

# Building Advanced Data Analytics Applications with Cloud

## Module 4 - Azure SQL Database, Microsoft Azure Cloud for Data Analytics Managed Services

### Lab Practical Manual

#### Unit 1 – Microsoft Azure Storage Setup

##### Topic: Storage Account – Solved Question

Ex.1: Creating Storage Service Instances for Archival & Backup

##### Learning objective

In this you will:

- How to create the storage service
- How to take Backup
- Evaluate whether Azure Backup is appropriate to use for your backup needs.
- Describe how the features of Azure Backup work to provide backup solutions for your needs.

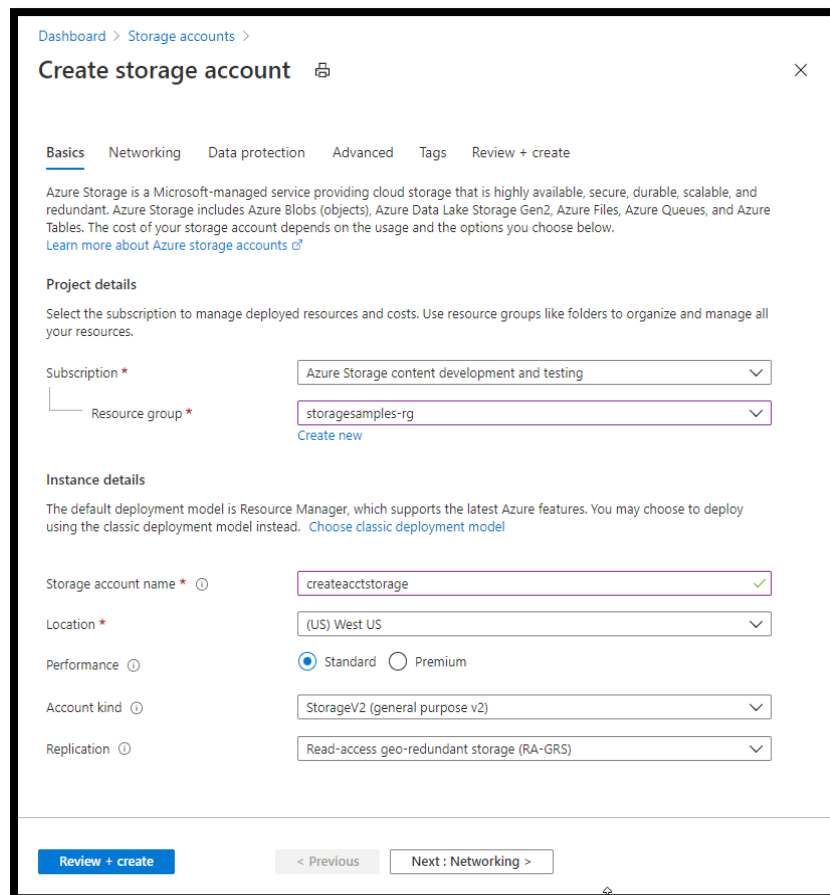
This activity focuses on creating a storage account in Azure cloud and uses it to store the important files. The storage services available are of variety of types. Choosing the right service depends on type of storage requirements.

Create a Storage Account

To create a general-purpose v2 storage account in the Azure portal, follow these steps:

- On the Azure portal menu, select **all services**. In the list of resources, type **Storage Accounts**. As you begin typing, the list filters based on your input. Select **Storage Accounts**.
- On the Storage Accounts window that appears, choose Add. The following image shows the settings on the Basics tab for a new storage account.
- On the Basics tab, select the subscription in which to create the storage account.

- Under the Resource group field, select your desired resource group, or create a new resource group. For more information on Azure resource groups, see [AzureResource Manager Overview](#).
- Next, enter a name for your storage account. The name you choose must be unique across Azure. The name also must be between 3 and 24 characters in length, and may include only numbers and lowercase letters.
- Select a location for your storage account, or use the default location.
- Select a performance tier. The default tier is Standard.
- Set the Account kind field to Storage V2 (general-purpose v2).
- Specify how the storage account will be replicated. The default replication option is Read-access geo-redundant storage (RA-GRS). For more information about available replication options, see [Azure Storage redundancy](#)
- Additional options are available on the Networking, Data protection, Advanced, and Tags tabs. To use Azure Data Lake Storage, choose the advanced tab, and then set Hierarchical namespace to Enabled.
- Select Review + Create to review your storage account settings and create the account.
- Select Create.



Dashboard > Storage accounts >

## Create storage account

Basics Networking Data protection Advanced Tags Review + create

Azure Storage is a Microsoft-managed service providing cloud storage that is highly available, secure, durable, scalable, and redundant. Azure Storage includes Azure Blobs (objects), Azure Data Lake Storage Gen2, Azure Files, Azure Queues, and Azure Tables. The cost of your storage account depends on the usage and the options you choose below. [Learn more about Azure storage accounts](#)

**Project details**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \* Azure Storage content development and testing

Resource group \* storagesamples-rg [Create new](#)

**Instance details**

The default deployment model is Resource Manager, which supports the latest Azure features. You may choose to deploy using the classic deployment model instead. [Choose classic deployment model](#)

Storage account name \* createacctstorage ✓

Location \* (US) West US

Performance ☒ Standard ☐ Premium

Account kind ☐ StorageV2 (general purpose v2)

Replication ☐ Read-access geo-redundant storage (RA-GRS)

[Review + create](#) < Previous Next : Networking >

## Practice Question : Create Storage Account and Save Any Sample File on Microsoft Azure.

### Blob Storage

#### Example:

Aim: Create a Block Blob Storage account

#### Learning Objective:

In this you will:

- Create Block Blob Storage account

Create a Block Blob Storage account in the Azure portal, follow these steps:

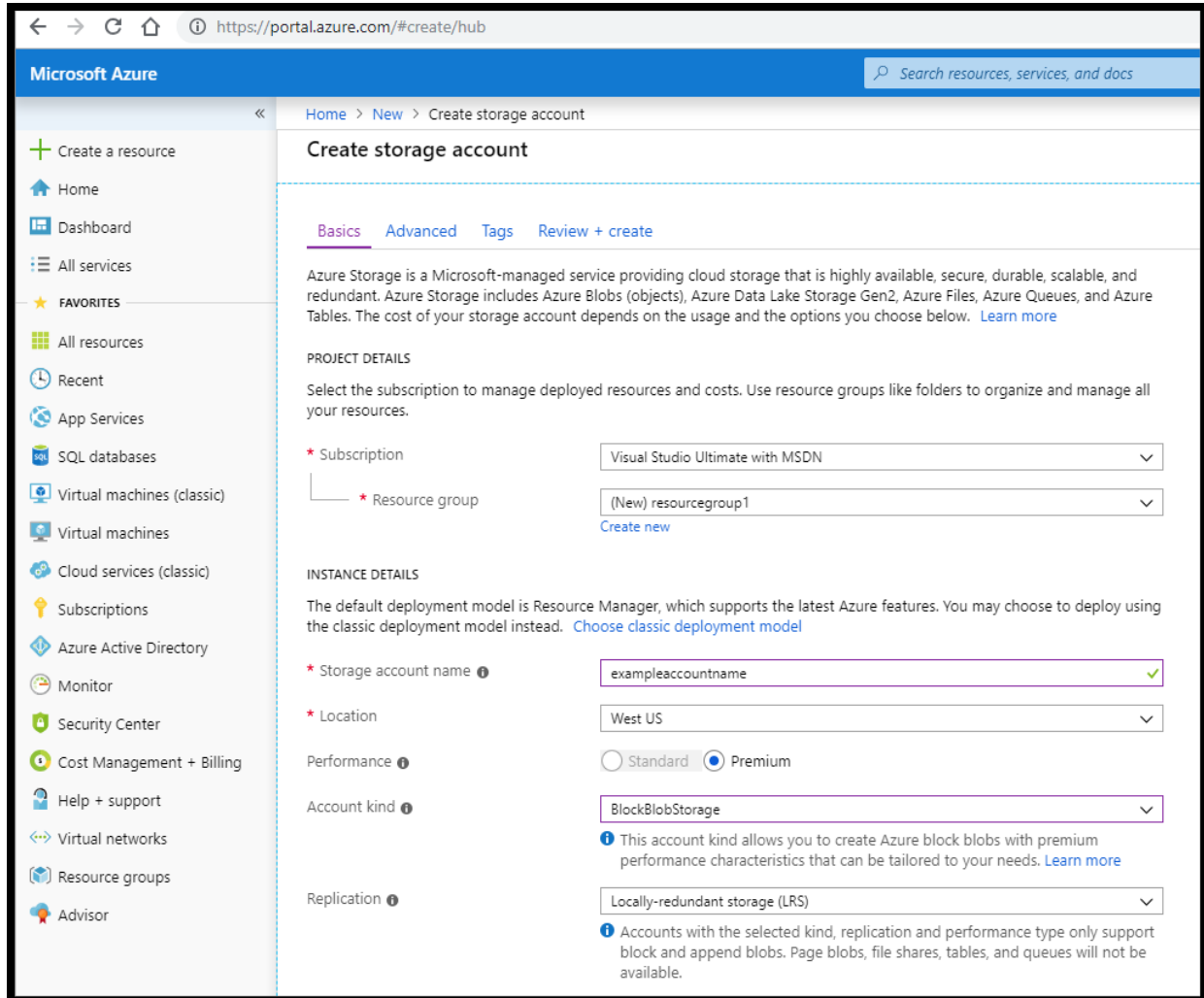
- In the Azure portal, select **All services** > the **Storage** category > **Storage accounts**.
- Under **Storage accounts**, select **Add**.
- In the **Subscription** field, select the subscription in which to create the storage account.
- In the **Resource group** field, select an existing resource group or select **Create new**, and enter a name for the new resource group.
- In the **Storage account name** field, enter a name for the account. Note the following guidelines:
  - The name must be unique across Azure.
  - The name must be between three and 24 characters long.
  - The name can include only numbers and lowercase letters.
- In the **Location** field, select a location for the storage account, or use the default location.
- For the rest of the settings, configure the following:

**TABLE 3**

Field	Value
<b>Performance</b>	Select <b>Premium</b> .
<b>Account kind</b>	Select <b>BlockBlobStorage</b> .
<b>Replication</b>	Leave the default setting of <b>Locally-redundant storage (LRS)</b> .

- Choose the **Advanced** tab.

- If you want to optimize your storage account for data analytics, then set **Hierarchical namespace** to **Enabled**. Otherwise, leave this option set to its default value. Enabling this setting with your BlobStorage account gives you the premium tier for Data Lake Storage. To learn more about Data Lake Storage, see Introduction to Azure Data Lake Storage Gen2.
- Select **Review + create** to review the storage account settings.
- Select **Create**.



Microsoft Azure

Home > New > Create storage account

### Create storage account

Basics Advanced Tags Review + create

Azure Storage is a Microsoft-managed service providing cloud storage that is highly available, secure, durable, scalable, and redundant. Azure Storage includes Azure Blobs (objects), Azure Data Lake Storage Gen2, Azure Files, Azure Queues, and Azure Tables. The cost of your storage account depends on the usage and the options you choose below. [Learn more](#)

**PROJECT DETAILS**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

\* Subscription: Visual Studio Ultimate with MSDN

\* Resource group: (New) resourcegroup1 [Create new](#)

**INSTANCE DETAILS**

The default deployment model is Resource Manager, which supports the latest Azure features. You may choose to deploy using the classic deployment model instead. [Choose classic deployment model](#)

\* Storage account name: exampleaccountname ✓

\* Location: West US

Performance: ☐ Standard ☒ Premium

Account kind: BlockBlobStorage

**Replication**

Locally-redundant storage (LRS)

This account kind allows you to create Azure block blobs with premium performance characteristics that can be tailored to your needs. [Learn more](#)

Accounts with the selected kind, replication and performance type only support block and append blobs. Page blobs, file shares, tables, and queues will not be available.

## Practice Questions

1. How do you create a new storage account in Microsoft Azure?
2. Once you have a storage account, explain how you can create multiple containers within it. Why are containers used in Blob Storage?