

# Knowledge check

Total points 6

## 1. Question 1

Which of the following are benefits of Azure cloud-based data storage solutions?

Select all options that apply.

1 / 1 point

☒ Automated backup and Recovery

Correct

Automated backup and recovery mitigate the risk of losing your data if there is any unforeseen failure or interruption.

☐ Increased Capital Expenditure

☒ Global Replication

Correct

Replication across the globe copies your data to protect it against any planned or unplanned events, such as scheduled maintenance or hardware failures. You can choose to replicate your data at multiple locations across the globe.

☒ Multiple Data Types

Correct

Azure can store almost any type of data you need. It can handle video files, text files, and even large binary files like virtual hard disks. It also has many options for your relational and NoSQL data.

## 2. Question 2

What is data that adheres to a strict schema, often called relational data, referred to as?

1 / 1 point

☐ Semi-structured Data

☐ Unstructured Data

☒ Structured Data

Correct

Structured data, sometimes referred to as relational data, is data that adheres to a strict schema, so all of the data has the same fields or properties.

## 3. Question 3

In semi-structured data, the expression and structure of the data are defined by a serialization language. Which of the following are serialization languages?

Select all options that apply.

**1 / 1 point**

☐ SQL

☒ JSON

**Correct**

JSON or JavaScript Object notation is an example of a common serialization language.

☒ XML

**Correct**

XML or extensible markup language is an example of a common serialization language.

☒ YAML

**Correct**

YAML or ‘YAML are not Markup Language’ is an example of a common serialization language.

#### 4. Question 4

The organization of unstructured data is ambiguous. Which of the following are examples of unstructured data?

Select all options that apply.

**1 / 1 point**

☐ Tables

☒ Media files,

**Correct**

Media files, such as photos, videos, and audio files are examples of unstructured data.

☒ Log files

**Correct**

Log files are examples of unstructured data.

☒ Text files

**Correct**

Text files are examples of unstructured data.

#### 5. Question 5

Identify the serialization language in the following script?

{

```
"firstName": "John",  
"lastName": "Doe",  
"age": "23",  
"hobbies": [  
  { "type": "Sports", "value": "Golf" },  
  { "type": "Leisure", "value": "Reading" },  
  { "type": "Leisure", "value": "Guitar" }  
]  
}
```

**1 / 1 point**



JSON



XML



YAML

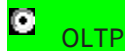
**Correct**

JSON has a lightweight specification and relies on curly braces to indicate data structure.

### 6. Question 6

Which of the following is a transactional database system that commonly support lots of users, has quick response times, and handles large volumes of data?

**1 / 1 point**



OLTP



OLAP

**Correct**

Transactional databases are often called OLTP (Online Transaction Processing) systems. OLTP systems commonly support lots of users, have quick response times, and handle large volumes of data. They typically handle small or relatively simple transactions.

# Knowledge check

Total points 6

## 1. Question 1

Azure provides many ways to store your data. Azure selected four of these data services and placed them together under the name Azure Storage. Which of the following are components of Azure Storage?

Select all options that apply.

1 / 1 point

☒ Azure Tables

Correct

Azure Tables are part of Azure Storage.

☒ Azure Files

Correct

Azure Files are part of Azure Storage.

☒ Azure Blobs

Correct

Azure Blobs are part of Azure Storage.

☐ Azure SQL

☒ Azure Queues

Correct

Azure Queues are part of Azure Storage.

☐ Azure Cosmos DB

## 2. Question 2

Which of the following statements is true of Resource Groups, Storage Accounts, and Azure Cosmos DB?

1 / 1 point

☐ Azure Cosmos DB can be included in an Azure Storage Account in an Azure Resource Group

☒ Azure Cosmos DB can be included in an Azure Resource Group but cannot be included in an Azure Storage Account.

Correct

A storage account is an Azure resource and is included in a resource group. Data services like Azure SQL and Azure Cosmos DB are managed as independent Azure resources and can be included in an Azure Resource Group but cannot be included in a storage account.

### 3. Question 3

When you create a storage account in Azure, there are certain settings that you must configure. Which of the following restrictions apply to storage account names?

1 / 1 point

☐ The name of the account must be globally unique within the subscription.

☒ The name for the account must be globally unique within Azure.

Correct

The name must be globally unique within Azure, use only lowercase letters and digits and be between 3 and 24 characters.

### 4. Question 4

A storage account by itself has no financial cost; however, the settings you choose for the account do influence the cost of services in the account.

Suppose you have files stored as Blob storage. Some of these files are critical and should be replicated geographically across multiple datacentres while other data is noncritical and can be replicated locally. Which of the following solutions will satisfy both diversity and cost sensitivity?

1 / 1 point

☐ A single storage account that makes use of geo-redundant storage (GRS) and host all files from here.

☐ A single storage account that makes use of Local-redundant storage (LRS) and host all files from here.

☒ Two storage accounts where one account makes use of geo-redundant storage (GRS) and hosts the business-critical files while the second account makes use of local-redundant storage (LRS) and hosts the non-critical files.

Correct

In general, increased diversity means an increased number of storage accounts. Use multiple storage accounts to reduce costs.

### 5. Question 5

Which of the following can be used to create a Storage Account in Microsoft Azure?

1 / 1 point

☒ Azure Portal

Correct

The Azure Portal can be used to create a storage account.

☐ AzCopy

☒ Azure PowerShell

**Correct**

Azure PowerShell can be used to create a storage account.



Azure CLI

**Correct**

The Azure CLI can be used to create a storage account.

**6. Question 6**

In a typical project, when would you create your storage account(s)?

**1 / 1 point**



After deployment, when the project is running.



At the end, during resource cleanup.



At the beginning, during project setup.

**Correct**

Storage accounts are stable for the lifetime of a project. It's common to create them at the start of a project.

## Knowledge check

**Total points 5**

**1. Question 1**

Azure Storage supports three kinds of blobs. Which of the following are valid blob types?

Select all options that apply.

**1 / 1 point**



Append blobs

**Correct**

Append blobs are made up of blocks like block blobs, but they are optimized for append operations. Frequently used for logging information from one or more sources into the same blob.

☒ Block blobs

**Correct**

Block blobs are used to hold text or binary data. The primary use case for block blobs is the storage of files that are read from beginning to end, such as media files or image files for websites.

☒ Page blobs

**Correct**

Page blobs are used to hold random-access files. Page blobs are used primarily as the backing storage for the VHDs used to provide durable disks for Azure Virtual Machines.

☐ Table Storage

## 2. Question 2

Azure storage supports four types of data. Which of the following are defined as Azure data types?

Select all options that apply.

**0.6 / 1 point**

☒ Column Storage

**This should not be selected**

Column Storage is not defined as a data type in Azure Storage.

☒ Queues

**Correct**

Queues are a messaging store for reliable messaging between application components.

☐ Table Storage

☒ Blobs

**Correct**

Blobs are a massively scalable object store for text and binary data.

☒ Files

**Correct**

Managed file shares can be implemented for cloud or on-premises deployments.

## 3. Question 3

Block blobs are used to hold text or binary files up to a what size?

**1 / 1 point**

☐ 500 GB

☒ 5 TB

☐ 5 GB

**Correct**

Block blobs are used to hold text or binary files up to ~5 TB (50,000 blocks of 100 MB) in size.

**4. Question 4**

Storage for VHDs is used to provide durable disks for Azure Virtual Machines that utilize which type of Blob Storage?

**1 / 1 point**

☐ Block Blobs

☐ Append Blobs

☒ Page Blob

**Correct**

Page blobs are used primarily as the backing storage for the VHDs to provide durable disks for Azure Virtual Machines.

**5. Question 5**

Azure Storage offers several types of storage accounts. What is the recommended storage type for blobs, file shares, and queues?

**1 / 1 point**

☒ Standard General purpose v2

**Correct**

Standard general-purpose v2 is the standard storage account type for blobs, file shares, queues, and tables. It is recommended for most scenarios using Azure Storage.

☐ Premium Storage



# Knowledge check

Total points 5

## 1. Question 1

You have added the required client libraries to your application and are ready to connect to your Azure storage account. To work with data in a storage account, your app will need two pieces of data. What are these pieces of data?

Select all options that apply.

1 / 1 point



REST API endpoint

Correct

To work with data in a storage account, your app will need a REST API endpoint



Azure Active Directory Account



Access key

Correct

To work with data in a storage account, your app will need an Access key

## 2. Question 2

When connecting an app to multiple storage accounts, what will your app require?

1 / 1 point



An Access key for each storage account



A single Access key to gain access to all storage accounts

Correct

Each storage account has two unique access keys that are used to secure it. If your app needs to connect to multiple storage accounts, your app will require an access key for each storage account.

## 3. Question 3

Each Azure Storage account has two access keys. What is the purpose of having two keys?

1 / 1 point



To share the keys between different Apps



To share the keys amongst other users



To allow keys to be rotated (regenerated) periodically

Correct

Each storage account has two access keys. The reason for this is to allow keys to be rotated (regenerated) periodically as part of security best practice. This process can be done from the Azure portal or the Azure CLI/PowerShell command line tool.

#### 4. Question 4

When regenerating Access Keys, in which order should the steps be carried out in to prevent causing downtime in those applications that use them?

Select the correct sequence from the following list

1 / 1 point

☐ Update the connection strings in your code to reference the new primary access key.

Update the connection strings in your application code to reference the secondary access key of the storage account.

Regenerate the primary access key for your storage account using the Azure portal or command line tool.

Regenerate the secondary access key in the same manner.

☒ Update the connection strings in your application code to reference the secondary access key of the storage account.

Regenerate the primary access key for your storage account using the Azure portal or command line tool.

Update the connection strings in your code to reference the new primary access key.

Regenerate the secondary access key in the same manner.

☐ Update the connection strings in your code to reference the new primary access key.

Update the connection strings in your application code to reference the secondary access key of the storage account.

Regenerate the secondary access key in the same manner.

Regenerate the primary access key for your storage account using the Azure portal or command line tool.

☐ Update the connection strings in your application code to reference the secondary access key of the storage account.

Regenerate the primary access key for your storage account using the Azure portal or command line tool.

Regenerate the secondary access key in the same manner.

Update the connection strings in your code to reference the new primary access key.

**Correct**

The proper sequence to prevent downtime is

Update the connection strings in your application code to reference the secondary access key of the storage account.

Regenerate the primary access key for your storage account using the Azure portal or command line tool.

Update the connection strings in your code to reference the new primary access key.

Finally, regenerate the secondary access key in the same manner.

### 5. Question 5

Which of the following is a good analogy for the access keys of a storage account?

1 / 1 point

- ☐ IP Address
- ☐ Cryptographic algorithm
- ☒ Username and password
- ☐ Hash algorithm

**Correct**

Possession of an access key identifies the account and grants you access. This is very similar to login credentials like a username and password.

## Knowledge check

Total points 5

### 1. Question 1

True or false?

All data written to Azure Storage is automatically encrypted.

1 / 1 point

☒ True

☐ False

**Correct**

All data written to Azure Storage is automatically encrypted by Storage Service Encryption (or SSE) with a 256-bit Advanced Encryption Standard (or AES) cipher and is FIPS 140-2 compliant.

## 2. Question 2

Azure Storage supports Azure Active Directory and role-based access control (or RBAC) for both resource management and data operations. You can assign RBAC roles that are scoped to which of the following?

Select all options that apply.

**1 / 1 point**

☒ A resource group

**Correct**

Azure Storage supports Azure Active Directory and role-based access control (or RBAC) for both resource management and data operations. You can assign RBAC roles that are scoped to an individual container, an individual queue, a storage account, a resource group, or a subscription.

☒ An individual container or queue

**Correct**

Azure Storage supports Azure Active Directory and role-based access control (or RBAC) for both resource management and data operations. You can assign RBAC roles that are scoped to an individual container, an individual queue, a storage account, a resource group, or a subscription.

☒ A subscription

**Correct**

Azure Storage supports Azure Active Directory and role-based access control (or RBAC) for both resource management and data operations. You can assign RBAC roles that are scoped to an individual container, an individual queue, a storage account, a resource group, or a subscription.

☒ A storage account

**Correct**

Azure Storage supports Azure Active Directory and role-based access control (or RBAC) for both resource management and data operations. You can assign RBAC roles that are scoped to an individual container, an individual queue, a storage account, a resource group, or a subscription.

☐ A table

## 3. Question 3

Azure Storage accounts can create authorized apps in Active Directory to control access to the data in which of the following?

Select all options that apply.

**1 / 1 point**

☐ Azure Files

☒ Azure Queues

**Correct**

Azure Storage accounts can create authorized apps in Active Directory to control access to the data in blobs and queues.

☐ Azure Tables

☒ Azure Blobs

**Correct**

Azure Storage accounts can create authorized apps in Active Directory to control access to the data in blobs and queues.

**4. Question 4**

In Azure Storage, clients can use a shared key or shared secret for authentication and to restrict access to resources. A Shared key is supported by which of the following storage models?

Select all options that apply.

**1 / 1 point**

☒ Blobs

**Correct**

Clients can use a shared key or shared secret as an authentication option and is one of the easiest to use. It supports Blobs, files, queues, and tables.

☒ Queues

**Correct**

Clients can use a shared key or shared secret as an authentication option and is one of the easiest to use. It supports Blobs, files, queues, and tables.

☐ Disks

☒ Files

**Correct**

Clients can use a shared key or shared secret as an authentication option and is one of the easiest to use. It supports Blobs, files, queues, and tables.

☒ Tables

**Correct**

Clients can use a shared key or shared secret as an authentication option and is one of the easiest to use. It supports Blobs, files, queues, and tables.

**5. Question 5**

True or false?

In Azure Storage accounts, shared keys give access to everything in the account.

**1 / 1 point**

☒ True

**Correct**

In Azure Storage accounts, shared keys give access to everything in the account

☐ False

## Knowledge check

**Total points 6**

### 1. Question 1

You are required to grant access to a third-party app that uploads pictures to one of your Blob Stores. From a security perspective which of the following is recommended to delegate access and specify constraints such as permissions?

**1 / 1 point**

☐ Storage Account Key

☒ Shared Access Signature (SAS)

☐ Azure Active Directory

**Correct**

As a best practice, for untrusted clients, use a shared access signature (SAS). A SAS is a string that contains a security token that can be attached to a URI. Use a SAS to delegate access to storage objects and specify constraints, such as the permissions and the time range of access.

### 2. Question 2

You have a requirement to allow an app to retrieve a list of files in a file system and also be able to download files. Which type of Shared Access Signature should you implement?

**1 / 1 point**



### Service Level SAS



Account Level SAS

#### Correct

You can use a service-level SAS to allow access to specific resources in a storage account. You use this type of SAS to allow an app to retrieve a list of files in a file system, or to download a file.

#### 3. Question 3

You have an Azure Storage service that must handle large amounts of data and high-volume transactions. Which of the following solutions in your opinion would be the most appropriate to reduce complexity and cost while still providing authentication?

1 / 1 point



Front end proxy server



### Lightweight Service

#### Correct

The lightweight service authenticates the client, as needed. It then generates a SAS. After receiving the SAS, the client can access storage account resources directly. The SAS defines the client's permissions and access interval, and it reduces the need to route all data through the front-end proxy service.

#### 4. Question 4

By default, storage accounts accept connections from clients on any network. To limit access to selected networks you must first change this default action. Which of the following can you use to restrict access to selected networks?

Select all options that apply.

0.75 / 1 point



Resource Group



Specific IP Addresses

#### Correct

You can restrict access to specific IP Addresses.



Ranges of IP addresses

#### Correct

You can restrict access to a range of IP Addresses.



Virtual Networks

You didn't select all the correct answers

#### 5. Question 5

Security alerts are triggered when anomalies occur. Azure provides various services including monitoring, recommendations, and remediation advice.

Which of the following notification features are available in Azure to trigger security alerts?

Select all options that apply.

**1 / 1 point**

☐ SMS messages

☒ Email Alerts

**Correct**

Security alerts are triggered when anomalies occur. These security alerts are integrated with Azure Security Center. They are also sent via email to subscription administrators with details of suspicious activity and recommendations on how to investigate and remediate threats.

☒ Azure Security Center

**Correct**

Security alerts are triggered when anomalies occur. These security alerts are integrated with Azure Security Center. They are also sent via email to subscription administrators with details of suspicious activity and recommendations on how to investigate and remediate threats.

## 6. Question 6

Azure Defender for Storage provides an extra layer of security intelligence that detects unusual and potentially harmful attempts to access or exploit storage accounts. Azure Defender for Storage is currently available for which of the following storage types?

Select all options that apply.

**0.5 / 1 point**

☒ Azure Disks

**This should not be selected**

Azure Defender for Storage is not available for Azure Disks. Azure Defender for Storage is currently available for Blob storage, Azure Files, and Azure Data Lake Storage Gen2.

☒ Azure Data Lake Storage Gen 2

**Correct**

Feedback: Azure Defender for Storage is currently available for Azure Data Lake Storage Gen 2.

☒ Blob Storage

**Correct**

Azure Defender for Storage is currently available for Blob Storage

☐ Azure File Storage



## Knowledge check

Total points 6

### 1. Question 1

Which of the following describes a storage account that contains PDF documents, JPG images, JSON files, and video content?

1 / 1 point



Unstructured Data



Semi-structured Data

Semi-structured data is a type of data that has some consistent and definite characteristics, and it does not confine into a rigid structure such as that needed for relational databases. Organizational properties like metadata or semantics tags are used with semi-structured data.



Structured Data

### Correct

Unstructured data is defined as data present in absolute raw form. This data is difficult to process due to its complex arrangement and formatting. Unstructured data management may take data from many forms, including social media posts, chats, satellite imagery, IoT sensor data, emails, and presentations, to organize it in a logical predefined manner.

### 2. Question 2

Which of the following scenarios are suitable for Blob Storage solutions?

Select all options that apply.

1 / 1 point



Storing data for analysis by an on-premises or Azure-hosted service

### Correct

Blob Storage is ideal for storing data for analysis by an on-premises or cloud service.



Storing data for backup and restore, disaster recovery, and archiving

**Correct**

Blob Storage is ideal for storing data for backup and restore, disaster recovery, and archiving.



Storing data that is queried frequently



Serving images or documents directly to a browser

**Correct**

Blob Storage is ideal for serving images or documents directly to a browser.

### 3. Question 3

True or False?

Azure Virtual Machines uses blobs for hard-disk storage.

**0 / 1 point**



True



False

**Incorrect**

Azure Virtual Machines do in fact use blobs for hard-disk storage.

### 4. Question 4

Which of the following statements is true of storage accounts and blob containers?

**1 / 1 point**



Every blob lives inside a blob container. You can store a limited number of blobs in a container and an unlimited number of containers in a storage account.



Every blob lives inside a blob container. You can store an unlimited number of blobs in a container and an unlimited number of containers in a storage account.



Every blob lives inside a blob container. You can only store a limited number of blobs in a container and a limited number of containers in a storage account.

**Correct**

Every blob lives inside a blob container. You can store an unlimited number of blobs in a container and an unlimited number of containers in a storage account.

### 5. Question 5

Suppose you need to store profile and order information about your customers. You also need to query the data to answer questions like "who are my top visitors to my website.?" and "how many customers live in a specific town or city?" What storage solution would you recommend?

**1 / 1 point**



Blob storage



## Relational database

### Correct

This scenario calls for a structured format such as a relational database. A relational database allows you to easily find specific information. It also allows you to sort based on any field and generate reports that contain only certain fields from each record.

#### 6. Question 6

How many access keys are provided for accessing your Azure storage account?

1 / 1 point



1



2



3



4

### Correct

Each storage account has two access keys. This lets you follow the best-practice guideline of periodically replacing the key used by your applications without incurring downtime.

## Test prep

Latest Submission Grade 88.89%

#### 1. Question 1

A YAML file stores which of the following types of data?

1 / 1 point



Semi-structured



Unstructured

☐ Structured

**Correct**

A YAML file is an example of semi-structured data structure. It is defined by line separation and indentation, and reduces the dependency on structural characters like parentheses, commas and brackets.

**2. Question 2**

The following script is an example of which serialization language?

```
<Person Age="23">

<FirstName>John</FirstName>

<LastName>Smith</LastName>

<Hobbies>

<Hobby Type="Sports">Golf</Hobby>

<Hobby Type="Leisure">Reading</Hobby>

<Hobby Type="Leisure">Guitar</Hobby>

</Hobbies>

</Person>
```

**1 / 1 point**

☒ XML

☐ YAML

☐ JSON

**Correct**

XML expresses the shape of the data using tags.

**3. Question 3**

Office files such as Word documents are an example of which type of data?

**0 / 1 point**

☒ Semi-structured

☐ Structured data

☐ Unstructured

**Incorrect**

The semi-structured model is a database model where there is no separation between the data and the schema. Try going back and reviewing the **Choose a data storage approach in Azure** lesson.

#### 4. Question 4

Transactions are often defined by a set of four requirements, referred to as ACID guarantees.

What does ACID stand for?

Select all options that apply.

**1 / 1 point**

☐ Concurrent

☐ Analytics

☒ Consistency

**Correct**

Consistency ensures that the data is consistent both before and after the transaction.

☒ Isolation

**Correct**

Isolation ensures that one transaction is not impacted by another transaction.

☒ Atomicity

**Correct**

Atomicity means a transaction must execute exactly once and must be atomic; either all of the work is done, or none of it is. Operations within a transaction usually share a common intent and are interdependent.

☐ Definition

☒ Durability

**Correct**

Durability means that the changes made due to the transaction are permanently saved in the system. Committed data is saved by the system so that even in the event of a failure and system restart, the data is available in its correct state.

#### 5. Question 5

Which of the following Azure Database services offer the following five consistency levels:

1. strong,
2. bounded staleness,
3. session,

4. consistent prefix,

5. eventual

**1 / 1 point**



Azure Cosmos DB



Azure SQL Managed Instance



Azure SQL Database

**Correct**

Azure Cosmos DB allows developers to choose between the five well-defined consistency models along the consistency spectrum. These consistency levels enable you to maximize the availability and performance of your database, depending on your needs.

**6. Question 6**

A storage account is a container that groups a set of Azure Storage services together.

Which of the following can be included in a storage account?

Select all options that apply.

**1 / 1 point**



Azure SQL



Azure Files

**Correct**

Only data services from Azure Storage can be included in a storage account.



Azure Blobs

**Correct**

Only data services from Azure Storage can be included in a storage account.



Azure Cosmos DB



Azure Tables

**Correct**

Only data services from Azure Storage can be included in a storage account.



Azure Queues

**Correct**

Only data services from Azure Storage can be included in a storage account.

### 7. Question 7

A storage account is an Azure resource and must therefore be included in?

1 / 1 point



Resource Group



Management Group



Azure AD Group

**Correct**

A storage account is an Azure resource and is included in a resource group.

### 8. Question 8

Suppose you have two video files stored as blobs. One of the videos is business-critical and requires a replication policy that creates multiple copies across geographically diverse datacenters. The other video is non-critical, and a local replication policy is sufficient. Which of the following options would satisfy both data diversity and cost sensitivity consideration?

1 / 1 point



Create a single storage account that makes use of Local-redundant storage (LRS) and host both videos from here.



Create a single storage account that makes use of Geo-redundant storage (GRS) and host both videos from here.



Create two storage accounts. The first account makes use of Geo-redundant storage (GRS) and hosts the business-critical video content. The second account makes use of Local-redundant storage (LRS) and hosts the non-critical video content.

**Correct**

In general, increased diversity means an increased number of storage accounts. A storage account by itself has no financial cost. However, the settings you choose for the account do influence the cost of services in the account. Use multiple storage accounts to reduce costs.

### 9. Question 9

The name of a storage account must be:

1 / 1 point



Unique within your Azure subscription.



Unique within the containing resource group.



Globally unique within Azure

**Correct**

The storage account name is used as part of the URI for API access, so it must be globally unique.

## Test prep

Latest Submission Grade 88.89%

### 1. Question 1

Page blobs are used to hold random-access files up to a what size?

1 / 1 point

☐ 8 GB

☒ 8 TB

☐ 800 GB

Correct

Page blobs are used to hold random-access files up to 8 terabytes in size.

### 2. Question 2

You can use either the REST API or the Azure client library to programmatically access a storage account. What is the primary advantage of using the client library?

1 / 1 point

☒ Convenience

☐ Localization

☐ Cost

Correct

Client libraries can save a significant amount of work for app developers because the API is tested, and it often provides nicer wrappers around the data models sent and received by the REST API.

### 3. Question 3

Which of the following are features of the Azure Queue service?



Select all options that apply.

1 / 1 point



Queues are used to store lists of messages to be processed asynchronously.

Correct

Queues are used to store lists of messages to be processed asynchronously.



It can store and retrieve messages

Correct

The Azure Queue service is used to store and retrieve messages.



Queue messages can be up to 64 kilobytes in size, and a queue can contain millions of messages.

Correct

Queue messages can be up to 64 kilobytes in size, and a queue can contain millions of messages.



Queues are used to store lists of messages to be processed synchronously.

#### 4. Question 4

Which of the following types of Azure data is most suitable for highly available network file shares that can be accessed using the standard Server Message Block, or SMB, protocol?

0 / 1 point



Files



Blobs



Queues

Incorrect

Try going back and reviewing the **Connect to an Azure storage account** lesson.

#### 5. Question 5

Azure Storage provides a REST API to work with the containers and data stored in each storage account.

What would this HTTP command return?

GET https://[url-for-service-account]/?comp=list&include=metadata

1 / 1 point



A List of all Files



A list of all Blobs in a container



A list of all tables

### Correct

The Storage REST APIs are accessible from anywhere on the Internet, by any app that can send an HTTP/HTTPS request and receive an HTTP/HTTPS response. To list all the blobs in a container, you would send something like this command.

#### 6. Question 6

Microsoft Azure Storage is a managed service that provides durable, secure, and scalable storage in the cloud. Azure Files enables you to set up highly available network file shares that can be accessed using the standard Server Message Block (SMB) protocol.

Which of the following are common scenarios where file shares can be used?

Select all options that apply.

**1 / 1 point**

☐ Sharing data between on-premises and Azure VM's to allow the migration of apps to the cloud instantly

☒ Storing shared configuration files for VMs, tools, or utilities so that everyone is using the same version.

### Correct

Multiple VMs can share the same files with both read and write access.

☒ Sharing data between on-premises applications and Azure VMs to allow migration of apps to the cloud over a period of time.

### Correct

Sharing data between on-premises applications and Azure VMs allows for the migration of apps to the cloud over a period of time.

#### 7. Question 7

Identify the missing word(s) in the following sentence within the context of Microsoft Azure.

A single Azure subscription can host up to \_\_\_\_ storage accounts, each of which can hold \_\_\_\_ TB of data.

**1 / 1 point**

☒ 200 / 500

☐ 500 / 500

☐ 100 / 200

### Correct

A single Azure subscription can host up to 200 storage accounts, each of which can hold 500 TB of data.

#### 8. Question 8

Azure Storage provides a REST API to work with the containers and data stored in each account. To work with data in a storage account, what pieces of data does your app need?

Select all options that apply.

**1 / 1 point**



REST API Endpoint

**Correct**

Azure Storage provides a REST API to work with the containers and data stored in each account. To work with data in a storage account, your app will need two pieces of data an access key and a REST API endpoint.



Public access key



Access key

**Correct**

Azure Storage provides a REST API to work with the containers and data stored in each account. To work with data in a storage account, your app will need two pieces of data an access key and a REST API endpoint.



Private access key

### 9. Question 9

Access keys are the easiest approach to authenticating access to a storage account. They provide full access to everything in the storage account. You can restrict access using a separate authentication mechanism based on expiration and limited permissions. What is this known as?

**1 / 1 point**



Shared Access Service (SAS)



Shared Access signatures (SAS)



Software as a Service (SaaS)

**Correct**

Storage accounts offer a separate authentication mechanism called shared access signatures that support expiration and limited permissions for scenarios where you need to grant limited access.

# Test prep

Latest Submission Grade 90.63%

## 1. Question 1

A storage account has two keys that provide full access to the account.

Which of the following are good reasons to regenerate your storage account keys?

Select all options that apply.

1 / 1 point

☒ The key may have been compromised due to a hacking attack which could allow the hacker full access to your storage account.

Correct

if someone hacks into an application and gets the key that was hard-coded or saved in a configuration file, regenerate the key. The compromised key can give the hacker full access to your storage account.

☐ It is a requirement based on Azure AD Policies.

☒ As security best practice, similar to changing a password on a user account.

Correct

For security reasons, you might regenerate keys periodically.

## 2. Question 2

Azure Storage Analytics service can be used to audit which of the following?

Select all options that apply.

0.75 / 1 point

☐ Azure AD permission changes

☒ Resources that have been accessed.

Correct

Azure Storage access can be audited using a built-in service: Storage Analytics service. Every operation is logged in real-time and you can search the storage analytics logs for specific requests. You can filter based on the authentication mechanism used, whether the operation was successful, or by the resource being accessed.

☒ Success of operations

Correct

Azure Storage access can be audited using a built-in service: Storage Analytics service. Every operation is logged in real-time and you can search the storage analytics logs for specific requests. You can filter based

on the authentication mechanism used, whether the operation was successful, or by the resource being accessed.

- ☐ Authentication mechanism

You didn't select all the correct answers

### 3. Question 3

You have a requirement to allow an app to retrieve a list of files in a file system, download files, and create file systems. Which type of Shared Access Signature should you implement?

1 / 1 point

- ☐ Service Level SAS

- ☒ Account Level SAS

#### Correct

You can use an account-level SAS to allow access to anything that a service-level SAS can allow plus additional resources and abilities. For example, you can use an account-level SAS to allow the ability to create file systems.

### 4. Question 4

Azure Data Lake Storage Gen2 is built on which of the following storage services?

1 / 1 point

- ☒ Azure Blob Storage

- ☐ Azure File Storage

- ☐ Azure Disks

- ☐ Azure Tables

#### Correct

Azure Data Lake Storage Gen2 is built on Azure Blob storage

### 5. Question 5

Which of the following is a key characteristic of Azure Government?

1 / 1 point

- ☒ Azure Government is a physically separate instance of Azure.

- ☐ Azure Government has a portal from which you can manage your resources.

- ☐ Azure Government has a marketplace from which you can deploy pre-built images from Microsoft and partners.

#### Correct

Azure Government is a physically separate instance of Azure.

### 6. Question 6

Azure Defender for Storage is available in which of the following environments?

Select all options that apply.

0.5 / 1 point

☒ US government clouds

Correct

Azure Defender for Storage is available in US government clouds.

☒ Sovereign cloud regions.

This should not be selected

Try going back and reviewing the **Access control and threat protection** lesson.

☐ All public clouds

☐ Azure Government

### 7. Question 7

When you create an Azure Storage Account a default network rule is created. What is the default rule that is applied?

1 / 1 point

☐ To allow all connection from a private IP address range

☒ To allow all connections from all networks

☐ To deny all connections from all networks

Correct

The default network rule is to allow all connections from all networks.

### 8. Question 8

Managing network access rules for Azure Storage accounts can be done with which of the following?

1 / 1 point

☒ Azure PowerShell

Correct

Managing network access rules for Azure Storage accounts can be done using Azure PowerShell.

☒ Azure CLI

Correct

Managing network access rules for Azure Storage accounts can be done using the Azure CLI.

☐ ARM Templates

☒ Azure Portal

**Correct**

Managing network access rules for Azure Storage accounts can be done using the Azure Portal.

## Test prep

**Latest Submission Grade 100%**

### 1. Question 1

Blobs are usually not appropriate for structured data that will be queried frequently. Which of the following is a characteristic? of blobs?

**1 / 1 point**

☒ High latency

☐ Restrictions on data types

☐ Indexing features

**Correct**

Blobs have higher latency than memory and local disk.

### 2. Question 2

You are working on a new project and need to create storage accounts and blob containers for your application.

What is the best way to do this?

**1 / 1 point**

☐ Create Azure storage accounts in your application as needed and create the containers before deploying your app.

☒ Create Azure storage accounts before deploying your app and then create containers in your application as needed.

- ☐ Create both the Azure storage accounts and containers before deploying your application.

**Correct**

Creating an Azure storage account is an administrative activity and can be done before deploying an application. Container creation is lightweight and is often driven by run-time data which makes it a good activity to do in your application.

**3. Question 3**

Which of the following are types of blobs that can store data?

Select all options that apply.

**1 / 1 point**

☒ Page

**Correct**

Page blobs are designed for scenarios that involve random-access reads and writes.

☒ Append

**Correct**

Append blobs are specialized block blobs that support only appending new data (not updating or deleting existing data),

☐ Queue

☐ File

☒ Block

**Correct**

Block blobs are composed of blocks of different sizes that can be uploaded independently and in parallel.

**4. Question 4**

Azure Storage supports three kinds of blobs. Which type of blob storage is used for structures like OS and data disks for Virtual Machines?

**1 / 1 point**

☒ Page Blobs

**Correct**

Page blobs are made up of 512-byte pages up to 8 TB in total size and are designed for frequent random read/write operations. Page blobs are the foundation of Azure IaaS Disks.

☐ Append Blobs

☐ Block Blobs



### 5. Question 5

You can use a service-level SAS to allow access to specific resources in a storage account. What can you use this type of SAS for?

Select all options that apply.

1 / 1 point

☒ To allow an app to retrieve a list of files in a file system.

Correct

You can use a service-level SAS to manage access to specific resources in a storage account. You can use this type of SAS, for example, to allow an app to retrieve a list of files in a file system.

☐ To allow an app or user to create file systems

☒ To allow an app to download a file.

Correct

You can use a service-level SAS to manage access to specific resources in a storage account. You can use this type of SAS, for example, to allow an app to download a file.

### 6. Question 6

The organization you work at has two types of data:

1. Private consumption
2. Public consumption.

When considering Azure storage accounts, which of the following approaches is recommended to provide access control to the different types of data?

1 / 1 point

☐ Locate the data in a datacenter with the strictest data regulations to ensure that regulatory requirements thresholds have been met. In this way, you need only one storage account for managing all data. This will reduce data storage costs.

☒ Enable virtual directories for the proprietary data and not for the public data with separate storage accounts for the proprietary and public data.

☐ Locate the organization's data in a datacenter in the required country or region with one storage account for each region.

Correct

Feedback: You need one storage account for every group of settings that you want to apply to your data.

### 7. Question 7

What type of data would be in a storage account that holds customer information and sales records in tables with rows and columns?

1 / 1 point



Structured Data



Semi-structured Data



Unstructured Data

**Correct**

Structured data is information that has been formatted and transformed into a well-defined data model. The raw data is mapped into predesigned fields that can then be extracted and read through SQL easily. SQL relational databases, consisting of tables with rows and columns, are the perfect example of structured data.

# Course practice exam

Latest Submission Grade 93.89%

## 1. Question 1

Which of the following are benefits of Azure cloud-based data storage solutions?

Select all options that apply.

1 / 1 point



Multiple Data Types

Correct

Azure can store almost any type of data you need. It can handle video files, text files, and even large binary files like virtual hard disks. It also has many options for your relational and NoSQL data.



Increased Capital Expenditure



Automated backup and Recovery

Correct

Automated backup and recovery mitigate the risk of losing your data if there is any unforeseen failure or interruption.



Global Replication

Correct

Replication across the globe copies your data to protect it against any planned or unplanned events, such as scheduled maintenance or hardware failures. You can choose to replicate your data at multiple locations across the globe.

## 2. Question 2

Which of the following statements is true of Resource Groups, Storage Accounts, and Azure Cosmos DB?

1 / 1 point



Azure Cosmos DB can be included in an Azure Resource Group but cannot be included in an Azure Storage Account.



Azure Cosmos DB can be included in an Azure Storage Account in an Azure Resource Group

Correct

A storage account is an Azure resource and is included in a resource group. Data services like Azure SQL and Azure Cosmos DB are managed as independent Azure resources and can be included in an Azure Resource Group but cannot be included in a storage account.

## 3. Question 3

Transactions are often defined by a set of four requirements, referred to as ACID guarantees.

What does ACID stand for?

Select all options that apply.

**1 / 1 point**



Consistency

**Correct**

Consistency ensures that the data is consistent both before and after the transaction.



Isolation

**Correct**

Isolation ensures that one transaction is not impacted by another transaction.



Automatic



Dynamic



Concurrent



Atomicity

**Correct**

Atomicity means a transaction must execute exactly once and must be atomic; either all of the work is done, or none of it is. Operations within a transaction usually share a common intent and are interdependent.



Durability

**Correct**

Durability means that the changes made due to the transaction are permanently saved in the system. Committed data is saved by the system so that even in the event of a failure and system restart, the data is available in its correct state.

#### **4. Question 4**

Let's say you have two video files stored as blobs. One of the videos is business-critical and requires a replication policy that creates multiple copies across geographically diverse datacenters. The other video is non-critical, and a local replication policy is sufficient. Which of the following options satisfies both data diversity and cost sensitivity consideration?


**1 / 1 point**



Create a single storage account that makes use of local-redundant storage (LRS) and host both videos from here.



Create a single storage account that makes use of geo-redundant storage (GRS) and host both videos from here.

 Create two storage accounts. The first account makes use of Geo-redundant storage (GRS) and hosts the business-critical video content. The second account makes use of local-redundant storage (LRS) and hosts the non-critical video content.

**Correct**

Try going back and reviewing **Store Data in Microsoft Azure**.

**5. Question 5**

Storage for VHDs is used to provide durable disks for Azure Virtual Machines that utilize which type of Blob Storage?

**1 / 1 point**

☐ Block Blobs

 **Page Blob**

Feedback. Page blobs are used primarily as the backing storage for the VHDs to provide durable disks for Azure Virtual Machines.

☐ Append Blobs

**Correct**

**6. Question 6**

What is the maximum size of a block blob storing text or binary files?

**1 / 1 point**

 **5 TB**

☐ 500 GB

☐ 5 GB

**Correct**

Block blobs are used to hold text or binary files up to ~5 TB (50,000 blocks of 100 MB) in size.

**7. Question 7**

Which of the following are features of the Azure Queue service?

Select all options that apply.

**0.75 / 1 point**

☒ Queue messages can be up to 64 kilobytes in size, and a queue can contain millions of messages.

**Correct**

Queue messages can be up to 64 kilobytes in size, and a queue can contain millions of messages.

☐ Queues are used to store lists of messages to be processed synchronously.

☒ Queues are used to store lists of messages to be processed asynchronously.

**Correct**

Queues are used to store lists of messages to be processed asynchronously.

☐ It can store and retrieve messages.

You didn't select all the correct answers

### 8. Question 8

You have added the required client libraries to your application and are ready to connect to your Azure storage account. To work with data in a storage account, your app will need two pieces of data. What are these pieces of data?

**1 / 1 point**

☐ Azure Active Directory Account

☒ REST API endpoint

**Correct**

To work with data in a storage account, your app will need a REST API endpoint.

☒ Access key

**Correct**

To work with data in a storage account, your app will need an Access key.

### 9. Question 9

Azure Storage provides a REST API to work with the containers and data stored in each account. To work with data in a storage account, what pieces of data does your app need?

Select all options that apply.

**1 / 1 point**

☐ Private access key

☒ Access key

**Correct**

Azure Storage provides a REST API to work with the containers and data stored in each account. To work with data in a storage account, your app will need two pieces of data an access key and a REST API endpoint

☒ REST API Endpoint

**Correct**

Azure Storage provides a REST API to work with the containers and data stored in each account. To work with data in a storage account, your app will need two pieces of data an access key and a REST API endpoint

- ☐ Public access key

### 10. Question 10

Microsoft Azure Storage is a managed service that provides durable, secure, and scalable storage in the cloud. Azure Files enables you to set up highly available network file shares that can be accessed using the standard Server Message Block (SMB) protocol.

Which of the following are common scenarios where file shares can be used?

Select all options that apply.

0.3333333333333333 / 1 point

- ☐ Sharing data between on-premises applications and Azure VMs to allow migration of apps to the cloud over time.

- ☒ Sharing data between on-premises and Azure VM's to allow the migration of apps to the cloud instantly

**This should not be selected**

Try going back and reviewing **Connect an app to Azure Storage**.

- ☒ Storing shared configuration files for VMs, tools, or utilities so that everyone is using the same version.

**Correct**

Multiple VMs can share the same files with both read and write access.

### 11. Question 11

When connecting an app to multiple storage accounts, what will your app require?

1 / 1 point

- ☒ An Access key for each storage account
- ☐ A Shared Access Key
- ☐ A single Access key to gain access to all storage accounts

**Correct**

Each storage account has two unique access keys that are used to secure it. If your app needs to connect to multiple storage accounts, your app will require an access key for each storage account.

### 12. Question 12

By default, storage accounts accept connections from clients on any network. To limit access to selected networks you must first change this default action.

Which of the following can you use to restrict access to selected networks?

1 / 1 point

☒ Ranges of Ip addresses

Correct

You can restrict access to a range of IP Addresses.

☒ Specific IP Addresses

Correct

You can restrict access to specific IP Addresses.

☐ Resource Group

☒ Virtual Networks

Correct

You can restrict access to a Virtual Network.

**13.** Question 13

Azure Data Lake Storage Gen2 is built on which of the following storage services?

1 / 1 point

☒ Azure Blob Storage

☐ Azure Tables

☐ Azure File Storage

☐ Azure Disks

Correct

Azure Data Lake Storage Gen2 is built on Azure Blob Storage.

**14.** Question 14

The organization you work at has two types of data:

1. Private and proprietary

2. For public consumption.

When considering Azure storage accounts, which of the following approaches is best to meet your data diversity requirement?

1 / 1 point

☒ Enable virtual directories for the proprietary data and not for the public data with separate storage accounts for the proprietary and public data.



- ☐ Locate the organization's data in a datacenter in the required country or region with one storage account for each region.
- ☐ Locate the data in a datacenter with the strictest data regulations to ensure that regulatory requirements thresholds have been met. In this way, you need only one storage account for managing all data. This will reduce data storage costs.

**Correct**

You need one storage account for every group of settings that you want to apply to your data.

**15. Question 15**

Which of the following statements is true of storage accounts and blob containers?

**1 / 1 point**

- ☐ Every blob lives inside a blob container. You can only store a limited number of blobs in a container and a limited number of containers in a storage account.

☒ Every blob lives inside a blob container. You can store an unlimited number of blobs in a container and an unlimited number of containers in a storage account.

- ☐ Every blob lives inside a blob container. You can store a limited number of blobs in a container and an unlimited number of containers in a storage account.

**Correct**

Every blob lives inside a blob container. You can store an unlimited number of blobs in a container and an unlimited number of containers in a storage account.