Windows PowerShell command should you use?

- A. `SetAzureVMSize -ServiceName "cVM_005" -VMSize "A4"`
- B. `Add-DataDisksToVM.ps1 -ServiceName "cVM_005" -VMName "MyVM" -Location "West US" -NumberOfDisks 2 - DiskSizeInGB 16`
- C. `SetAzureVMSize -ServiceName "cVM_005" -VMSize "Medium"`
- D. `SetAzureVMSize -ServiceName "cVM_005" -VMSize "A6"`

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: A

Question: 16

Users report that after periods of inactivity the website is slow to render pages and to process sign-in attempts.

You need to ensure that the website is always responsive.

What should you do?

- A. Add the following markup at line WC14:`<sessionState timeout="86400" />`
- B. Add the following markup at line WC08:`<add key="timeout" value="null" />`
- C. Add the following markup at line WC14:`<sessionState timeout="f1" />`
- D. In the Azure management portal, enable Always On support for the website.
- E. In the Azure management portal, disable Always On support for the website.

Answer: A

Question: 17**HOTSPOT**

You configure alerts in Azure. The metrics shown in the following exhibit represent the average values for each five-minute period.

Date/Time	Percent CPU	Network In (bytes)	Network Out (bytes)	Disk Write (bytes/sec)	Disk Read (bytes/sec)
August 01, 2014 13:30	84	456	123	345	120
August 01, 2014 13:35	84	1455	1934	980	945
August 01, 2014 13:40	84	930	3677	965	1023
August 01, 2014 13:45	84	1234	2334	923	678
August 01, 2014 13:50	84	123	456	120	1003

To answer, make the appropriate selections in the answer area.

Answer Area

Which performance counter will generate an alert?

CPU Percentage
 Network In (bytes)
 Network Out (bytes)
 Disk Write (bytes/sec)
 Disk Read (bytes/sec)

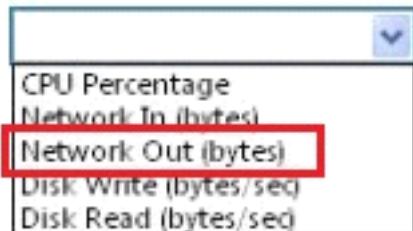
Which performance counter has no impact on cost?

% CPU
 Network In (bytes)
 Network Out (bytes)
 Disk Write (bytes/sec)
 Disk Read (bytes/sec)

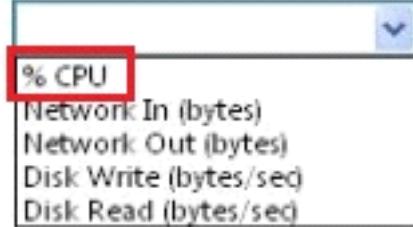
Answer:

Answer Area

Which performance counter will generate an alert?



Which performance counter has no impact on cost?

**Question: 18**

You need to implement tracing for the website after the website is deployed.

Which code segment should you insert at line CF13?

- A. `System.Diagnostics.Trace.WriteLineIf(false, username + " is on page at " + DateTime.UtcNow.ToString("yyyy-MM-dd HH:mm:ss"), "Error");`
- B. `System.Diagnostics.Trace.Information(username + " is on page at " + DateTime.UtcNow.ToString("yyyy-MM-dd HH:mm:ss"));`
- C. `System.Diagnostics.Trace.Error(username + " is on page at " + DateTime.UtcNow.ToString("yyyy-MM-dd HH:mm:ss"));`
- D. `System.Diagnostics.Trace.WriteLineIf(false, username + " is on page at " + DateTime.UtcNow.ToString("yyyy-MM-dd HH:mm:ss"), "Verbose");`

- A. Option A
 B. Option B
 C. Option C
 D. Option D

Answer: C

Question: 19**DRAG DROP**

Contoso, Ltd. reports that hackers have compromised a computer on its network.

You need to prevent access to the site from all Contoso, Ltd. computers.

How should you complete the relevant Windows PowerShell script? To answer, drag the appropriate

Windows PowerShell segment to the correct location. Each Windows PowerShell 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.

PowerShell Segments	Answer Area
100	<code>\$acl = New-AzureAclConfig</code>
300	<code>Set-AzureAclConfig -AddRule -ACL \$acl -Action Deny`</code>
500	<code>-Description "Security Fix" -Order</code> <input type="text" value="100"/>
192.168.5.1/24	<code>-RemoteSubnet "</code> <input type="text" value="10.181.11.1/16"/> `
10.181.11.1/16	<code>Get-AzureVM -ServiceName "FileService" -Name "FS" `</code>
192.181.5.1/8	<code>Set-AzureEndpoint -Name "Files" -Protocol tcp`</code>
	<code>-Localport 445 -PublicPort 445 -ACL \$acl Update-AzureVM</code>

Answer:

`$acl = New-AzureAclConfig`

`Set-AzureAclConfig -AddRule -ACL $acl -Action Deny``

`-Description "Security Fix" -Order`

`-RemoteSubnet "` `

`Get-AzureVM -ServiceName "FileService" -Name "FS" |``

`Set-AzureEndpoint -Name "Files" -Protocol tcp``

`-Localport 445 -PublicPort 445 -ACL $acl | Update-AzureVM`

Question: 20

You need to implement error logging.

Which code segment should you insert at line CF13?

- A. `System.Diagnostics.Trace.WriteLineIf(false, "A user is on page at " + DateTime.UtcNow.ToShortDateString(), "Error");`
- B. `System.Diagnostics.Trace.WriteLineIf(false, "A user is on page at " + DateTime.UtcNow.ToShortDateString(), "Verbose");`
- C. `System.Diagnostics.Trace.Assert(false, "A user is on page at " + DateTime.UtcNow.ToShortDateString());`
- D. `System.Diagnostics.Trace.TraceError("A user is on page at " + DateTime.UtcNow.ToShortDateString());`
- A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

Question: 21

You need to implement data storage for patient information.
What should you do?

- A. Use the Set Blob Properties operation of the Blob Service REST API.
B. Use the Insert Entity operation of the Table Service REST API.
C. Use the Set Queue Metadata operation of the Create Queue REST API.
D. Use the Query Entities operation of the Table Service REST API.

Answer: A

Question: 22

There is a lengthy delay between the time an alert is sent and when it is received by the Web App.
You need to resolve the issue.
What should you do?

- A. Increase the amount of swap memory for the VM instance,
B. Enable automatic scaling for the Web App.
C. Decrease the instance count for the worker role.
D. Enable automatic scaling for the worker role.

E. Set the monitoring level to Verbose for the worker role.

Answer: C

Explanation:

From scenario: The data collection service runs Node.js in a worker role.

All deployed instances must scale up to the next available CPU instance at a CPU usage threshold of 90 percent and scale down when the usage is below 10 percent.

Case Study: 3

Mortgage Loan

Background

A company is developing a website that supports mortgage loan processing. You use the Azure management portal to create a website. You initially configure the website to use the Basic hosting plan. You register a custom domain for the website with a valid registrar.

Customers complete mortgage applications and upload supporting documents to the website. A custom executable named FileProcessor.exe processes all of the information received. An on-premises server that runs Windows Server hosts the executable.

You create a virtual hard disk (VHD) image of the on-premises server. You plan to use this VHD to replace the on-premises server with a new virtual machine (VM) that is hosted in Azure.

Business Requirements

Business stakeholders have identified the following requirements for the mortgage loan processing website:

- The website must provide a secure mortgage application process for the customer.
- Business users must validate new versions of the website before you publish them to the production site. You must be able to revert to the previous version easily when issues arise.
- The website must remain available to users while new features and bug fixes are deployed.
- Network traffic must be monitored on all ports that the website uses.

Technical Requirements

General:

- You must develop the website by using Microsoft Visual Studio 2013.
- The website must be stateless. Subsequent requests from a user might or might not be routed back to the website instance that the user initially connected to.

Security:

You must secure the custom domain and all subdomains by using SSL.

Storage:

- The custom executable must use native file system APIs to share data between different parts of the website.
- The custom executable must continue to use a network file share to access files.

Monitoring:

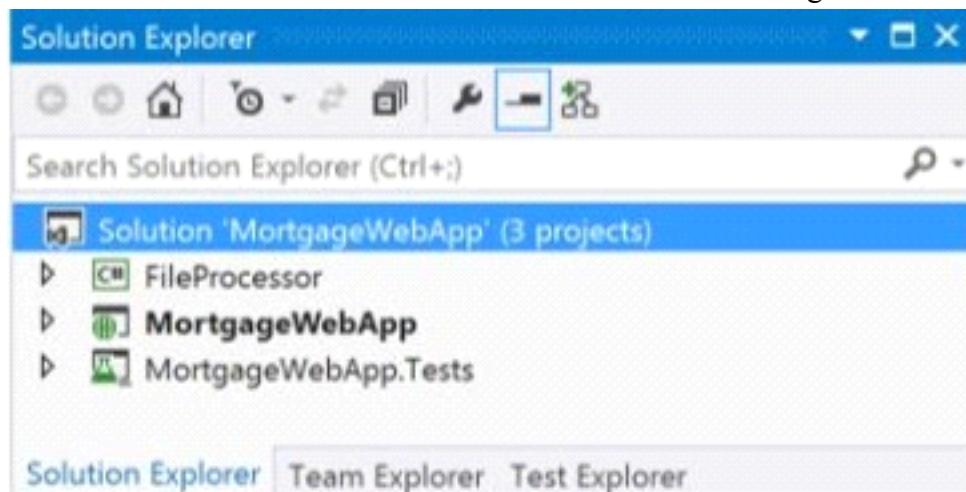
The website must use port 6000 with UDP to submit information to another process. This port must be actively monitored by using the same external port number.

Deployment:

- You must deploy the VM and the associated VHD. You will need to move this VM to a different Azure subscription after deployment.
- You must establish a continuous deployment process that uses staged publishing.
- The custom domain must handle requests for multiple subdomains.
- The custom domain must use a www CNAME record that points to the domain's @ A record.
- The custom executable must run continuously and must be deployed as an Azure web job named FileProcessor
- Application Request Routing (ARR) affinity must be disabled for the website.

Solution Structure

The solution structure for the website is shown in the following exhibit.



Question: 23

HOTSPOT

You need to implement endpoint monitoring.

What should you do? To answer, configure the appropriate options in the dialog box in the answer area.

Answer Area

ADD ENDPOINT

Specify the details of the endpoint

NAME

▼

PROTOCOL

TCP
UDP

PUBLIC PORT

80
443
3389
6000

PRIVATE PORT

21
80
5986
6000

 CREATE A LOAD-BALANCED SET ⓘ ENABLE DIRECT SERVER RETURN ⓘ

Answer:

Answer Area

ADD ENDPOINT

Specify the details of the endpoint

NAME
MonitorinEndpoint

PROTOCOL
TCP
UDP

PUBLIC PORT
80
443
3389
6000

PRIVATE PORT
21
80
5986
6000

CREATE A LOAD-BALANCED SET

ENABLE DIRECT SERVER RETURN

Question: 24

You need to debug the website remotely.

Which three actions should you take? Each correct answer presents part of the solution.

- A. In the Azure management portal, configure a monitoring endpoint.
- B. In the Azure management portal, set remote debugging to On and set the Visual Studio version to 2013.
- C. Install the Azure SDK for .NET on the computer that runs Visual Studio.
- D. In the web.config file for the website, set the debug attribute of the compilation element to true.
- E. In the Azure management portal, set the web hosting plan to Standard.

Answer: B,C,D

Question: 25

You need to move the VM.
What should you do?

- A. Use the Blob Service REST API
- B. Use the Service Management REST API
- C. Run the Azure PowerShell Convert-VHD cmdlet.
- D. Run the Azure PowerShell New-AzureVMcmdlet

Answer: A

Question: 26

You need to configure session affinity for the website.
Which two actions will achieve the goal? Each correct answer presents a complete solution.

- A. In the Azure management portal, create a new traffic manager. Configure the traffic manager to use round-robin load balancing and the HTTP monitoring protocol. Add a new service endpoint to the traffic manager. Configure the endpoint to use the **Web Site** service type. Configure the website to use the endpoint.
- B. Add the following code to the Global.asax.cs file:

```
protected void Application_PreSendRequestHeaders()
{
    Response.Headers.Add("Arr-Disable-Session-Affinity", "True");
}
```

- C. Add the following code to the Global.asax.cs file:

```
protected void Application_Start()
{
    ...
    var affinityCookie = new HttpCookie("Arr-Disable-Session-Affinity")
    {
        Value = "True",
        HttpOnly = true
    };
    Response.Cookies.Add(affinityCookie);
}
```

- D. Add the following markup to the web.config file:

```
<system.webServer>
    <httpProtocol>
        <customHeaders>
            <add name="Arr-Disable-Session-Affinity" value="true" />
        </customHeaders>
    </httpProtocol>
</system.webServer>
```

- A. Option A
- B. Option B

- C. Option C
- D. Option D

Answer: B,D

Question: 27

DRAG DROP

You need to complete the domain configuration for the website.

Which four 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.

Actions	Answer Area
Create a CNAME resource record that points from the custom domain to: <websitename>.azurewebsites.net.	
In the Azure management portal, create a new virtual network.	
Point the DNS root domain record IP address to the website.	
In the Azure management portal, configure the website to use the custom domain.	
On the Azure dashboard page for websites, obtain the IP address.	

Answer:

Box 1:

On the Azure dashboard page for websites, obtain the IP address.

Box 2:

Point the DNS root domain record IP address to the website.

Box 3:

Create a CNAME resource record that points from the custom domain to:

<websitename>.azurewebsites.net.

Box 4:

In the Azure management portal, configure the website to use the custom domain.

Ref: <http://azure.microsoft.com/en-gb/documentation/articles/web-sites-custom-domain-name/>

Question: 28

You need to implement the web application deployment workflow.

In the Azure management portal, what should you do?

- A. Set the web hosting plan to Shared. Increase the instance count to 2. Publish the incremental updates to the new instance.
- B. Set the web hosting plan to Standard. Use Windows PowerShell to create a new deployment slot to publish the incremental updates. Swap the deployment slot after the business users have validated the updates.
- C. Set the web hosting plan to Standard. Create a new website to host the updated web application. Create a Windows PowerShell script to move the contents of the new website to the production website location after the business users have validated the updates.
- D. Download the publish profile. Use Visual Studio to import the publish profile. Deploy the web application by using the Visual Studio Publish Web wizard after the business users have validated the updates.

Answer: B

Question: 29

You need to choose an Azure storage service solution.

Which solution should you choose?

- A. Queue storage
- B. Blob storage
- C. File storage
- D. Table storage

Answer: C

Question: 30

DRAG DROP

You need to create the VM to replace the on-premises server.

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.

Actions	Answer Area
Generalize the on-premises server by using the Sysprep utility. Create an Azure storage account. Create a container in the storage account.	
Connect Windows PowerShell to Azure, and upload the VHD.	
Use the Azure management portal to create a new VM.	
Create a new VHD.	

Answer:

Box 1:

Generalize the on-premises server by using the Sysprep utility. Create an Azure storage account. Create a container in the storage account.

Box 2:

Connect Windows PowerShell to Azure, and upload the VHD.

Box 3:

Use the Azure management portal to create a new VM.

Question: 31

DRAG DROP

You need to secure the website.

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.

Actions	Answer Area
Configure the website to use the Standard hosting plan.	
Add the SSL settings to the web.config file of the website.	
Configure the website to use the Shared hosting plan.	
Select the name of the domain that the SSL certificate secures.	
Upload a wildcard SSL certificate.	
Upload a basic SSL certificate.	

Answer:

Box 1:

Configure the website to use the **Standard** hosting plan.

Box 2:

Upload a wildcard SSL certificate.

Box 3:

Select the name of the domain that the SSL certificate secures.

Ref: <http://azure.microsoft.com/en-us/documentation/articles/web-sites-configure-ssl-certificate/>

Question: 32

HOTSPOT

You need to deploy the FileProcessor.exe program.

How should you update the project configuration file for the program? To answer, select the appropriate option or options in the answer area.

Answer Area

<Target Name="">

<Copy



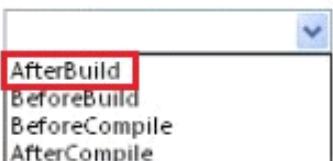
DestinationFolder="..\\MortgageWebApp\\App_Data\\jobs\\continuous\\FileProcessor
..\\MortgageWebApp\\App_Data\\jobs\\continuous\\FileProcessorWebJob
..\\MortgageWebApp\\App_Data\\jobs\\triggered\\FileProcessor
..\\MortgageWebApp\\App_Data\\jobs\\triggered\\FileProcessorWebJob

```
SourceFiles="$(OutputPath)\\FileProcessor.exe"
/>
</Target>
```

Answer:**Answer Area**

<Target Name="">

<Copy



DestinationFolder="..\\MortgageWebApp\\App_Data\\jobs\\continuous\\FileProcessor
..\\MortgageWebApp\\App_Data\\jobs\\continuous\\FileProcessorWebJob
..\\MortgageWebApp\\App_Data\\jobs\\triggered\\FileProcessor
..\\MortgageWebApp\\App_Data\\jobs\\triggered\\FileProcessorWebJob

```
SourceFiles="$(OutputPath)\\FileProcessor.exe"
/>
</Target>
```

Question: 33

You need to select an Azure storage service solution for completed mortgage applications and supporting documents.

Which solution should you use?

- A. table storage
- B. blob storage
- C. queue storage

D. file storage

Answer: D

Explanation:

File storage is required to access the files via a network file share.

The custom executable must continue to use a network file share to access files.

Case Study: 4

File Tax-Related Document

Background

You are developing an Azure solution that individuals and small businesses will use to prepare and file tax-related documents.

Business Requirements

General

The solution must provide a way for customers to enter personal and demographic information. Customers must be able to upload income documents and related documents to the solution. The solution must provide reports and summary documents for customers in PDF format.

Scope and Device Accessibility

The solution must support two operational modes: On-Peak and Off-Peak. On-Peak is defined as the first quarter of a year. Off-Peak is defined as the other three quarters of a year. Customers must be able to access the solution by using desktop computers, laptop computers, mobile devices, and tablets.

High Availability and Business Continuity

The solution must be available at all times. When the solution transitions between Off-Peak mode and On-Peak mode, solution availability must not be affected. Disaster recovery must be established for the customers' stored data.

Diagnostics

The solution must log relevant diagnostic data that can be used to troubleshoot the cloud service.

Scalability

The solution must scale out while transitioning from Off-Peak mode to On-Peak mode.

Cost

The solution must use cloud resources optimally to minimize operating costs.

Storage and Security

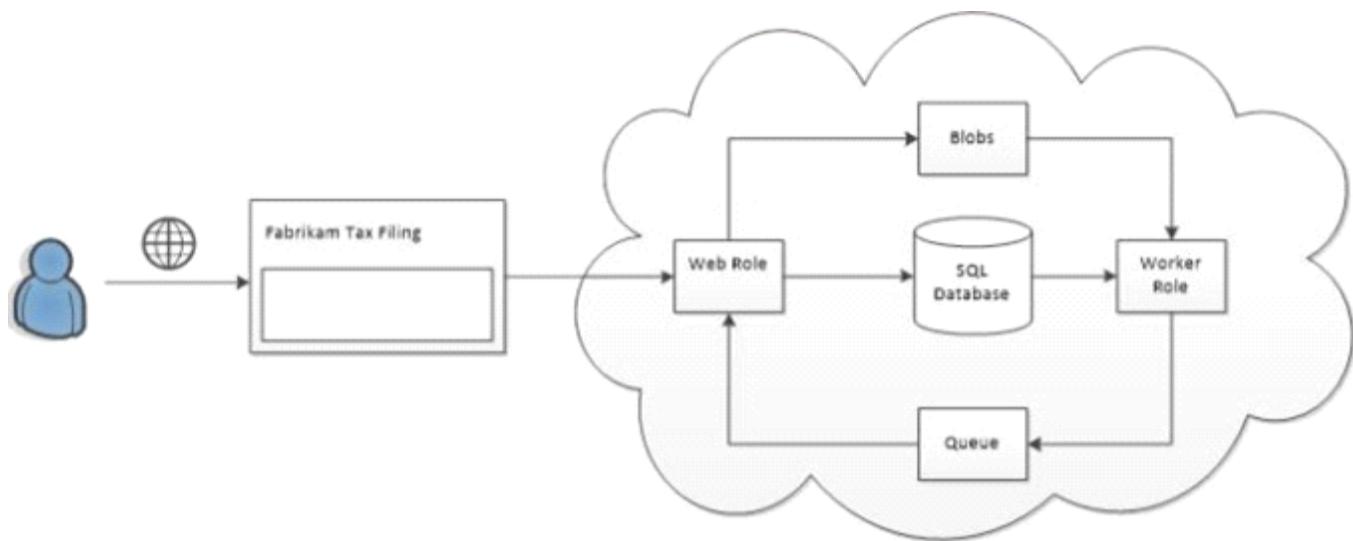
The solution must be secure to prevent any anonymous access (including read access) to the customers' tax documents.

Cross-Premises Networking

The solution must extend the developers' on-premises network into Azure.

Technical Requirements

The logical design for the solution is shown in the following exhibit.



Platform-as-a-Service (PaaS)

The solution must have two roles: a web role and worker role. The web interface of the solution uses a web role to accept and send user input and any related documents. The worker role must access the stored data and prepare the tax documents in the background.

Compute

The solution must support a minimum of 10 role instances. When the solution is in On-Peak mode, each role instance must be allocated at least 6 GB of memory. The memory can be scaled down to 3 GB when the solution is in Off-Peak mode.

The solution must cache documents locally. The cache does not need to be refreshed during the lifecycle of the worker role.

Role instances that are running should not be affected by topology changes such as an increase in instance count.

Storage

The web role must store documents in blob storage. A SQL database is used to store customer information.

The worker role must use queues to process the final tax documents.

Performance and Scalability

When the solution is in Off-Peak mode, it must support at least 150 concurrent database sessions, and the maximum size of the database is 50 GB. When the solution is in On-Peak mode, it must support 750 concurrent database sessions, and the maximum size of the database is 300 GB. Geo-replication must be enabled and must be configurable by using the Azure management portal.

Software Prerequisites

The solution must install the software that is necessary to generate PDF documents on the server. The software will be provided as a Windows Installer package.

Debugging

Solution errors and warnings that occur in a web role must be logged. The worker role must log any crash dump files. Detailed information about errors and their context must be collected so that the environment in which errors occurred can be simulated locally.

Security

At the time that a customer's tax information and documents are accepted, the solution must send an email to the customer. The email contains a secure hyperlink that the customer can use to upload any additional necessary documents. The customer is asked to upload these documents within 48 hours. If the customer

does not upload the documents within 48 hours, the solution should not issue a new hyperlink. The solution must send an email to the customer to remind the customer to use the original hyperlink to upload any additional necessary documents.

Network Services

The solution must use a cross-premises secure network. The network must be configurable by using the Azure management portal.

Social Structure

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

InstallPrereqs.cmd

```
IP01 msieexec.exe /i pdfwriter.msi /qb
IP02 EXIT /B 0
```

ServiceDefinition.csdef

```
SD01 <ServiceDefinition name="Fabrikam"
  xmlns=http://schemas.microsoft.com/ServiceHosting/2008/10/ServiceDefinition
  schemaVersion="2014-01.2.3">
SD02   <WorkerRole name="WorkerRole" vmsize="Small">
SD03     <Imports>
SD04       <Import moduleName="Diagnostics" />
SD05     </Imports>
SD06
SD07   </WorkerRole>
SD08   <WebRole name="WebRole" vmsize="Small">
SD09     <Sites>
SD10       <Site name="Web">
SD11         <Bindings>
SD12           <Binding name="Endpoint1" endpointName="Endpoint1" />
SD13         </Bindings>
SD14       </Site>
SD15     </Sites>
SD16     <Endpoints>
SD17       <InputEndpoint name="Endpoint1" protocol="http" port="80" />
SD18     </Endpoints>
SD19     <Imports>
SD20       <Import moduleName="Diagnostics" />
SD21     </Imports>
SD22
SD23   </WebRole>
SD24 </ServiceDefinition>
```

Question: 34

You need to configure diagnostics for the Azure solution.

Which two types of diagnostic data should you collect? Each correct answer presents part of the solution.

- A. Application logs

- B. Event logs
- C. Crash dumps
- D. Infrastructure logs
- E. IIS logs
- F. Performance counters

Answer: B,C

Question: 35

You need to configure the virtual network.

What are two possible ways to achieve this goal? Each correct answer presents a complete solution.

- A. Configure a point-to-site virtual network.
- B. Configure a site-to-site virtual network.
- C. Configure a multi-site virtual network.
- D. Configure a cloud-only virtual network.

Answer: A,B

Question: 36

You need to configure role instances.

Which size should you specify for the VM?

- A. Use Small for Off-Peak mode.
- B. Use Large for On-Peak mode.
- C. Use Extra Large for On-Peak mode.
- D. Use Extra Small for Off-Peak mode.

Answer: B

Question: 37

You need to meet the performance and scalability requirements.

Which SQL Database configuration should you use?

- A. Use the S1 performance level for On-Peak mode.
- B. Use the P2 performance level for On-Peak mode.
- C. Use the S2 performance level for On-Peak mode.
- D. Use the P1 performance level for On-Peak mode.

Answer: D

Question: 38

DRAG DROP

You need to insert markup at line SD22 to install the software that generates PDF documents.

How should you complete the relevant markup? 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.

Code Segments

- Startup
- Runtime
- msieexec.exe /i pdfwriter.msi /qb
- InstallPrereqs.cmd
- elevated
- limited
- simple
- background

Answer Area

```

< Task
  commandLine="InstallPrereqs.cmd"
  taskType="simple"
  executionContext="elevated"
/>

```

Answer:**Answer Area**

```

< Startup
  <Task
    commandLine="InstallPrereqs.cmd"
    taskType="simple"
    executionContext="elevated"
  />
</ Startup

```

Question: 39

HOTSPOT

You need to insert code at line SB11 to apply the storage access policy.

How should you complete the relevant code segment? To answer, select the appropriate option or options in

the answer area.

Answer Area

```

private SharedAccessBlobPolicy GetSharedAccessBlobPolicy()
{
    SharedAccessBlobPolicy policy = new SharedAccessBlobPolicy()
    {
        SharedAccessStartTime =  ,
        SharedAccessExpiryTime = 
        Permissions = SharedAccessBlobPermissions.List |
        
        SharedAccessBlobPermissions.Read | SharedAccessBlobPermissions.Delete
        SharedAccessBlobPermissionsReadWrite
    };
    return policy;
}
private void ApplySharedAccessPolicy(CloudBlobContainer blobContainer)
{
    SharedAccessBlobPolicy sharedAccessPolicy = this.GetSharedAccessBlobPolicy();
    BlobContainerPermissions permissions = new BlobContainerPermissions();
    permissions.SharedAccessPolicies.Add("DocumentBlob", sharedAccessPolicy);

    permissions.PublicAccess =
        
        
        
    ;
}

```

Answer:

Answer Area

```

private SharedAccessBlobPolicy GetSharedAccessBlobPolicy()
{
    SharedAccessBlobPolicy policy = new SharedAccessBlobPolicy()
    {

        SharedAccessStartTime =  ,
        SharedAccessExpiryTime =  ,
        Permissions = SharedAccessBlobPermissions.List |
        
        SharedAccessBlobPermissions.Read | SharedAccessBlobPermissions.Delete
        SharedAccessBlobPermissionsReadWrite
    };
    return policy;
}
private void ApplySharedAccessPolicy(CloudBlobContainer blobContainer)
{
    SharedAccessBlobPolicy sharedAccessPolicy = this.GetSharedAccessBlobPolicy();
    BlobContainerPermissions permissions = new BlobContainerPermissions();
    permissions.SharedAccessPolicies.Add("DocumentBlob", sharedAccessPolicy);

    permissions.PublicAccess =
     ;
    BlobContainerPublicAccessType.Container
    BlobContainerPublicAccessType.Blob
}

```

Question: 40

You need to debug the Azure solution.

Which tool should you use?

- A. Compute emulator
- B. Remote debugging
- C. Emulator Express
- D. IntelliTrace
- E. Profiling

Answer: C

Question: 41

DRAG DROP

You need to develop the web role.

How should you complete the relevant code? 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.

Code Segments

- OnStart
- Run
- Changing
- Changed
- RoleEnvironmentChangingEventArgs
- RoleEnvironmentChangedEventArgs
- False
- True
- OnStop

Answer Area

```

namespace WebRole
{
    public class WebRole : RoleEntryPoint
    {
        public override bool OnStart()
        {
            RoleEnvironment. += WebRoleConfiguration_Change;
            ...
        }

        void WebRoleConfiguration_Change(object sender,
                                         EventArgs eventArgs)
        {
            if (eventArgs.Changes.Any(change => change is RoleEnvironmentTopologyChange))
            {
                eventArgs.Cancel = ;
            }
        }
    }
}
```

Answer:

Code Segments

OnStart
Run
Changing
Changed
RoleEnvironmentChangingEventArgs
RoleEnvironmentChangedEventArgs
False
True
OnStop

Answer Area

```
=====
namespace WebRole
{
    public class WebRole : RoleEntryPoint
    {
        public override bool OnStart()
        {
            RoleEnvironment.Changing += WebRoleConfiguration_Change;
            ...
        }

        void WebRoleConfiguration_Change(object sender,
            RoleEnvironmentChangingEventArgs eventArgs)
        {
            if (eventArgs.Changes.Any(change => change is RoleEnvironmentTopologyChange))
            {
                eventArgs.Cancel = False;
            }
        }
    }
}
```

Question: 42**DRAG DROP**

You need to meet the high availability and business continuity requirements.

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.

Actions	Answer Area
Create a primary database on the Standard service tier.	
Configure a secondary database to use a different region than the primary database is deployed to.	
Configure a secondary database to use the same server that the primary database is deployed to.	
In the Azure management portal, enable geo-replication.	
Configure a secondary database to use the same region that the primary database is deployed to.	
Create a primary database on the Premium service tier.	

Answer:

Box 1:

Create a primary database on the Premium service tier.

Box 2:

In the Azure management portal, enable geo-replication.

Box 3:

Configure a secondary database to use a different region than the primary database is deployed to.

Question: 43

DRAG DROP

You need to insert code at line SB17 to create the hyperlink that customers use to upload additional necessary documents.

How should you complete the relevant code? 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.

Code Segments

GetSharedAccessSignature
CreateCloudBlobClient
CreateIfNotExists
blobContainer.Uri, token
Token, blobContainer.Uri
GetSharedAccessBlobPolicy

Answer Area

```
private string GetSASContainerURI(CloudBlobContainer blobContainer)
{
    string token = blobContainer. GetSharedAccessSignature(null, "DocumentBlob");
    return String.Format("{0}{1}", blobContainer.Uri, token);
}
private CloudBlobContainer GetBlobContainer()
{
    CloudStorageAccount storageAccount =
        CloudStorageAccount.Parse (CloudConfigurationManager.GetSetting("StorageConnectionString"));

    CloudBlobClient blobClient = storageAccount. CreateCloudBlobClient();
    CloudBlobContainer blobContainer
        = blobClient.GetContainerReference("blobContainerSAS");

    blobContainer. CreateIfNotExists();
}
```

Answer:

```
private string GetSASContainerURI(CloudBlobContainer blobContainer)
{
    string token = blobContainer. GetSharedAccessSignature(null, "DocumentBlob");
    return String.Format("{0}{1}", blobContainer.Uri, token);
}
private CloudBlobContainer GetBlobContainer()
{
    CloudStorageAccount storageAccount =
        CloudStorageAccount.Parse (CloudConfigurationManager.GetSetting("StorageConnectionString"));

    CloudBlobClient blobClient = storageAccount. CreateCloudBlobClient();
    CloudBlobContainer blobContainer
        = blobClient.GetContainerReference("blobContainerSAS");

    blobContainer. CreateIfNotExists();
}
```

Question: 44**HOTSPOT**

You need to insert markup at line SD06 to cache the client documents.

How should you complete the relevant markup? To answer, select the appropriate option or options in the answer area.

Answer Area

```
<          >
| LocalResources
| LocalStorage
| Contents
| Endpoints
|
<          >
| LocalResources
| LocalStorage
| Contents
| Endpoints
|          10"
|
name="workerCache" sizeInMB="10
|
|          >
| /> cleanOnRoleRecycle="false"
|          >
| /> cleanOnRoleRecycle="true"
|
</          >
| LocalResources
| LocalStorage
| Contents
| Endpoints
```

Answer:

Answer Area

Case Study: 5

Mix Questions

Question: 45

You develop a service that runs on a worker role in Azure. The service caches a large amount of data from a database at startup. The service has a configuration file that includes two settings named **ConnectionString** and **SleepInterval**.

The service must restart when the value of the **ConnectionString** setting changes. The service must NOT restart when the value of the **SleepInterval** setting changes.

You have the following code. Line numbers are for reference only.

```

01 public class WorkerRole : RoleEntryPoint
02 {
03     int _sleepInterval = 10000;
04     string _connString = "Server=tcp:contoso.database.windows.net;Database=db1;
05     User ID=sa@contoso;Password=password123!;
06     Trusted_Connection=True;Encrypt=True;";
07     public override void Run()
08     {
09         CacheTableData(_connString);
10         while (true)
11         {
12             Thread.Sleep(10000);
13             ProcessQueueMessages();
14         }
15     }
16     public override bool OnStart()
17     {
18         RoleEnvironment.Changing += RoleEnvironment_Changing;
19         return base.OnStart();
20     }
21     void RoleEnvironment_Changing(object sender, RoleEnvironmentChangingEventArgs e)
22     {
23 }

```

You need to configure the service.

Which code segment should you insert at line 21?

- A.

```
var settingChanges = e.Changes.OfType<RoleEnvironmentConfigurationSettingChange>();
if (settingChanges.Any(chg => chg.ConfigurationSettingName == "ConnectionString"))
{
    e.Cancel = true;
}
```
- B.

```
var newValue = RoleEnvironment.GetConfigurationSettingValue("ConnectionString");
if (newValue == _connString)
{
    e.Cancel = false;
}
```
- C.

```
var settingChanges = e.Changes.OfType<RoleEnvironmentConfigurationSettingChange>();
if (settingChanges.Any(chg => chg.ConfigurationSettingName == "ConnectionString"))
{
    e.Cancel = false;
}
```
- D.

```
var newValue = RoleEnvironment.GetConfigurationSettingValue("ConnectionString");
if (newValue == _connString)
{
    e.Cancel = true;
}
```

- A. Option A
- B. Option B
- C. Option C

D. Option D

Answer: A

Question: 46

You have an ASP.NET application that runs in a cloud service. A new version of the application is ready for release. The new version contains code changes and new SSL certificates. The application consists of six instances of a web role and four instances of a worker role.

The application performs at or near full capacity. The cloud service uses the default number of fault domains and upgrade domains.

You plan to deploy the new version of the application. The performance and capacity of the web roles must not degrade during the deployment. Temporary degradation of the worker roles is acceptable. The deployment must take a maximum of six hours.

You need to deploy the new version of the ASP.NET application to the cloud service.

Which two approaches will achieve the goal? Each correct answer presents a complete solution.

- A. Increase the number of web role instances to eight, and then deploy the new version of the application by using an in-place update. Reduce the number of web role instances to six after the upgrade is completed.
- B. Deploy the new version of the application by using an in-place update. Use upgrade domains to ensure that there is sufficient capacity during the upgrade.
- C. Deploy the new version of the application into the staging slot for the cloud service. Then activate the new version of the application by swapping virtual IP (VIP) addresses.
- D. Delete the old version of the application, and deploy the new version of the application.

Answer: B,C

Question: 47

DRAG DROP

The Azure Queue service hosts a queue named userRegistrationQueue. You are developing a web job to process messages from the queue. You create a new console application by using Microsoft Visual Studio. You also create an Azure storage connection string and store the connection string in the application configuration file.

All trigger listeners and jobs must run on the current thread.

You need to ensure that the web job processes the messages from the queue.

How should you complete the relevant code? To answer, drag the appropriate code segments to the correct location or 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.

Code Segments

```

var host = new Microsoft.Azure.Jobs.JobHost();
var host = new Microsoft.Azure.Jobs.JobHostConfiguration();
host.RunOnBackgroundThread();
host.RunAndBlock();
host.GetService(typeof(CloudQueue));
host.NameResolver.Resolve("userRegistrationQueue");

```

Answer Area

```

static void Main()
{
    var cloudQueue = CreateCloudQueue();
    AddMessageToQueue(cloudQueue);
}

```

Answer:

```

static void Main()
{
    var cloudQueue = CreateCloudQueue();
    AddMessageToQueue(cloudQueue);

    var host = new Microsoft.Azure.Jobs.JobHost();

    host.RunAndBlock();
}

```

Question: 48**DRAG DROP**

You create a new web application by using a single Azure website deployment. The deployment uses the shared web hosting plan. User activity varies significantly and unpredictably.

The application must automatically scale to a maximum of eight virtual machines based on CPU utilization. You need to configure the environment.

In the Azure management portal, 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.

Actions

Change the value of the web hosting plan to **Standard**.

Configure autoscaling to support scaling by metrics based on CPU utilization.

Enable the **Scale by Metric** option.

Configure autoscaling to **None**.

Change the value of the web hosting plan to **Basic**.

Answer Area**Answer:**

Box 1:

Change the value of the web hosting plan to **Standard**.

Box 2:

Enable the **Scale by Metric** option.

Box 3:

Configure autoscaling to support scaling by metrics based on CPU utilization.

Question: 49

You have a website that is hosted on Azure. You connect to the site by using the URI <http://www.contoso.com>. You plan to publish a new version of the website.

You need to acquire the publishing profile for the website.

Which two actions will achieve the goal? Each correct answer presents a complete solution.

- A. Run the following Windows PowerShell cmdlet: `Get-AzurePublishSettingsFile`
- B. Run the following Windows PowerShell cmdlet: `Get-AzureSubscription`
- C. Navigate to the following URI: <https://www.contoso.com/download/publishprofile.aspx>
- D. Navigate to the following URI: <https://windows.azure.com/download/publishprofile.aspx>

Answer: A,D

Question: 50

HOTSPOT

You use the storage client library to develop an application that manages Azure table storage data.

The application reports error codes when it saves data.

- a. You must use a custom retry policy to handle the error codes.

The custom retry policy must meet the following requirements:

You create the following code segment. Line numbers are included for reference only.

```
01 public class CustomRetryPolicy : IRetryPolicy
02 {
03     private readonly int _maxRetryAttempts = 10;
04     private readonly TimeSpan _defaultRetryInterval = TimeSpan.FromSeconds(5);
05     public CustomRetryPolicy(TimeSpan deltaBackoff, int retryAttempts)
06     {
07         _maxRetryAttempts = retryAttempts;
08         _defaultRetryInterval = deltaBackoff;
09     }
10     public IRetryPolicy CreateInstance()
11     {
12         return new CustomRetryPolicy(_defaultRetryInterval, _maxRetryAttempts);
13     }
14
15 }
```

You need to insert code at line 14 to implement the retry policy.

How should you complete the relevant code? To answer, select the appropriate option or options in the

answer area.

Answer Area

```

public bool ShouldRetry(int currentRetryCount, int statusCode,
Exception lastException, out TimeSpan retryInterval,
OperationContext operationContext)
{
    retryInterval = _defaultRetryInterval;

    if (_maxRetryAttempts != currentRetryCount
        &gt;= _maxRetryAttempts
        &gt;= _defaultRetryInterval
        &gt;= _defaultRetryInterval)

    {
        return false;
    }

    if ((HttpStatusCode) statusCode != HttpStatusCode.Conflict
        &gt;= (HttpStatusCode) statusCode == HttpStatusCode.Moved
        &gt;= (HttpStatusCode) statusCode != HttpStatusCode.ExpectationFailed
        &gt;= (HttpStatusCode) statusCode != HttpStatusCode.Unauthorized)

    {
        return false;
    }

    if ((lastException.GetType() == typeof(AccessViolationException)
        &gt;= lastException.GetType() == typeof(ContextMarshalException)
        &gt;= lastException.GetType() != typeof(UnauthorizedAccessException)
        &gt;= lastException.GetType() != typeof(StorageException))

    {
        return false;
    }
    return true;
}

```

Answer:

Answer Area

```

public bool ShouldRetry(int currentRetryCount, int statusCode,
Exception lastException, out TimeSpan retryInterval,
OperationContext operationContext)
{
    retryInterval = _defaultRetryInterval;

    if (
        maxRetryAttempts != currentRetryCount
        currentRetryCount >= _maxRetryAttempts
        retryInterval >= _defaultRetryInterval
        retryInterval == _defaultRetryInterval
    )

    {
        return false;
    }

    if (
        (HttpStatusCode) statusCode != HttpStatusCode.Conflict
        (HttpStatusCode) statusCode == HttpStatusCode.Moved
        (HttpStatusCode) statusCode != HttpStatusCode.ExpectationFailed
        (HttpStatusCode) statusCode != HttpStatusCode.Unauthorized
    )

    {
        return false;
    }

    if (
        lastException.GetType() == typeof(AccessViolationException)
        lastException.GetType() == typeof(ContextMarshalException)
        lastException.GetType() != typeof(UnauthorizedAccessException)
        lastException.GetType() != typeof(StorageException)
    )

    {
        return false;
    }
    return true;
}

```

Question: 51

You deploy a website to Azure. When the website starts, it loads and caches common data. Updates to the website must occur without downtime or performance degradation that is noticeable to users. You need to upgrade to a new version of website code. What should you do?

- A. Create a staging slot for the new version of the website. Run the following Windows PowerShell command, and then deploy the new code.

```
Switch-AzureWebsiteSlot -Name "MyWebsiteName"
```

- B. Create a staging slot for the new version of the website. Deploy the new code to that slot. Then run the following Windows PowerShell command:

```
Switch-AzureWebsiteSlot -Name "MyWebsiteName"
```

- C. Run the following Windows PowerShell command:

```
New-AzureWebsite -Name "Staging" -Location "East US"
```

Deploy the new code to the staging site. Then run the following Windows PowerShell command:

```
Switch-AzureWebsiteSlot -Name "MyWebsiteName"
```

- D. Create a staging slot for the new version of the website. Run the following Windows PowerShell command:

```
Switch-AzureWebsiteSlot -Name "MyWebsiteName"
```

Then deploy the new code to the staging slot.

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

Question: 52

You deploy a stateless ASP.NET application to an Azure website. You scale out the application by adding website instances.

Only newly signed in users are routed to the recently added website instances. Users must be evenly distributed among all of the instances.

You need to configure the environment to ensure that the load balancer evenly distributes requests.

What should you do?

- A. Add the following markup to the web.config file for the application:

```
<system.webServer>
  <httpProtocol>
    <customHeaders>
      <add name="Arr-Disable-Session-Affinity" value="False" />
    </customHeaders>
  </httpProtocol>
</system.webServer>
```

- B. Configure autoscaling rules based on metrics.

- C. Add the following markup to the web.config file for the application:

```
<system.webServer>
  <httpProtocol>
    <customHeaders>
      <add name="Arr-Disable-Session-Affinity" value="True" />
    </customHeaders>
  </httpProtocol>
</system.webServer>
```

- D. Enable Always On support.

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: C

Question: 53

HOTSPOT

You plan to migrate a website named Contoso from one hosting plan to another hosting plan. The website is currently in a hosting plan named webhostingplan1. You create a resource group named ContosoGroup. You create the following PowerShell script by using the Azure PowerShell tools. Line numbers are included for reference only.

```
01 $webhostingplan = @{"serverfarm" = "webhostingplan2"}
02 Set-AzureResource -name Contoso -ResourceGroupName ContosoGroup -ResourceType Microsoft.Web/sites ^
  -apiversion 2014-04-01 -PropertyObject $webhostingplan
03 Get-AzureResource -name Contoso -ResourceGroupName ContosoGroup -ResourceType Microsoft.Web/sites ^
  -apiversion 2014-04-01
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

	Yes	No
The command in line 01 defines a variable that stores a hash table.	<input type="radio"/>	<input type="radio"/>
The command in line 02 assigns the website to the ContosoGroup resource group.	<input type="radio"/>	<input type="radio"/>
The command in line 02 assigns the website to a hosting plan named webhostingplan2 .	<input type="radio"/>	<input type="radio"/>

Answer:**Answer Area**

	Yes	No
The command in line 01 defines a variable that stores a hash table.	<input type="radio"/>	<input checked="" type="radio"/>
The command in line 02 assigns the website to the ContosoGroup resource group.	<input type="radio"/>	<input checked="" type="radio"/>
The command in line 02 assigns the website to a hosting plan named webhostingplan2 .	<input type="radio"/>	<input checked="" type="radio"/>

Question: 54

You maintain an application that is used by local food delivery companies. When a customer requests a delivery, the application sends a message to all of the delivery companies. One company accepts the request and fulfills the order.

The application currently supports orders of 100 products or fewer. Some of the delivery companies can now deliver large orders that contain up to 500 products.

You must modify the application so that it supports both small orders and large orders. Messages about large orders should be sent to only delivery companies that can fulfill them. Messages about small orders should be sent to all delivery companies.

Which service should you use?

- A. Azure Service Bus Queue
- B. Azure Service Bus Relay
- C. Azure Service Bus Topics
- D. Azure Service Bus Namespace

Answer: C**Question: 55****DRAG DROP**

You are developing a web application that uses Azure push notifications to interact with users. You need to send a text notification to users to alert them that the application is ready to test.

How should you complete the relevant code? To answer, drag the appropriate code segment to the correct location. 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.

Code Segments	Answer Area
"toast"	<code>var payload = new XElement(</code> [red box] <code>,</code>
"visual"	<code>new XElement(</code> [red box]
"binding"	<code>new XElement(</code> [red box]
"template"	<code>new XAttribute(</code> [red box] <code>, "ToastText02"),</code>
"text"	<code>new XElement(</code> [red box] <code>, "System Ready")));</code>
"notification"	

Answer:

```
var payload = new XElement("toast",  
    new XElement("visual",  
        new XElement("binding",  
            new XAttribute("template", "ToastText02"),  
            new XElement("text", "System Ready"))));  
  
var message = new WindowsNotification(payload.ToString());
```

Question: 56

HOTSPOT

You create a cache for a project by using Azure Redis Cache. You are writing test code that verifies that the cache is available.

You need to ensure that data can be saved to the cache and retrieved from the cache.

How should you complete the relevant code? To answer, select the appropriate option or options in the answer area.

Answer Area

```
using System;

using StackExchange.Redis;
using Microsoft.WindowsAzure.Caching;
using Microsoft.ApplicationServer.Caching;

public class RedisCacheTester
{
    public bool TestRedisCache(string name, string key)
    {
        var redisConfiguration = String.Format("{0}.redis.cache.windows.net, password={1}", name, key);
        var redisConnection = ConnectionMultiplexer.Connect(redisConfiguration);

        IDatabase cache = redisConnection.GetDatabase();
        IDatabase cache = redisConnection.GetDatabase(name);
        System.Web.Caching.Cache cache = redisConnection.GetDatabase();
        System.Web.Caching.Cache cache = redisConnection.GetDatabase(name);

        var cacheKey = "test key";
        var cacheValue = "test data";

        cache.StringSet(cacheKey, cacheValue);
        cache.StringSetOrUpdate(cacheKey, cacheValue);
        cache.StringSet(name, cacheKey, cacheValue);

        return (cacheValue == cache.StringGet(cacheKey));
    }
}
```

Answer:

Answer Area

```

using System;

using StackExchange.Redis;
using Microsoft.WindowsAzure.Caching;
using Microsoft.ApplicationServer.Caching;

public class RedisCacheTester
{
    public bool TestRedisCache(string name, string key)
    {
        var redisConfiguration = String.Format("{0}.redis.cache.windows.net, password={1}", name, key);
        var redisConnection = ConnectionMultiplexer.Connect(redisConfiguration);

        IDatabase cache = redisConnection.GetDatabase();
        IDatabase cache = redisConnection.GetDatabase(name);
        System.Web.Caching.Cache cache = redisConnection.GetDatabase();
        System.Web.Caching.Cache cache = redisConnection.GetDatabase(name);

        var cacheKey = "test key";
        var cacheValue = "test data";

        cache.StringSet(cacheKey, cacheValue);
        cache.StringSetOrUpdate(cacheKey, cacheValue);
        cache.StringSet(name, cacheKey, cacheValue);

        return (cacheValue == cache.StringGet(cacheKey));
    }
}

```

Question: 57**DRAG DROP**

You are developing a web application that integrates with Azure Active Directory (AD). The application uses the OAuth 2.0 protocol to authorize secure connections to a web service that is at <https://service.adatum.com>.

The application must request an access token to invoke the web service methods.

You need to submit an HTTP request to the Azure AD endpoint.

How should you complete the request? 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.

HTTP Request Segments	Answer Area
adatum.com/oauth2/token	POST <input type="text"/> HTTP/1.1
common/oauth2/token	...
grant_type	<input type="text"/> = <input type="text"/> &
response_type	<input type="text"/> =F92FC9B0-F515-433E-BB72-482CC2303E62
client_credentials	
client_id	

Answer:POST adatum.com/oauth2/token HTTP/1.1...
resource=https%3A%2F%2Fservice.adatum.com%2F&

grant_type	=	client_credentials	&
client_id	=	F92FC9B0-F515-433E-BB72-482CC2303E62	

Question: 58**A company plans to increase its virtual network capacity by adding virtual network subscriptions.**

You must increase the number of subscriptions from 3 to 15.

You need to configure the virtual networks.

What should you do?

- A. Export and modify the network configuration file. Then import the modified file.
- B. Export and modify the service definition file. Then import the modified file.
- C. Create and import a new network configuration file.
- D. Create a multi-site virtual network.

Answer: A**Question: 59**

You are maintaining an application that uses the Azure Content Delivery Network (CDN) to serve terabytes of content that is stored in page blobs.

Your bill for CDN services is higher than you expect.

You need to monitor the application to find issues that increase costs.

Which two operations should you monitor? Each correct answer presents part of the solution.

- A. The Time-To-Live (TTL) of the blobs.

- B. The country of origin for the client computer and the CDN region.
- C. The number of requests that result in an HTTP status code over 400.
- D. The allocated size of page blobs.
- E. The expiration date of the blobs.

Answer: B,D

Question: 60

You create a software-as-a-service (SaaS) application. Websites, cloud services, and virtual machines (VMs) read common data values from the database for the application.

The application does not scale efficiently. All VMs, websites, and cloud services must read from the same data source.

You need to design a cache solution for the SaaS application.

What should you do?

- A. Deploy a cache by using Azure Redis Cache. Access the cache from the websites, cloud services, and VMs.
- B. Configure a cache by using ASP.NET. Access the cache from the websites, cloud services, and VMs.
- C. Use Azure Redis Cache to deploy one cache for each website, one cache for each cloud service, and one cache for each VM. Configure each cache to ensure that data is consistent in all the cache instances.
- D. Deploy a cache by using Azure Redis Cache. Configure the cache to use database connection strings.

Answer: A

Question: 61

You are modifying a web application so that it uses Azure Active Directory to manage users. You create a security group named Users and a security group named Administrators. The Administrators security group is a member of the Users security group.

You create the following code segment. Line numbers are included for reference only.

```
01 function canAccessUserResources(userId) {  
02  
03 }  
04 function getGroupId(groupName) {  
05 ...  
06 }  
07 function domain() {  
08 ...  
09 }
```

You need to implement the canAccessUserResources function.

Which code segment should you insert at line 02?

- A.

```
var groupId = getGroupId("Users");
var link = domain().concat("/users/", userId, "/memberOf?api-version=2013-04-05");
var json = $.getJSON(link);
for (entry in json.Value)
    if (entry.objectId == groupId)
        return true;
return false;
```
- B.

```
var groupId = getGroupId("Users");
var link = domain().concat("/isMemberOf?api-version=2013-04-05");
var json = $.post(link, { groupId: groupId, memberId: userId });
return json.value;
```
- C.

```
var groupId = getGroupId("User");
var link = domain().concat("/roles/", groupId, "?api-version=2013-04-05");
var json = $.getJSON(link);
return json.value;
```
- D.

```
var groupId = getGroupId("Users");
var link = domain().concat("/groups/", groupId, "/members?api-version=2013-04-05");
var json = $.getJSON(link);
for (entry in json.Value)
    if (entry.objectId == userId)
        return true;
return false;
```

- A. Option A
 B. Option B
 C. Option C
 D. Option D

Answer: C

Question: 62

You are developing a messaging solution to integrate two applications named WeatherSummary and WeatherDetails. The WeatherSummary application displays a summary of weather information for major cities. The WeatherDetails application displays weather details for a specific city.

You need to ensure that the WeatherDetails application displays the weather details for the city that the user selects in the WeatherSummary application.

What should you do?

- A. Create an Azure Service Bus Queue communication. In the WeatherDetails application, implement the PeekLock method.
 B. Create an Azure Service Bus Topics object. In the WeatherDetails application, create a filter.
 C. Create an Azure Service Bus Relay object. In the WeatherDetails application, create a filter.
 D. Create an Azure Service Bus Queue communication. In the WeatherDetails application, implement the ReceiveAndDelete method.

Answer: B

Question: 63

You store data by using table storage in Azure.

The storage analytics logs do not contain any data.

You must configure the Azure storage account to retain logs for the maximum length of time that Azure permits.

In the Azure management portal, what should you do?

- A. Set the monitoring level to Minimal, and set the number of days the data in the logs is retained to 0.
- B. Set the monitoring level to Verbose, and set the number of days the data in the logs is retained to 365.
- C. Set the monitoring level to Minimal, and set the number of days the data in the logs is retained to 99.
- D. Set the monitoring level to Verbose, and set the number of days the data in the logs is retained to 30.

Answer: A

Ref: <http://azure.microsoft.com/en-gb/documentation/articles/storage-monitor-storage-account/>

Question: 64

You host an application on an Azure virtual machine (VM) that uses a data disk. The application performs several input and output operations per second.

You need to disable disk caching for the data disk.

Which two actions will achieve the goal? Each answer presents a complete solution.

- A. Use the Azure Resource Manager REST API
- B. Use the Service Management REST API.
- C. Run the following Windows PowerShell cmdlet: Remove-AzureDataDisk
- D. Run the following Windows PowerShell cmdlet: Set-AzureDataDisk

Answer: A,D

Ref: <http://msdn.microsoft.com/en-us/library/azure/jj157190.aspx>

Question: 65

You are developing a REST API service that provides data about products. The service will be hosted in an Azure virtual machine (VM).

The product data must be stored in Azure tables and replicated to multiple geographic locations.

API calls that use the HTTP GET operation must continue to function when the data tables at the primary Azure datacenter are not accessible.

You need to configure storage for the service.
Which type of replication should you choose?

- A. Locally Redundant Storage replication
- B. Geo-Redundant Storage replication
- C. Zone-Redundant Storage replication
- D. Read-Access Geo-Redundant Storage replication

Answer: D

Question: 66

HOTSPOT

Your company runs existing applications on virtual machines (VMs) that are hosted on Azure.

You are preparing additional Azure services to support the existing applications.

You run the following script. Line numbers are provided for reference only.

```
01 Add-AzureAccount
02 Select-AzureSubscription -SubscriptionName (Get-AzureSubscription)[0].SubscriptionName
03 New-AzureStorageAccount -Location "East US" -StorageAccountName "store314159265"
04 Set-AzureSubscription -CurrentStorageAccountName "store314159265" -SubscriptionName $subscriptionName
05 $vmImageNameDb = 'c290a6b031d841e09f2da759bbabe71f_Oracle-Database-121010.v3-SE-Lnx'
06 $vmImageNameApp = 'a699494373c04fc0bc8f2bb1389d6106_Windows-Server-2012-R2-201405.01-en.us-127GB.vhd'
07 $cs = New-AzureService -ServiceName "myService27182" -Location "East US"
08 $vmConfigDb = New-AzureVMConfig -Name "MyDb" -InstanceSize Large -ImageName $vmImageNameDb | ^
    Add-AzureProvisioningConfig -Linux -LinuxUser 'dbadmin314' -Password 'ou812?_159265' | ^
    Add-AzureDataDisk -CreateNew -DiskSizeInGB 250 -DiskLabel 'dbdata' -LUN 0
09 $vmConfigDb | New-AzureVM -ServiceName "myService27182"
10 $vmConfigApp = New-AzureVMConfig -Name "MyApp" -InstanceSize Medium -ImageName $vmImageNameApp | ^
    Add-AzureProvisioningConfig -Windows -AdminUsername 'winadm314' -Password 'W!3d03_K05t07'
11 $vmConfigApp | New-AzureVM -ServiceName "myService27182"
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

	Yes	No
The command in line 11 creates a new VM that has one local data disk that uses Azure blob storage.	<input type="radio"/>	<input type="radio"/>
The VM that runs Linux and the VM that runs Windows can communicate with each other by using internal IP addresses.	<input type="radio"/>	<input type="radio"/>
The VM that runs Windows can accept HTTP requests from the public Internet.	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

- | | Yes | No |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|
| The command in line 11 creates a new VM that has one local data disk that uses Azure blob storage. | <input type="radio"/> | <input checked="" type="radio"/> |
| The VM that runs Linux and the VM that runs Windows can communicate with each other by using internal IP addresses. | <input checked="" type="radio"/> | <input type="radio"/> |
| The VM that runs Windows can accept HTTP requests from the public Internet. | <input checked="" type="radio"/> | <input type="radio"/> |

Question: 67

You are migrating an existing solution to Azure. The solution includes a user interface tier and a database tier. The user interface tier runs on multiple virtual machines (VMs). The user interface tier has a website that uses Node.js. The user interface tier has a background process that uses Python. This background process runs as a scheduled job. The user interface tier is updated frequently. The database tier uses a self-hosted MySQL database.

The user interface tier requires up to 25 CPU cores. You must be able to revert the user interface tier to a previous version if updates to the website cause technical problems. The database requires up to 50 GB of memory. The database must run in a single VM.

You need to deploy the solution to Azure.

What should you do first?

- A. Deploy the entire solution to an Azure website. Use a web job that runs continuously to host the database.
- B. Deploy the database to a VM that runs Windows Server on the Standard tier.
- C. Deploy the entire solution to an Azure website. Run the database by using the Azure data management services.
- D. Deploy the user interface tier to a VM. Use multiple availability sets to continuously deploy updates from Microsoft Visual Studio Online.

Answer: C

Question: 68

You store data in an Azure blob. Data accumulates at a rate of 0.10 GB per day.

You must use storage analytics data to verify that the service level agreement (SLA) has been met and to analyze the performance of VHDs, including the pattern of usage.

Analytics data must be deleted when it is older than 100 days or when the total amount of data exceeds 10 GB.

You need to configure storage analytics and access the storage analytics data.

Which two approaches will achieve the goal? Each correct answer presents part of the solution.

- A. Disable the data retention policy.
- B. Access analytics data by using the Service Management REST API

- C. Access analytics data by using the APIs used to read blob and table data.
- D. Configure a data retention policy of 100 days.

Answer: C,D

Question: 69

HOTSPOT

You store JSON data in a blob by using the Azure Blob service. Web applications access the JSON data by using client-side JavaScript calls.

JSON data is stored in a container that is configured to allow anonymous access. Web applications that are allowed to make updates to the data have access to any necessary shared access signatures (SASs) and storage keys.

You configure one Cross-Origin Resource Sharing (CORS) rule for the https://fabrikam.com domain and then run the following method. Line numbers are provided for reference only.

```

01 void ConfigureBlobCorsRules(CloudBlobClient blobClient)
02 {
03     var blobServiceProperties = blobClient.GetServiceProperties();
04     var partnerCorsRule = new CorsRule();
05     partnerCorsRule.AllowedOrigins.Add("https://contoso.com");
06     partnerCorsRule.AllowedMethods = CorsHttpMethods.Post | CorsHttpMethods.Put;
07     partnerCorsRule.ExposedHeaders.Add("*");
08     partnerCorsRule.AllowedHeaders.Add("*");
09     blobServiceProperties.Cors.CorsRules.Add(partnerCorsRule);
10    var publicCorsRule = new CorsRule();
11    publicCorsRule.AllowedOrigins.Add("*");
12    publicCorsRule.AllowedMethods = CorsHttpMethods.Get;
13    publicCorsRule.ExposedHeaders.Add("*");
14    publicCorsRule.AllowedHeaders.Add("*");
15    blobServiceProperties.Cors.CorsRules.Add(publicCorsRule);
16    blobClient.SetServiceProperties(blobServiceProperties);
17 }
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

Yes	No
-----	----

The CORS rule that was previously configured for https://fabrikam.com is no longer in effect after this method runs.

Partners from the https://contoso.com domain can access the configured storage by using the **HTTP HEAD** operation.

Partners from the https://contoso.com domain can access the configured storage service by using the **HTTP GET** operation.

Answer:

Answer Area

Yes	No
-----	----

The CORS rule that was previously configured for <https://fabrikam.com> is no longer in effect after this method runs.

Partners from the <https://contoso.com> domain can access the configured storage by using the **HTTP HEAD** operation.

Partners from the <https://contoso.com> domain can access the configured storage service by using the **HTTP GET** operation.

Question: 70

You develop a web application that will use the Azure Table service. The web application will store entities in the form of XML data within a single table.

The web application must support high traffic throughput.

You need to avoid exceeding the throttle limit for the table.

Which two actions should you take? Each correct answer presents part of the solution.

- A. Add additional partition keys to the table.
- B. Batch transactions for entities that are in the same partition group in the table.
- C. Compress the entities before storing them in the table.
- D. Store the entities in JSON format.

Answer: B,D

Question: 71

You are managing an application. The application uses data that is stored in an Azure SQL database.

You must be able to reset the application to the state that existed on any day in the previous 35 days.

You need to choose a backup solution.

What should you do?

- A. Run SQL replication on the SQL database once a day.
- B. Use Microsoft Azure SQL Database Point in Time Restore
- C. Use the SQL Server Data-Tier Application Framework to build a data-tier application (DAC) file once a day.
- D. Use the bcp utility to export data to an Azure page blob once a day.

Answer: B

Question: 72

HOTSPOT

Tailspin Toys uses a website to manage its inventory. The website is hosted on Azure. You are writing a Windows Store app that uses data from the blob storage.

You need to retrieve an image from the following URI:

<https://tailspintoys.blob.core.windows.net/Trains/Caboose2.jpg>.

How should you complete the relevant code? To answer, select the appropriate code segments in the answer area.

Answer Area

```

CloudStorageAccount storageAccount = CloudStorageAccount.Parse(
    CloudConfigurationManager.GetSetting("StorageConnectionString"));
CloudBlobClient blobClient = storageAccount. ( );

    BlobEndpoint  

    FileEndpoint  

    CreateCloudBlobClient  

    CreateCloudFileClient  

    ...


CloudBlobContainer blobContainer =
    blobClient. ( "trains" );

    GetContainerReference  

    GetBlobReferenceFromServerAsync


CloudBlockBlob myBlob =
    blobContainer. ( "Caboose2.jpg" );

    GetBlockBlobReference  

    GetDirectoryReference


using (var fileStream = System.IO.File.OpenWrite
(@"path\myfile"))
{
    myBlob.DownloadToStream(fileStream);
}

```

Answer:

Answer Area

```

CloudStorageAccount storageAccount = CloudStorageAccount.Parse(
    CloudConfigurationManager.GetSetting("StorageConnectionString"));
CloudBlobClient blobClient = storageAccount. blobClient. (); blobClient.
GetContainerReference ("trains");
GetBlobReferenceFromServerAsync

CloudBlobContainer blobContainer =
blobContainer. blobContainer. ("Caboose2.jpg");
GetBlockBlobReference
GetDirectoryReference

using (var fileStream = System.IO.File.OpenWrite
(@"path\myfile"))
{
    myBlob.DownloadToStream(fileStream);
}

```

Question: 73

You develop a web application that uses table storage in Azure.

You create a storage account named Contoso that stores a table named CityPopulationData.
The web application stores entities in this table.
You need to query the table data by using OData.
Which URL should you use?

- A. http://contoso.table.core.windows.net/citypopulationdata
- B. http://contoso.table.core.windows.net/odata/citypopulationdata
- C. http://azurorestorage.table.core.windows.net/contoso
- D. http://microsoft.table.core.windows.net/contoso
- E. http://azure.table.core.windows.net/contoso/citypopulationdata

Answer: A

Question: 74**HOTSPOT**

Your company works with trusted partners. These partners upload files into a storage account that you

control.

Partners must be able to create, read, and write files. Partners must NOT be allowed to see files from other partners. You generate a shared access signature (SAS) for each partner.

You create the following Windows PowerShell script to create a new container for each partner. Line numbers are included for reference only.

```

01 $containerName = "partner123files"
02 $key = (Get-AzureStorageKey -StorageAccountName $storageAccountName).Primary
03 $context = New-AzureStorageContext -StorageAccountName $storageAccountName ` 
    -StorageAccountKey $key
05 New-AzureStorageContainer -Name $containerName -Context $context
06 $filepath = "welcome.txt"
07 $blobname = "welcome.txt"
08 Set-AzureStorageBlobContent -Container $containerName -File "$filepath" ` 
    -Blob $blobname -Context $context -Properties @{"ContentType"="text/plain"}
09 $oneYearFromNow = (Get-Date).AddYears(1)
10 $sasToken = New-AzureStorageContainerSASToken -Name $containerName ` 
    -Permission 'rwdl' -ExpiryTime $oneYearFromNow -Context $context
11 $sasBlobUri = New-AzureStorageBlobSASToken -Container $containerName ` 
    -Permission 'r' -ExpiryTime $oneYearFromNow -Context $context ` 
    -FullUri -Blob $blobname

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

Yes	No
-----	----

Running the command at line 10 a second time invalidates the previously generated SAS token.

Web browsers can open the welcome.txt file directly by using the full URI and the SAS token for the file.

If the primary storage key is regenerated, the SAS token is still valid until its expiration date is reached.

Answer:

Answer Area

Yes	No
-----	----

Running the command at line 10 a second time invalidates the previously generated SAS token.

Web browsers can open the welcome.txt file directly by using the full URI and the SAS token for the file.

If the primary storage key is regenerated, the SAS token is still valid until its expiration date is reached.

Question: 75

A company maintains an Azure storage account. The storage account uses blobs and tables.

Customers access the storage account by using shared access signatures (SASs).

You need to monitor the usage of the storage services. You need to do the following:

Which three data analysis tasks should you perform? Each correct answer presents part of the solution.

- A. Use data from the logs of the storage services to find individual storage access attempts that do not comply with the SLA.
- B. Use data from the logs of the storage services to calculate aggregate server latency across individual requests. Determine whether the results of this calculation indicate that the Azure Storage service is in compliance with the SLA.
- C. Analyze the logs of the storage services to determine which storage services were inaccessible because of permissions issues.
- D. Review the Azure documentation to determine which storage operations are billable. Then find records of those operations in the logs of the storage services.
- E. Analyze the logs of the storage services to find records of operations that are marked as billable.
- F. Correlate the data logged from the storage service with the permissions to store data in the individual blobs and containers. Determine which storage services were inaccessible because of permissions issues.

Answer: B,C,D

Question: 76**HOTSPOT**

You are creating a set of load-balanced virtual machines (VMs) that are hosted on Azure.

You run the following Windows PowerShell script. Line numbers are included for reference only.

```

01 Add-AzureInternalLoadBalancer -ServiceName "Contoso-Chicago" -InternalLoadBalancerName "Data-LB"
    -SubnetName "DataFarm1" -StaticVNetIPAddress 192.168.100.10
02 Get-AzureVM -ServiceName "Contoso-Chicago" -Name "DATA1" | Add-AzureEndpoint -Name "DataFarm"
    -Protocol "TCP" -LocalPort 1433 -PublicPort 1337 -DefaultProbe -InternalLoadBalancerName "Data-LB" | Update-AzureVM
03 Get-AzureService -ServiceName "Contoso-Chicago" | Get-AzureInternalLoadBalancer

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

Yes	No
-----	----

The internal IP address of the VM named **DATA1** is 192.168.100.10.

The endpoint named **DataFarm** can be accessed by using external port 1337.

The internal load balancer for the Contoso-Chicago service is named **Data-LB**.

Answer:

Answer Area

	Yes	No
The internal IP address of the VM named DATA1 is 192.168.100.10.	<input type="radio"/>	<input checked="" type="radio"/>
The endpoint named DataFarm can be accessed by using external port 1337.	<input checked="" type="radio"/>	<input type="radio"/>
The internal load balancer for the Contoso-Chicago service is named Data-LB .	<input type="radio"/>	<input checked="" type="radio"/>

Question: 77

You are creating virtual machines (VMs) that are hosted on Azure.

You must be able to change the Remote Desktop access settings for the VMs. You must also be able to change the password for the built-in administrator account on all VMs. You identify the VMAccess VM extensions that have the required capabilities.

You need to enable the VMAccess VM extensions.

Which approach should you use?

- A. Download and install the Microsoft Installer file to enable the VM Agent on each VM.
- B. Use the Azure management portal to restart each VM.
- C. When you configure the new VMs, use the Azure management portal to install the VM Agent.
- D. For each VM, use Windows PowerShell cmdlets to enable the VM Agent and the VMAccess VM extensions.

Answer: D

Question: 78**HOTSPOT**

You use the Windows PowerShell Desired State Configuration (DSC) feature to configure your company's servers. Line numbers are included for reference only.

```

01 $ConfigurationData = @{
02     AllNodes = @(
03         @{NodeName = 'Server1';Role='Web'},
04         @{NodeName = 'Server2';Role='FileShare'}
05         @{NodeName = 'Server3';Role=@('FileShare','Web')}
06     )
07 }
08 configuration RoleConfiguration
09 {
10     param ($Roles)
11     switch ($Roles)
12     {
13         'FileShare'
14         {
15             WindowsFeature FileSharing
16             {
17                 Name = 'FS-FileServer'
18             }
19         }
20         'Web'
21         {
22             WindowsFeature Web
23             {
24                 Name = 'Web-Server'
25                 Ensure = 'Absent'
26             }
27         }
28     }
29 }
30 configuration MyFirstServerConfig
31 {
32     node $allnodes.NodeName
33     {
34         WindowsFeature snmp
35         {
36             Name = 'SNMP-Service'
37         }
38         RoleConfiguration MyServerRoles
39         {
40             Roles = $Node.Role
41             DependsOn = '[WindowsFeature]snmp'
42         }
43     }
44 }

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

	Yes	No
The script configures SNMP service on all servers.	<input type="radio"/>	<input type="radio"/>
The script configures the Web Server (IIS) role on Server3.	<input type="radio"/>	<input type="radio"/>
Invoking the script within Windows PowerShell applies the desired state to all servers.	<input type="radio"/>	<input type="radio"/>

Answer:**Answer Area**

	Yes	No
The script configures SNMP service on all servers.	<input type="radio"/>	<input checked="" type="radio"/>
The script configures the Web Server (IIS) role on Server3.	<input type="radio"/>	<input checked="" type="radio"/>
Invoking the script within Windows PowerShell applies the desired state to all servers.	<input checked="" type="radio"/>	<input type="radio"/>

Question: 79**HOTSPOT**

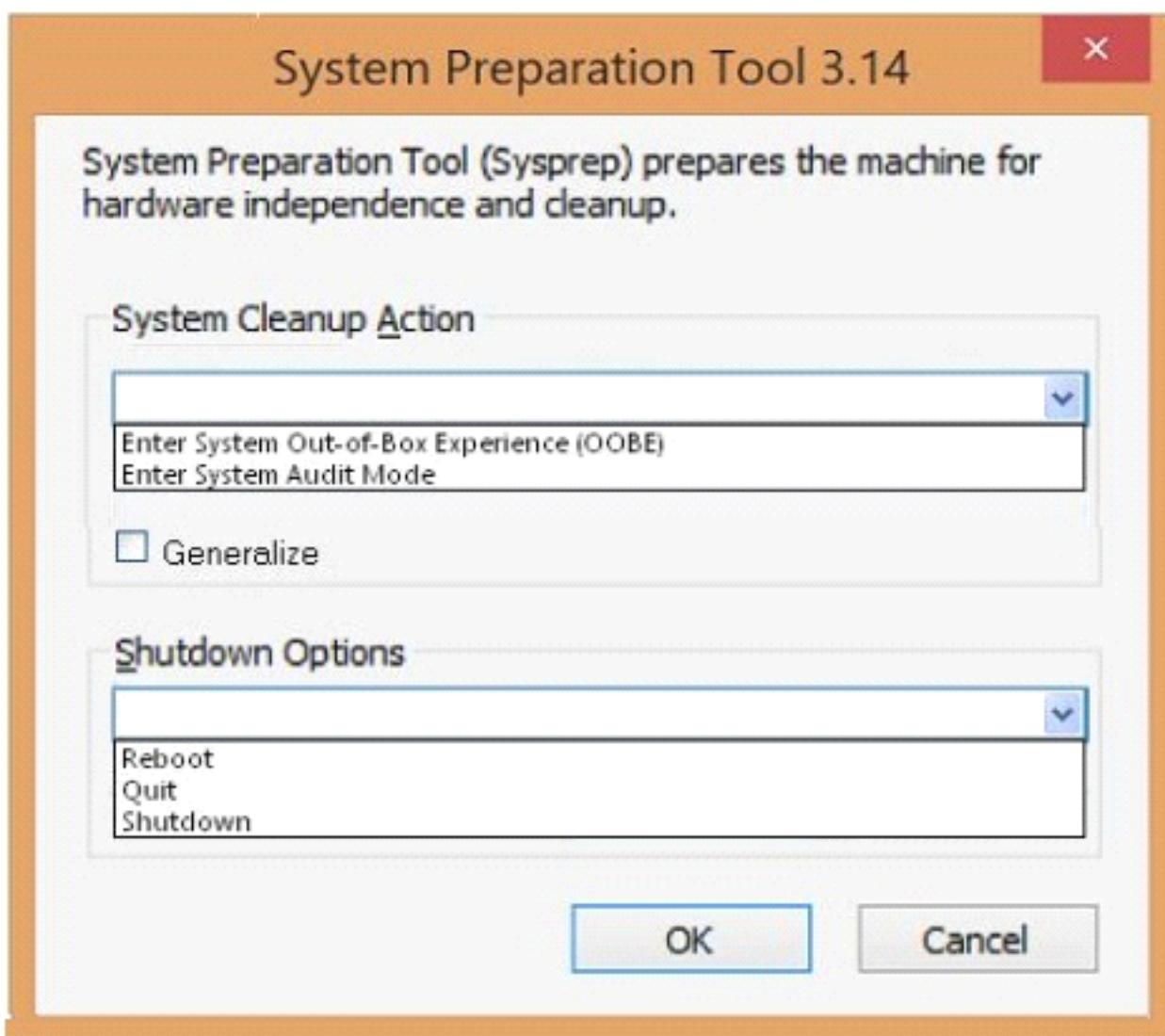
You have an existing server that runs Windows Server. You plan to create a base image of this server. You will use this base image to prepare several virtual servers for future use. After the base image is prepared, you will capture it by using the Azure management portal.

You must use the System Preparation Tool (Sysprep) to prepare the server so that the base image can be captured.

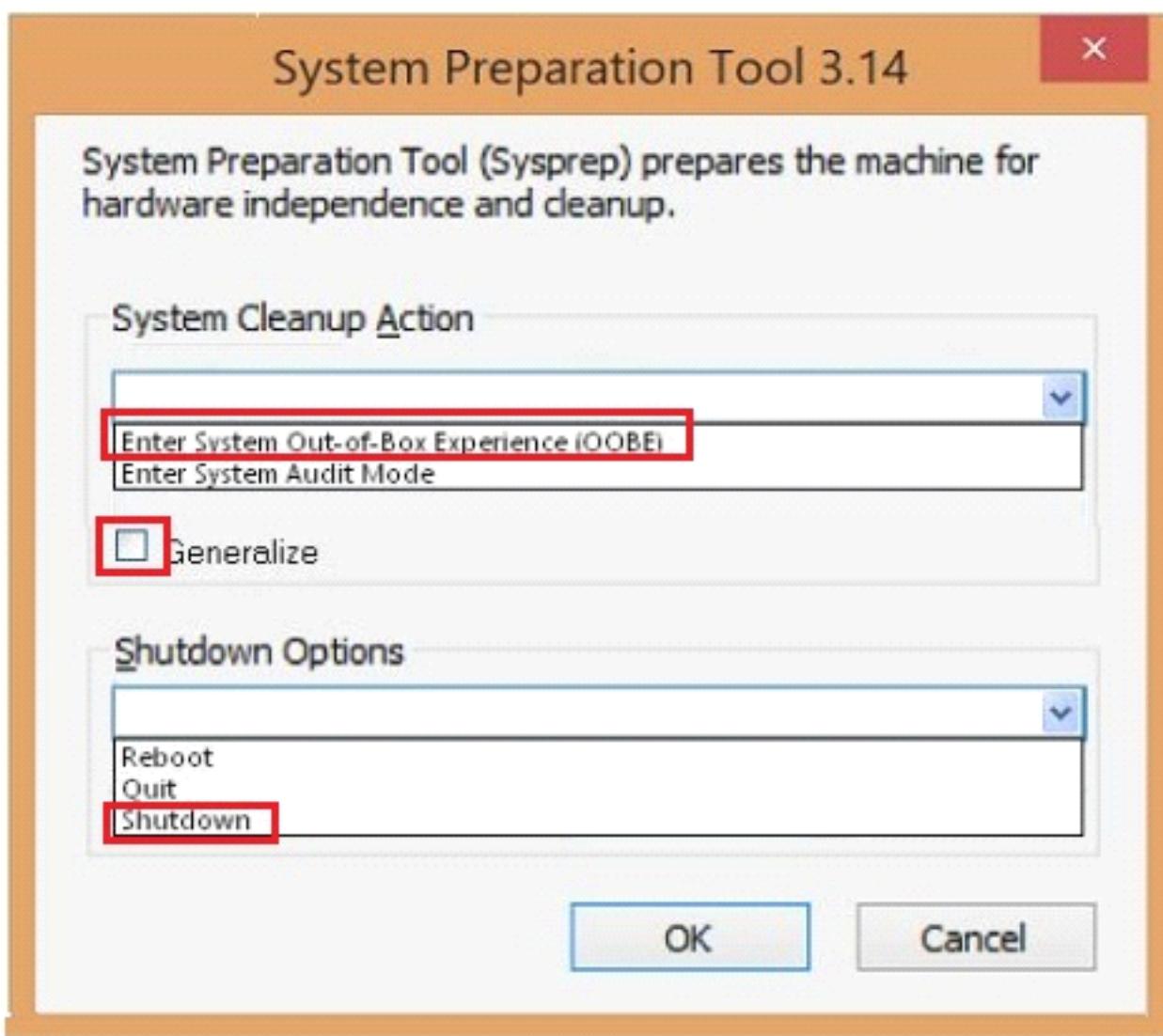
You need to prepare the server so that the base image can be captured.

What should you do? To answer, configure the appropriate options in the dialog box in the answer area.

System Preparation Tool dialog box



Answer: _____

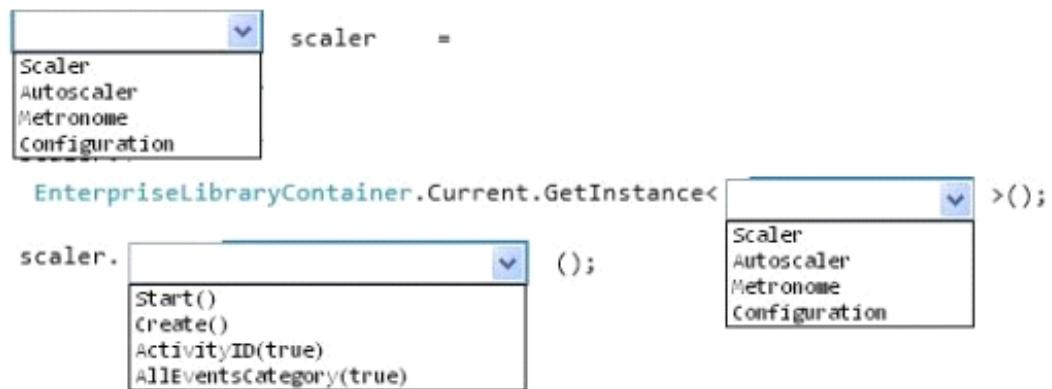
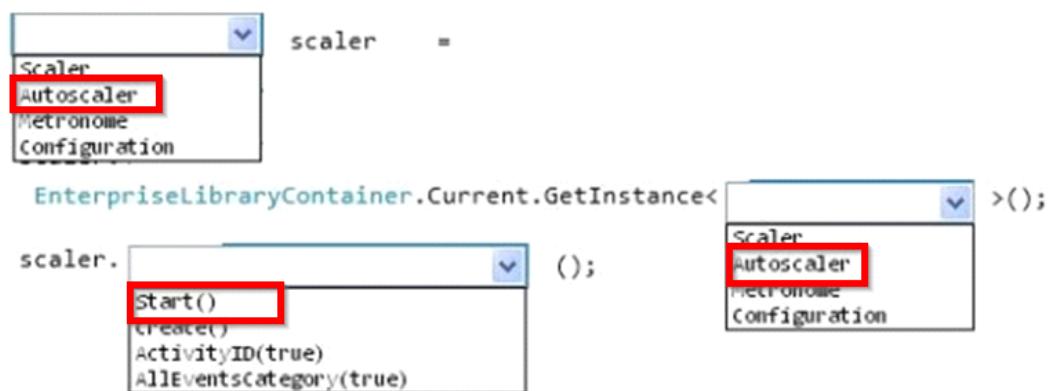
System Preparation Tool dialog box**Question: 80****HOTSPOT**

A company creates an Azure worker role to manage products.

The number of customers who inquire about how many products are in inventory rapidly increases.

You need to ensure that the worker role can scale to accommodate the increased workload.

How should you complete the relevant code? To answer, select the appropriate option or options in the answer area.

Answer Area**Answer:****Answer Area****Question: 81**

You connect to an existing service over the network by using HTTP. The service listens on HTTP port 80. You plan to create a test environment for this existing service by using an Azure virtual machine (VM) that runs Windows Server.

The service must be accessible from the public Internet over HTTP port 8080.

You need to configure the test environment.

Which two actions should you take? Each correct answer presents part of the solution.

- A. Configure an endpoint to route traffic from port 8080 to port 80.
- B. Configure an endpoint to route traffic from port 80 to port 8080.
- C. Ensure that the public IP address is configured as a static IP address.
- D. Configure the Windows Server firewall to allow incoming and outgoing traffic on port 8080.
- E. Configure the Windows Server firewall to allow incoming and outgoing traffic on port 80.

Answer: A, E**Question: 82****HOTSPOT**

You are developing a messaging solution for a financial services company named Adatum. The solution must integrate an application named Enrollment and an application named Activation.

The Enrollment application is used to enroll new customers. The Activation application is used to activate accounts for new customers.

You need to ensure that each message that the Enrollment application sends is stored in a queue for ten minutes before the Activation application uses the message.

How should you complete the relevant code? To answer, select the appropriate option or options in the answer area.

Answer Area

```

var address =
    ServiceBusEnvironment.CreateServiceUri("",
        sb,
        adatum.servicebus.windows.net/activate",
        string.Empty);

var ns = new NamespaceManager(
    address, new NamespaceManagerSettings()
    {
        OperationTimeout =
            TimeSpan(0, 10, 0)
    });
ns.CreateQueue("ActivationQueue");

```

Answer:

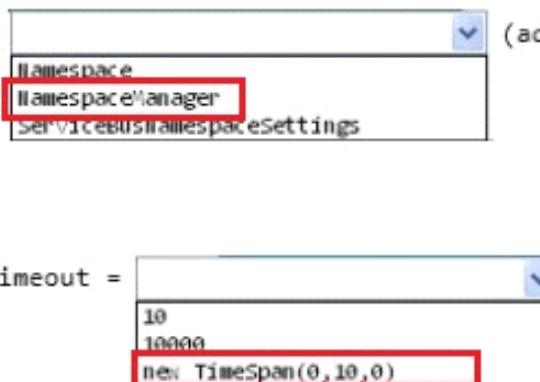
Answer Area

```

var address =
    ServiceBusEnvironment.CreateServiceUri("",
        sb,
        adatum.activation,
        adatum.servicebus.windows.net/activate",
        string.Empty);

var ns = new NamespaceManager(
    address,
    new NamespaceManagerSettings()
    {
        OperationTimeout =
            TimeSpan(0, 10, 0)
    });
ns.CreateQueue("ActivationQueue");

```



Question: 83

An application sends Azure push notifications to a client application that runs on Windows Phone, iOS, and Android devices.

Users cannot use the application on some devices. The authentication mechanisms that the application uses are the source of the problem.

You need to monitor the number of notifications that failed because of authentication errors.

Which three metrics should you monitor? Each correct answer presents part of the solution.

- A. Microsoft Push Notification Service (MPNS) authentication errors
- B. External notification system errors
- C. Apple Push Notification Service (APNS) authentication errors
- D. Channel errors
- E. Windows Push Notification Services (WNS) authentication errors
- F. Google Cloud Messaging (GCM) authentication errors

Answer: A,C,F

Question: 84

You deploy an application as a cloud service in Azure.
 The application consists of five instances of a web role.
 You need to move the web role instances to a different subnet.
 Which file should you update?

- A. Service definition
- B. Diagnostics configuration
- C. Service configuration
- D. Network configuration

Answer: C

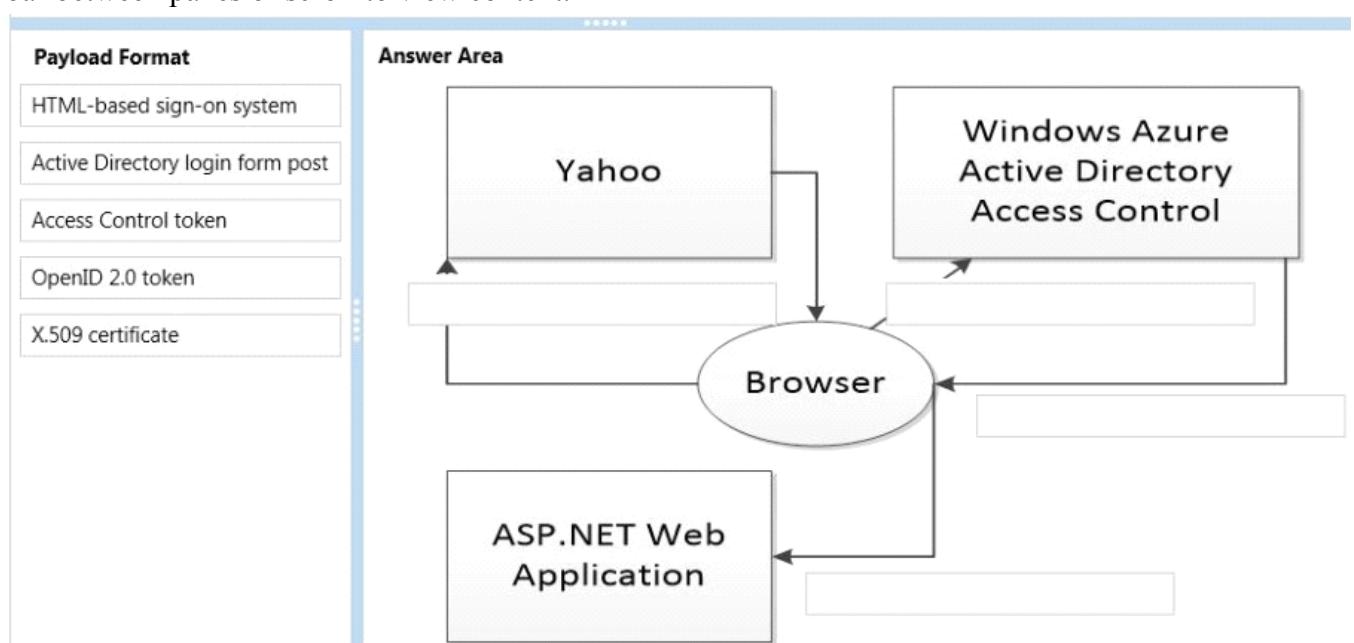
Question: 85

DRAG DROP

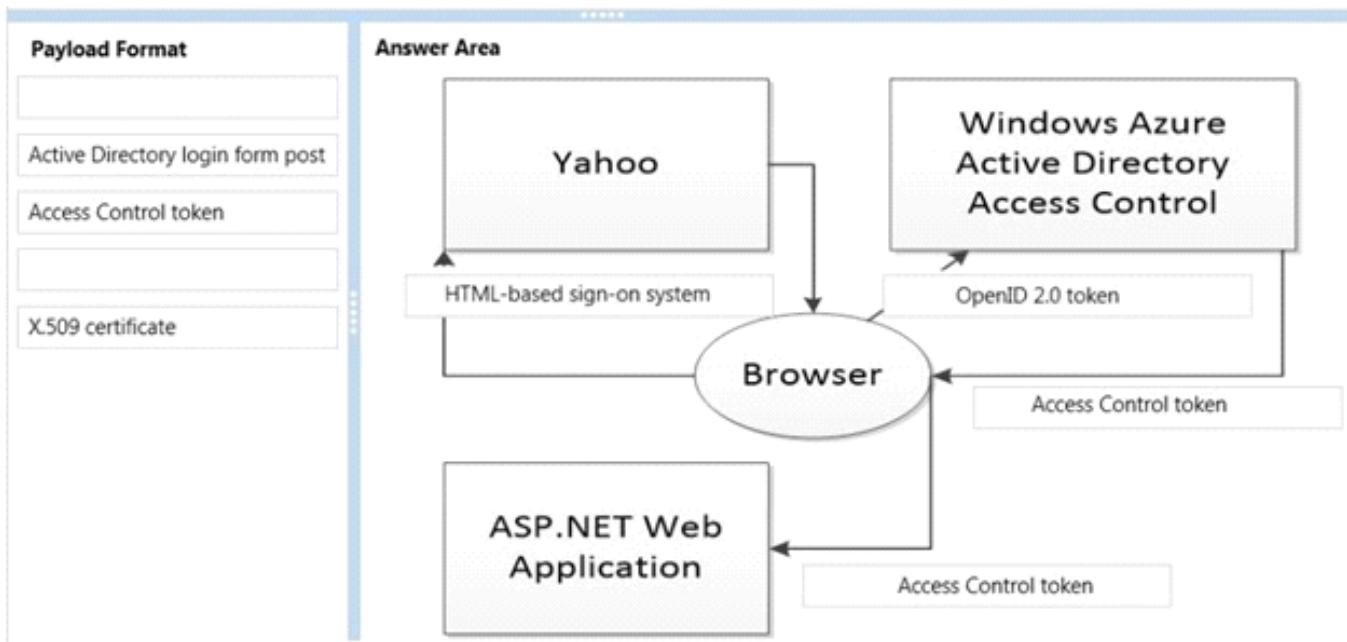
You are converting an existing ASP.NET web application to use the Azure Active Directory (AD) Access Control service for authentication. The application will authenticate users by using their Yahoo account credentials.

You need to determine the correct payload for each stage of the authentication process.

What should you do? To answer, drag the appropriate payload format to the correct location on the dialog box. Each payload format 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.



Answer:

**Question: 86**

You plan to deploy an application as a cloud service. The application uses a virtual network to extend your on-premises network into Azure.

You need to configure a site-to-site VPN for cross-premises network connections.

Which two objects should you configure? Each correct answer presents part of the solution.

- A. Dynamic routing gateway
- B. VPN gateway
- C. External-facing IPv6 address
- D. External-facing IPv4 address

Answer: B,D

Question: 87**HOTSPOT**

You have a WebJob object that runs as part of an Azure website. The WebJob object uses features from the Azure SDK for .NET. You use a well-formed but invalid storage key to create the storage account that you pass into the UploadDataToAzureStorage method.

The WebJob object contains the following code segment. Line numbers are included for reference only.

```

01 void UploadDataToAzureStorage(CloudStorageAccount storageAccount,
    string storageContainerName, string blobpath, string localpath)
02 {
03     var blobClient = storageAccount.CreateCloudBlobClient();
04     var container = blobClient.GetContainerReference(storageContainerName);
05     CloudBlockBlob blockBlob = container.GetBlockBlobReference(blobpath);
06     blockBlob.UploadFromFile(localpath, FileMode.Open);
07 }

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

Answer Area

	Yes	No
If the storage container does not already exist when the code runs, a file can still be uploaded successfully.	<input type="radio"/>	<input type="radio"/>
If a transient fault occurs when the code segment on line 06 runs, the Azure SDK will attempt to upload the file again.	<input type="radio"/>	<input type="radio"/>
The code segment at line 06 will fail when the code runs.	<input type="radio"/>	<input checked="" type="radio"/>

Answer:

Answer Area

	Yes	No
If the storage container does not already exist when the code runs, a file can still be uploaded successfully.	<input type="radio"/>	<input checked="" type="radio"/>
If a transient fault occurs when the code segment on line 06 runs, the Azure SDK will attempt to upload the file again.	<input checked="" type="radio"/>	<input type="radio"/>
The code segment at line 06 will fail when the code runs.	<input checked="" type="radio"/>	<input type="radio"/>

Question: 88

DRAG DROP

You create a web application. You publish the source code of the web application to a GitHub repository by using Microsoft Visual Studio. You create a website by using the Azure management portal.

You must continuously deploy the web application from the GitHub repository website to the Azure website. You need to deploy the source code of the web application.

Which four 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.

Actions	Answer Area
Select the repository and the branch from which to deploy the Azure website.	
Select GitHub as the source control method.	
Configure the Azure website to use the Always On option.	
In the Azure management portal, configure web endpoint monitoring.	
In the Azure management portal, choose the option to set up deployment from source control.	
Sign in to GitHub by using your deployment credentials.	

Answer:

Box 1:

In the Azure management portal, choose the option to set up deployment from source control.

Box 2:

Select **GitHub** as the source control method.

Box 3:

Sign in to GitHub by using your deployment credentials.

Box 4:

Select the repository and the branch from which to deploy the Azure website.

Question: 89

A company creates an API and makes it accessible on an Azure website. External partners use the API occasionally. The website uses the Standard web hosting plan.

Partners report that the first API call in a sequence of API calls occasionally takes longer than expected to run. Subsequent API calls consistently perform as expected.

You need to ensure that all API calls perform consistently.

What should you do?

- A. Configure the website to use the Basic web hosting plan.
- B. Enable Always On support.
- C. Configure the website to automatically scale.
- D. Add a trigger to the web.config file for the website that causes the website to recycle periodically.

Answer: B

Question: 90**HOTSPOT**

You have a cloud service that runs an external process that is named MyStartupTask.cmd. The cloud service runs this external process when the web role starts. The external process writes information to the Windows registry. You set the value of an environment variable named MyID to the deployment ID for the current web role instance.

The external process must complete writing the information to the Windows registry before the web role starts to accept web traffic.

You need to configure the cloud service.

How should you complete the relevant markup? To answer, select the appropriate option or options in the answer area.

Answer Area

```

<Startup>
  <Task commandLine="MyStartupTask.cmd">
    <!--
      executionContext="elevated" taskType="simple"
      executionContext="limited" taskType="foreground"
      executionContext="elevated" taskType="foreground"
      executionContext="elevated" taskType="background"
    -->
  </Task>
</Startup>
```

Answer:

Answer Area

```
<Startup>
  <Task commandLine="MyStartupTask.cmd"
    executionContext="elevated" taskType="simple"
    executionContext="limited" taskType="foreground"
    executionContext="elevated" taskType="foreground"
    executionContext="elevated" taskType="background">

    <Environment>
      <Variable name="MyId">
        <RoleInstanceValue xpath="/RoleEnvironment/Deployment/@id"/>
        <RoleInstanceValue xpath="/DeploymentId"/>
        <RoleEnvironment.DeploymentId></value>
        <Value>@DeploymentId</Value>
      </Variable>
    </Environment>
  </Task>
</Startup>
```

Question: 91**DRAG DROP**

You deploy an application as a cloud service to Azure. The application contains a web role to convert temperatures between Celsius and Fahrenheit.

The application does not correctly convert temperatures. You must use Microsoft Visual Studio to determine why the application does not correctly convert temperatures.

You need to debug the source code in Azure.

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.

Actions	Answer Area
<p>Attach the debugger to the role instance of the cloud service.</p> <p>Publish the application.</p> <p>In the Microsoft Azure Publish Settings dialog, set the build configuration to Release and enable the remote debugger for all roles.</p> <p>In the Windows Azure Publish Settings dialog, set the build configuration to Debug.</p> <p>In the Microsoft Azure Publish Settings dialog, enable Remote Desktop for cloud configuration and enable the remote debugger for all roles.</p>	

Answer:

Box 1:

Publish the application.

Box 2:

In the Microsoft Azure Publish Settings dialog, set the build configuration to **Release** and enable the remote debugger for all roles.

Box 3:

Attach the debugger to the role instance of the cloud service.

Question: 92

DRAG DROP

Your team uses a proprietary source control product. You use FTP to manually deploy an Azure Web App. You must move your source code from the proprietary source control product to a secure on-premises Git versioning system. Instead of deploying the website by using FTP, the website must automatically deploy to Azure each time developers check-in source files.

You need to implement the new deployment strategy.

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.

Actions

In the Azure management portal, configure Web Apps to support deployment from the local Git repository.

Commit the website to the Git repository.

In the Azure portal, configure Web App to support deployment from Microsoft Visual Studio Team Services.

In the Azure portal, configure Web App to support deployment from external repository sources.

Create a local Git repository.

Answer Area



Actions

In the Azure management portal, configure Web Apps to support deployment from the local Git repository.

Commit the website to the Git repository.

In the Azure portal, configure Web App to support deployment from Microsoft Visual Studio Team Services.

In the Azure portal, configure Web App to support deployment from external repository sources.

Create a local Git repository.

Answer Area

In the Azure management portal, configure Web Apps to support deployment from the local Git repository.

Create a local Git repository.

Commit the website to the Git repository.



References:

<https://docs.microsoft.com/en-us/aspnet/core/publishing/azure-continuous-deployment>

Question: 93

HOTSPOT

You are developing an Azure cloud service for a company. The cloud service monitors a queue for incoming messages and then processes invoices based on the contents of these messages.

Some messages are formed incorrectly and cause exceptions. There is no time limit for how long the service takes to process an individual message.

All messages must be processed at least once by using the ProcessMessage method. Messages must not be processed more than twice by using the ProcessMessage method. Messages that fail normal processing must

be processed by using the ProcessPoisonMessage method.

You need to configure message processing.

How should you complete the relevant code? To answer, select the appropriate option or options in the answer area.

Answer Area

```
private bool ProcessNextQueueMessage(CloudQueue cloudQueue)
{
    var msg = cloudQueue.GetMessage();
```

```
if (msg == null) return false;
if (msg.DequeueCount > 0) return false;
if (msg.PopReceipt == null) return false;
if (msg.ExpirationTime.HasValue) return false;
```

```
if (msg == null)
if (msg.DequeueCount > 0)
if (msg.DequeueCount > 2)
if (msg.PopReceipt == null)
```

```
    ProcessPoisonMessage(msg);
else
    ProcessMessage(msg);
```

```
cloudQueue.Delete();
cloudQueue.DeleteMessage(msg);
cloudQueue.EndAddMessage(null);
cloudQueue.DeleteMessage(null);
```

```
return true;
```

```
}
```

Answer:

Answer Area

```

private bool ProcessNextQueueMessage(CloudQueue cloudQueue)
{
    var msg = cloudQueue.GetMessage();

    if (msg == null) return false;
    if (msg.DequeueCount > 0) return false;
    if (msg.PopReceipt == null) return false;
    if (msg.ExpirationTime.HasValue) return false;

    if (msg == null)
        if (msg.DequeueCount > 0)
            if (msg.DequeueCount > 2)
                if (msg.PopReceipt == null)

        ProcessPoisonMessage(msg);
    else
        ProcessMessage(msg);

    cloudQueue.Delete();
    cloudQueue.DeleteMessage(msg);
    cloudQueue.EndAddMessage(null);
    cloudQueue.DeleteMessage(null);

    return true;
}

```

Question: 94**HOTSPOT**

You deploy a new version of a cloud-service application to a staging slot. The application consists of one web role. You prepare to swap the new version of the application into the production slot. Your Azure account has access to multiple Azure subscriptions. You load the Azure PowerShell cmdlets into the Windows PowerShell command shell. The command shell is NOT configured for certificate-based authentication.

You must use the Windows PowerShell command window to configure the application.

You need to create five instances of the web role.

How should you configure the relevant Windows PowerShell script? To answer, select the appropriate option or options in the answer area.

Answer Area

```
$subscription = 'mysubscription'  
$service = 'myservice'  
$rolename = 'myrole'
```

```
Add-AzureAccount  
Get-AzureAccount -Name $subscription  
Get-AzureAccount
```

```
Select-AzureSubscription -SubscriptionName $subscription  
Set-AzureSubscription -SubscriptionName $subscription  
Set-AzureSubscription -SubscriptionId $subscription
```

```
Set-AzureRole -ServiceName $service -Slot Staging -RoleName $rolename -Count 5  
Set-AzureRole -ServiceName $service -RoleName $rolename -Count 5  
Set-AzureRole -ServiceName $service -Slot Production -RoleName $rolename -Count 5  
Add-AzureWebRole -Name $service -Instances 5
```

Answer:

Answer Area

```
$subscription = 'mysubscription'
$service = 'myservice'
$rolename = 'myrole'
```

```
Add-AzureAccount
Get-AzureAccount -Name $subscription
Get-AzureAccount
```

```
Select-AzureSubscription -SubscriptionName $subscription
Set-AzureSubscription -SubscriptionName $subscription
Set-AzureSubscription -SubscriptionId $subscription
```

```
Set-AzureRole -ServiceName $service -Slot Staging -RoleName $rolename -Count 5
Set-AzureRole -ServiceName $service -RoleName $rolename -Count 5
Set-AzureRole -ServiceName $service -Slot Production -RoleName $rolename -Count 5
Add-AzureWebRole -Name $service -Instances 5
```

Question: 95

Which of the following applications would be a good candidate to move to a cloud-based platform?

- A. Mission critical financial data
- B. Customer Relationship Management (CRM)
- C. High-performance computing
- D. Database that requires a low latency for indexing

Answer: B

The best place to start is with new applications that are customer-, partner- and employee-facing.

Cloud CRM (or CRM cloud) means any customer relationship management (CRM) technology where the CRM software, CRM tools and the organization's customer data resides in the cloud and is delivered to end-users via the Internet.

Cloud CRM typically offers access to the application via Web-based tools (or Web browser) logins where the CRM system administrator has previously defined access levels across the organization. Employees can log in to the CRM system, simultaneously, from any Internet-enabled computer or device. Often, cloud CRM provide users with mobile apps to make it easier to use the CRM on smartphones and tablets.

References:

<https://azure.microsoft.com/en-us/blog/a-key-it-decision-which-apps-to-move-to-the-cloud/>

http://www.webopedia.com/TERM/C/crm_cloud.html

Question: 96

Companies that are looking to move from capital expenses to operating expenses benefit from cloud services.

- A. True
- B. False

Answer: A

"Capex vs. Opex" refers to the fact that stocking your own data center requires capital expenditure, while using an external cloud service that offers pay-as-you-go service falls into ongoing operating expenditures: thus the contrast of "Capex vs. Opex."

References: <http://www.cio.com/article/2430099/virtualization/capex-vs--opex--most-people-miss-the-point-about-cloud-economics.html>

Question: 97

A private cloud is defined as:

- A. A deployment model that uses an external cloud to provide host application services that are Internet accessible.
- B. A deployment model that partners with other industry related companies to provide infrastructure services.
- C. A deployment model that uses virtualization technologies to provide infrastructure on demand within its network.
- D. A deployment model that uses an external cloud provider to provide host infrastructure services that are Internet accessible.

Answer: C

Private cloud is a type of cloud computing that delivers similar advantages to public cloud, including scalability and self-service, but through a proprietary architecture. Unlike public clouds, which deliver services to multiple organizations, a private cloud is dedicated to a single organization.

Private cloud expenses include virtualization, cloud software and cloud management tools.

References: <http://searchcloudcomputing.techtarget.com/definition/private-cloud>

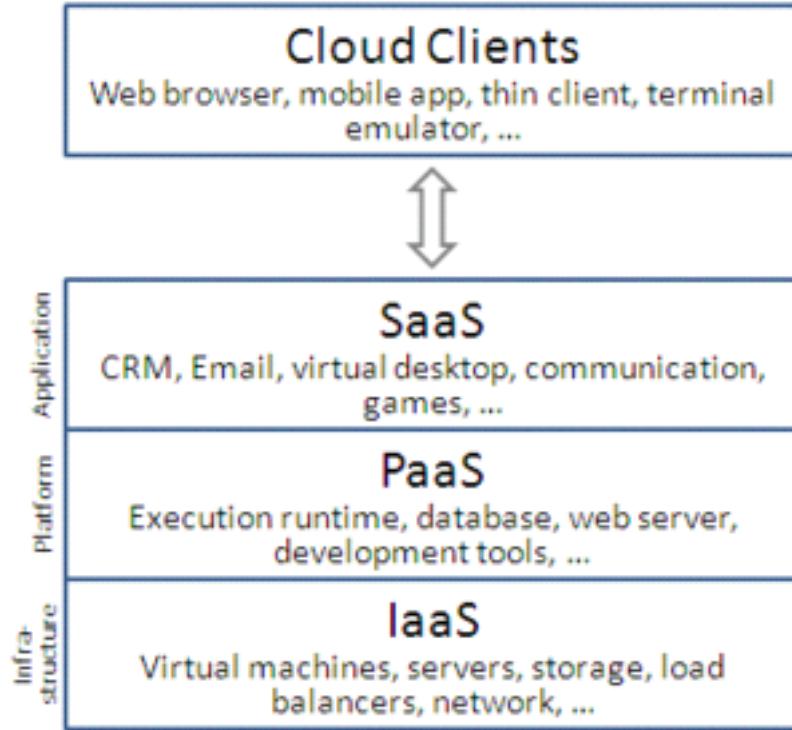
Question: 98

Which of the following is the logical progression in internal private cloud adoption?

- A. Virtualize, PaaS, IaaS and SaaS
- B. SaaS, PaaS, IaaS and Virtualize
- C. Virtualize, IaaS, PaaS and SaaS
- D. IaaS, PaaS, Virtualize and SaaS

Answer: C

Cloud computing service models arranged as layers in a stack.



References: https://en.wikipedia.org/wiki/Cloud_computing#Service_models

Question: 99

A cloud computing vendor is focusing on delivering applications to customers. The goal is to simplify the deployment of database functionality while removing the need for customers to manage the operation system and application patching. Which of the following types of solution is the vendor offering?

- A. IT as a Service
- B. Infrastructure as a Service
- C. Anything as a Service
- D. Platform as a Service
- E. Software as a Service

Answer: D

PaaS includes infrastructure—servers, storage, and networking—but also middleware, development tools, business intelligence (BI) services, database management systems, and more.

Note:



References: <https://azure.microsoft.com/en-us/overview/what-is-paas/>

Question: 100

Which of the following describes what is meant by the ITIL Service Strategy component?

- A. Defining processes required to manage the solution.
- B. Designing the solution to the ITIL specifications.
- C. Ensuring changes are designed to meet customer expectations.
- D. Understanding the intended customer and what services are required.

Answer: D

The objective of ITIL Service Strategy is to decide on a strategy to serve customers. Starting from an assessment of customer needs and the market place, the Service Strategy lifecycle stage determines which services the IT organization is to offer and what capabilities need to be developed. Its ultimate goal is to make the IT organization think and act in a strategic manner.

References: http://wiki.en.it-processmaps.com/index.php/ITIL_Service_Strategy

Question: 101

Using https instead of http for accessing a cloud service is considered more secure.

- A. True
- B. False

Answer: A

HTTPS (also called HTTP over TLS, HTTP over SSL, and HTTP Secure) is a protocol for secure communication over a computer network which is widely used on the Internet.

References: <https://en.wikipedia.org/wiki/HTTPS>

Question: 102

A company is designing a new web-based software application that must be highly available and resistant. Which of the following is the BEST environment for the application?

- A. The primary instance of the application will be locally hosted with a weekly copy of the instance sent to a cloud service provider.
- B. The primary instance of the application will be locally hosted with a nightly file-level backup being performed to an off-site location.
- C. The primary instance of the application will be running a cloud service provider's hosted environment with a continuous backup to the company's local infrastructure.
- D. The primary instance of the application will be locally hosted with a nightly copy of the instance sent to a client service provider.

Answer: C

Question: 103

Which of the following are the MOST important benefits of a cloud computing solution for an application development provider? (Select two.)

- A. Reduced training time for new developers
- B. Reduced storage requirements.
- C. Reduced complexity for users.
- D. Reduced bandwidth usage.
- E. Reduced cost.
- F. Reduced development timeframe.

Answer: E,F

The biggest promise of Azure-based applications is the ability to write them to scale as needed in real-time. Customers will therefore only use the amount of resources they need, rather than budgeting a set amount of resources that can overtax or underutilize their current setup.

References: <http://searchcloudcomputing.techtarget.com/tutorial/An-introduction-to-developing-for-Microsoft-Azure>

Question: 104

Which of the following virtualization characteristics allows the use of different types of physical types or physical servers?

- A. Security
- B. Hardware independence
- C. Scalability
- D. Variable costs

Answer: B

Virtualization is a conversion process that translates unique IT hardware into emulated and standardized software-based copies. Through hardware independence, virtual servers can easily be moved to another virtualization host, automatically resolving multiple hardware-software incompatibility issues. As a result, cloning and manipulating virtual IT resources is much easier than duplicating physical hardware.

References: http://whatiscloud.com/virtualization_technology/hardware_independence

Question: 105

Which of the following cloud computing services requires the MOST involvement from a company's in-house staff?

- A. IaaS
- B. MaaS
- C. PaaS
- D. SaaS

Answer: A

Infrastructure as a service (IaaS) is an instant computing infrastructure, provisioned and managed over the Internet. Quickly scale up and down with demand, and pay only for what you use.

IaaS helps you avoid the expense and complexity of buying and managing your own physical servers and other datacenter infrastructure. Each resource is offered as a separate service component, and you only need to rent a particular one for as long as you need it. The cloud computing service provider manages the infrastructure, while you purchase, install, configure, and manage your own software—operating systems, middleware, and applications.

References: <https://azure.microsoft.com/en-us/overview/what-is-iaas/>

Question: 106

As part of a cloud provider's services, customers can provision a new virtual machine as needed without human interaction with the provider. The scenario is BEST described by which of the following cloud characteristics?

- A. On-demand self-service
- B. Measured service
- C. Broad network access
- D. Rapid elasticity

Answer: A

On-demand self service refers to the service provided by cloud computing vendors that enables the provision of cloud resources on demand whenever they are required. In on-demand self service, the user accesses cloud services through an online control panel.

On-demand self service resource sourcing is a prime feature of most cloud offerings where the user can scale the required infrastructure up to a substantial level without disrupting the host operations.

References: <https://www.techopedia.com/definition/27915/on-demand-self-service>

Question: 107

A business has recently implemented a hybrid cloud federated solution, which will allow it to rapidly and dynamically allocate resources during high demand, and quickly implement its Disaster Recovery Plan (DRP) and Continuity of Operations (COOP). Given this implementations, the IT director is mostly likely concerned about:

- A. maintaining strategic flexibility
- B. reducing OPEX allocations
- C. hiring additional IT staff
- D. eliminating security risks

Answer: D

Initially, the differences between Disaster Recover and Business Continuity should be understood. In comparison they are very similar in that they are (or should be) detailed plans to prepare an organization for events in which a situation presents itself which can cause internal systems failures, or a disruption of business systems in which they are no longer able to function to meet the requirements to perform day to day tasks. These situations almost always result in loss of revenue, and in some cases, loss of client base. Where these plans differ is in the main concept topic for which they prepare. Business Continuity Plans generally focus on the continuation of business services in the event of any type of interruptions whether its IT based or other. Disaster Recover Plans often refer to a company's strategy if something happens to crucial business data, and how to restore / recover that data (generally in the shortest amount of time possible).

References: <https://stumpj.wordpress.com/2010/10/18/coop-and-drp-what-is-the-difference/>

Question: 108

Which of the following is the primary difference between private and public cloud?

- A. Tenancy of the cloud
- B. Management of the cloud
- C. Service model of the cloud
- D. Locations on the cloud

Answer: D

A private cloud hosting solution, also known as an internal or enterprise cloud, resides on company's intranet or hosted data center where all of your data is protected behind a firewall.

The main differentiator between public and private clouds is that you aren't responsible for any of the management of a public cloud hosting solution. Your data is stored in the provider's data center and the provider is responsible for the management and maintenance of the data center.

References: <https://www.expedient.com/blog/private-vs-public-cloud-whats-difference/>

Question: 109

After migrating the company's entire datacenter infrastructure to a private IaaS solution, while at the same time maintaining the current network and server logical configuration, the IT director eliminated 50% of the IT engineering staff. The remaining staff has now shifted focus from a daily server maintenance and upkeep role, to more of a service provisioning, performance, and reporting role. Which of the following was MOST impacted by this migration?

- A. Service design
- B. Service strategy
- C. Service operation
- D. Service transitions

Answer: C

Question: 110

A small company with an in-house IT staff is considering implementing a new technology that their current IT staff is unfamiliar with. The company would like to implement the new technology as soon as possible but does not have the budget to hire new IT staff. Which of the following should the company consider?

- A. Cloud computing
- B. New hardware
- C. Outsourcing
- D. Virtualization

Answer: C

Question: 111

A company wants to implement an internal virtualized infrastructure to provide its employees with on demand storage which will be accessible through a web interface over the public Internet. This is an example of which of the following?

- A. Public cloud
- B. Community cloud
- C. Hybrid cloud
- D. Private cloud

Answer: C

A hybrid cloud is an integrated cloud service utilising both private and public clouds to perform distinct functions within the same organization.

Question: 112

Which of the following enables hardware independence?

- A. In-sourcing
- B. Outsourcing
- C. Virtualization
- D. Abstraction

Answer: C

Virtualization is a conversion process that translates unique IT hardware into emulated and standardized software-based copies. Through hardware independence, virtual servers can easily be moved to another virtualization host, automatically resolving multiple hardware-software incompatibility issues. As a result, cloning and manipulating virtual IT resources is much easier than duplicating physical hardware.

References: http://whatiscloud.com/virtualization_technology/hardware_independence

Question: 113

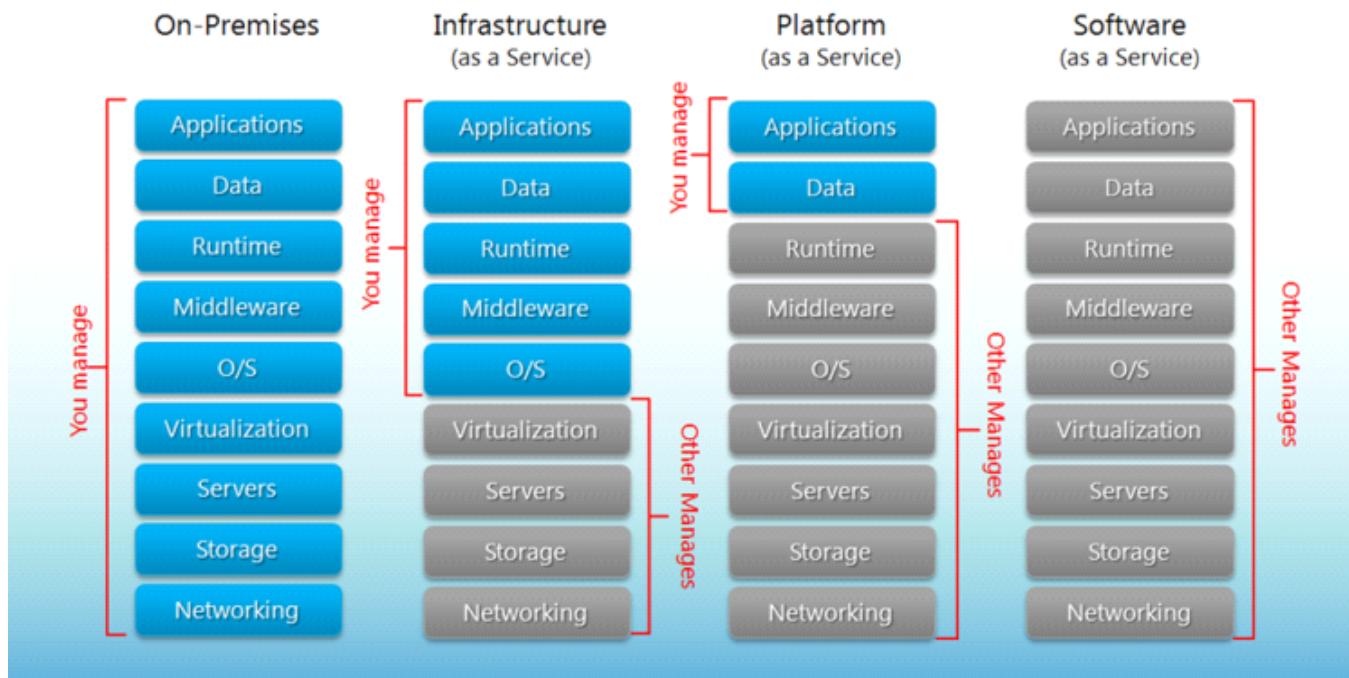
Which of the following are the common elements of platform as a service and software as a service? (Select two.)

- A. Both allow the OS to be patched by the customer.
- B. Both take advantage of incremental scalability.

- C. Both require the customer to maintain the hardware.
- D. Both provide granular access to the backend storage.
- E. Both implement hardware abstraction.

Answer: B,E

Separation of Responsibilities



Question: 114

When using SaaS, the cloud computing vendor is responsible to maintain which of the following?

- A. Client infrastructure
- B. Client firewall
- C. Updates and licenses.
- D. Workstation OS version.

Answer: C

Question: 115

Which of the following is the MOST significant risk to business continuity when using an external cloud service provider?

- A. Unauthorized access to customer data
- B. Vendor being purchased
- C. Virtual server failure
- C. Vendor going out of business

Answer: A

If your application stores and retrieves very sensitive data, you might not be able to maintain it in the cloud. Similarly, compliance requirements could also limit your choices.

References: <http://cloudacademy.com/blog/cloud-migration-benefits-risks/>

Question: 116

Which of the following is an example of SaaS?

- A. Offshore help desk support
- B. Hosted database software and development tools
- C. Hosted email software
- D. Hosted network hardware

Answer: C

If you've used a web-based email service such as Outlook, Hotmail, or Yahoo! Mail, then you've already used a form of SaaS. With these services, you log into your account over the Internet, often from a web browser. The email software is located on the service provider's network, and your messages are stored there as well. You can access your email and stored messages from a web browser on any computer or Internet-connected device.

References: <https://azure.microsoft.com/en-us/overview/what-is-saas/>

Question: 117

Cloud computing relies heavily on which of the following virtualization characteristics? (Select two.)

- A. User federation
- B. Hardware independence
- C. Simplistic setup
- D. Scalable resources
- E. Information sharing

Answer: B,D

B: Virtualization is a conversion process that translates unique IT hardware into emulated and standardized software-based copies. Through hardware independence, virtual servers can easily be moved to another

virtualization host, automatically resolving multiple hardware-software incompatibility issues. As a result, cloning and manipulating virtual IT resources is much easier than duplicating physical hardware.

D: Infrastructure as a Service (IaaS) is a form of cloud computing that provides virtualized computing resources over the Internet. IaaS platforms offer highly scalable resources that can be adjusted on-demand.

References:

http://whatiscloud.com/virtualization_technology/hardware_independence

<http://searchcloudcomputing.techtarget.com/definition/Infrastructure-as-a-Service-IaaS>

Question: 118

Following an IT Service Management lifecycle approach, a Chef Information Officer would take which of the following paths to implement a cloud solution?

- A. Choose the SaaS provider; Design the application; Choose whether to develop the service application in-house or outsource; Operate the service application in the cloud.
- B. Decide whether to implement on the cloud; Choose a XaaS provider; Design the application; Choose where to develop the service application; Operate the service application in the cloud.
- C. Decide whether to implement the application on the cloud; Choose an IaaS provider; Choose whether to develop the service in-house; Operate the Service application in the cloud.
- D. Strategize which IaaS provider to use; Design the application; Transition processes to the cloud; Operate the service application in the cloud.

Answer: C

Question: 119

An organization wants to host a critical application on two redundant leased servers located on the ISP's datacenter. Which of the following is this an example of?

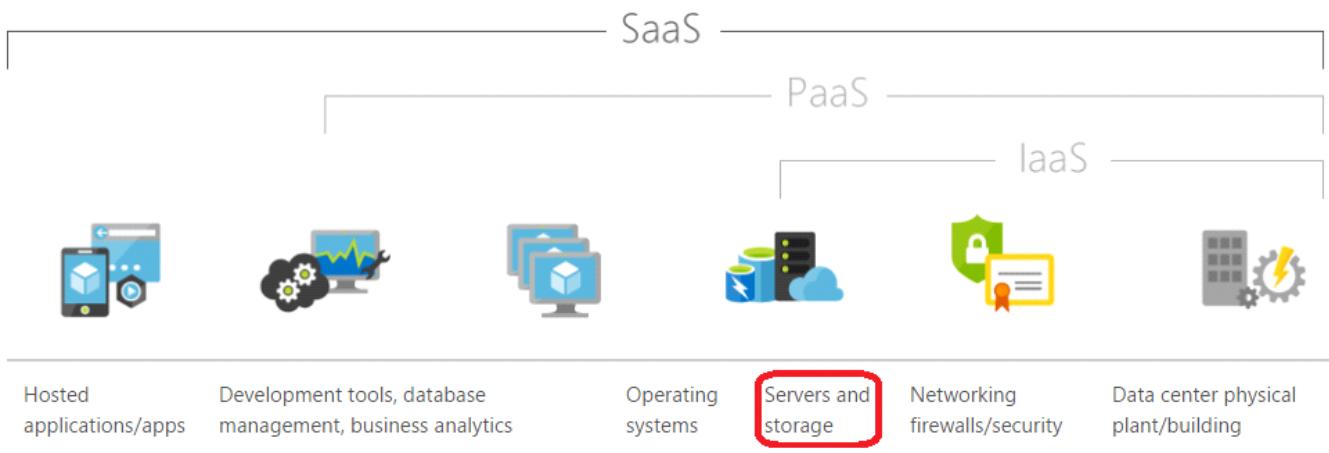
- A. PaaS
- B. IaaS
- C. Public cloud
- D. SaaS

Answer: B

Infrastructure as a service (IaaS) is an instant computing infrastructure, provisioned and managed over the Internet.

IaaS helps you avoid the expense and complexity of buying and managing your own physical servers and other datacenter infrastructure. Each resource is offered as a separate service component, and you only need to rent a particular one for as long as you need it. The cloud computing service provider manages the infrastructure, while you purchase, install, configure, and manage your own software—operating systems,

middleware, and applications.



References: <https://azure.microsoft.com/en-us/overview/what-is-iaas/>

Question: 120

A cloud usage metering scheme allows for which of the following customer chargeback alternatives?

- A. Cost allocation
- B. Cost amortization
- C. Shared cost
- D. Direct cost

Answer: D

CHARGEBACK METHODS

A range of approaches have been developed for implementing chargeback in an organization, as summarized in the figure below. The degree of complexity, degree of difficulty, and cost to implement decreases from the top of the chart [service-based pricing (SBP)], to the bottom [high-level allocation (HLA)]. HLA is the simplest method; it uses a straight division of IT costs based on a generic metric such as headcount. Slightly more effort to implement is low-level allocation (LLA), which bases consumer costs on something more related to IT activity such as the number of users or servers. Direct cost (DC) more closely resembles a time and materials charge but is often tied to headcount as well.

Figure, Methods for chargeback allocation.

METHOD	DESCRIPTION
Service Based Pricing (SBP)	Charges per a specific measured unit of service
Negotiated Flat Rate (NFR)	Charges based on a negotiated and often projected usage of a service
Tiered Flat Rate (TFR)	Charges based on providing access to a service whether the service is being used or not (fliers or bands pricing)
Measured Resource Usage (MRU)	Charges based on actual measured usage of specific IT resources (e.g., kW consumed, network bandwidth consumed, and storage consumed)
Direct Cost (DC)	Charges based on dedicated ownership of the resource (e.g., time and material based costing)
Low-level Allocation (LLA)	Charges based on simpler user metrics (e.g., user counts and server counts)
High-level Allocation (HLA)	Charges based on user size (e.g., number of employees and amount of revenue)

References: <https://journal.uptimeinstitute.com/it-chargeback-drives-efficiency/>

Question: 121

From a risk assessment perspective, which of the following is MOST important to acquire and review before a business integrates cloud computing into its existing environment?

- A. Cloud provider DRP and COOP
- B. The time to market expectation
- C. The total cost of ownership
- D. The company original RFP

Answer: A

A disaster recovery plan (DRP) - sometimes referred to as a business continuity plan (BCP) or business process contingency plan (BPCP) - describes how an organization is to deal with potential disasters.

Question: 122

Which of the following describes the commonality between cloud computing and outsourcing?

- A. Shift from CAPEX to OPEX
- B. Reduced compliance cost
- C. Simplified security management
- D. Reduced system architecture complexity.

Answer: A

"Capex vs. Opex" refers to the fact that stocking your own data center requires capital expenditure, while using an external cloud service that offers pay-as-you-go service falls into ongoing operating expenditures: thus the contrast of "Capex vs. Opex."

References: <http://www.cio.com/article/2430099/virtualization/capex-vs--opex--most-people-miss-the-point-about-cloud-economics.html>

Question: 123

Virtual Desktop Interface (VDI) will present challenges for the network administrator as they move their users to the cloud. Which of the following would be considered a major challenge?

- A. Developing a backup environment for the end user
- B. Troubleshooting the users' applications
- C. Supporting multiple devices (e.g. tablets, thin clients)
- D. Centralizing the applications

Answer: C

References: <https://msdn.microsoft.com/en-us/library/dn903170.aspx>

Question: 124

A company Chef Information Officer (CIO) who wants to ensure rapid elasticity for the company's cloud solution would MOST likely choose which of the following types of cloud?

- A. Public cloud
- B. Private community cloud
- C. Private cloud
- D. Community cloud

Answer: C

Rapid elasticity is a cloud computing term for scalable provisioning, or the ability to provide scalable services.

Software that can scale in a private cloud faces two security related issues:

References: <http://social.technet.microsoft.com/wiki/contents/articles/6810.private-cloud-security-challenges-rapid-elasticity.aspx>

Question: 125

Consumption statistics for individual cloud service offerings is used by which of the following ITIL processes?

- A. Supplier management
- B. Continuous service improvement
- C. Service level management
- D. Information security management

Answer: C

ITIL defines Service Management as “a set of specialised organisational capabilities for providing value to customers in the form of services”.

The managed service provider will intermediate between the cloud service provider and consumer, aligning the two and ensuring minimal service disruptions.

ITIL Service Level Management aims to negotiate Service Level Agreements with the customers and to design services in accordance with the agreed service level targets. Service Level Management is also responsible for ensuring that all Operational Level Agreements and Underpinning Contracts are appropriate, and to monitor and report on service levels.

References:

<https://blog.kloud.com.au/2016/04/06/consumption-based-service-management/>
http://wiki.en.it-processmaps.com/index.php/Service_Level_Management

Question: 126

An application development company is considering implementing a cloud solution to help improve time to market with new software upgrades. The existing application has been in use by customers for several years and contains a large amount of code. Which of the following types of clouds would be BEST for this company to implement?

- A. IaaS
- B. XaaS
- C. PaaS
- D. SaaS

Answer: C

Platform as a service (PaaS) is a complete development and deployment environment in the cloud, with resources that enable you to deliver everything from simple cloud-based apps to sophisticated, cloud-enabled enterprise applications. You purchase the resources you need from a cloud service provider on a pay-as-you-go basis and access them over a secure Internet connection.

Like IaaS, PaaS includes infrastructure—servers, storage, and networking—but also middleware, development tools, business intelligence (BI) services, database management systems, and more. PaaS is designed to support the complete web application lifecycle: building, testing, deploying, managing, and

updating.

PaaS allows you to avoid the expense and complexity of buying and managing software licenses, the underlying application infrastructure and middleware or the development tools and other resources. You manage the applications and services you develop, and the cloud service provider typically manages everything else.

References: <https://azure.microsoft.com/en-us/overview/what-is-paas/>

Question: 127

A critical internal IT server provisioning process is under review and the IT manager is considering moving the process to the cloud. The IT staff has selected the cloud provider and must now migrate the process. Which of the following MUST the IT staff do to ensure the transaction meets the IT manager's requirements?

- A. Pilot the process using cloud resources and perform a comprehensive test.
- B. Survey the business users and implement the solution that received the most positive feedback.
- C. Ask the server administrator to sign off and approve the implementation plan.
- D. Shift the current process to the cloud since the SLA will guarantee 99.999% availability.

Answer: A

Question: 128

One of the strategic reasons to source component technology purchases from multiple providers is to:

- A. Avoid vendor lock-in.
- B. Influence governmental organizations.
- C. Keep vendor prices down.
- D. Encourage vendor control.

Answer: A

When it comes to building applications for the cloud, John Gossman, an employee of Microsoft, thinks agility and portability are essential. "You don't want to get locked in too much to a particular vendor, strategy, technology, whatever," he says.

Likewise, he added, you aren't likely to last long if your plan is to pick a single public cloud vendor and host everything there.

References: http://www.theregister.co.uk/2014/12/06/microsoft_linux_and_the_cloud/

Question: 129

A graphic design company regularly runs out of storage space on its file servers due to the large size of its

customer artwork files. The company is considering migrating to cloud computing to solve this problem. Which of the following characteristics of cloud computing is the MOST beneficial reason the company should implement a cloud solution?

- A. Scalability
- B. Security
- C. Variable costs
- D. Hardware independence

Answer: A

Question: 130

Which of the following will allow an organization to integrate internal identity management services with a cloud provider in order to provide single sign-on across the internal and cloud-hosted environments?

- A. Virtualization
- B. Federation
- C. Role-based authentication
- D. Outsourcing

Answer: B

Azure AD supports three different ways to sign in to applications:

References: <https://azure.microsoft.com/en-us/documentation/articles/active-directory-appssoaccess-whatis/>

Question: 131

Which of the following is a potential advantage of using Storage as a Service?

- A. Data is accessible when the Internet is not functioning
- B. In-house IT staff controls all data
- C. Increase in encryption technologies
- D. Decrease in IT management of the platform

Answer: D

One advantages of SaaS is that it makes it easy to “mobilize” your workforce because users can access SaaS apps and data from any Internet-connected computer or mobile device. You don’t need to worry about developing apps to run on different types of computers and devices because the service provider has already done so. In addition, you don’t need to bring special expertise onboard to manage the security issues inherent in mobile computing. A carefully chosen service provider will ensure the security of your data, regardless of

the type of device consuming it.

References: <https://azure.microsoft.com/en-us/overview/what-is-saas/>

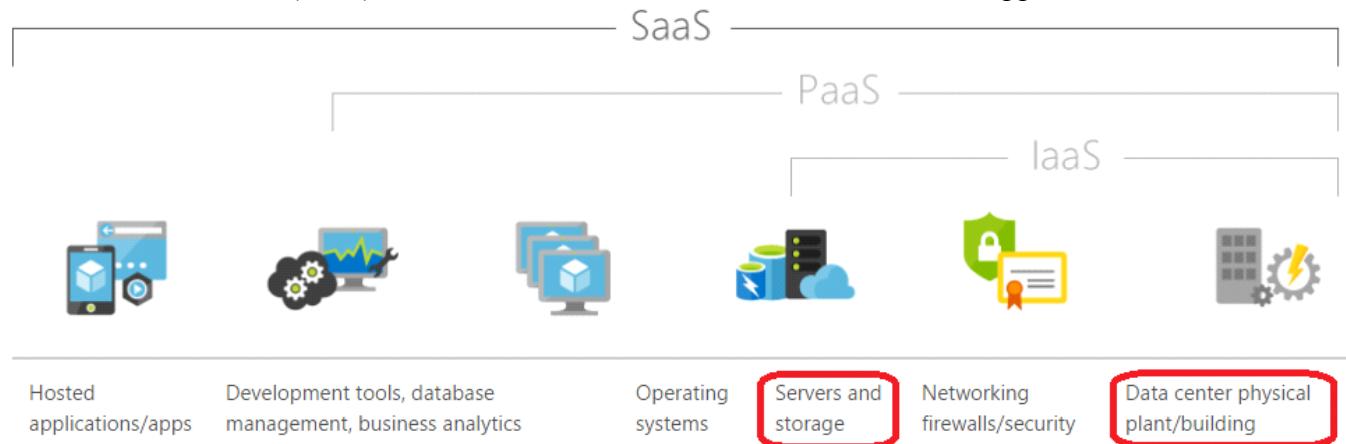
Question: 132

Which of the following describes the difference between SaaS and IaaS?

- A. SaaS defines a standard while IaaS implements the standard.
- B. SaaS enables the software developer while IaaS provides the specifications.
- C. SaaS provides applications while IaaS provides equipment.
- D. SaaS implements security while IaaS provides information.

Answer: C

Software as a service (SaaS) allows users to connect to and use cloud-based apps over the Internet.



References: <https://azure.microsoft.com/en-us/overview/what-is-saas/>

Question: 133

Locating datacenters close to target markets is the result of which of the following strategic initiatives?

- A. Geoproximity
- B. Geodiversity
- C. Geography
- D. Localization

Answer: A

Azure allows specification of geographical regions or affinity groups. Geographical regions are related to the data centers, like North Central US, South Central US, Anywhere US, East Asia, North Europe, and so on. The list of options will grow as more data centers are added.

Instead of selecting a region, it is possible to specify an affinity group. Affinity groups are hints to Azure that essentially state that everything within the group should be as close in proximity as Azure will allow. That usually means keeping items within the same data center, which besides having the benefit of geo-location, can sometimes offer performance improvements for communication.

References: <http://grellevenhagen.com/azure-geographical-location-restriction/>

Question: 134

A company regularly doubles the number of employees over the summer by hiring on temporary staff. The company currently pays the same price every month for its email software, equal to the maximum number of employees on staff who have email addresses. The company would like to only pay for the number of active email addresses and is considering migrating to a cloud solution. Which of the following characteristics of cloud computing is the MOST beneficial reason the company should implement a cloud solution?

- A. Scalability
- B. Hardware independence
- C. Variable costs
- D. Security

Answer: C

Question: 135

Which of the following is a benefit of public cloud computing?

- A. Enhances fixed expenditures for hardware and software
- B. Contributes to the quality of user input data
- C. Reduces OPEX costs for application and databases
- D. Adds flexibility and agility to enterprise architecture

Answer: D

Public cloud computing offers greater flexibility, agility, and scalability.

Question: 136

Which of the following is the cloud characteristic that speeds up development, deployment and overall time of market?

- A. Rapid elasticity
- B. Cloud bursting
- C. Universal access

D. Network pooling

Answer: A

Rapid elasticity is a cloud computing term for scalable provisioning, or the ability to provide scalable services. Experts point to this kind of scalable model as one of five fundamental aspects of cloud computing. Rapid elasticity allows users to automatically request additional space in the cloud or other types of services.

References: <https://www.techopedia.com/definition/29526/rapid-elasticity>

Question: 137

A company would like to move an application to the cloud which resides on a single physical server in their datacenter. The server has two drives, one of which hosts operating system, and the other hosts the application dat

- a. The operating system has been showing errors recently and the application data was corrupted last Friday at 4:00PM. Data is backed up every day at 1:00PM. Which of the following would be the BEST option for migrating this application to the cloud?
- A. Setup a server in the cloud, install an operating system, install the application and copy the data to the cloud server from last Friday's backup.
- B. Setup a server in the cloud, install an operating system, install and configure the application and copy the data to the cloud server from last Thursday's backup.
- C. Clone or P2V the server with both drivers to the cloud platform.
- D. Clone or P2V the server with the application to the cloud platform and copy the operating system to the cloud server.

Answer: A

Use the latest backup of the application data.

Question: 138

An existing capability is being migrated into the cloud. Capacity management issues have been noticed in the past and an exercise is being performed to calculate current and future volumes. In which of the following lifecycle phases is this likely to be performed?

- A. Operation
- B. Design
- C. Transition
- D. Strategy

Answer: C

Question: 139

An entrepreneur has decided to open an e-commerce site to complement their retail store. After researching their options, they decide that a PaaS solution will be sufficient. To reduce upfront cost, the entrepreneur intends to build the site themselves. Which of the following skill-tests will be needed?

- A. Firewall Administration
- B. Web-Server Administration
- C. Security standard development
- D. Application development

Answer: D

Platform as a service (PaaS) is a complete development and deployment environment in the cloud, with resources that enable you to deliver everything from simple cloud-based apps to sophisticated, cloud-enabled enterprise applications.

PaaS allows you to avoid the expense and complexity of buying and managing software licenses, the underlying application infrastructure and middleware or the development tools and other resources. You manage the applications and services you develop, and the cloud service provider typically manages everything else.

References: <https://azure.microsoft.com/en-us/overview/what-is-paas/>

Question: 140

An organization is planning to host a number of its critical applications in the cloud. Which of the following is the Best way to gain a broad assurance of the cloud provider's security posture?

- A. A review that includes interviewing key security stakeholders and identifying the key controls that they operate.
- B. A review that includes security policies, evidence of the controls, physical site assessments and vulnerability scanning.
- C. A review that includes the right to audit on a yearly basis and review of the security clauses in the contract.
- D. A review that includes security applications, external audits, intrusion detection and firewall policy reviews.

Answer: B

Question: 141

One major impact that cloud computing has had on the application development process is the need for greater:

- A. security
- B. speed
- C. isolation
- D. standardization

Answer: A

Question: 142

Why is it important to know the physical location for a governmental cloud based storage solution?

- A. Data stored in other countries could be accessed by the local government.
- B. Data stored in other countries could slow down application response.
- C. Data stored in other countries could impact access latency.
- D. Data stored in other countries could reduce revenue for the originating country.

Answer: A

With Azure Government all data, applications, and hardware reside in the continental United States.

References: <https://azure.microsoft.com/en-us/overview/clouds/government/>

Question: 143

Which of the following should be measured with a direct cost chargeback method?

- A. Power and cooling consumed
- B. CPU cycles used
- C. Technical staff
- D. Square footage cost of the facility

Answer: A

CHARGEBACK METHODS

A range of approaches have been developed for implementing chargeback in an organization, as summarized in the figure below. The degree of complexity, degree of difficulty, and cost to implement decreases from the top of the chart [service-based pricing (SBP)], to the bottom [high-level allocation (HLA)]. HLA is the simplest method; it uses a straight division of IT costs based on a generic metric such as headcount. Slightly more effort to implement is low-level allocation (LLA), which bases consumer costs on something more related to IT activity such as the number of users or servers. Direct cost (DC) more closely resembles a time and materials charge but is often tied to headcount as well.

References: <https://journal.uptimeinstitute.com/it-chargeback-drives-efficiency/>

Question: 144

An organization is moving web server clusters to a public IaaS cloud while keeping database servers in the company owned datacenter. The organization will continue utilizing the internal service desk to manage the application. Which of the following ITIL processes will plan the move?

- A. Release Management
- B. Incident Management
- C. Problem Management
- D. Change Management

Answer: D

Change Management is an IT service management discipline. The objective of change management in this context is to ensure that standardized methods and procedures are used for efficient and prompt handling of all changes to control IT infrastructure, in order to minimize the number and impact of any related incidents upon service.

References: [https://en.wikipedia.org/wiki/Change_management_\(ITSM\)](https://en.wikipedia.org/wiki/Change_management_(ITSM))

Question: 145

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 are administering an Azure environment for your company. You plan to deploy virtual machines (VMs) for a mobile application. You have the following requirements:

* Ensure that all VMs use the Standard D3 size.

*Ensure that at least two of the four servers must be available at all times.

*Ensure that users of the application do not experience downtime or loss of connection.

You need to configure four VMs for application development.

Solution: Create a Virtual Machine Scale Set (VMSS) that has an instance count of 4.

Does the solution meet the goal?

- A. Yes

B. No

Answer: B

Question: 146

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.

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* Ensure that all VMs use the Standard D3 size.

*Ensure that at least two of the four servers must be available at all times.

*Ensure that users of the application do not experience downtime or loss of connection.

You need to configure four VMs for application development.

Solution: You create an availability set that has two fault domains and two update domains by using the Azure portal. You create four virtual machines and assign the new availability set to each VM.

Does the solution meet the goal?

A. Yes

B. No

Answer: A

Question: 147

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.

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*Ensure that all VMs use the Standard D3 size.

*Ensure that at least two of the four servers must be available at all times.

*Ensure that users of the application do not experience downtime or loss of connection.

You need to configure four VMs for application development.

Solution: Create two resource groups by using the Azure portal. Create four VMs. Assign two VMs to the first resource group and two to the second resource group.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: A

Question: 148

You are building a ASP.NET Azure Web App that is built from source code on GitHub. Automatic deployment is used for integration testing. The web.config file has settings that are updated during development deployments by using a TransformXml MSBuild task.

The settings in the web.config must be set to specific values during integration testing.

You need to ensure that the web.config is updated when the Web App is deployed to Azure.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. In Azure, add an app setting named **SCM_BUILD_ARGS** with the value **/p:Environment=Integration**.
- B. Add the integration setting and values to the **ServiceDefinition.csdef** and **ServiceConfiguration.cscfg** files.
- C. In Azure, create a new deployment slot named **integration**.
- D. Create an XML Document Transform XDT file named **web.Integration.config** that converts the values to the integration test values.
- E. In Azure, add a tag with the key **Environment** and the value **Integration**.

Answer: CD

Question: 149

DRAG DROP

You are using Microsoft Visual Studio to develop an App Service Web App named WebApp.

The app must collect the statistics and details on the application dependencies.

You need to set up, configure, and validate monitoring using Application Insights.

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.

Actions

Upload the project and run it to generate log data.

Add Application Insights to the solution. Then, add the **Microsoft.ApplicationInsights.TraceListener** NuGet package to the project.

Start a new instance of Azure PowerShell and run the following Azure PowerShell command:
Get-AzureWebSiteLog -Name WebApp -Tail

In the Azure Portal, browse to the Application Insights resource and open **Search**.

Use the Azure Command-Line interface to run the following command:
azure site log tail WebApp

Answer Area

Answer:

Actions

Upload the project and run it to generate log data.

Add Application Insights to the solution. Then, add the **Microsoft.ApplicationInsights.TraceListener** NuGet package to the project.

Start a new instance of Azure PowerShell and run the following Azure PowerShell command:
Get-AzureWebSiteLog -Name WebApp -Tail

In the Azure Portal, browse to the Application Insights resource and open **Search**.

Use the Azure Command-Line interface to run the following command:
azure site log tail WebApp

Answer Area

Add Application Insights to the solution. Then, add the **Microsoft.ApplicationInsights.TraceListener** NuGet package to the project.

Upload the project and run it to generate log data.

In the Azure Portal, browse to the Application Insights resource and open **Search**.



References:

<https://docs.microsoft.com/en-us/azure/application-insights/app-insights-asp-net-trace-logs>

Question: 150

DRAG DROP

You plan to run SQL Server Enterprise Edition by using an Azure virtual machine (VM).

You must configure the VM to run all SQL Server high volume workloads.

You need to optimize SQL Server performance for workloads that run on the new VM.

What should you do? To answer, drag the appropriate optimization technique to the correct configuration option. Each optimization technique 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.

Optimization technique

Keep the VM in the same region and disable geo-replication.

Use Premium Storage and enable read caching for data files and TempDB.

Enable locked pages and instant file initialization for data files.

Use a DS3-series or higher-level VM.

Move the VM to a different region and enable geo-replication.

Enable autogrow and autoshrink.

Answer Area**Configuration option**

VM size

Storage

Disks

I/O

Optimization technique

Answer:

Optimization technique

- Keep the VM in the same region and disable geo-replication.
- Use Premium Storage and enable read caching for data files and TempDB.
- Enable locked pages and instant file initialization for data files.
- Use a DS3-series or higher-level VM.
- Move the VM to a different region and enable geo-replication.
- Enable autogrow and autoshrink.

Answer Area

Configuration option

VM size

Storage

Disks

I/O

Optimization technique

Use a DS3-series or higher-level VM.

Keep the VM in the same region and disable geo-replication.

Use Premium Storage and enable read caching for data files and TempDB.

Enable locked pages and instant file initialization for data files.

References:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/sql/virtual-machines-windows-sql-performance>

Question: 151

HOTSPOT

You are administering an Azure environment for your company that requires multiple virtual machines (VMs) for a production application. You have the following requirements:

*Two VMs are required for application data.

*Seven VMs are required for image processing.

*VM sizes should be set to Standard D2.

*Only two image processing servers can be rebooted at a time.

You need to configure an availability set for the image processing VMs.

How many fault domains and update domains should you implement? To answer, configure the appropriate options in the dialog box in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Availability set

Value

fault domains

	▼
1	
2	
3	

update domains

	▼
2	
3	
4	

Answer:

Answer Area

Availability set

Value

fault domains

	▼
1	
2	
3	

update domains

	▼
2	
3	
4	

References:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/manage-availability>

Question: 152**DRAG DROP**

You have six Ubuntu Linux virtual machines (VMs) that run a Hadoop cluster on Azure. All VMs were deployed by using Azure Resource Manager (ARM) templates and Azure PowerShell cmdlets. One of the VMs runs a custom web user interface that allows users to examine the processing jobs within the Hadoop cluster. You are planning a backup strategy for long-term retention and recovery that includes geo-replication.

The backup and recovery solution must be cost effective.

You need to backup all VMs.

Which five actions should you perform in sequence? To answer, move the appropriate actions from the list of actions in the answer area and arrange them in the correct order.

Actions

Select the VMs to include in the backup.

Select the appropriate backup policy.

Create a recovery services vault for each VM that has geo-redundant storage replication enabled.

Set the backup goal to **Azure and VM**.

Run and confirm that an initial backup has been completed for all VMs.

Create a backup vault for the VM backups that has geo-redundant storage replication enabled.

Create a recovery services vault for the VM backups that has locally-redundant storage replication enabled.

Create a recovery services vault for the VM backups that has geo-redundant storage replication enabled.

Answer Area

Answer:

Actions

- Select the VMs to include in the backup.
- Select the appropriate backup policy.
- Create a recovery services vault for each VM that has geo-redundant storage replication enabled.
- Set the backup goal to **Azure and VM**.**
- Run and confirm that an initial backup has been completed for all VMs.
- Create a backup vault for the VM backups that has geo-redundant storage replication enabled.
- Create a recovery services vault for the VM backups that has locally-redundant storage replication enabled.
- Create a recovery services vault for the VM backups that has geo-redundant storage replication enabled.

Answer Area

Create a recovery services vault for the VM backups that has geo-redundant storage replication enabled.

Set the backup goal to **Azure and VM**.

Select the appropriate backup policy.



Select the VMs to include in the backup.

Run and confirm that an initial backup has been completed for all VMs.



Question: 153

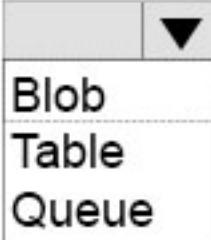
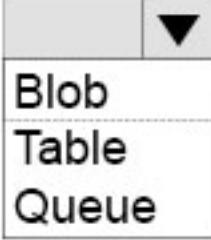
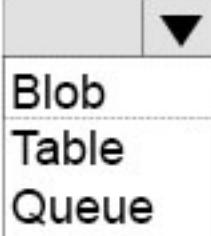
HOTSPOT

You administer an Azure environment that contains multiple virtual machines (VMs).

You need to view and retrieve diagnostic logs for all VMs.

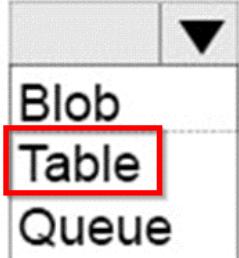
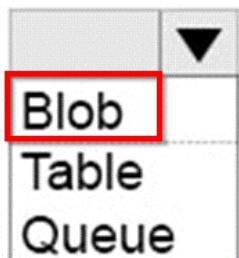
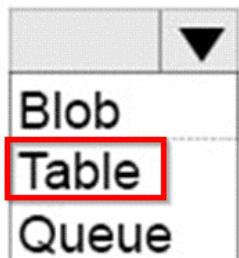
Which storage type should you use for each data source? To answer, select the appropriate options in the answer area.

Answer Area

Data source	Storage type
Azure logs	 Blob Table Queue
IIS 7.0 logs	 Blob Table Queue
Windows Event logs	 Blob Table Queue

Answer:

Answer Area

Data source	Storage type
Azure logs	 Blob Table Queue
IIS 7.0 logs	 Blob Table Queue
Windows Event logs	 Blob Table Queue

References:

<https://docs.microsoft.com/en-us/azure/cloud-services/cloud-services-dotnet-diagnostics-storage>

Question: 154

HOTSPOT

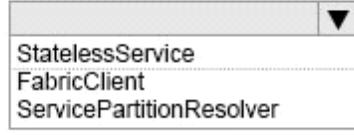
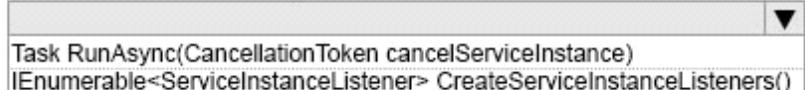
You deploy a cloud service that reads and processes orders from a queue by using a worker role. The service includes a C# class named OrderProcessor.

Your organization is moving all Azure resources to use Azure Resource Manager (ARM) templates. You must migrate the code to Service Fabric. You establish a new Service Fabric cluster to deploy the updated code. You migrate all settings from the ServiceConfiguration.cscfg to a new Settings.xml file that each Service Fabric instance will use.

You need to update the code for the OrderProcessor class.

How should you complete the code segment? To answer, select the appropriate options in the answer area.

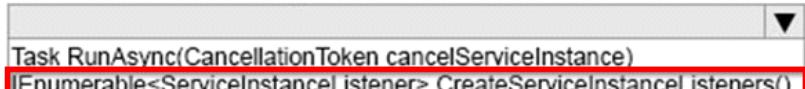
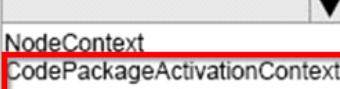
```

namespace WideWorldImportersOrderProcessor
{
    public class OrderProcessor:
        
    {
        private CloudQueue ordersQueue;
        private CloudBlobContainer ordersBlobContainer;
        private DbContext ordersDatabaseContext;
        protected override
        {
            
            ConfigurationPackage configPackage = this.Context.
                
                .GetConfigurationPackageObject ("Config");
            NodeContext
            CodePackageActivationContext
            KeyedCollection<string, ConfigurationProperty> parameters =
                configPackage. Settings.Sections ["MyConfigSection"].Parameters;
            string databaseConnectionString = parameters["OrdersDatabaseConnection"]?.Value;
            ordersDatabaseContext = GetOrdersDatabaseContext(databaseConnectionString);
            ordersBlobContainer = GetOrdersBlobStorageContainerReference();
            ordersQueue = GetOrdersQueueReference();
            ProcessOrders ();
        }
    }
}

```

Answer:

```

namespace WideWorldImportersOrderProcessor
{
    public class OrderProcessor:
        
    {
        private CloudQueue ordersQueue;
        private CloudBlobContainer ordersBlobContainer;
        private DbContext ordersDatabaseContext;
        protected override
        {
            
            ConfigurationPackage configPackage = this.Context.
                
                .GetConfigurationPackageObject ("Config");
            NodeContext
            CodePackageActivationContext
            KeyedCollection<string, ConfigurationProperty> parameters =
                configPackage. Settings.Sections ["MyConfigSection"].Parameters;
            string databaseConnectionString = parameters["OrdersDatabaseConnection"]?.Value;
            ordersDatabaseContext = GetOrdersDatabaseContext(databaseConnectionString);
            ordersBlobContainer = GetOrdersBlobStorageContainerReference();
            ordersQueue = GetOrdersQueueReference();
            ProcessOrders ();
        }
    }
}

```

References:

<https://docs.microsoft.com/en-us/azure/service-fabric/service-fabric-cloud-services-migration-worker-role-stateless-service>

Question: 155

You have an existing virtual network with a gateway that is deployed to Azure. You delete all objects that are deployed to the virtual network.

You use the Azure portal to delete the virtual network, but the deletion fails.

You need to determine the cause of the error.

What should you do first?

- A. Delete any local network settings and DNS servers.
- B. Save all settings.
- C. Delete all point-to site virtual private network connections.
- D. Delete the virtual network gateway.

Answer: D

Question: 156

You have an on-premises Windows Identity Foundation (WIF) application. A section of the application uses resources that are hosted in Azure. The application uses Azure Active Directory (Azure AD) to control access to the section of the application that accesses Azure resources. You synchronize all user principals to Azure Active Directory.

The application has the following requirements:

*Use Windows integrated credentials for single sign-on (SSO).

*Use Azure Active Directory as an identity provider.

You need to create an endpoint to use for web sign-in to the secured section of the application.

Which endpoint should you use?

- A. SAML-P
- B. OAuth
- C. Azure AD Graph API

D. WS-Federation

Answer: D

Question: 157**DRAG DROP**

You plan to connect a customer's on-premises infrastructure to Azure. You have several connections available.

You have the following requirements:

- * All connections must be secure.
- * All on-premises solutions must support hybrid functionality.

You need to recommend connectivity solutions.

Which solutions should you recommend? To answer, drag the appropriate connection strategy to the correct connection. Each connection strategy 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.

Connection strategies

Existing WAN network
Windows built-in virtual private network (VPN) client
Industry standard IPsec virtual private network (VPN)
External-facing IPv6 address

Answer Area

Secure cross-premises connection	Connection strategy
Site-to-site VPN	Connection strategy
Point-to-site VPN	Connection strategy
Azure ExpressRoute	Connection strategy

Answer:

Connection strategies

- Existing WAN network
- Windows built-in virtual private network (VPN) client
- Industry standard IPsec virtual private network (VPN)
- External-facing IPv6 address

Answer Area

Secure cross-premises connection	Connection strategy
Site-to-site VPN	Industry standard IPsec virtual private network (VPN)
Point-to-site VPN	Windows built-in virtual private network (VPN) client
Azure ExpressRoute	Existing WAN network

Question: 158**DRAG DROP**

You are developer working on a project that will be deployed to Azure. The project includes a local SQL Server database.

You need to migrate the database to Azure SQL.

How should you complete the code segment? To answer, drag the appropriate code segment to the correct location or 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.

Code segment

sqlpackage.exe

dtexec.exe

Start-AzureSqlDatabaseImport

Start-AzureSqlDatabaseRestore

db.bacpac

db.mdf

Answer Area

/a:Export
 /ssn:devsql
 /sdn:proddb
 /tf:C:\Temp\

azure storage blob upload C:\Temp\db.bacpac db db.bacpac
 \$ctx = New-AzureSqlDatabaseServerContext -ServerName \$ServerName -Credential \$credential

-SqlConnectionContext \$ctx
 -StorageContainer db
 -DatabaseName proddb
 -BlobName

Answer:

Code segment	Answer Area
sqlpackage.exe	sqlpackage.exe
dtxexec.exe	/a:Export /ssn:devsql /sdn:proddb /tf:C:\Temp\
Start-AzureSqlDatabaseImport	db.bacpac
Start-AzureSqlDatabaseRestore	azure storage blob upload C:\Temp\db.bacpac db db.bacpac \$ctx = New-AzureSqlDatabaseServerContext -ServerName \$ServerName -Credential \$credential
db.bacpac	Start-AzureSqlDatabaseImport
db.mdf	-SqlConnectionContext \$ctx -StorageContainer db -DatabaseName proddb -BlobName
	db.bacpac

Question: 159

Which of the following is not true about metadata? (Choose TWO)

- A. Both containers and blobs have writable system properties.
- B. Blob user-defined metadata is accessed as a key value pair.
- C. System metadata can influence how the blog is stored and accessed in Azure Storage.
- D. Only blobs have metadata; containers do not.

Answer: AD**Question: 160**

Which of the following are valid differences between page blobs and block blobs? (Choose TWO)

- A. Page blobs are much faster for all operations.
- B. Block blobs allow files to be uploaded and assembled later. Blocks can be resubmitted individually.
- C. Page blobs are good for all sorts of files, like video and images.
- D. Block blobs have a max size of 200 GB. Page blobs can be 1 terabyte.

Answer: BD**Question: 161**

What are good recommendations for securing files in Blob storage? (Choose Three)

- A. Always use SSL.
- B. Keep your primary and secondary keys hidden and don't give them out.
- C. In your application, store them someplace that isn't embedded in client-side code that users can see.

- D. Make the container publicly available.

Answer: ABC

Question: 162

Which of the following is not a method for replicating a Table storage account?

- A. Transactional replication
- B. Zone redundant storage
- C. Read access geo-redundant storage
- D. Geo-redundant storage

Answer: A

Question: 163

How should you choose a good partition key for a Table storage implementation? (Choose two.)

- A. They should always be unique, like a primary key in a SQL table.
- B. You should always use the same partition key for all records.
- C. Think about how you're likely to update the data using batch transactions.
- D. Find an even way to split them so that you have relatively even partition sizes.

Answer: CD

Question: 164

Which of the following statements are correct for submitting operations in a batch? (Choose three.)

- A. All operations have to be in the same partition.
- B. Total batch size can't be greater than 4 MB.
- C. Max operation count is 100.
- D. Minimum operation count is three

Answer: ABC

Question: 165

Which of the following statement are true about queuing messages?

- A. Storage queue messages have no size restrictions. The reason for using smaller messages sizes is to increase

- throughput to the queue.
- B. Storage queue messages are limited to 64 KB.
 - C. Storage queue messages are durable.
 - D. The client application should save the message identifier returned after adding a message to a queue for later use.

Answer: B

Question: 166

Which of the following are valid options for processing queue messages? (Choose Two.)

- A. A single compute instance can process only one message at a time.
- B. A single compute instance can process up to 31 messages at a time.
- C. A single compute instance can retrieve up to 32 messages at a time.
- D. Messages can be read one at a time or in batches of up to 32 messages at a time.
- E. Messages are deleted as soon as they are read.

Answer: CD

Question: 167

Which of the following are valid options for scaling queues? (Choose three.)

- A. Distributing messages across multiple queues
- B. Automatically scaling websites based on queue metrics
- C. Automatically scaling VMs based on queue metrics
- D. Automatically scaling cloud services based on queue metrics

Answer: ACD

Question: 168

Which of the following are true regarding supported operations granted with an SAS token? (Choose three.)

- A. You can grant read access to existing blobs.
- B. You can create new blob containers.
- C. You can add, update, and delete queue messages.
- D. You can add, update, and delete table entities.
- E. You can query table entities.

Answer: ACDE

Question: 169

Which of the following statements are true of stored access policies? (Choose Two.)

- A. You can modify the start or expiration date for access.
- B. You can revoke access at any point in time.
- C. You can modify permissions to remove or add supported operations.
- D. You can add to the list of resources accessible by an SAS token.

Answer: ABC

Question: 170

Which of the following statements are true of CORS support for storage? (Choose Two.)

- A. It is recommended you enable CORS so that browsers can access blobs.
- B. To protect CORS access to blobs from the browser, you should generate SAS tokens to secure blob requests.
- C. CORS is supported only for Blob storage.
- D. CORS is disabled by default.

Answer: BD

Question: 171

Which statement is true of Storage Analytics Metrics?

- A. Capacity metrics are recorded only for blobs.
- B. You can set hourly or by minute metrics through the management portal.
- C. By default, metrics are retained for one year.
- D. If you disable metrics, existing metrics are deleted from storage.

Answer: A

Question: 172

Which statements are true of Storage Analytics Logging? (Choose Two.)

- A. Logs are stored in the same storage account where they are enabled and are measured as part of your storage quota.
- B. Logs can have duplicate entries.
- C. Logs cannot be deleted.
- D. You can log all read, write, and delete requests to blobs, queues, and tables in a storage account.

Answer: BD

Question: 173

Which of the following are captured by Storage Analytics Logging? (Choose Two.)

- A. Successful requests for authenticated calls only
- B. Failed requests for authenticated calls only
- C. Server errors
- D. Requests using SAS URIs.

Answer: CD

Question: 174

Which of the following is not a requirement for creating an online secondary for SQL Database?

- A. The secondary database must have the same name as the primary.
- B. They must be on separate servers.
- C. They both must be on the different subscription.
- D. The secondary server cannot be a lower performance tier than the primary.

Answer: D

Question: 175

Which metrics should you add to monitoring that will help you select the appropriate level of SQL Database? (Choose three)

- A. CPU Processor Count
- B. CPU Percentage
- C. Physical Data Reads Percentage
- D. Log Writes Percentage

Answer: BCD

Question: 176

From what you know about SQL Database architecture, what should you include in your client application code? (Choose three)

- A. Connection resiliency, because you could failover to a replica.

- B. Transaction resiliency so you can resubmit a transaction in the event of a failover.
- C. Query auditing so you can baseline your current query times and know when to scale up the instance.
- D. A backup and restore operation for the database.

Answer: ABC

Question: 177

DRAG DROP

Your company has a main office and several branch offices.

You create an Azure subscription and you deploy several virtual machines. The virtual machines are located in multiple subnets.

You need to provide remote access to the virtual machines to five users in each office by using a VPN connection. The remote access connections will not require a VPN device nor a public-facing IP address in order to work.

Which three actions should you perform in sequence before you download the VPN client on each computer? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Create a site-to-site VPN.

Generate a self-signed root certificate and upload the certificate to Azure.

Create a point-to-site VPN.

Generate a self-signed computer certificate for each client computer and install the respective certificate on each client computer.

Deploy a VPN appliance to each office and download a configuration script for each appliance.

Generate a self-signed root certificate and install the certificate on each client computer.

Answer Area



Answer:

Actions

Create a site-to-site VPN.

Generate a self-signed root certificate and upload the certificate to Azure.

Create a point-to-site VPN.

Generate a self-signed computer certificate for each client computer and install the respective certificate on each client computer.

Deploy a VPN appliance to each office and download a configuration script for each appliance.

Generate a self-signed root certificate and install the certificate on each client computer.

Answer Area

Generate a self-signed root certificate and upload the certificate to Azure.

Generate a self-signed computer certificate for each client computer and install the respective certificate on each client computer.

Create a point-to-site VPN.

**Question: 178****DRAG DROP**

Your company is implementing an Intrusion Detection System (IDS). The IDS has the IP address 192.168.3.92. You plan to deploy the network by using Azure Resource Manager (ARM).

You need to ensure that all subnet traffic goes through the IDS.

How should you complete the JSON configuration code? To answer, drag the appropriate JSON segments to the correct location or locations. Each JSON 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.

- "Microsoft.Network/virtualNetworks"
- "Microsoft.Network/routeTables"
- "Microsoft.Network/networkSecurityGroups"
- "VirtualAppliance"
- "VirtualNetworkGateway"
- "Internet"

• • • •

Answer Area

```
{
  "type" : [REDACTED],
  "name" : "IDS",
  "apiVersion" : "2015-06-15",
  "location" : "East US",
  "properties" : {
    "routes" : [
      {
        "name" : "IDSRT",
        "properties" : {
          "addressPrefix" : "192.168.0",
          "nextHopType" : [REDACTED],
          "nextHopIpAddress" : "192.168.3.92"
        }
      }
    ]
  }
}
```

Answer:

"Microsoft.Network/virtualNetworks"

"Microsoft.Network/routeTables"

"Microsoft.Network/networkSecurityGroups"

"VirtualAppliance"

"VirtualNetworkGateway"

"Internet"

• • • •

Answer Area

```
{
  "type" : "Microsoft.Network/routeTables"
  "name" : "IDS",
  "apiVersion" : "2015-06-15",
  "location" : "East US",
  "properties" : {
    "routes" : [
      {
        "name" : "IDSRT",
        "properties" : {
          "addressPrefix" : "192.168.0."
          "nextHopType" : "VirtualAppliance"
        }
        "nextHopIpAddress" : "192.168.3.92"
      }
    ]
  }
}
```

Question: 179

DRAG DROP

You have an Azure Virtual Network named fabVNet with three subnets named Subnet-1, Subnet-2 and Subnet-3. You have a virtual machine (VM) named fabVM running in the fabProd service.

You need to modify fabVM to be deployed into Subnet-3. You want to achieve this goal by using the least amount of time and while causing the least amount of disruption to the existing deployment.

What should you do? To answer, drag the appropriate Power Shell cmdlet to the correct location in the

Power Shell command. Each cmdlet 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.

PowerShell cmdlets	PowerShell Command
Get-AzureRmVM	\$VM = <input type="text"/> PowerShell cmdlet "fabProd" "fabVM"
Get-AzureRmVMIImage	<input type="text"/> PowerShell cmdlet "Subnet-3" -VM \$VM
Set-AzureSubnet	<input type="text"/> PowerShell cmdlet "fabProd" "fabVM" -VM \$VM
Update-AzureRmVm	
New-AzureVRmM	
Set-AzureVNetConfig	
Update-AzureVRmImage	

Answer:

PowerShell cmdlets	PowerShell Command
Get-AzureRmVM	\$VM = Get-AzureRmVM "fabProd" "fabVM"
Get-AzureRmVMIImage	<input type="text"/> Set-AzureSubnet "Subnet-3" -VM \$VM
Set-AzureSubnet	<input type="text"/> Update-AzureRmVm "fabProd" "fabVM" -VM \$VM
Update-AzureRmVm	
New-AzureVRmM	
Set-AzureVNetConfig	
Update-AzureVRmImage	

Question: 180

You manage the on-premises and cloud for a company. Employees use Microsoft Office 365 to collaborate and manage product development. They authenticate to Azure Active Directory (Azure AD) to access all on-premises and cloud-based resources.

You must grant employees access to several custom-built applications.

You need to ensure that you can automatically add or remove employee access to Office 365 based on employee group memberships or attributes.

What should you use?

- A. Active Directory Configuration
- B. Advanced Rules for an Active Directory Group.
- C. Application Access to Active Directory
- D. The Users group in Active Directory

Answer: B

Explanation:

Question: 181

You have an Azure subscription.

You create an Azure Active Directory (Azure AD) tenant named Tenant1.

You plan to integrate Tenant1 and the on-premises Active Directory.

You need to create a user account that can be used to synchronize changes from the on-premises Active Directory. The solution must use the principle of least privilege.

Which organizational role should you assign to the user account?

- A. Service administrator
- B. Global administrator
- C. Password administrator
- D. User administrator

Answer: B

Question: 182

You manage Azure Web Apps for a company. You migrate an on-premises web app to Azure. You plan to update the Azure Web App by modifying the connection string and updating the files that have changed since previous revision.

The deployment process must use Secure Socket Layer (SSL) and occur during off-peak hours as an automated batch process.

You need to update the Azure Web App.

What should you do?

- A. Configure a File Transfer Protocol (FTP) transfer script.
- B. Deploy the project from Microsoft Visual Studio.
- C. Run theNew-AzureRMWebAppAzure PowerShell cmdlet.

D. Run the New-AzureRmResourceGroupDeploymentAzure PowerShell cmdlet.

Answer: D

Explanation:

Question: 183

You manage an on-premises monitoring platform. You plan to deploy virtual machines (VMs) in Azure. You must use existing on-premises monitoring solutions for Azure VMs. You must maximize security for any communication between Azure and the on-premises environment. You need to ensure that Azure alerts are sent to the on-premises solution. What should you do?

- A. Enable App Service Authentication for the VMs.
- B. Configure a basic authorization webhook.
- C. Deploy an HDInsight cluster.
- D. Configure a token-based authorization webhook.

Answer: D

Explanation:

Question: 184

You administer an Azure subscription for your company.

You have an application that updates text files frequently. The text files will not exceed 20 gigabytes (GB) in size. Each write operation must not exceed 4 megabytes (MB).

You need to allocate storage in Azure for the application.

Which three storage types will achieve the goal? Each correct answer presents a complete solution.

- A. page blob
- B. queue
- C. append blob
- D. block blob
- E. file share

Answer: A,C,D

Explanation:

Question: 185

You have an existing classic virtual network.

You need to export the virtual network settings to an XML file to make modifications.

Which Azure PowerShell cmdlet should you use?

- A. Get-AzureVNetSite
- B. Get-AzureVNetConnection
- C. Get-AzureVNetGateway
- D. Get-AzureVNetConfig

Answer: D

Question: 186

You are migrating a local virtual machine (VM) to an Azure VM. You upload the virtual hard disk (VHD) file to Azure Blob storage as a Block Blob.

You need to change the Block blob to a page blob.

What should you do?

- A. Delete the Block Blob and re-upload the VHD as a page blob.
- B. Update the type of the blob programmatically by using the Azure Storage .NET SDK.
- C. Update the metadata of the current blob and set the Blob-Type key to Page.
- D. Create a new empty page blob and use the Azure Blob Copy Power Shell cmdlet to copy the current data to the new blob.

Answer: A

Explanation:

* To copy the data files to Windows Azure Storage by using one of the following methods: AzCopy Tool, Put Blob (REST API) and Put Page (REST API), or Windows Azure Storage Client Library for .NET or a third-party storage explorer tool.

Important: When using this new enhancement, always make sure that you create a page blob not a block blob.

* Azure has two main files storage format:

References:

<http://msdn.microsoft.com/en-us/library/dn466429.aspx>

Question: 187

You administer a Microsoft Azure SQL Database data base in the US Central region named contosodb.

Contosodb runs on a Standard tier within the S1 performance level.

You have multiple business-critical applications that use contosodb.

You need to ensure that you can bring contosodb back online in the event of a natural disaster in the US Central region. You want to achieve this goal with the least amount of downtime.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Upgrade to S2 performance level.
- B. Use active geo-replication.
- C. Use automated Export.
- D. Upgrade to Premium tier.
- E. Use point in time restore.
- F. Downgrade to Basic tier.

Answer: B,D

Question: 188

You plan to use Password Sync on your DirSync Server with Azure Active Directory (Azure AD) on your company network. You configure the DirSync server and complete an initial synchronization of the users. Several remote users are unable to log in to Office 365. You discover multiple event log entries for "Event ID 611 Password synchronization failed for domain."

You need to resolve the password synchronization issue.

Which two actions should you perform? Each correct answer presents part of the solution.

- A. Restart Azure AD Sync Service.
- B. Run the Set-FullPasswordSync Power Shell cmdlet.
- C. Force a manual synchronization on the DirSync server.
- D. Add the DirSync service account to the Schema Admins domain group.

Answer: A,B

Explanation:

The Set-FullPasswordSync Power Shell cmdlet resets the password sync state information forcing a full sync the next time the service is restarted. Then we need to restart the service to initiate the sync.

Question: 189

You administer an Access Control Service namespace named contosoACS that is used by a web application. ContosoACS currently utilizes Microsoft and Yahoo accounts.

Several users in your organization have Google accounts and would like to access the web application through ContosoACS.

You need to allow users to access the application by using their Google accounts.

What should you do?

- A. Register the application directly with Google.
- B. Edit the existing Microsoft Account identity provider and update the realm to include Google.
- C. Add a new Google identity provider.
- D. Add a new WS-Federation identity provider and configure the WS-Federation metadata to point to the Google sign-in URL.

Answer: C

Explanation:

Configuring Google as an identity provider eliminates the need to create and manage authentication and identity management mechanism. It helps the end user experience if there are familiar authentication procedures.

References:

<http://msdn.microsoft.com/en-us/library/azure/gg185976.aspx>

Question: 190

You publish an application named MyApp to Azure Active Directory (Azure AD). You grant access to the web APIs through OAuth 2.0.

MyApp is generating numerous user consent prompts.

You need to reduce the amount of user consent prompts.

What should you do?

- A. Enable Multi-resource refresh tokens.
- B. Enable WS-federation access tokens.
- C. Configure the Open Web Interface for .NET.
- D. Configure SAML 2.0.

Answer: A

Explanation:

When using the Authorization Code Grant Flow, you can configure the client to call multiple resources. Typically, this would require a call to the authorization endpoint for each target service. To avoid multiple calls and multiple user consent prompts, and reduce the number of refresh tokens the client needs to cache, Azure Active Directory (Azure AD) has implemented multi-resource refresh tokens. This feature allows you to use a single refresh token to request access tokens for multiple resources.

References: <https://msdn.microsoft.com/en-us/library/azure/dn645538.aspx>

Question: 191

Your company network includes users in multiple directories.

You plan to publish a software-as-a-service application named SaaSApp1 to Azure Active Directory.

You need to ensure that all users can access SaaSApp1.

What should you do?

- A. Configure the Federation Metadata URL
- B. Register the application as a web application.
- C. Configure the application as a multi-tenant.
- D. Register the application as a native client application.

Answer: C

Question: 192

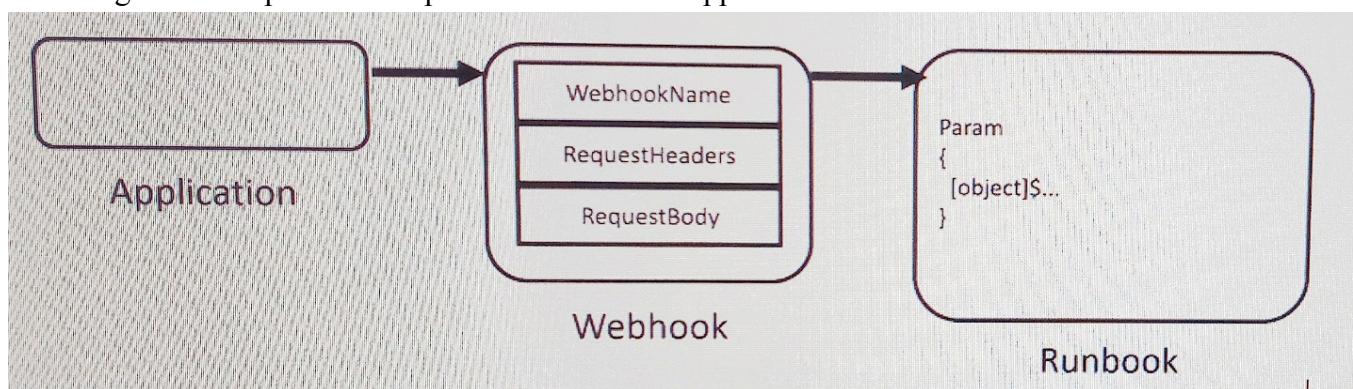
HOTSPOT

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 are developing an Azure application.

The image below represents the process flow for the application.



What should you use? To answer, select the appropriate options in the answer area.

Each correct selection is worth one point.

Answer Area

Action

Solution

Trigger the webhook.

Azure Alert
HTTP GET
HTTP POST

Select the webhook object for passing data to the runbook.

WebhookName
RequestHeaders
RequestBody

Select the object type to use as parameters in the runbook.

Webhook
Request
Webhook Data
Response

Answer:

Trigger the webhook.

Azure Alert
HTTP GET
HTTP POST

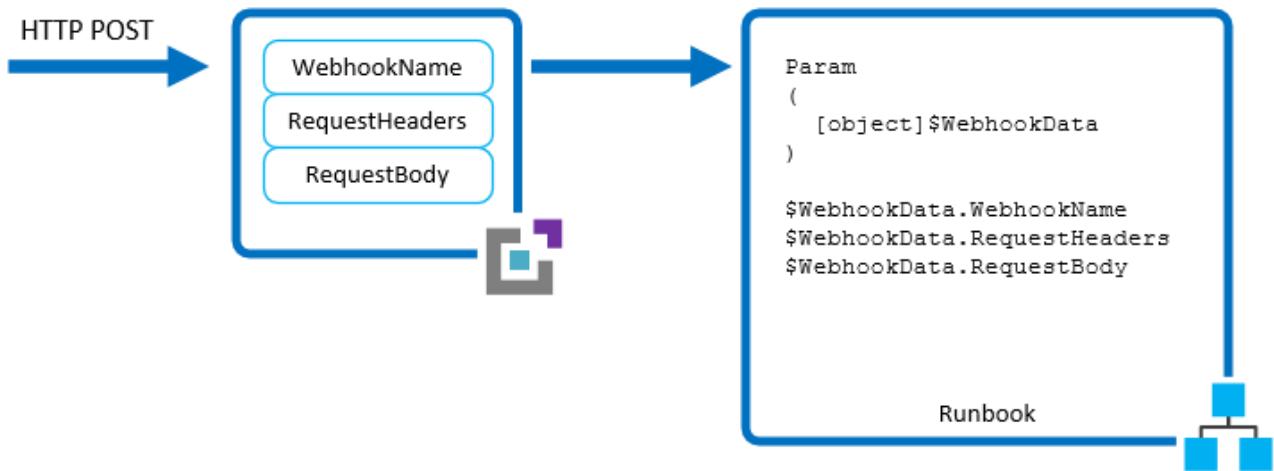
Select the webhook object for passing data to the runbook.

WebhookName
RequestHeaders
RequestBody

Select the object type to use as parameters in the runbook.

Webhook
Request
Webhook Data
Response

A webhook allows you to start a particular runbook in Azure Automation through a single HTTP request.



Box 1: HTTP Post

To use a webhook after it has been created, your client application must issue an HTTP POST with the URL for the webhook.

Box 2: RequestHeaders

Box 3: WebhookData

When a client starts a runbook using a webhook, it cannot override the parameter values defined in the

webhook. To receive data from the client, the runbook can accept a single parameter called \$WebhookData of type [object] that will contain data that the client includes in the POST request.

The \$WebhookData object will have the following properties:

References: <https://docs.microsoft.com/en-us/azure/automation/automation-webhooks>

Question: 193

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After you answer a question in this sections, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You have a web app that is deployed to Azure.

You need to download a compressed collection of the diagnostic logs.

What should you use?

- A. Azure PowerShell
- B. File Transfer Protocol (FTP)
- C. Application Insights
- D. Microsoft Visual Studio

Answer: A

Explanation:

Diagnostic information stored to the web app file system can be accessed directly using FTP. It can also be downloaded as a Zip archive using Azure PowerShell or the Azure Command-Line Interface.

References: <https://docs.microsoft.com/en-us/azure/app-service/web-sites-enable-diagnostic-log#download>

Question: 194

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 sections, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You administer an Azure environment that includes six Azure Resource Manager (ARM) virtual machines (VMs) that support development. The development team uses Azure SQL databases and Azure Queues for application storage. All Azure resources are grouped within a single subscription and resource group.

You need to reduce the recurring monthly Azure costs without degrading server performance. You must minimize the administrative effort involved.

What should you do?

- A. Configure an auto-shutdown schedule for each VM by using the Azure Portal.
- B. Update the development environment to use Azure Table storage.

- C. Create an Azure Automation runbook that compresses unused virtual hard disk (VHD) files daily.
- D. Create an Azure PowerShell script that backs up and deprovisions all Azure SQL databases daily.

Answer: A

Explanation:

You can set any ARM-based Virtual Machines to auto-shutdown with a few simple clicks. This was a feature originally available only to VMs in Azure Dev/Test Labs: your self-service sandbox environment in Azure to quickly create Dev/Test environments while minimizing waste and controlling costs. In case you haven't heard it before, the goal for this service is to solve the problems that IT and development teams have been facing: delays in getting a working environment, time-consuming environment configuration, production fidelity issues, and high maintenance cost. It has been helping our customers to quickly get "ready to test" with a worry-free self-service environment.

References: <https://azure.microsoft.com/en-us/blog/announcing-auto-shutdown-for-vms-using-azure-resource-manager/>

Question: 195

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 an enterprise application that will be used only by the employees of a company. The application is not Internet-facing. You deploy instances of the application to Azure datacenters on two continents.

You must implement a load balancing solution that meets the following requirements:

- Provide network-level distribution of traffic across all instances of the application.
- Support HTTP and HTTPS protocols.
- Manage all inbound and outbound connections.

Any back-end virtual machine (VM) must be able to service requests from the same user or client session.

Solution: You implement Application Gateway.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Traffic Manager is also needed. It allows you to control the distribution of user traffic for service endpoints in different datacenters

References: <https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

Question: 196

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.

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- Support HTTP and HTTPS protocols.
- Manage all inbound and outbound connections.

Any back-end virtual machine (VM) must be able to service requests from the same user or client session.

Solution: You implement Traffic Manager and Application Gateway.

Does the solution meet the goal?

A. Yes

B. No

Answer: A

Explanation:

Application Gateway works at the application layer (Layer 7 in the OSI network reference stack). It acts as a reverse-proxy service, terminating the client connection and forwarding requests to back-end endpoints. It supports the HTTP, HTTPS, and WebSockets protocols.

Application Gateway is useful for applications that require requests from the same user/client session to reach the same back-end virtual machine. Examples of these applications would be shopping cart applications and web mail servers.

Traffic Manager works at the DNS level. It uses DNS responses to direct end-user traffic to globally distributed endpoints. Clients then connect to those endpoints directly.

Microsoft Azure Traffic Manager allows you to control the distribution of user traffic for service endpoints in different datacenters

References: <https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

Question: 197

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.

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- Support HTTP and HTTPS protocols.
- Manage all inbound and outbound connections.

Any back-end virtual machine (VM) must be able to service requests from the same user or client session.

Solution: You implement Traffic Manager.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

A Traffic Manager works at the DNS level. It uses DNS responses to direct end-user traffic to globally distributed endpoints. Clients then connect to those endpoints directly.

An application manager, which works at the Application level (Layer 7), is also required.

References: <https://docs.microsoft.com/en-us/azure/application-gateway/application-gateway-introduction>

Question: 198

You are developing an Azure-hosted application that processes request messages for multiple office locations. You create an Azure Service Bus topic named Requests. The topic has a maximum size of 5 gigabytes (GB) and a default message time to live (TTL) of 5 minutes. You also create subscriptions named PriorityRequest and StandardRequest and include appropriate logic to route the messages.

Users report that the application has not processed messages from PriorityRequest in several days.

You need to retrieve the number of messages in the PriorityRequest subscription.

Which metric Should you use?

- A. Subscription Length
- B. Subscription Incoming Requests
- C. **Topic** Incoming Messages
- D. **Topic** Size

Answer: D

Question: 199

DRAG DROP

You are developing a business-to-business (B2B) solution by using an Azure Logic App. You plan to use the Enterprise Integration Pack to allow the exchange of the X12 industry standard message format within your Logic App workflow. You start by creating a new Azure Resource Manager (ARM) resource group and Azure App Service plan.

You need to create the B2B solution.

Which four 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.

Actions**Answer area**

- Call the function from the Logic App by using an HTTP trigger.
- Create an integration account and the Logic App in the Azure Portal.
- Create the Azure Function app.
- Add a new function in the Azure Function app.
- Add partners, schemas, certificates, maps, and agreements.
- In your Logic App, use the partners, schemas, certificates, maps, and agreements.
- Link the Logic App to the integration account.

**Answer:****Actions****Answer area**

- Call the function from the Logic App by using an HTTP trigger.
- Create an integration account and the Logic App in the Azure Portal.
- Create the Azure Function app.
- Add a new function in the Azure Function app.
- Add partners, schemas, certificates, maps, and agreements.
- In your Logic App, use the partners, schemas, certificates, maps, and agreements.
- Link the Logic App to the integration account.

**Question: 200**

You develop an Azure App Service Mobile App.

The Azure App Service must use Twitter as an authentication provider. You start by registering your application with Twitter.

You need to update your app's authentication and authorization in the Azure Portal.

Which two values should you provide? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. API Key
- B. Azure Active Directory (Azure AD) Bearer Token
- C. JSON Web Token (JWT)
- D. API Secret
- E. Mobile App gateway URL

Answer: A,D

Question: 201

HOTSPOT

You plan to migrate an Azure Web App named Contoso from an App Service plan named AppServicePlan1 to another App Service plan. You create a resource group named ContosoGroup.

You create the following Azure PowerShell script. Line numbers are included for reference only.

```
01 $AppServicePlan = @{"serverfarm" = "AppServicePlan2"}  
02 Set-AzureResource –name Contoso –ResourceGroupName ContosoGroup –ResourceType  
Microsoft.Web/sites ~  
    -apiversion 2014-04-01 –PropertyObject $AppServicePlan  
03 Get-AzureResource –name Contoso –ResourceGroupName ContosoGroup –ResourceType  
Microsoft.Web/sites ~  
    -apiversion 2014-04-01
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Answer Area

	Yes	No
The command in line 01 defines a variable that stores a hash table.	<input type="radio"/>	<input type="radio"/>
The command in line 02 assigns the Web App to the ContosoGroup resource group.	<input type="radio"/>	<input type="radio"/>
The command in line 02 assigns the Web App to a hosting plan named webhostingplan2 .	<input type="radio"/>	<input type="radio"/>

Answer:

Answer Area

	Yes	No
The command in line 01 defines a variable that stores a hash table.	<input checked="" type="radio"/>	<input type="radio"/>
The command in line 02 assigns the Web App to the ContosoGroup resource group.	<input type="radio"/>	<input checked="" type="radio"/>
The command in line 02 assigns the Web App to a hosting plan named webhostingplan2 .	<input type="radio"/>	<input checked="" type="radio"/>

Question: 202

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 sections, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You are developing a new Azure Logic App. The Logic App requires a custom action to evaluate data from an internal, proprietary system. You create a custom ASP>NET Web API to retrieve data from the system and update the Logic App to use the API.

The Logic App generates a timeout error when it requests data from the API.

You need to eliminate the timeout error and allow the Logic App to retrieve data by using the API.

What should you do?

- A. Update the API to immediately return an HTTP ‘102 PROCESSING’ response when a request is received and an HTTP ‘205 RESET CONTENT’ response when the data is returned from the system.
- B. Update the Logic App to use a new HTTPWebhook trigger to call out to the API’s newly-created subscribe and unsubscribe methods.
- C. Update the API to immediately return an HTTP ‘202 ACCEPTED’ response when a request is received and an ‘200 OK’ response when the data is returned from the system.
- D. Update the Logic App adding a wait action to include the interval object’s unit and count properties set to valid values.

Answer: C

Question: 203**HOTSPOT**

You deploy an application that uses a secure data storage solution to Azure. You use Redis Cache and select the Premium tier.

You have the following requirements:

- Create point-in-time snapshots of the dataset at specific intervals.
- Limit specific clients from using the cache.

- Use primary/replica cache pairs.

You need to configure the environment.

Which feature should you implement for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer area

Requirement	Feature
Create point-in-time snapshots of the dataset at specific intervals.	<input type="checkbox"/> <input checked="" type="checkbox"/> Redis cluster <input checked="" type="checkbox"/> Redis persistence <input type="checkbox"/> Azure Virtual Network
Limit specific clients from using the cache.	<input type="checkbox"/> <input checked="" type="checkbox"/> Redis cluster <input checked="" type="checkbox"/> Redis persistence <input type="checkbox"/> Azure Virtual Network
Use primary/replica cache pairs.	<input type="checkbox"/> <input checked="" type="checkbox"/> Redis cluster <input checked="" type="checkbox"/> Redis persistence <input type="checkbox"/> Azure Virtual Network

Answer:

Answer area

Requirement	Feature
Create point-in-time snapshots of the dataset at specific intervals.	<input type="checkbox"/> <input checked="" type="checkbox"/> Redis cluster <input checked="" type="checkbox"/> Redis persistence <input type="checkbox"/> Azure Virtual Network
Limit specific clients from using the cache.	<input type="checkbox"/> <input checked="" type="checkbox"/> Redis cluster <input checked="" type="checkbox"/> Redis persistence <input type="checkbox"/> Azure Virtual Network
Use primary/replica cache pairs.	<input checked="" type="checkbox"/> Redis cluster <input checked="" type="checkbox"/> Redis persistence <input type="checkbox"/> Azure Virtual Network

Question: 204

You administer an Azure-based solution that performs image processing. You have four Standard D3

Azure Resource Manager (ARM) virtual machines (VMs). All VMs are deployed in a Virtual Machine Scale Set (VMSS).

The servers must scale up or down as the workload increases or decreases.

You need to configure auto-scaling to scale the VMSS when the server workload is above 95 percent or below 5 percent.

What should you do?

- A. Navigate to the VM's Size panel and increase the instance count.
- B. Navigate to the VMSS Metric panel and add a new alert for the CPU Percentage Metric. Configure the alert to notify Via email.
- C. Navigate to the VM's Metric panel and enable diagnostics for basic metrics,
- D. Navigate to the VMSS Metric panel and add a new alert for the CPU Percentage Metric. Configure the alert to notify via webhook.

Answer: D

Explanation:

References:

<https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-vertical-scale-reprovision>

Question: 205

DRAG DROP

You have six Ubuntu Linux virtual machines (VMS) that run a Hadoop cluster on Azure. One of the VMs hosts a custom web user interface that allows users to examine the processing jobs within the Hadoop Cluster.

You need to select the appropriate Azure Storage type for each Azure VM scenario.

Which Azure Storage types should you use? To answer, drag the appropriate Azure Storage type to the correct target. Each Azure Storage type 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.

Azure Storage types**Azure Files****Azure Blobs****Azure Disks****Answer area****Scenario**

Provide a Server Message Block (SMB) interface in addition to a REST interface to access files from the VM.

Storage Type**Storage Type**

Use REST APIs to store unstructured data for random access and streaming for the VM.

Storage Type

Provide persistent storage attached to the VM.

Storage Type

Mount the share from Ubuntu Linux and access the share by using file system APIs.

Storage Type

Snapshot the VM storage to create point in time read-only backups.

Storage Type**Answer:****Azure Storage types****Azure Files****Azure Blobs****Azure Disks****Answer area****Scenario**

Provide a Server Message Block (SMB) interface in addition to a REST interface to access files from the VM.

Storage Type**Azure Files**

Use REST APIs to store unstructured data for random access and streaming for the VM.

Azure Blobs

Provide persistent storage attached to the VM.

Azure Disks

Mount the share from Ubuntu Linux and access the share by using file system APIs.

Azure Files

Snapshot the VM storage to create point in time read-only backups.

Azure Disks**Question: 206**

You manage an on-premises server that runs Windows Server 2016. The server has a disk that contains 4 terabytes (TB) of data and thousands of files. None of the individual files are larger than 1 TB. You plan to create a virtual machine (VM) in Azure to process the workload currently handled by the on-premises server.

You need to create a storage location for the data.

What should you do?

- A. Create premium storage account. Use a D-series VM.
- B. Configure a StorSimple virtual array. Configure the VM to use the array with the SMB protocol.
- C. Add a new table storage account. Update the VM workload to use the table storage.
- D. Add a single file share to the VM. In the VM operating system, assign a drive letter.

Answer: D**Question: 207****DRAG DROP**

Contoso has an Azure DocumentDB database that contains contact information for customers. You have a collection named Companies. The collection includes the following data:

```
{
  "id" : "ContosoCompany",
  "name" : "Contoso",
  "contacts" : [
    {
      "giveName" : "Lola",
      "surName" : "Jacobsen",
      "regions" : [
        { "regionName" : "West" },
        { "regionName" : "South" }
      ]
    },
    {
      "giveName" : "David",
      "surName" : "Jones",
      "regions" : [
        { "regionName" : "North" },
        { "regionName" : "South" }
      ]
    }
  ],
  "address" : {"state": "CO", "city": "Denver"}
}
```

You plan to collect the following information for contacts that are located in the South region only:

- Company name
- Given name
- Surname

You need to create the query.

Which three Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.

Transact-SQL segments

```
FROM Contoso c
SELECT Name, givenName, surName
SELECT contoso.Name, c.contacts.givenName,
c.contacts.surName
WHERE regionName = 'South'
WHERE c.contacts.regions.regionName = 'South'
FROM Companies c
SELECT c.Name, c.contacts.givenName,
c.contacts.surName
```

Answer area**Answer:****Transact-SQL segments**

```
FROM Contoso c
SELECT Name, givenName, surName
SELECT contoso.Name, c.contacts.givenName,
c.contacts.surName
WHERE regionName = 'South'
WHERE c.contacts.regions.regionName = 'South'
FROM Companies c
SELECT c.Name, c.contacts.givenName,
c.contacts.surName
```

Answer area**Question: 208**

You manage API management policies in Azure.

You attempt to add a policy that is marked as unavailable.

You need to ensure that you can add the desired policy.

What should you do?

- A. Modify the API Management policy definition.
- B. Enable custom caching for the API Management service.
- C. Modify the scope of the API policy.
- D. Integrate the API Management service with the Azure Event Hub service.

Answer: C**Question: 209**

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 deploy a Virtual Machine Scale Set (VMSS) named CorpWebVMSS to Azure by using Azure PowerShell and set the instance count to 1. The VMSS includes a storage account, load balancer, public IP address, and six Standard_A1 Windows virtual machines (VMs) that run Internet Information Services (IIS). All components are deployed to a resource group named CorpWebRG.

You must increase the instance count to support the increased load on IIS.

You need to manually scale out the number of VMs in the scale set to 5.

Solution: You run the following Azure PowerShell commands:

```
$vmss = Get-AzureRmVmss -ResourceGroupName CorpWebRG –VMSScalesSetName CorpWebVMSS  
$vmss.Sku.Capacity = 5  
Update-AzureRmVmss      -ResourceGroupName CorpWebRG      -Name CorpWebVMSS      -  
VirtualMachineScaleSet $vmss
```

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Question: 210

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 deploy a Virtual Machine Scale Set (VMSS) named CorpWebVMSS to Azure by using Azure PowerShell and set the instance count to 1. The VMSS includes a storage account, load balancer, public IP address, and six Standard_A1 Windows virtual machines (VMs) that run Internet Information Services (IIS). All components are deployed to a resource group named CorpWebRG.

You must increase the instance count to support the increased load on IIS.

You need to manually scale out the number of VMs in the scale set to 5.

Solution: You deploy the following JSON template by using Azure PowerShell:

```
{  
    "$schema": "http://schema.management.azure.com/schemas/2015-01-01-preview/deploymentTemplate.json",  
    "contentVersion": "1.0.0.0",  
    "resources": [  
        {  
            "type": "Microsoft.Compute/virtualMachineScaleSets",  
            "apiVersion": "2016-03-30",  
            "name": "CorpWebVMSS",  
            "location": "[resourceGroup().location]",  
            "sku": {  
                "name": "Standard_A1",  
                "tier": "Standard",  
                "capacity": "5"  
            }  
        }  
    ]  
}
```

Does the solution meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

References:

<https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-autoscale-overview>

Question: 211

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 deploy a Virtual Machine Scale Set (VMSS) named CorpWebVMSS to Azure by using Azure PowerShell and set the instance count to 1. The VMSS includes a storage account, load balancer, public IP address, and six Standard_A1 Windows virtual machines (VMs) that run Internet Information Services (IIS). All components are deployed to a resource group named CorpWebRG.

You must increase the instance count to support the increased load on IIS.

You need to manually scale out the number of VMs in the scale set to 5.

Solution: You run the following command by using the Azure Command-Line Interface (CLI):

```
azure vmss scale -g CorpWebRG -n CorpWebVMSS -c 5
```

Does the solution meet the goal?

- A. Yes
- B. No

Answer: A

Question: 212

HOTSPOT

You are developing a multitenant application that uses Azure Search services. You have the following tenants:

Tenant	Requirement
TenantA	The workload and data for this tenant must be isolated from other tenants.
TenantB	The data for this tenant must be isolated from other tenants, but TenantB can share its workload with other tenants.

You must minimize costs associated with implementing any solution. The cost model must be predictable.

You need to design the search experience for the application.

Which Azure Search pattern should you use for each tenant? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer area

Tenant	Pattern
TenantA	<input type="checkbox"/> index-per-tenant <input type="checkbox"/> service per tenant <input checked="" type="checkbox"/> mixed model
TenantB	<input type="checkbox"/> index-per-tenant <input type="checkbox"/> service per tenant <input checked="" type="checkbox"/> mixed model

Answer:**Answer area**

Tenant	Pattern
TenantA	<input type="checkbox"/> index-per-tenant <input checked="" type="checkbox"/> service per tenant <input type="checkbox"/> mixed model
TenantB	<input checked="" type="checkbox"/> index-per-tenant <input type="checkbox"/> service per tenant <input type="checkbox"/> mixed model

Question: 213**DRAG DROP**

You need to add code to CommentController.cs to enable moderation of comments.

How should you complete the code? 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 point.

Code segments
Authorize
AllowAnonymous
AutoValidateAntiforgeryToken
Headers ["X-MS-CLIENT-PRINCIPAL-NAME"] .First()
Headers ["Proxy-Authorization"] .First()
Headers ["X-Forwarded-For"] .First()

Answer area
[HttpPost] [<input type="text"/> Code segment] <pre>public async Task<IActionResult> Moderate([FromBody] Comment comment) { var moderatorName = Request. <input type="text"/> Code segment ; await Save(comment, moderatorName); return Ok(); }</pre>

Answer:

Code segments	Answer area
Authorize	[HttpPost]
AllowAnonymous	[Authorize]
AutoValidateAntiforgeryToken	public async Task<IActionResult> Moderate([FromBody] Comment comment)
Headers ["X-MS-CLIENT-PRINCIPAL-NAME"] .First()	{
Headers ["Proxy-Authorization"] .First()	var moderatorName = Request.
Headers ["X-Forwarded-For"] .First()	Headers ["X-MS-CLIENT-PRINCIPAL-NAME"] .First()

Question: 214**HOTSPOT**

You need to implement exception handling for the ModifyCommentText method in the WikiAgent class. How should you complete the code? To answer, select the appropriate options in the answer area.
 NOTE: Each correct selection is worth point.

Answer Area

```
try
{
    await StateManager.RemoveStateAsync(id);
    if (await StateManager.ContainsStateAsync(id)) return body;
    await StateManager.GetOrAddStateAsync(id, id),
    if (await StateManager.GetStateAsync<string>(id)==null) return body;

    var newBody = ...

    await StateManager.SaveStateAsync();
    await StateManager.ClearCacheAsync();
    await StateManager.AddStateAsync(id, id);
    await StateManager.RemoveStateAsync(id);

    return newBody;
}

catch
{
    await StateManager.SaveStateAsync();
    await StateManager.ClearCacheAsync();
    await StateManager.RemoveStateAsync(id);
    await StateManager.TryRemoveStateAsync(id);

    throw;
}
```

Answer:

Answer Area

```

try
{
    await StateManager.RemoveStateAsync(id);
    if (await StateManager.ContainsStateAsync(id)) return body;
    await StateManager.GetOrAddStateAsync(id, id),
    if (await StateManager.GetStateAsync<string>(id) == null) return body;

    var newBody = ...

    await StateManager.SaveStateAsync();
    await StateManager.ClearCacheAsync();
    await StateManager.AddStateAsync(id, id);
    await StateManager.RemoveStateAsync(id);

    return newBody;
}
catch
{
    await StateManager.SaveStateAsync();
    await StateManager.ClearCacheAsync();
    await StateManager.RemoveStateAsync(id);
    await StateManager.TryRemoveStateAsync(id);

    throw;
}

```

Question: 215**DRAG DROP**

You need to add code at line CC63 to ensure that the Interaction Agent is invoked.

How should you complete the code? 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 point.

Code fragments**ActorId.CreateRandom()****new ActorId(comment.UserId)****new ActorId(comment.Id)****ActorProxy****ServiceProxy****ActorServiceProxy****Answer area****var actorId = Code fragment ;****var actor = Code fragment
.Create<**ICommentAgent**>(actorId, "...");
await actor.ModifyCommentText(comment.Id, commetn.Body,
commey.Title);****Answer:****Code fragments****ActorId.CreateRandom()****new ActorId(comment.UserId)****new ActorId(comment.Id)****ActorProxy****ServiceProxy****ActorServiceProxy****Answer area****var actorId = ActorId.CreateRandom() ;****var actor = ActorProxy
.Create<**ICommentAgent**>(actorId, "...");
await actor.ModifyCommentText(comment.Id, commetn.Body,
commey.Title);****Question: 216****DRAG DROP**

You need to implement the StartNotify method in MainPage.xaml.cs to enable the receiving of notifications. How should you complete the code? 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 point.

Code segments	Answer area
<code>PushNotificationChannelManager</code>	<code>var a = await</code> <code> </code> <code>.CreatePushNotificationChannelForApplicationAsync();</code>
<code>Queue</code>	<code>var b = new </code> <code>("</code> <code> </code> <code>", "...");</code>
<code>NotificationHub</code>	<code>var result = await b.RegisterNativeAsync(a.Uri);</code>
<code>Registration</code>	<code>if (result.Registratid != null)</code>
<code>moderationnotify</code>	<code>{</code> <code> UpdateUI();</code>
<code>commentQueue</code>	<code>}</code>

Answer:

Code segments	Answer area
<code>PushNotificationChannelManager</code>	<code>var a = await</code> <code> </code> <code>.CreatePushNotificationChannelForApplicationAsync();</code>
<code>Queue</code>	<code>var b = new </code> <code>NotificationHub</code> <code>(" </code> <code>moderationnotify</code> <code> ", "...");</code>
<code>NotificationHub</code>	<code>var result = await b.RegisterNativeAsync(a.Uri);</code>
<code>Registration</code>	<code>if (result.Registratid != null)</code>
<code>moderationnotify</code>	<code>{</code> <code> UpdateUI();</code>
<code>commentQueue</code>	<code>}</code>

Question: 217

You are migrating an existing solution to Azure. The solution includes a user interface tier and a database tier. The user interface tier runs on multiple virtual machines (VMs). The user interface tier has a website that uses Node.js. The user interface tier has a background process that uses Python. This background process runs as a scheduled job. The user interface tier is updated frequently. The database tier uses a self-hosted MySQL database.

The user interface tier requires up to 25 CPU cores. You must be able to revert the user interface tier to a previous version if updates to the website cause technical problems. The database requires up to 50 GB of memory. The database must run in a single VM.

You need to deploy the solution to Azure.

What should you do first?

- Deploy the entire solution to an Azure Web App. Use a web job that runs continuously to host the database.
- Configure Microsoft Visual Team Services to continuously deploy the user interface tier to the Azure Web App service. Deploy the production builds and the staging builds of the user interface tier to separate slots.
- Deploy the entire solution to an Azure Web App. Use a web job that runs continuously to host the user interface tier.
- Deploy the user interface tier to a VM. Use multiple availability sets to continuously deploy updates from Microsoft Visual Studio Online.

Answer: B

Question: 218

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 are developing an application that will run as an Azure API App. The application tracks flights between airports, including duration of flight, if the flight was on time, the capacity of the airplane, and the number of seats sold. Queries can be performed to show multiple routes, multi-leg journeys, and filtering based on the attributes of the flight.

Flight information will be used by customers to perform data mining, drive interactive display, perform airspace tracking, and other applications.

Customers require that the response time of the API be as low as possible, both for retrieving information for a single flight, and for queries across flights. To achieve the required level of performance, each API invocation must be satisfied by a single operation against the data store containing flight information.

You need to implement the data store for this application.

Solution: You use Azure Search.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Question: 219

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.

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Flight information will be used by customers to perform data mining, drive interactive display, perform airspace tracking, and other applications.

Customers require that the response time of the API be as low as possible, both for retrieving information for a single flight, and for queries across flights. To achieve the required level of performance, each API invocation must be satisfied by a single operation against the data store containing flight information.

You need to implement the data store for this application.

Solution: You use Azure Blob Storage.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Question: 220

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 are developing an application that will run as an Azure API App. The application tracks flights between airports, including duration of flight, if the flight was on time, the capacity of the airplane, and the number of seats sold. Queries can be performed to show multiple routes, multi-leg journeys, and filtering based on the attributes of the flight.

Flight information will be used by customers to perform data mining, drive interactive display, perform airspace tracking, and other applications.

Customers require that the response time of the API be as low as possible, both for retrieving information for a single flight, and for queries across flights. To achieve the required level of performance, each API invocation must be satisfied by a single operation against the data store containing flight information.

You need to implement the data store for this application.

Solution: You use Cosmos DB.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

Question: 221

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 are a system administrator at your company. Your company recently acquired two of its competitors, as well as their IT infrastructure. The acquired companies have applications that are written in Java, .NET, Ruby, php, Node.js, and other languages. The applications run on Linux and Windows Server in Amazon Web Services, Azure, and SAP Cloud Platform.

The applications require access to the Azure Service Broker, and must be managed by the PCF Ops Manager. You need to consolidate the applications onto a single cloud provider in Azure.

Solution: Deploy the open-source Cloud Foundry packages by setting up a BOSH director.

Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation:

Question: 222

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 are a system administrator at your company. Your company recently acquired two of its competitors, as well as their IT infrastructure. The acquired companies have applications that are written in Java, .NET, Ruby, php, Node.js, and other languages. The applications run on Linux and Windows Server in Amazon Web Services, Azure, and SAP Cloud Platform.

The applications require access to the Azure Service Broker, and must be managed by the PCF Ops Manager. You need to consolidate the applications onto a single cloud provider in Azure.

Solution: Create a customized environment by deploying Pivotal Cloud Foundry manually.

Does the solution meet the goal?

A. Yes

B. No

Answer: A

Explanation:

Question: 223

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.

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The applications require access to the Azure Service Broker, and must be managed by the PCF Ops Manager. You need to consolidate the applications onto a single cloud provider in Azure.

Solution: Use the Azure Cloud Shell to install the Cloud Foundry CLI and connect to the Cloud Controller.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Question: 224

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 are a developer for Consolidated Messenger, a software company that provides applications for manager courier services. You are preparing to release a new version of the flagship application.

The application is comprised of a set of Windows and Linux virtual machines (VMs), and a set of Linux-based Docker containers. The management portion of the application uses Kubernetes for management of containers.

You need to determine a mechanism to deploy the application so that customers can provision the application from the Azure Marketplace.

Solution: Build a custom Azure Resource Manager QuickStart template.

Does the solution meet the goal?

- A. Yes

B. No

Answer: B

Explanation:

Question: 225

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.

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The application is comprised of a set of Windows and Linux virtual machines (VMs), and a set of Linux-based Docker containers. The management portion of the application uses Kubernetes for management of containers.

You need to determine a mechanism to deploy the application so that customers can provision the application from the Azure Marketplace.

Solution: Provide access to a CloudFoundry Azure Resource Manager QuickStart template.

Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation:

Question: 226

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 are a developer for Consolidated Messenger, a software company that provides applications for manager courier services. You are preparing to release a new version of the flagship application.

The application is comprised of a set of Windows and Linux virtual machines (VMs), and a set of Linux-based Docker containers. The management portion of the application uses Kubernetes for management of containers.

You need to determine a mechanism to deploy the application so that customers can provision the application from the Azure Marketplace.

Solution: Provide access to an OpenShift Azure Resource Manager QuickStart template.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: A

Question: 227

DRAG DROP

You develop a Web App that uploads files from a browser and then compresses the files. You observe that compression is not working according to specification.

You need to debug the compression code to resolve the problem.

Which four 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.

Actions

- Publish the Web App in release mode
- Start a file compression in the Web App
- In Server Explorer, right-click the webjob and select Attach Debugger
- In Server Explorer, right-click the Web App and select Attach Debugger
- Publish the Web App in debug mode
- Open the Web App project in Microsoft Visual Studio

Answer Area



Answer:

Actions

- Publish the Web App in release mode
- Start a file compression in the Web App
- In Server Explorer, right-click the webjob and select Attach Debugger
- In Server Explorer, right-click the Web App and select Attach Debugger
- Publish the Web App in debug mode
- Open the Web App project in Microsoft Visual Studio

Answer Area

Open the Web App project in Microsoft Visual Studio

Publish the Web App in debug mode

In Server Explorer, right-click the Web App and select Attach Debugger



Start a file compression in the Web App

**Question: 228**

You are developing an Azure Logic App that summarizes and translates Microsoft Word documents. Clients upload Word documents to an Azure File share, and all documents are processed once per day.

Each document takes more than 10 minutes to process, and each client processes thousands of documents per day.

You need to ensure that customers can process documents on demand while minimizing costs.

Which two types of Logic App triggers can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. HTTP
- B. Request
- C. HTTPWebhook
- D. ApiConnection
- E. ApiConnectionWebhook

Answer: B,E

Question: 229

You are developing a Windows console application that uses a third-party C++ library. The console application is designed to be run as an Azure WebJob that has authentication and authorization enabled.

You need to ensure that the console application can determine the current user identity.

What should you do?

- A. Perform an HTTP request to the /.auth/me endpoint.
- B. Call the System.Security.Principal.WindowsIdentity.GetCurrent() method.
- C. Read the X-MS-CLIENT-PRINCIPAL-NAME header.
- D. Read the identity from the UserName environment variable.

Answer: C

Question: 230

You administer an Azure environment that includes six Azure Resource Manager (ARM) virtual machines (VMs) that support development. The development team uses Azure SQL databases and Azure Queues for application storage. All Azure resources are grouped within a single subscription and resource group. You need to reduce the recurring monthly Azure costs without degrading server performance. You must minimize the administrative effort involved.

What should you do?

- A. Remove the development team role from the resource group daily.
- B. Create an Azure Automation runbook that cycles the VMs daily.
- C. Update the development environment to use Azure Table storage.
- D. Create an Azure PowerShell script that updates the VM size to Standard_A0 daily.

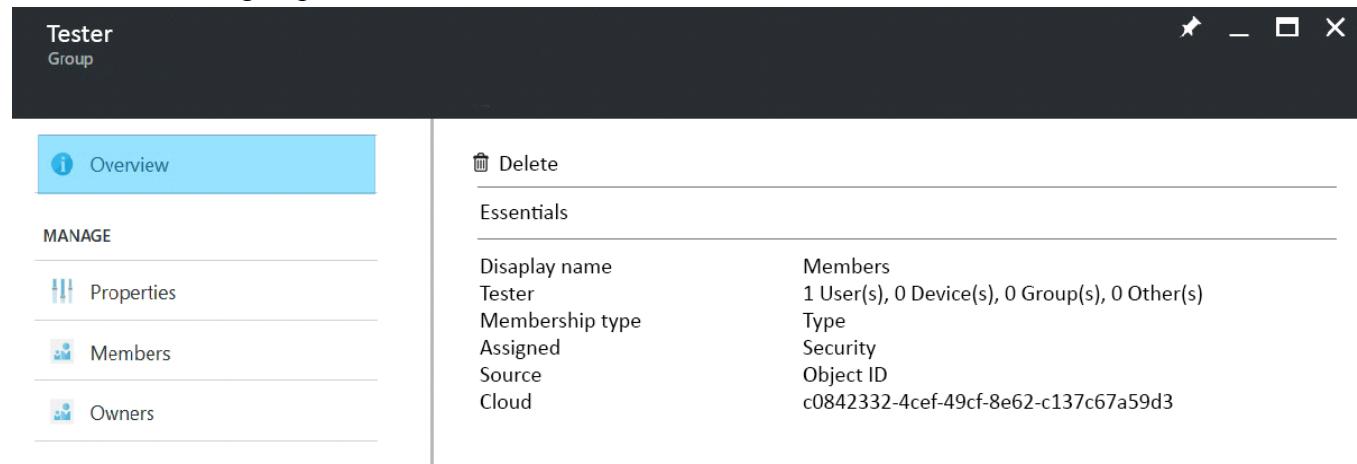
Answer: C

Question: 231

DRAG DROP

You are developing an ASP.NET Web API that runs as an Azure Web App. The App uses Azure Active Directory (Azure AD) business-to-business (B2B) for authentication and authorization.

The application contains an ASP.NET Web API controller to retrieve test results. The directory contains the Tester Azure AD group as shown below.



The screenshot shows the Azure portal interface for managing a group named 'Tester'. The top navigation bar has icons for star, minus, square, and close. The main title is 'Tester' under 'Group'. On the left, a sidebar titled 'MANAGE' lists 'Properties', 'Members', and 'Owners'. The 'Overview' tab is selected, showing the following details:

Essentials	
Display name	Tester
Membership type	Assigned
Source	Cloud
Members	1 User(s), 0 Device(s), 0 Group(s), 0 Other(s)
Type	Security
Object ID	c0842332-4cef-49cf-8e62-c137c67a59d3

You need to ensure that the Get controller method is available only to members of the Tester group. What should you do? 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.

Code segments

ClaimsPrincipal

ClaimsIdentity

"groups"

"memberof"

"c0842332-4cef-49cf-8e62-c137c67a59d3"

"Tester"



Answer area

```
public string Get()
{
    var groupClaim = [REDACTED] .Current.Claims
        .FirstOrDefault(c => c.Type == [REDACTED] &&
            c.Value == [REDACTED] );
    if (groupClaim == null)
    {
        throw new HttpResponseMessage(new HttpStatusCode.Unauthorized,
    });
}
```

Answer:

Code segments

ClaimsPrincipal

ClaimsIdentity

"groups"

"memberof"

"c0842332-4cef-49cf-8e62-c137c67a59d3"

"Tester"



Answer area

```
public string Get()
{
    var groupClaim = ClaimsPrincipal
        .Current.Claims
        .FirstOrDefault(c => c.Type == "groups"
            & c.Value == "c0842332-4cef-49cf-8e62-c137c67a59d3");
    if (groupClaim == null)
    {
        throw new HttpResponseException(new HttpResponseMessage
        {
            StatusCode = HttpStatusCode.Unauthorized,
        });
    }
}
```

Question: 232

You are designing a Windows Azure application.

The application will store data in Windows Azure Blob storage.

Many of the application services will be interdependent.

You need to recommend an approach for optimizing the performance of the application.

What should you recommend?

- A. Create one affinity group. Associate only the storage services with the affinity group.
- B. Create one affinity group. Associate only the compute services with the affinity group.
- C. Create one affinity group. Associate the compute services and storage services with the affinity group.
- D. Create two affinity groups. Associate the compute services with one group and the storage services with

the other group.

Answer: C

Explanation:

Use the following procedures to create an affinity group, which can be used to direct Windows Azure storage accounts and hosted services to the same geographical grouping within a specified region. Each affinity group is associated with a Windows Azure subscription, and can be used by multiple storage accounts and hosted services for that subscription.

Affinity groups can be created and managed by the service administrator and co-administrators for a subscription.

Question: 233

You are designing a Windows Azure application that will process images. The maximum size of an image is 10 MB.

The application includes a web role that allows users to upload images and a worker role with multiple instances that processes the images.

The web role communicates with the worker role by using a Windows Azure Queue.

You need to recommend an approach for storing images that minimizes storage transactions.

What should you recommend?

- A. Store images in the queue.
- B. Store images in Windows Azure Blob storage. Store references to the images in the queue.
- C. Store images in local storage on the web role instance. Store references to the images in the queue.
- D. Store images in Windows Azure Drives attached to the worker role instances. Store references to the images in the queue.

Answer: B

Explanation:

You can store text and binary data in either of two types of blobs: Block blobs, which are optimized for streaming. Page blobs, which are optimized for random read/write operations and which provide the ability to write to a range of bytes in a blob.

Question: 234

You are designing a Windows Azure application.

The application includes two web roles and three instances of a worker role. The web roles will send requests to the worker role through one or more Windows Azure Queues.

You have the following requirements:

You need to recommend a queue design for sending requests to the worker role.

What should you recommend?

- A. Create a single queue. Send requests on the single queue.
- B. Create a queue for each web role. Send requests on all queues at the same time.
- C. Create a queue for each worker role instance. Send requests on each worker queue in a round robin.
- D. Create a queue for each combination of web roles and worker role instances. Send requests to all worker role instances based on the sending web role.

Answer: A

Question: 235

You are designing a Windows Azure application.

The application includes a web role and a worker role that communicate by using a Windows Azure Queue. The worker role processes each message within 10 seconds of retrieving it from the queue. The worker role must process each message exactly one time.

If a process does not complete, the worker role must reprocess the message.

You need to recommend an approach for the worker role to manage messages in the queue.

What should you recommend?

- A. Process the message and then delete it from the queue.
- B. Delete the message from the queue when retrieving the message.
- C. Set the visibility timeout of the message to 1 when retrieving the message.
- D. Process the message and then set the visibility timeout of the message to the maximum value.

Answer: A

Question: 236

You are designing a Windows Azure application that will generate events for multiple clients.

Client web services might be behind NAT gateways.

You need to recommend an approach that will allow you to broadcast the events to clients.

What should you recommend?

- A. Use ADO.NET Data Services and provide a shared key to clients.
- B. Use Windows Azure Queues and provide a shared key to clients.
- C. Use Windows Azure Table storage and provide a shared key to clients.
- D. Use the Windows Azure AppFabric Service Bus and provide a shared secret to clients.

Answer: D

Explanation:

The Windows Azure Service Bus provides a hosted, secure, and widely available infrastructure for

widespread communication, large-scale event distribution, naming, and service publishing. The Service Bus provides connectivity options for Windows Communication Foundation (WCF) and other service endpoints including REST endpoints -- that would otherwise be difficult or impossible to reach. Endpoints can be located behind network address translation (NAT) boundaries, or bound to frequently-changing, dynamically-assigned IP addresses, or both. The Service Bus provides both "relayed" and "brokered" messaging capabilities. In the relayed messaging pattern, the relay service supports direct one-way messaging, request/response messaging, and peer-to-peer messaging. Brokered messaging provides durable, asynchronous messaging components such as Queues, Topics, and Subscriptions, with features that support publish-subscribe and temporal decoupling

Question: 237

You are designing a Windows Azure application.

The application contains one web role and three worker roles.

You need to recommend an approach for updating only one role without interrupting the other roles.

What should you recommend?

- A. Perform a VIP swap.
- B. Perform an in-place upgrade.
- C. Delete the current deployment and then redeploy the application.
- D. Copy the cloud package to blob storage and then restart the service.

Answer: B

Question: 238

You are planning an upgrade strategy for a Windows Azure application.

You need to identify changes that will require application downtime.

Which change will always require downtime?

- A. Changing the virtual machine size
- B. Adding an HTTPS endpoint to a web role
- C. Changing the value of a configuration setting
- D. Upgrading the hosted service by deploying a new package

Answer: B

Question: 239

A Windows Azure application is running in the development fabric.

You need to recommend an approach for deploying the application to Windows Azure.

What should you recommend?

- A. Use XCopy deployment.
- B. Use the Windows Azure AppFabric.
- C. Use the Windows Azure Storage Services REST API.
- D. Use the Windows Azure Tools for Microsoft Visual Studio 2010.

Answer: D

Question: 240

You are designing an automated deployment process for a Windows Azure application. The process must deploy the application to Windows Azure without any user interaction. You need to recommend a deployment strategy. What should you recommend?

- A. Use the Service Management API to deploy the application package.
- B. Use the cspack and csrun command-line utilities and pass the cloud project as an argument.
- C. Publish the cloud project to a local directory and upload the application package to Windows Azure Blob storage.
- D. Publish the cloud project to a local directory and use the Windows Azure Developer Portal to upload the application.

Answer: A

Question: 241

You are migrating a solution to Windows Azure. The solution includes a web application and a business logic layer. The web application runs on three dual-core servers. The business logic layer runs on two quad-core servers. The Windows Azure application must match or exceed the current hardware specifications. You need to recommend role instance sizes that minimize cost. What should you recommend?

- A. Small for the web application and Medium for the business logic layer
- B. Small for the web application and Large for the business logic layer
- C. Medium for the web application and Large for the business logic layer
- D. Large for the web application and Extra Large for the business logic layer

Answer: C

Explanation:

Virtual Machine Size CPU Cores Memory Disk Space for LSR in Web and Worker Roles Disk

Space for LSR in a VM Role Allocated Bandwidth (Mbps)

Extra Small Shared 768 MB 19,480 MB (6,144 MB is reserved for system files) 20 GB 5

Small 1 1.75 GB 229,400 MB (6,144 MB is reserved for system files) 165 GB 100

Medium 2 3.5 GB 500,760 MB (6,144 MB is reserved for system files) 340 GB 200

Large 4 7 GB 1,023,000 MB (6,144 MB is reserved for system files) 850 GB 400

Extra Large 8 14 GB 2,087,960 MB (6,144 MB is reserved for system files) 1890 GB 800

Pricing and Metering for Compute:

Each compute instance is a virtual server.

There are 5 compute virtual server sizes you can choose from.

The table below summarizes the resources provided by each Compute instance size.

Virtual Machine Size CPU Cores Memory Cost Per Hour

Extra Small Shared 768 MB \$0.02

Small 1 1.75 GB \$0.12

Medium 2 3.5 GB \$0.24

Large 4 7 GB \$0.48

Extra Large 8 14 GB \$0.96

References: <http://msdn.microsoft.com/en-us/library/windowsazure/ee814754.aspx>

Question: 242

You are designing an upgrade strategy for a Windows Azure application that includes one web role with one instance.

You have the following requirements:

- Test the application on the Windows Azure platform.
- Ensure that application upgrades can be rolled back.
- Ensure that upgrade and rollback processes do not cause downtime.

You need to recommend an approach for upgrading the application.

What should you recommend?

- A. Deploy to the Production slot. Test the application, and then perform a VIP swap.
- B. Deploy to the Staging slot. Test the application, and then perform a VIP swap.
- C. Deploy to the Staging slot. Test the application, and then perform a manual in-place upgrade to the Production slot.
- D. Deploy to the Staging slot. Test the application, and then perform an automatic in-place upgrade to the Production slot.

Answer: B

Explanation:

Run Set-AzureDeploymentSlot from the service directory to set the deployment environment for the current service to either Staging or Production.

This updates the DeploymentSettings.json file for the service.

A hosted service is a service that runs your code in the Windows Azure environment.

It has two separate deployment slots: staging and production. The staging deployment slot allows you to test your service in the Windows Azure environment before you deploy it to production. You can upgrade your service by deploying a new package to the staging environment and then swapping the staging and production deployments. This type of upgrade is called a Virtual IP or VIP swap, as it swaps the addresses of the two deployments.

Both deployments remain online during the swap process. You can swap VIPs using the Windows Azure Platform Management Portal, or by using the Service Management API. If you are upgrading your service with a new service definition file, you must swap VIPs; you cannot perform an in-place upgrade. However, you can swap VIPs only if the number of endpoints specified by the service definition is identical for both deployments. For example, if you add an HTTPS endpoint to a web role that previously exposed only an HTTP endpoint, you cannot upgrade your service using a VIP swap; you'll need to delete your production deployment and redeploy instead

Question: 243

You are designing a Windows Azure application that will use Windows Azure Table storage.

The application will allow teams of users to collaborate on projects.

Each user is a member of only one team. You have the following requirements:

You need to recommend an approach for partitioning table storage entities.

What should you recommend?

- A. Partition by user.
- B. Partition by team.
- C. Partition by project.
- D. Partition by the current date.

Answer: B

Question: 244

You are designing a plan for migrating Virtual Hard Disks (VHDs) and video files to Windows Azure Storage.

The VHDs must be optimized for random read/write operation.

The video files must be optimized for sequential access.

You need to recommend storage types for storing the VHDs and video files.

Which two storage types should you recommend? (Each correct answer presents part of the solution. Choose two.)

- A. Store VHDs in Windows Azure page blob storage.
- B. Store VHDs in Windows Azure block blob storage.
- C. Store video files in Windows Azure page blob storage.

D. Store video files in Windows Azure block blob storage.

Answer: A,D

Explanation:

You can store text and binary data in either of two types of blobs: Block blobs, which are optimized for streaming. Page blobs, which are optimized for random read/write operations and which provide the ability to write to a range of bytes in a blob. After you create or change the server image, you are ready to upload the .vhf file that contains the image data to Windows Azure. There are two opportunities for uploading VHDs to Windows Azure. When you initially create a VM role, you upload a base VHD to Windows Azure, which is used as a template to create VM role instances.

Question: 245

You are planning to move streaming media content to Windows Azure Storage.

You need to recommend an approach for providing worldwide users the fastest possible access to the content.

Which two actions should you recommend? (Choose two.)

- A. Use a Shared Access Signature.
- B. Use Windows Azure page blob storage.
- C. Use Windows Azure block blob storage.
- D. Use the Windows Azure Content Delivery Network (CDN).

Answer: C,D

Explanation:

You can store text and binary data in either of two types of blobs: Block blobs, which are optimized for streaming. Page blobs, which are optimized for random read/write operations and which provide the ability to write to a range of bytes in a blob. Windows Azure provides the Windows Azure Content Delivery Network (CDN) to deliver Windows Azure Blob content. Windows Azure CDN offers developers a global solution for delivering high-bandwidth content. The benefit of using a CDN is better performance and user experience for users who are farther from the source of the content stored in the Windows Azure blob storage.

Case Study: 6

Fabrikam

Background

You are a developer for Fabrikam, a company that specializes in payment processing. Fabrikam is developing a solution to process payments for various events, such as music concerts. You develop an

ASP.NET MVC website that is hosted in Azure to support an upcoming music concert. The music concert is expected to generate a large volume of ticket sales in a short amount of time.

The website uploads information to an Azure storage queue. A worker role in Azure retrieves information from the queue and generates the concert tickets in a PDF file form. It after the financial transaction is approved.

You observe a delay between the time the website adds a message to a queue and the time it becomes available to read from the queue. After examining the queue, you determine that no queue messages have a DequeueCount value greater than zero. The website does not throw any errors.

Business

Requirements

Payments

The music concert website must be able to submit event payment information for processing. The website must remain responsive while submitting payment information. Customers must be able to add notes about their orders to a free-form control on the website. These notes must be submitted with the payment when the customer submits an order.

Customers often enter notes that exceed 7 KB in size.

Technical Requirement

Payment Submission and processing

Event payment information must be sent from the website to a Windows Communication Foundation (WCF) service worker role. The worker role must submit the information to the payment processor in JSON format.

Payment

You have the following payment processing requirements:

Processing

*If the number of messages in a queue goes above or below a specified threshold, worker role instances must be created or deleted as needed. This process must be completed by using the least amount of effort. It must be easy to reconfigure role instance thresholds.

*Payments must be retrieved from the queue in the maximum batch sizes that are allowed by the queue and pulled from the queue for 5 minutes.

*The payment queue must not be re-created when processing payments.

*During single Payment processing, the number of tickets available for an event must be updated. The update operation must be retried for 30 seconds or 5 retry attempts, whichever occurs first. Each retry should pause for at least two seconds and for one second longer than the previous attempt. If the update fails, the payment should be placed in the poison queue.

Storage

You have the following storage requirements:

*Payment information must be stored by using Azure Queue storage. Connection to the Azure storage account has been established in a configured setting named StorageConnectionString, which is configured

for the web and worker roles.

- * A payment processing queue and a poison payment queue must be used when processing payments.
- * Azure Queue message content must be XML-safe and UTF-8 encoded.
- * An Azure storage account must be established for diagnostic information in a configured setting named DiagnosticsStorageConnectionString, which is configured for both the web and worker roles.

Security and Monitoring

Security

The web role must be secured by using HTTPS.

Monitoring

You must collect diagnostic data for both the web and worker roles by using the Diagnostics module. Diagnostics configuration changes must not require the code of the roles to be rebuilt. The diagnostic data is used for debugging and troubleshooting, measuring performance, monitoring resource usage, traffic analysis and capacity planning, and auditing.

Performance testing must evaluate the roles under normal and stress conditions without incurring charges for running Azure. Memory allocation, function time, and multithreading concurrency issues must be evaluated.

Deployment

You purchase a custom domain name fabrikamfunding.com to host the website, web role, and worker roles. You must deploy an HTTPS certificate with the web role, and you must update associated configuration files accordingly.

Web role and worker role instance sizes must be specified as Medium. You must deploy one web role instance named FabrikamFundingPaymentGenerator, and worker role instances named FabrikamFundingPaymentProcessor.

Application Structure

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.

CustomRetryPolicy.cs

```

CR01 public class CustomRetryPolicy : IRetryPolicy
CR02 {
CR03     int _retryCount = 0;
CR04     readonly TimeSpan _baseInterval= TimeSpan.FromSeconds(1);
CR05     readonly string _poisonPaymentQueueName;
CR06     private readonly CloudQueueClient _queueClient;
CR07     private readonly EventPayment _eventPayment;
CR08     public CustomRetryPolicy(string poisonPaymentQueueName, CloudQueueClient
queueClient, EventPayment eventPayment)
CR09     {
CR10         _poisonPaymentQueueName = poisonPaymentQueueName;
CR11         _queueClient = queueClient;
CR12         _eventPayment = eventPayment;
CR13     }
CR14     public IRetryPolicy CreateInstance()
CR15     {
CR16         return new CustomRetryPolicy(_poisonPaymentQueueName, _queueClient,
_eventPayment);
CR17     }
CR18 }
```

Event.cs

```

EV01 public class Event : TableEntity
EV02 {
EV03     public int AvailableTickets { get; set; }
EV04 }
```

EventPayment.cs

```

EP01 [DataContract]
EP02 public class EventPayment
EP03 {
EP04     [DataMember]
EP05     public int EventId { get; set; }
EP06     [DataMember]
EP07     public string Email { get; set; }
EP08     [DataMember]
EP09     public string Notes { get; set; }
EP10     [DataMember]
EP11     public int TicketCount { get; set; }
EP12     [DataMember]
EP13     public DateTime OrderDate { get; set; }
EP14     [DataMember]
EP15     public Guid EventPaymentId { get; set; }
EP16 }
```

QueueManager.cs

```

QM01 public class QueueManager
QM02 {
QM03     private readonly CloudQueueClient _queueClient;
QM04     private readonly CloudTableClient _tableClient;
QM05     private const string PaymentQueueName = "paymentqueue";
QM06     private const string PoisonPaymentQueueName = "poisonpaymentqueue";
QM07     public QueueManager()
QM08     {
QM09         var storageAccount = CloudStorageAccount.Parse(
QM10             CloudConfigurationManager.GetSetting("StorageConnectionString"));
QM11         _queueClient = storageAccount.CreateCloudQueueClient();
QM12         _tableClient = storageAccount.CreateCloudTableClient();
QM13     }
QM14     public async Task SendMessageAsync(EventPayment eventPayment)
QM15     {
QM16         ...
QM17     }
QM18     public async Task ProcessMessagesAsync()
QM19     {
QM20         ...
QM21     }
QM22     public async Task ProcessPayment(EventPayment eventPayment)
QM23     {
QM24         var events = _tableClient.GetTableReference("events");
QM25         var key = eventPayment.EventId.ToString();
QM26         var operation = await events.ExecuteAsync(TableOperation.Retrieve<Event>(key, key));
QM27         var @event = operation.Result as Event;
QM28         @event.AvailableTickets = @event.AvailableTickets - eventPayment.TicketCount;
QM29         var requestOptions = new TableRequestOptions
QM30         {
QM31             RetryPolicy = new CustomRetryPolicy(
QM32                 PoisonPaymentQueueName,
QM33                 _queueClient,
QM34                 eventPayment),
QM35         };
QM36         var context = new OperationContext
QM37         {
QM38             StartTime = DateTime.Now,
QM39         };
QM40         await events.ExecuteAsync(TableOperation.Replace(@event),
requestOptions, context);
QM41     }
QM42 }

```

Question: 246**HOTSPOT**

You need to implement the SendMessagesAsync method in the QueueManager class.

How should you complete the relevant code? To answer, select the appropriate code segment from each list in the answer area.

Answer Area

```
public async Task SendMessageAsync(EventPayment eventPayment)
{
    var queue = _queueClient.GetQueueReference(PaymentQueueName);
    await queue.CreateIfNotExistsAsync();
```

```
await queue.ClearAsync();
queue.EncodeMessage = true;
var eventPaymentMessage = new XmlSerializer(typeof(EventPayment)).Serialize(eventPayment);
var eventPaymentMessage = JsonConvert.SerializeObject(eventPayment);
```

```
await queue.PeekMessageAsync();
queue.Metadata.Add("message", eventPaymentMessage);
var message = new CloudQueueMessage(eventPaymentMessage);
var message = CloudConfigurationManager.GetSetting("eventPaymentMessage");
```

```
queue.AddMessage(message);
queue.DeleteMessage(message);
await queue.AddMessageAsync(message);
await queue.DeleteMessageAsync(message);
```

```
}
```

Answer:

Answer Area

```

public async Task SendMessageAsync(EventPayment eventPayment)
{
    var queue = _queueClient.GetQueueReference(PaymentQueueName);
    await queue.CreateIfNotExistsAsync();

    await queue.ClearAsync();
    queue.EncodeMessage = true;
    var eventPaymentMessage = new XmlSerializer(typeof(EventPayment)).Serialize(eventPayment);
    var eventPaymentMessage = JsonConvert.SerializeObject(eventPayment);

    await queue.PeekMessageAsync();
    queue.Metadata.Add("message", eventPaymentMessage);
    var message = new CloudQueueMessage(eventPaymentMessage);
    var message = CloudConfigurationManager.GetSetting("eventPaymentMessage");

    queue.AddMessage(message);
    queue.DeleteMessage(message);
    await queue.AddMessageAsync(message);
    await queue.DeleteMessageAsync(message);

}

}

```

Question: 247

The **SendMessageAsync** method of the **QueueManager** class occasionally throws errors.

You need to correct the errors.

What should you do?

- Update the **QueueManager** to use the Put Message operation of the Queue Service REST API. Use HTTP compression for all calls made to the REST API.
- Encode the notesfield content by using UTF-32 encoding.
- Update **SendMessageAsync** method of the **QueueManager** class to store the notesfield in BLOB storage. Update the **EventPayment** class to store the BLOB uniform resource identifier (URI). Extract the notes BLOB information by using the BLOB URI in the **ProcessMessagesAsync** method of the **QueueManager** class.
- Update the notesfield to a byte array. Binary encode and decode the notescontent when sending or receiving an **EventPayment** class.

Answer: C

Question: 248

DRAG DROP

You are developing an ASP.NET Web App that makes a large number of calls to Azure Blob storage. You observe that the app suffers from Azure Blob storage throttling. You need to resolve throttling failures when loading data from Azure Blob storage.

What should you do? To answer, drag the appropriate code segment to the correct location. 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.

400
403
500
503
waitMillisecl * 2;
waitMillisecl + 2;

Answer Area

```
var sasBlobUri = "..." ;
var waitMillisecond = 1000;
while (true) {
    using (var client = new System.Net.Http.HttpClient())
    {
        var response = await client.GetAsync(sasBlobUri);
        if (response.IsSuccessStatusCode)
        {
            return await response.Content.ReadAsByteArrayAsync();
        }
        else
        {
            var statusCode = (int)response.StatusCode;
            if (statusCode == [REDACTED])
                || statusCode == [REDACTED])
            {
                waitMillisecond = [REDACTED];
                await Task.Delay(waitMillisecond);
            }
            else
            {
                response.EnsureSuccessStatusCode();
            }
        }
    }
}
```

Answer:

400
403
500
503
waitMillisecond * 2;
waitMillisecond + 2;

Answer Area

```
var sasBlobUri = "..." ;
var waitMillisecond = 1000;
while (true) {
    using (var client = new System.Net.Http.HttpClient())
    {
        var response = await client.GetAsync(sasBlobUri);
        if (response.IsSuccessStatusCode)
        {
            return await response.Content.ReadAsByteArrayAsync();
        }
        else
        {
            var statusCode = (int)response.StatusCode;
            if (statusCode == 500
                || statusCode == 503)
            {
                waitMillisecond = waitMillisecond * 2;

                await Task.Delay(waitMillisecond);
            }
            else
            {
                response.EnsureSuccessStatusCode();
            }
        }
    }
}
```

Question: 249

You need to diagnose the source of the performance issues when preparing concert tickets.

Which two actions should you perform? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Examine the Storage Logging logs for any queue operations that have higher than expected latency.
- B. Examine the Storage Client Library logs to determine whether there is a decrease in the total number of requests for storage operations.
- C. Examine the diagnostic message logs for the worker role to determine whether the worker role is failing to process messages.
- D. Examine the Storage Client Library logs to determine whether there are repeated retries for storage operations.

Answer: A,D

Explanation:

References: <https://docs.microsoft.com/en-us/azure/storage/storage-monitoring-diagnosing-troubleshooting#you-are-experiencing-unexpected-delays-in-message-delivery>

Question: 250

The SendMessageAsync method of the QueueManager class occasionally throws errors.
You need to correct the errors.
What should you do?

- A. Remove all attributes from the EventPayment class.
- B. Encode the notes field content by using UTF-32 encoding.
- C. Update the notes field to a byte array. Binary encode and decode the notes content when sending or receiving an EventPayment class.
- D. Update the SendMessageAsync method of the QueueManager class to store the notes field in BLOB storage. Update the EventPayment class to store the BLOB uniform resource identifier (URI). Extract the notes BLOB information by using the BLOB URI in the ProcessMessagesAsync method of the QueueManager class.

Answer: D

Question: 251

DRAG DROP

You need to implement the ProcessPaymentAsync method in the QueueManager class.
Develop the solution by selecting and arranging the required code blocks in the correct order.
NOTE: You will not need all of the code segments.

Code segments

```

while (true)
{
var messages =
await queue.GetMessagesAsync(32, TimeSpan.FromMinutes(5),
null, null);
foreach (var mesage in messages.Where(message => message != null))
{
}

var eventPayment = JsonConvert.
DeserializeObject<EventPayment>(messageAsString);

await queue.DeleteMessageAsync(message);
}
}
}

public async Task ProcessPaymentsAsync()
{
var queue = _queueClient.GetQueueReference(PaymentQueueName);
await queue.CreateAsync();
}

public async Task ProcessPaymentsAsync()
{
var queue = _queueClient.GetQueueReference(PaymentQueueName);
await queue.CreateIfNotExistsAsync();
}

await ProcessPayment(eventPayment);

```

Answer Area

Answer:

Code segments

```

while (true)
{
    var messages =
        await queue.GetMessagesAsync(32, TimeSpan.FromMinutes(5),
            null, null);
    foreach (var message in messages.Where(message => message != null))
    {
    }
}

```

```

var eventPayment = JsonConvert.
DeserializeObject<EventPayment>(message.AsString);

await queue.DeleteMessageAsync(
    message);
}
}
}

```

```

public async Task ProcessPaymentsAsync()
{
    var queue = _queueClient.Get-
        QueueReference (Payment-
        QueueName);
    await queue.CreateAsync();
}

```

```

public async Task ProcessPaymentsAsync()
{
    var queue = _queueClient.Get-
        QueueReference (Payment-
        QueueName);
    await queue.CreateIfNotEx-
        istsAsync();
}

```

```

await ProcessPayment
(eventPayment);
}
}
}
}

```

Answer Area

```

public async Task ProcessPay-
mentsAsync()
{
    var queue = _queueClient.Get-
        QueueReference (Payment-
        QueueName);
    await queue.CreateIfNotEx-
        istsAsync();
}

```

```

while (true)
{
    var messages =
        await queue.GetMessagesAsync(32, TimeSpan.FromMinutes(5),
            null, null);
    foreach (var message in messages.Where(message != null))
    {
    }
}

```

```

await ProcessPayment
(eventPayment);
}
}
}
}

```

```

await queue.DeleteMessageAsync(
    message);
}
}
}
}

```



Case Study: 7

ProseWare Inc

Background:

You are a developer for ProseWare Inc., a software-as-a-service (SaaS) company that provides a comment system that websites use to allow for end users to post comments associated with a webpage or topic on a customer's website.

Business requirements

Moderation:

The moderation of comments is a feature of the software, and usually involves the editing of a comment. Only users who have accounts in a group in Azure Active Directory (Azure AD) have the ability moderate. External users can also become moderators, but only by explicit invitation.

Any moderation action must include the name of the moderator.

Comment navigation:

Each comment is identified by a unique string consisting of a random string of characters.

Within the body of a comment, internal links to other comment threads can be specified using the link format: “/⟨parent comment id⟩ / ⟨child comment id⟩”

Comment search:

Comments can be searched using Azure Search. Searches must do the following:

- Searching for email addresses must match email addresses in comments.
- Searching must work for the client’s language.
- Internal links to other comments using the link format should be searched.

Content screening:

Comment content is screened for inappropriate language, length, and topic using content analysis. Content must be screened, but can appear prior to be screened.

Mobile App:

The moderation functionality can be accessed using a Universal Windows Platform (UWP) app named ProsewareApp. The app includes functionality that notifies moderators when changes are made to a comment they modified.

Export:

Customers can perform an export of all comments to a customer supplied Microsoft OneDrive folder on demand. The export functionality is implemented as an Azure Logic App, and it must be able to be triggered by the customer from their local network.

Interaction agents:

Interaction agents are parts of the system that interact with comment threads. The main purpose is to modify a comment’s body based on the contents of the comment. For example, one of the agents is WikiAgent, which adds links to Wikipedia articles when it sees text in the comment body that exactly matches a Wikipedia article title. Interaction Agents are implemented in Service Fabric.

Interaction agents must meet the following requirements:

- Only successfully process each comment once
- Any errors encountered during the processing of a comment should be retried
- Must run on systems that allow for custom applications to be installed
- Must run in a VNet or private network space
- Must be run on a system that can scale up and down based on demand
- A single user’s usage of Interaction Agents must not impact other users’ usage of Interaction Agents

Technical requirements

Authentication:

ProseWare Inc. allows for user authentication through Azure AD and Twitter.

Storage:

The application runs as a Web App on Azure. Comments are stored in an Azure DocumentDB database named “Proseware”.

Performance:

The product includes a service level agreement (SLA) for individual method performance. All data retrieval methods must return within 100ms 99% of the time.

API:

The ProseWare Inc. API is made available to public callers using an Azure API App. Azure AD and Twitter are the Authentication Providers.

Application structure

CommentController.cs:

```

CC01 [Route("api/[controller]")]
CC02 public class CommentController : Controller
CC03 {
CC04     private IDatabase _redis;
CC05     private DataStore _dataStore;
CC06     private CloudQueue _queue
CC07
CC08     public CommentController ()
CC09     {
CC10         _queue = CloudStorageAccount.Parse(" ").Create-
CloudQueueClient().GetQueueReference ("commentQueue");
CC11         _redis = ConnectionMultiplexer.Connect("...").GetData-
base();
CC12         _dataStore = new DataStore();
CC13     }
CC14
CC15     [HttpGet("{commentId}")]
CC16     public async Task<Comment> Get(string commentId)
CC17     {
CC18         var cached = await _redis.StringGetAsync(commentId);
CC19         if (cached.HasValue)
CC20         {
CC21             return JsonConvert.DeserializeObject<Com-
ment>(cached.ToString());
CC22         }
CC23         return await _dataStore.LoadAsync(commentId);
CC24     }
CC25
CC26     [HttpGet]
CC27     public IEnumerable<Comment> GetChildComments(string com-
mentId)

```

```

CC28  {
CC29      IEnumerable<Comment> result = null;
CC30
CC31      if (result == null)
CC32      {
CC33          result = _dataStore.LoadThread(commentId);
CC34      }
CC35      return results;
CC36  }
CC37
CC38  [HttpPost]
CC39  public async Task<IActionResult> New([FromBody]Comment
comment)
CC40  {
CC41      await Save(comment);
CC42      return Ok();
CC43  }
CC44
CC45  [HttpPost]
CC46  public async Task<IActionResult> Reply(string inRe-
sponseTo, [FromBody]Comment comment)
CC47  {
CC48      comment.InResponseTo = inResponseTo;
CC49      await Save(comment);
CC50      return View();
CC51  }
CC52
CC53  private static Comment Convert(string json)
CC54  {
CC55      return JsonConvert.DeserializeObject<Comment>(json);
CC56  }
CC57
CC58  private async Task Save(Comment comment, string moderator-
Name = null)
CC59  {
CC60      comment.Moderator = moderatorName;
CC61      var json = JsonConvert.SerializeObject(comment);
CC62      _redis.StringSet(comment.Id, json);
CC62
CC63
CC64      await _queue.AddMessageAsync(new CloudQueueMessage(com-
ment.Id));
CC65      _dataStore.Save(comment);
CC66  }
CC67  }

cleaner.csx:
```

```
CL01 #r "Newtonsoft.Json"
CL02
CL03 using System;
CL04 using Newtonsoft.Json;
CL05 using Newtonsoft.Json.Linq;
CL06 public static void Run(string commentId, object result,
TraceWriter log)
CL07 {
CL08 dynamic comment = JObject.Parse(item);
CL09 ...
CL10 result = comment;
CL11 }
```

ICommentAgent.cs:

```
CA01 public interface ICommentAgent: IActor
CA02 {
CA03 Task<string> ModifyCommentText(string id, string body,
string title);
CA04 }
```

WikiAgent.cs:

```
WA01 [StatePersistence(StatePersistence.Persisted)]
WA02 internal class WikiAgent : Agent, ICommentAgent
WA03 {
WA04 public WikiAgent(ActorService, ActorId id) : base(service,
id) {}
WA05 public async Task<string> ModifyCommentText(string id,
string body, string title)
WA06 {
WA07     try
WA08     {
WA09
WA10         var newBody = scanForLinks(body);
WA11
WA12         return newBody;
WA13     }
WA14     catch
WA15     {
WA16
WA17         throw
WA18     }
WA19 }
WA20 }
```

Comment.cs:

```
co01 public class Comment
co02 {
co03     public string Id {get; set;}
co04     public string UserId {get; set;}
co05     public string InResponseTo {get; set;}
co06     public string Title {get; set;}
co07     public DateTimeOffset Date {get; set;}
co08     public string Body {get; set;}
co09     public string Moderator {get; internal; set;}
co10 }
```

DataStore.cs:

```

DS01 public class DataStore
DS02 {
DS03     private const string EndpointUrl = "https:
//proseware.documents.azure.com:443/";
DS04     private const string PrimaryKey = "";
DS05     private const string db = "Proseware";
DS06     private const string col = "Comments";
DS07     private DocumentClient client;
DS08
DS09     public DataStore()
DS10     {
DS11         client = new DocumentClient(new Uri(EndpointUrl), Pri-
maryKey);
DS12     }
DS13
DS14     public async Task<Comment> LoadAsync(string commentId)
DS15     {
DS16         var uri = UriFactory.CreateDocumentCollectionUri(db,
col);
DS17         return await client.ReadDocumentAsync<Comment>(UriFac-
tory.CreateDocumentUri(db, col, commentId));
DS18     }
DS19
DS20     public async void Save(Comment comment)
DS21     {
DS22         var uri = UriFactory.CreateDocumentCollectionUri(db,
col, comment.Id);
DS23         await client.UpsertDocumentAsync(uri, comment);
DS24     }
DS25     public IEnumerable<Comment> LoadThread(string commentId)
DS26     {
DS27         var uri = UriFactory.CreateDocumentCollectionUri(db,
col);
DS28         return client.CreateDocumentQuery<Comment>(uri).Where(f
=> f.Id == commentId);
DS29     }
}

```

MainPage.xaml.cs:

```
MP01 public sealed partial class MainPage : Page
MP02 {
MP03     public MainPage()
MP04     {
MP05         InitializeComponent();
MP06     }
MP07
MP08     private async void StartNotify()
MP09     {
MP10     }
MP11
MP12     private void UpdateUI()
MP13     {
MP14     }
MP15 }
```

Question: 252

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 need to ensure that moderators can be added to the system.

Which authentication approach should you use?

- A. Microsoft Office 365 directory
- B. Azure AD self-service signup
- C. Azure AD Organizational Units (OU)
- D. Active Directory Federation

Answer: C

Question: 253

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 need to implement the infrastructure for the Interaction Agents.

Solution: Create a Service Fabric cluster with Bronze durability and reliability tiers.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: A

Question: 254

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 need to implement the infrastructure for the Interaction Agents.

Solution: Create an Azure virtual machine (VM) scale set and use Azure Desired State Configuration (DSC) extension handler to install Service Fabric runtime.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Question: 255

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 need to implement the infrastructure for the Interaction Agents.

Solution: Create a set of Azure virtual machines (VMs) using Azure Resource Manager (ARM) templates, and use Chef to install the Service Fabric runtime.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Question: 256

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 need to implement the infrastructure for the Interaction Agents.

Solution: Create an Azure Container Service cluster and create a container for running Service Fabric.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: A

Question: 257

DRAG DROP

You need to add JSON code to the bindings file to ensure that comments are screened.

How should you complete the JSON code segment? To answer, drag the appropriate JSON segments to the correct locations. Each JSON 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.

JSON fragments

bindings
triggers
commentId
result
Proseware
Proseware/Comments
commentQueue
storage/commentQueue

Answer area

```
{
  "JSON fragment": [
    {
      "type": "queueTrigger",
      "name": "JSON fragment",
      "direction": "in",
      "queueName": "JSON fragment",
      "connection": "_"
    },
    {
      "type": "documentDB",
      "name": "JSON fragment",
      "databaseName": "JSON fragment",
      "collectionName": "Comments",
      "createIfNotExist": false,
      "connection": "...",
      "direction": "out"
    }
  ],
  "disabled": false
}
```

Answer:

JSON fragments

bindings
triggers
commentId
result
Proseware
Proseware/Comments
commentQueue
storage/commentQueue

Answer area

```
{
  "bindings": [
    {
      "type": "queueTrigger",
      "name": "commentId",
      "direction": "in",
      "queueName": "commentQueue",
      "connection": "_"
    },
    {
      "type": "documentDB",
      "name": "result",
      "databaseName": "Proseware",
      "collectionName": "Comments",
      "createIfNotExists": false,
      "connection": "...",
      "direction": "out"
    }
  ],
  "disabled": false
}
```

Question: 258

You need to create the index for comment search.

Which set of tokenizers should you enable?

- A. classicpath_hierarchy_v2microsoft_language_stemming_tokenizer
- B. classicnGrammicrosoft_language_tokenizer
- C. uax_url_emailpath_hierarchy_v2microsoft_language_tokenizer
- D. uax_url_emailkeyword_v2nGram

Answer: C

Case Study: 8

LitWare, Inc

Background

You are a developer for LitWare, Inc., a game development company. You are developing a backend service for an online social gaming platform named GamerData. The game is built around point generators, which are associated with physical landmarks. Players claim point generators which give them a set amount of

points per day.

Business Requirements

Mobile App

The game itself runs on various mobile devices and is developed by TailSpin Toys, a company that specializes in mobile game development. The mobile app will periodically make calls to the GamerData service to find the five closest point generators that are located less than the specified distance from the player's current location. If no point generators are found, the search distance increases until one is found. The mobile app shows all the point generators owned by each player. The mobile app allows for each player to search for claimed point generators by player name. This search does not require exact spelling of names. The details for each claimed generator is shown in the app.

When a player claims a point generator, they should receive an email notification. An Azure Function named EmailPlayer has been developed to email players with details about recently claimed point generators.

Sponsors

The platform allows business to sponsor point generators within a business location.

Reports

A report named Daily Sponsor Report must be generated each day at midnight. The report must contain a section for each sponsor. Each sponsor section must contain two subsections.

The first subsection of the report contains the names of the point generators for that sponsor, ordered by the last time the point generator was claimed. The second subsection contains the current owners for each of the point generators for the sponsor. Generation of reports must not impact the GamerData service.

Technical Requirements

GamerData Service

All data for the GamerData service is stored in an Azure DocumentDB instance named GamerData. Business and players interact with the service by using a REST API.

The REST API must:

- Produce valid Swagger API specifications for non-obsolete actions.
- Be optimized for loading specific point generators.
- Follow REST best practices.
- Include appropriate terms of service.

Costs for all Azure services must be minimized.

Build and Deployment

The GamerData service will be deployed to Azure in a private VNet.

Security

Sponsors have accounts in an Azure Active Directory (Azure AD) with business-to-consumer (B2C) enabled named litwaregamerdata.onmicrosoft.com managed by Litware, Inc. for both GamerData and LitWare, Inc. services.

Only Litware, Inc. developers and automated testing tools should be able to directly access the GamerData service. All other use of the service must be through Azure API Management. A description of the security practices used during development, available on Microsoft SharePoint, must be available to users of the API under the terms of service.

Reporting

Azure Search will be used as the source for running reports. The properties of indexes in Azure Search must

match the names of the properties in DocumentDB.

Performance

The Azure DocumentDB must not be used for reporting purposes. All services must perform queries in the data store when possible.

Application Structure

Startup.cs

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

```

SP01 public class Startup
SP02 {
SP03     public IConfigurationRoot Configuration { get; }
SP04     public Startup(IHostingEnvironment env)
SP05     {
SP06         var builder = new ConfigurationBuilder().SetBasePath(env.ContentRoot-
Path).AddJsonFile ("appsettings.json");
SP07         Configuration = builder.Build();
SP08     }
SP09     public void ConfigureServices(IServiceCollection services)
SP10     {
SP11         services.AddMvc();
SP12         Services.AddSwaggerGen();
SP13     }
SP14     public void Configure(IApplicationBuilder app, IHostingEnvironment env,
ILoggerFactory loggerFactory)
SP15     {
SP16         app.UseMvc();
SP17         app.UseSwagger();
SP18     }
SP19 }
```

PointController.cs

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

```

PC01 [Route("api/pointgen")]
PC02     public class PointGeneratorController : Controller
PC03     {
PC04         private static readonly string DatabaseName = "GamerData";
PC05         private static readonly string CollectionName = "PointGenerators";
PC06         private static readonly string EndpointUrl = "...";
PC07         private static readonly string AuthorizationKey = "...";
PC08
PC09         [HttpGet("{name}")]
PC10         public async Task<PointGenerator> Get(string name)
PC11         {
PC12             using (var client = new DocumentClient(new Uri(EndpointUrl),
AuthorizationKey))
PC13             {
PC14                 var response = await client.ReadDocumentAsync(UriFactory.Create-
DocumentUri(DatabaseName, CollectionName, name));
PC15                 return (PointGenerator)(dynamic)response.Resource;
PC16             }
PC17         }
PC18
PC19         [Route("nearby")]
PC20         [HttpGet]
PC21         public IEnumerable<pointGenerator> Nearby(double longitude, double
latitude, long minDistance)
PC22         {
PC23             var location = new Point(longitude, latitude);
PC24             using (var client = new DocumentClient(new Uri(EndpointUrl),
AuthorizationKey))
PC25             {
PC26
PC27             }
PC28         }
PC29
PC30         public async Task<PointGenerator> Update[FromBody] PointGenerator pg)
PC31         {
PC32             using (var client = new DocumentClient(new Uri(EndpointUrl),
AuthorizationKey))
PC33             {
PC34                 var collection = await GetCollection();
PC35                 await client.UpsertDocumentAsync(collection.SelfLink, pg);
PC36                 return pg;
PC37             }
PC38         }
PC39         private static async Task<DocumentCollection> GetCollection()
PC40         {
PC41             ...
PC42         }
PC43     }

```

PointGenerator.cs

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

```

PG01 public class PointGenerator
PG02 {
PG02
PG04     public string Name { get; set; }
PG05     [JsonProperty("currentOwner")]
PG06     public string CurrentOwner { get; set; }
PG07     [JsonProperty("sponsor")]
PG08     public string Sponsor { get; set; }
PG09     [JsonProperty("dateLastClaimed")]
PG10    public DateTimeOffset DateLastClaimed { get; set; }
PG12    [JsonProperty("location")]
PG12    public Point Location { get; set; }
PG13 }
```

Question: 259

You need to decrease the amount of time it takes to query point generators by configuring API management caching.

In the Azure portal, which value should you use for the Vary by Query string parameters setting?

- A. name
- B. longitude;latitude;minDistance
- C. longitude;latitude;dateLastClaimed
- D. Id

Answer: B

Question: 260

HOTSPOT

You need to build a Swagger specification for creating the GamerData managed API.

What should you do? To answer, select the appropriate options in the answer area.

```

"paths": {
    "/api/pointgen/{name)": {
        "get": {
            "parameters": [
                {
                    "name": "name", "in": "",
                    "type": "string"
                }
            ],
        },
        "/api/pointgen/nearby": {
            "": {
                "parameters": [
                    {
                        "name": "longitude", "in": "",
                        "type": "number", "format": "double"
                    },
                    {
                        "name": "latitude", "in": "",
                        "type": "number", "format": "double"
                    },
                    {
                        "name": "minDistance", "in": "",
                        "type": "number", "format": "int64"
                    }
                ]
            }
        }
    }
}

```

get
post
path
modelbinding

get
post
path
modelbinding

get
post
path
modelbinding

get
post
path
modelbinding

Answer:

```

{
    "name": "name", "in": "path", "required": true,
    "type": "string"
},
"/api/pointgen/nearby": {
    "get": {
        "parameters": [
            {
                "name": "longitude", "in": "query", "required": true,
                "type": "number", "format": "double"
            },
            {
                "name": "latitude", "in": "query", "required": true,
                "type": "number", "format": "double"
            },
            {
                "name": "minDistance", "in": "query", "required": true,
                "type": "number", "format": "double"
            }
        ]
    }
}

```

The code shows a JSON schema for an API endpoint. It includes a required parameter 'name' of type string and a path parameter 'path'. The endpoint '/api/pointgen/nearby' has three methods: get, post, path, and modelbinding. Each method has parameters for longitude, latitude, and minDistance, all of which are required and of type number with format double.

Question: 261

You need to trigger the EmailPlayer Azure Function when a point generator is claimed.

What are two possible ways to achieve this goal? Each correct answer presents a complete solution.

- A. Insert code after line PC35 to create a Queue trigger and send a queue message.
- B. Create a trigger based on the primary data store.
- C. Create a trigger based on the reporting data store.
- D. Insert code after line PC14 to create a Service Bus trigger and send a message.

Answer: D

Question: 262

You need to write an Azure Search Query to return data for the first subsection of the Daily Sponsor Report.

Which query string should you use?

- A. facets=currentOwner&sort=dateLastClaimed
- B. \$filter=sponsor&sort=dateLastClaimed
- C. search=currentOwner&sort=dateLastClaimed
- D. group=sponsor&sort=dateLastClaimed
- E. facets=sponsor&sort=dateLastClaimed

Answer: C

Question: 263

DRAG DROP

You need to ensure that sponsors can interact with the GamerData service by using the same credentials as they use for other LitWare, Inc. services.

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.

Actions

Create a new Azure AD named litware.onmicrosoft.com.

Enable OAuth 2.0 user authorization in Azure AD.

Configure an API Management OAuth 2.0 authorization server.

Configure an Azure AD OAuth 2.0 authorization server.

Enable OAuth 2.0 user authorization in API Management.

Register the API Management developer portal as an Azure AD application in litware.onmicrosoft.com.

Register the API Management developer portal as an Azure AD application in litware2.onmicrosoft.com.

Register the API Management developer portal as an Azure AD application in litwaregamedata.onmicrosoft.com.

Answer Area



Answer:

Actions

Create a new Azure AD named litware.onmicrosoft.com.

Enable OAuth 2.0 user authorization in Azure AD.

Configure an API Management OAuth 2.0 authorization server.

Configure an Azure AD OAuth 2.0 authorization server.

Enable OAuth 2.0 user authorization in API Management.

Register the API Management developer portal as an Azure AD application in litware.onmicrosoft.com.

Register the API Management developer portal as an Azure AD application in litware2.onmicrosoft.com.

Register the API Management developer portal as an Azure AD application in litwaregamedata.onmicrosoft.com.

Answer Area

Enable OAuth 2.0 user authorization in Azure AD.

Register the API Management developer portal as an Azure AD application in litwaregamedata.onmicrosoft.com.

Configure an Azure AD OAuth 2.0 authorization server.

**Question: 264**

You need to add a routing constraint.

Which code segment should you add at line PC29?

- A. [HttpDelete]
- B. [HttpPost]
- C. [HttpOptions]
- D. [HttpsHead]

Answer: B

Question: 265**HOTSPOT**

You need to write a method to return the email address for a given sponsor.

What should you do? To answer, drag the appropriate code segment to the correct location. 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.

Code segments

```
https://graph.windows.net/litwaregamerdata
```

```
https://litwaregamerdata.onmicrosoft.com/graph
```

```
https://graph.windows.net/litwareinc
```

```
https://litwareinc.onmicrosoft.com/graph
```

```
/users?api-version=1.6&$filter=displayName eq \'{pg.Sponsor}\'
```

```
/users?api-version=1.6&$filter=displayName eq \'{pg.CurrentOwner}\'
```

```
result.value[0].mail
```

```
result.value[0].sipProxyAddress
```

• • •

Answer Area

```
private async Task<string> getEmail(PointGenerator pg, string accessToken)

{
    var url = "https://graph.windows.net/litwareinc/graph/v1/users?api-version=1.6&$filter=displayName eq \'{pg.CurrentOwner}\'";
    url += $"&${pg.Sponsor}";

    var http = new HttpClient();
    var request = new HttpRequestMessage(HttpMethod.Get, url);
    request.Headers.Authorization =
        new AuthenticationHeaderValue("Bearer", accessToken);
    var response = await http.SendAsync(request);
    dynamic result =
        JsonConvert.DeserializeObject(await response.Content.ReadAsStringAsync());
}

return result.value[0].mail;
```

Answer:

Code segments

```

https://graph.windows.net/litwaregamerdata
https://litwaregamerdata.onmicrosoft.com/graph
https://graph.windows.net/litwareinc
https://litwareinc.onmicrosoft.com/graph
/users?api-version=1.6&$filter=displayName eq \'{pg.Sponsor}\'
/users?api-version=1.6&$filter=displayName eq \'{pg.CurrentOwner}\'
result.value[0].mail
result.value[0].sipProxyAddress
    
```

• • •

Answer Area

```

private async Task<string> getEmail(PointGenerator pg, string accessToken)
{
    var url = " https://graph.windows.net/litwaregamerdata ";
    url += $" /users?api-version=1.6&$filter=displayName eq \'{pg.Sponsor}\'";
    var http = new HttpClient();
    var request = new HttpRequestMessage(HttpMethod.Get, url);
    request.Headers.Authorization =
        new AuthenticationHeaderValue("Bearer", accessToken);
    var response = await http.SendAsync(request);
    dynamic result =
        JsonConvert.DeserializeObject(await response.Content.ReadAsStringAsync());
    return result.value[0].mail ;
}
    
```

Question: 266

HOTSPOT

You need to create the Azure Search index.

How should you configure the Azure Search index? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

FIELD NAME	TYPE	RETRIEVABLE	FILTERABLE	SORTABLE
currentOwner	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
sponsor	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
dateLastClaimed	Edm.DateTimeOffset	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Answer:

FIELD NAME	TYPE	RETRIEVABLE	FILTERABLE	SORTABLE
currentOwner	Edm.String	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
sponsor	Edm.String	<input checked="" type="checkbox"/>	<input style="border: 2px solid red;" type="checkbox"/>	<input checked="" type="checkbox"/>
dateLastClaimed	Edm.DateTimeOffset	<input checked="" type="checkbox"/>	<input style="border: 2px solid red;" type="checkbox"/>	<input checked="" type="checkbox"/>

Case Study: 9

Fourth Coffee

Background

You are a developer working for Fourth Coffee, a company that sells coffee and coffee accessories through an Azure-based website and retail locations. Features of the website include the ability to write product reviews, comment on reviews and find whether a particular product is available at a specific retail location. Fourth Coffee licenses a product from Contoso, Ltd, that provides an Azure-based website for users in Japan. The website includes reviews and comments. All comments and product reviews are shared between Fourth Coffee's website and the Japanese website.

Business Requirements

Product Reviews

User-submitted product reviews are provided by Contoso and are stored in the Japanese language in an HTML file format. When a review is submitted, you must remove specific keywords from the review and translate the review to the English language before you load the review onto the Fourth Coffee website. Translation processing and migration must occur with a minimum delay.

Product reviews can be loaded by third party websites, but only after they are processed and reviewed by Fourth Coffee employees. Reviews can be loaded up to one year after they are made public on the Fourth Coffee website.

Comments

Users can post comments about product reviews. After a comment is posted, all other users who comment on

that product receive a notification on their Android or Windows Phone device.

Technical Requirements

Product Reviews

The product reviews from Contoso are stored as HTML files in BLOB storage with the format “/reviews/<guid>.html”.

Fourth Coffee stores reviews in BLOB storage, with the format “/users/reviews/<guid>.md” where <guid> matches the file name of the review. After a Fourth Coffee employee approves the review, a metadata property named Reviewed with the value true is set on the BLOB.

Some product reviews contain language-specific terms that require additional processing. The additional processing is done by a python script named cleanup.py. The script relies on a data file names term.data that contains terms and their replacement values. All running instances of the script must use the same instance of the data file.

Security

To simplify the security configuration, Contoso and Fourth Coffee agree to configure the website and services to allow for communication between the services without the traffic being visible on the public Internet.

To prevent third parties from harvesting review data, whenever the system returns public reviews, it records the IP address of the request and increments a count of the times that data is retrieved from a particular IP address. If an IP address makes more than 10 requests a minute, the client must be redirected to a static page named ratelimit.html.

Azure

The Fourth Coffee website and related services that run on Azure are located in the US West region and are on a single virtual network named Main with the address 10.1.0.0/16.

The Contoso website and related services that run on Azure are located in the Japan West region and are on a single virtual network named CT with the address 10.2.0.0/24.

Comments

Product review comments must be processed, at most, one time. When a comment is posted, it must be associated with the identity of the user who posted the comment. Product review comments are indexed by a web service that accepts the body of the comment in an HTTP POST. When comments are ported, they must be indexed for search within 15 minutes. Each comment must be indexed exactly once. All mobile device notifications are sent by using the Azure Notification Hub service.

Application Structure

CommentIndexer.cs

Relevant portions of the CommentIndexer.cs file are shown below. Line numbers are included for reference only and include a two-character prefix that denotes the specific file to which the code belongs.

```

CI01 public class CommentIndexer
CI02 {
CI03     public static void ProcessQueueMessage (
CI04         [ServiceBusTrigger("comments")] BrokeredMessage message)
CI05     {
CI06         var searchRequest = WebRequest.Create("http://10.1.1.24/search");
CI07         searchRequest.Method = "POST";
CI08
CI09         var comment = message.GetBody<string>();
CI10         using (var req = searchRequest.GetRequestStream())
CI11         {
CI12             using (var tw = new StreamWriter(req))
CI13                 tw.Write(message.SessionId + comment)
CI14         }
CI15
CI16         foreach (var user in usersForCommentNotifications(comment))
CI17         {
CI18             sendNotification(user, comment);
CI19         }
CI20     }
CI21
CI22     private static void sendNotification(User user, string comment)
CI23     {
CI24         ...
CI25     }
CI26
CI27     private static string buildCommentJson(string comment)
CI28     {
CI29         ...
CI30     }
CI31
CI32     private static User[] usersForCommentNotifications(string comment)
CI33     {
CI34         ...
CI35     }
CI36 }

```

ReviewController.cs

Relevant portions of the ReviewController.cs file are shown below. Line numbers are included for reference only and include a two-character prefix that denotes the specific file to which the code belongs.

```

RC01 public class ReviewController : Controller
RC02 {
RC03     public void AddComment(string product, string comment)
RC04     {
RC05         var connectionString = CloudConfigurationManager.GetSetting
("Microsoft.ServiceBus.ConnectionString");
RC06         var client = QueueClient.CreateFromConnectionString(connectionString, "comments");
RC07     }
RC08
RC09     [AccessRateFilter]
RC10     public IEnumerable<Uri> PublicReviews()
RC11     {
RC12     }
RC13 }
RC14 }
```

TranslateJob.cs

Relevant portions of the TranslateJob.cs file are shown below. Line numbers are included for reference only and include a two-character prefix that denotes the specific file to which the code belongs.

```

TJ01 public class TranslateJob
TJ02 {
TJ03     ...
TJ04     public class Translator
TJ05     {
TJ06         public string Translate(string input)
TJ07         {
TJ08             ...
TJ09         }
TJ10     }
TJ11 }
```

AccessRateFilter.cs

Relevant portions of the AccessRateFilter.cs file are shown below. Line numbers are included for reference only and include a two-character prefix that denotes the specific file to which the code belongs.

```
AR01 public class AccessRateFilter : ActionFilterAttribute
AR02 {
AR03     public override void OnActionExecuting(ActionExecutingContext filterContext)
AR04     {
AR05
AR06     }
AR07
AR08     private static IDatabase getDatabase()
AR09     {
AR10         var connStr = CloudConfigurationManager.GetSetting("Microsoft.Redis.ConnectionString");
AR11         var connection = ConnectionMultiplexer.Connect(connStr);
AR12         var db = connection.GetDatabase();
AR13         return db;
AR14     }
AR15
AR16     private static string getIPAddress(ActionExecutingContext filterContext)
AR17     {
AR18         return filterContext.HttpContext.Request.UserHostAddress;
AR19     }
AR20 }
```

Question: 267

HOTSPOT

You need to add code after line RC06 to complete the implementation of the AddComment method. How should you complete the relevant code segment? To answer, select the appropriate code segment from each list in the answer area.

```
var sessionId = product;  
User.Identity.Name;  
Guid.NewGuid().ToString();  
  
client.Send(new QueueMessage(comment)  
new BrokeredMessage(comment))  
  
{  
    SessionId = sessionId,  
  
});  
  
client.Send(new QueueMessage(User.Identity.Name)  
new BrokeredMessage(User.Identity.Name))  
  
{  
    SessionId = sessionId,  
  
});
```

Answer:

```

var sessionId = 
    product;
User.Identity.Name;
Guid.NewGuid().ToString();

client.Send(
    new QueueMessage(comment)
    new BrokeredMessage(comment)
}

SessionId = sessionId,
});

client.Send(
    new QueueMessage(User.Identity.Name)
    new BrokeredMessage(User.Identity.Name)

{
SessionId = sessionId,
});

```

Question: 268

You need to create a web job that performs post processing for reviews.

What should you do?

- Rename the post-processing file to action.py, and add a file named settings.job that includes the following content:{ “is_in_place”: false})
- Rename the post-processing file to run.exe, and add a file named settings.job that includes the following content:{ “is_in_place”: false})
- Rename the post-processing file to run.py, and add a file named settings.job that includes the following content:{ “is_in_place”: true})
- Rename the post-processing file to action.exe, and add a file named settings.job that includes the following content:{ “is_in_place”: true})

Answer: C

Explanation:

Some product reviews contain language-specific terms that require additional processing. The additional processing is done by a python script named cleanup.py. The script relies on a data file names term.data that contains terms and their replacement values. All running instances of the script must use the same instance of the data file.

You need to implement the OnActionExecuting method of the AccessRateFilter class.

How should you complete the relevant code segment? To answer, select the appropriate code segment from each list in the answer area.

NOTE: Each correct selection is worth one point.

```

var db = getDatabase();
var ipAddress = getIPAddress(filterContext);

var count = 
    db.StringGet(ipAddress)
    db.HashGet(ipAddress, null)
    db.StringGetSet(ipAddress, 10);

var requests = 0;
if (count.IsInteger && count.TryParse(out requests))
{
    if (requests > 10)
    {

        filterContext.Result =
            new RedirectResult("/ratelimit.html");
            new HttpStatusCodeResult(500, "/ratelimit.html");
            new FilePathResult("/ratelimit.html", "Rate Limit");

        return;
    }
}

db.StringIncrement(ipAddress);
db.HashIncrement(ipAddress, 1);
db.SortedSetIncrement(ipAddress, "count", 1);

```

Answer:

```

var db = getDatabase();
var ipaddress = getIPAddress(filterContext);

var count = 
    db.StringGet(ipaddress)
    db.HashGet(ipaddress, null)
    db.StringGetSet(ipaddress, 10);

var requests = 0;
if (count.IsInteger && count.TryParse(out requests))
{
    if (requests > 10)
    {

        filterContext.Result =
            new RedirectResult("/ratelimit.html");
            new HttpStatusCodeResult(500, "/ratelimit.html");
            new FilePathResult("/ratelimit.html", "Rate Limit");

        return;
    }
}

db.StringIncrement(ipaddress);
db.HashIncrement(ipaddress, 1);
db.SortedSetIncrement(ipaddress, "count", 1);

```

Question: 269

DRAG DROP

You need to implement the translation web job.

How should you complete the relevant code? To answer, drag the appropriate code segment to the correct location. 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.

[BlobTrigger("reviews/{name}.{ext}")]

[BlobTrigger("reviews/{name}")]

[Blob("reviews/{inputStream}", FileAccess.Read)]

[Blob("users/reviews/{name}.md", FileAccess.Write)]

[Blob("reviews/{name}.md", FileAccess.Write)]

[Blob("users/reviews/{outputStream}.md", FileAccess.Write)]



```
public class TranslateJob
{
    public static void Translate(
        Stream inputStream,
        Stream outputStream)
    {
        var translator = new Translator();
        var converter = new Converter();
        using (var input = new StreamReader(inputStream))
        {
            var html = input.ReadToEnd();
            var markdown = translator.Translate(html);
            using (var o = new StreamWriter(outputStream))
            {
                o.Write(markdown);
                o.Flush();
            }
        }
    }
}
```

Code segment

Code segment

Answer:

```
[BlobTrigger("reviews/{name}.{ext}")]  

[BlobTrigger("reviews/{name}")]  

[Blob("reviews/{inputStream}", FileAccess.Read)]  

[Blob("users/reviews/{name}.md", FileAccess.Write)]  

[Blob("reviews/{name}.md", FileAccess.Write)]  

[Blob("users/reviews/{outputStream}.md", FileAccess.Write)]
```



```
public class TranslateJob  

{  

    public static void Translate(  

        [BlobTrigger("reviews/{name}")]  

        Stream inputStream,  

        [Blob("users/reviews/{name}.md", FileAccess.Write)]  

        Stream outputStream)  

    {  

        var translator = new Translator();  

        var converter = new Converter();  

        using (var input = new StreamReader(inputStream))  

        {  

            var html = input.ReadToEnd();  

            var markdown = translator.Translate(html);  

            using (var o = new StreamWriter(outputStream))  

            {  

                o.Write(markdown);  

                o.Flush();  

            }
        }
    }
}
```