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Azure Blob Storage using CLI

Level: **Intermediate**

[Azure Storage Account](#) [Azure CLI](#) [Azure](#)



0h 37m 47s left



End Lab

Open Console

Validation

Lab Credentials

User Name ⓘ

labuser_80425_41771100@instructorwhizlabs.onmicrosoft.com



Password ⓘ

9d0QsBu4\$eC!#*7v%



Resource Group ⓘ

rg_eastus_80425_1_170568577881






Lab Resources

No Lab Resources Found

Support Documents

No Support Documents Found

Need help?

-  How to use Hands on Lab
-  Troubleshooting Lab
-  FAQs

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Azure Administrator
Associate,

Azure Data Scientist
Associate,

Azure Developer
Associate,

Cloud
Developer,

Data
Analyst



Storage

Lab Steps

Task 1: Sign in to Azure Portal

- Go to the Azure portal by clicking on the **Open Console** button or by using URL <https://portal.azure.com>.
 - Note:** It is recommended to use incognito mode to avoid Azure portal cache related issues.
- If it automatically logs into any other azure account, please logout of it and clear cache.
- Sign in with your given **username** and **password** on Azure portal.
- If login is not working. Click on **End Lab** and start the lab again.

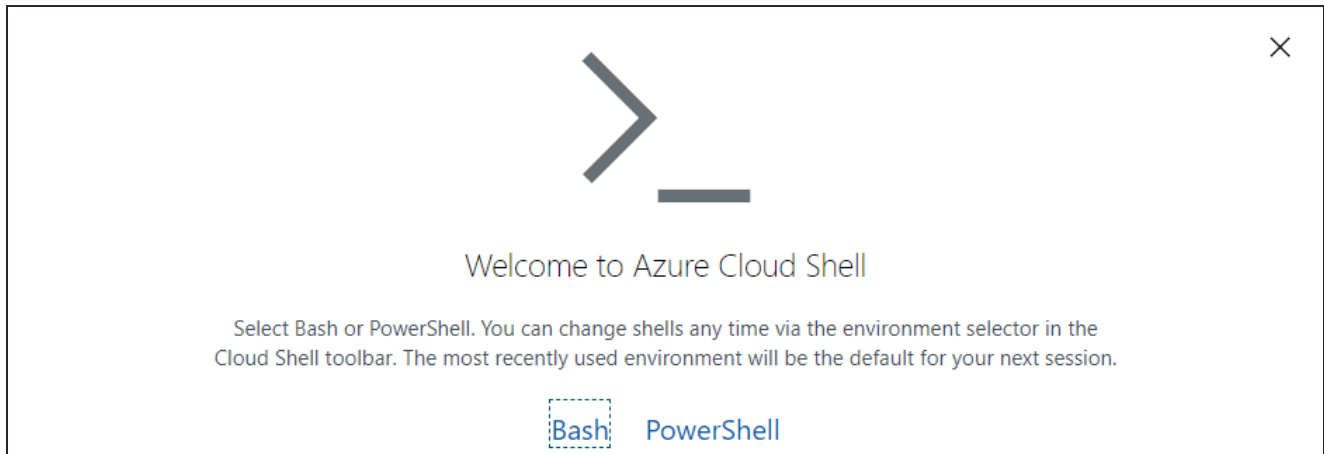
Task 2: Create a blob storage using CLI

In this task, we will create a Blob storage account using the Azure CLI and specify parameters such as account name, resource group, location, and SKU.

- On the Azure portal click on the power shell icon at the top.



2. Now click on **Bash**



3. Now click on **show advanced settings**. Now, enter a unique **storage name** and **file share name** and then, click on **Create Storage**.

Note: Make sure to keep a copy the name of your resource group.

4. Now enter the following command to create a storage account.

```
az storage account create -n <storage account name> -g
<resource group name> -l westus --sku Standard_LRS
```



Note: Replace **<storage account name>** with an unique name and **<resource group name>** with your resource group name.

```
b6142d6b-8feb-415e-8bf9-1e765aa7@Azure:~$ az storage account create -n storagepqr123 -g
-l westus --sku Standard_LRS
{
  "accessTier": "Hot",
  "allowBlobPublicAccess": true,
  "allowCrossTenantReplication": null,
  "allowSharedKeyAccess": null,
  "allowedCopyScope": null,
  "azureFilesIdentityBasedAuthentication": null,
  "blobRestoreStatus": null,
  "creationTime": "2022-03-27T13:22:58.081164+00:00",
  "customDomain": null,
```

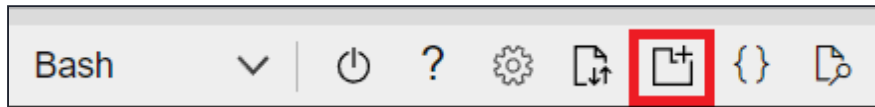
Do you Know?

Azure Blob Storage offers server-side encryption for automatic encryption of data at rest, enhancing data security.

Task 3: Create a Container using CLI

In this task, we will create a container in the Blob storage account using the Azure CLI and specify the storage account name and container name as parameters.

1. Open a **new session** in the **Bash** by clicking on the following icon.



2. Now type this command to create a container.

```
az storage container create --account-name <storage account name> --name <container name>
```



Note: Replace **<storage account name>** with the name of storage account you gave while creating storage account in Task 2 and replace **<container name>** with a name you want to give to your container.

```
b6142d6b-8feb-415e-8bf9-1e765aa7@Azure:~$ az storage container create --account-name storagepqr123 --name newconatiner

There are no credentials provided in your command and environment, we will query for account key for your storage account.
It is recommended to provide --connection-string, --account-key or --sas-token in your command as credentials.

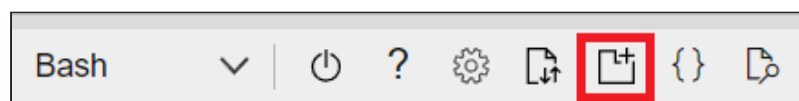
You also can add '--auth-mode login' in your command to use Azure Active Directory (Azure AD) for authorization if your lo
For more information about RBAC roles in storage, visit https://docs.microsoft.com/azure/storage/common/storage-auth-aad-r

In addition, setting the corresponding environment variables can avoid inputting credentials in your command. Please use -
riable usage.
{
  "created": true
}
```

Task 4: Upload a blob on to storage account

In this task, we will upload a sample HTML file to the Blob storage container using the Azure CLI and then check the file's accessibility via its URL in the Azure portal.

1. Open a **new session** in the **Bash** by clicking on the following icon.



2. Enter the following command to **create** a sample html file.

```
echo This is a sample html file > sample.html
```



```
b6142d6b-8feb-415e-8bf9-1e765aa7@Azure:~$ echo This is a sample html file > sample.html
b6142d6b-8feb-415e-8bf9-1e765aa7@Azure:~$
```

3. Now enter the following command to **upload a blob to the storage account** you created earlier.

```
az storage blob upload --account-name <storage account name> -
--container-name <container name> --name sample.html --file
sample.html
```



Note: Replace **<storage account name>** with the name of storage account you gave while creating in Task 2 and replace **<container name>** with a name you gave earlier to your container.

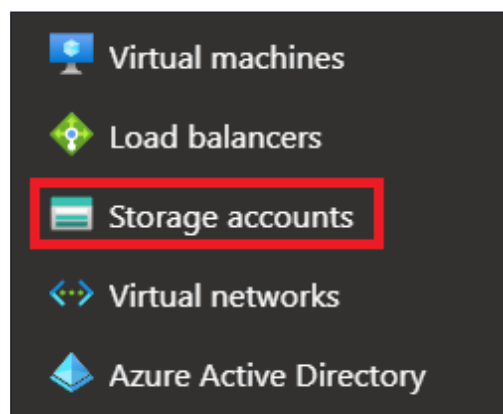
```
b6142d6b-8feb-415e-8bf9-1e765aa7@Azure:~$ az storage blob upload --account-name storagepqri23 --container-name newconatiner --name sample.html --file sample.html

There are no credentials provided in your command and environment, we will query for account key for your storage account.
It is recommended to provide --connection-string, --account-key or --sas-token in your command as credentials.

You also can add '--auth-mode login' in your command to use Azure Active Directory (Azure AD) for authorization if your login account is assigned required RBAC role.
For more information about RBAC roles in storage, visit https://docs.microsoft.com/azure/storage/common/storage-auth-aad-rbac-cli.

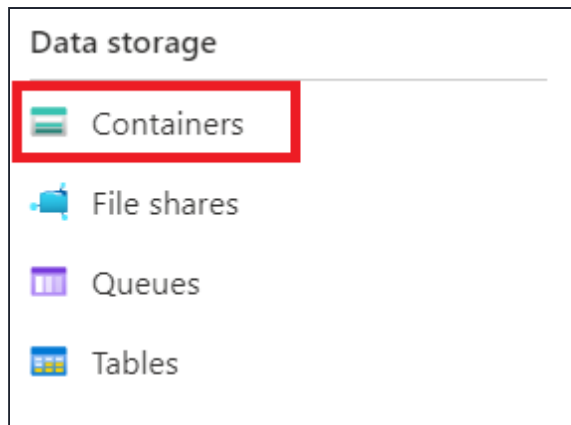
In addition, setting the corresponding environment variables can avoid inputting credentials in your command. Please use --help to get more information about environment variable usage.
Finished[#####] 100.00000%
{
  "client_request_id": "f9b5fbdc-add6-11ec-ae8c-0a580af4586b",
  "content_md5": "D60U3ddBfGvFRX7GSgLUa==",
  "date": "2022-03-27T14:05:36+00:00",
  "encryption_key_sha256": null,
  "encryption_scope": null,
  "etag": "\"0x8DA0FFADE1514FE\"",
  "lastModified": "2022-03-27T14:05:36+00:00",
  "request_id": "e28b17b8-701e-004d-51e3-416f1b000000",
  "request_server_encrypted": true,
  "version": "2020-10-02",
  "version_id": null
}
```

4. Now **close** the bash terminal. Then, in the **portal menu** click on the **storage account**. And select the storage account you created.



5. Now in the **blade** under the **data storage section** select **containers**. And **open** the container you created.





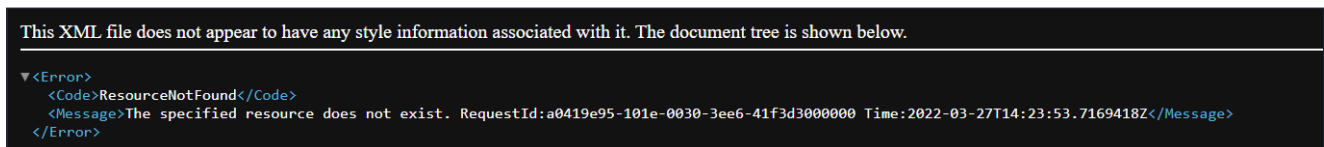
6. Click on the **sample.html** file.



7. Copy the **URL** and paste it in the **new tab**.



8. You will see the below screen, that means your file **does not have public access**.



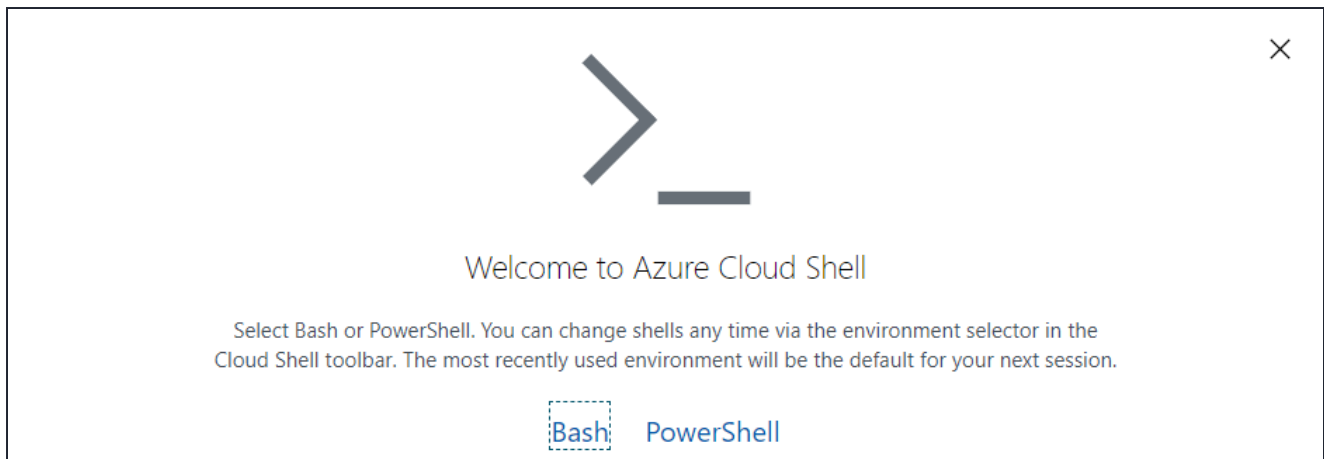
Task 5: Give public access to the blob file

In this task, we will use the Azure CLI to grant public access to the blob file in the Blob storage container, allowing access to the file's content via its URL in the Azure portal.

1. On the Azure portal **click** on the **power shell icon** at the top.



2. Now click on **Bash**



3. Enter the following command to give public access to the blob.

```
az storage container set-permission --account-name <storage account name> --name <container name> --public-access blob
```



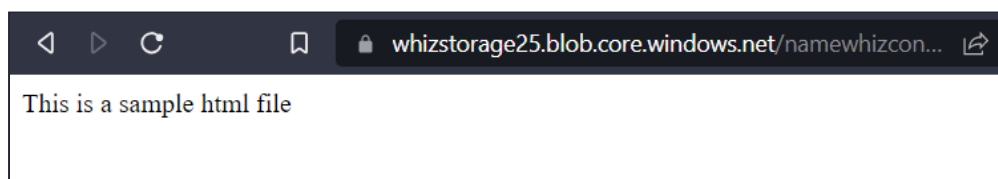
Note: Replace **<storage account name>** with the name of storage account you gave while creating in **task 2** and replace **<container name>** with a name you gave earlier to your container.

```
b6142d6b-8feb-415e-8bf9-1e765aa7@Azure:~$ az storage container set-permission --account-name storagepqri23 --name newcontainer --public-access blob
There are no credentials provided in your command and environment, we will query for account key for your storage account.
It is recommended to provide --connection-string, --account-key or --sas-token in your command as credentials.

You also can add '--auth-mode login' in your command to use Azure Active Directory (Azure AD) for authorization if your login account is assigned required RBAC roles.
For more information about RBAC roles in storage, visit https://docs.microsoft.com/azure/storage/common/storage-auth-aad-rbac-cli.

In addition, setting the corresponding environment variables can avoid inputting credentials in your command. Please use --help to get more information about environment variable usage.
{
  "etag": "\"0x8DA0FFE0E6AC8C\"",
  "lastModified": "2022-03-27T14:32:32+00:00"
}
```

4. Now again go to your sample html file, copy the URL and paste it in a new tab. You will see **"This is a sample html file"** written on the screen.



Task 6: List and download the blob using CLI

In this task, we will use the Azure CLI to list all the blobs present in the Blob storage container and then download a specific blob to the local file system.

1. Enter the following command to list all the blobs present in your container in a table format.

```
az storage blob list --account-name <storage account name> --container-name <container name> --output table
```



Note: Replace **<storage account name>** with the name of storage account you gave while creating in Task 2 and replace **<container name>** with a name you gave earlier to your container.

```
b6142d6b-8feb-415e-8bf9-1e765aa7@Azure:~$ az storage blob list --account-name storagepqr123 --container-name newcontainer --output table
```

There are no credentials provided in your command and environment, we will query for account key for your storage account. It is recommended to provide --connection-string, --account-key or --sas-token in your command as credentials.

You also can add '--auth-mode login' in your command to use Azure Active Directory (Azure AD) for authorization if your login account is assigned required RBAC role. For more information about RBAC roles in storage, visit <https://docs.microsoft.com/azure/storage/common/storage-auth-aad-rbac-cli>.

In addition, setting the corresponding environment variables can avoid inputting credentials in your command. Please use --help to get more information about environment variable usage.

Name	Blob Type	Blob Tier	Length	Content Type	Last Modified	Snapshot
sample.html	BlockBlob	Hot	27	application/octet-stream	2022-03-27T14:05:36+00:00	

```
b6142d6b-8feb-415e-8bf9-1e765aa7@Azure:~$
```

2. Enter the below command to download the present blob in your container.

```
az storage blob download --account-name <storage account name> --container-name <container name> --name sample.html --file sample2.html
```



Note: Replace **<storage account name>** with the name of storage account you gave while creating in Task 2 and replace **<container name>** with a name you gave earlier to your container.

```
b6142d6b-8feb-415e-8bf9-1e765aa7@Azure:~$ az storage blob download --account-name storagepqr123 --container-name newcontainer --name sample.html --file sample.html
```

There are no credentials provided in your command and environment, we will query for account key for your storage account. It is recommended to provide --connection-string, --account-key or --sas-token in your command as credentials.

You also can add '--auth-mode login' in your command to use Azure Active Directory (Azure AD) for authorization if your login account is assigned required RBAC role. For more information about RBAC roles in storage, visit <https://docs.microsoft.com/azure/storage/common/storage-auth-aad-rbac-cli>.

In addition, setting the corresponding environment variables can avoid inputting credentials in your command. Please use --help to get more information about environment variable usage.

```
Finished[#####] 100.0000%
```

```
{
  "content": null,
  "deleted": false,
  "metadata": {},
  "name": "sample.html",
  "properties": {
    "appendBlobCommittedBlockCount": null,

```

Task 7: Validation test

- Once the lab steps are completed, click on **Validation** button or go to **Lab Validation** section.
- Click on **Validate My Lab** button.
- You will get the **"Lab Overall Status"** which will indicate whether or not you have completed the lab successfully.

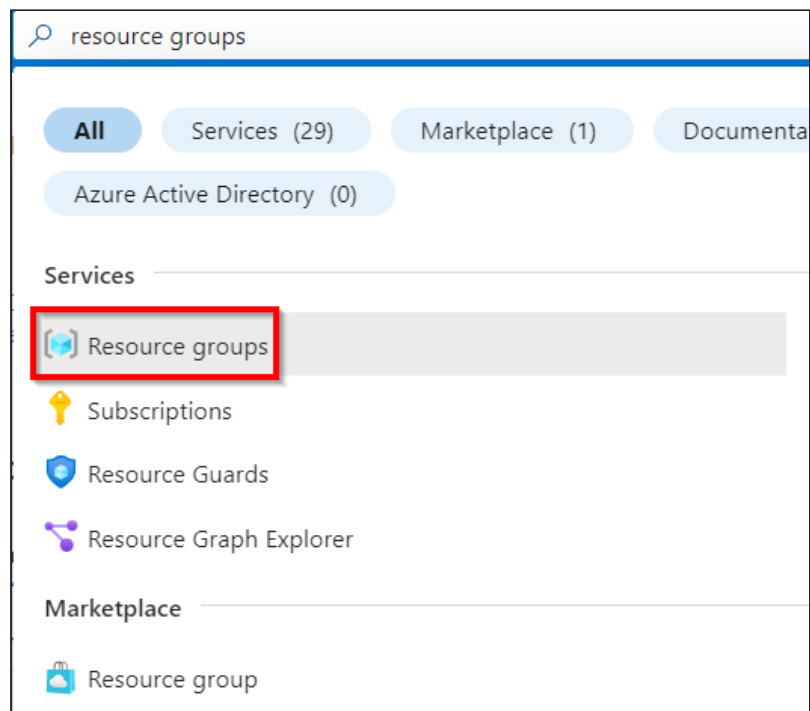


The screenshot shows the Azure Lab interface for the lab 'Azure Blob Storage using CLI'. The lab is at an 'Intermediate' level and includes components like 'Azure Storage Account', 'Azure CLI', and 'Azure'. The 'Lab Steps' section is active, showing 'Task 1: Sign in to Azure Portal'. The task instructions are: 1. Go to the Azure portal by clicking on the 'Open Console' button or by using URL <https://portal.azure.com>. 2. If it automatically logs into any other azure account, please logout of it and clear cache. A 'Note' states: 'It is recommended to use incognito mode to avoid Azure portal cache related issues.' On the right, there's a sidebar with a timer (0h 39m 49s left), buttons for 'End Lab', 'Open Console', and 'Validation', and 'Lab Credentials' including User Name, Password, and Resource Group.

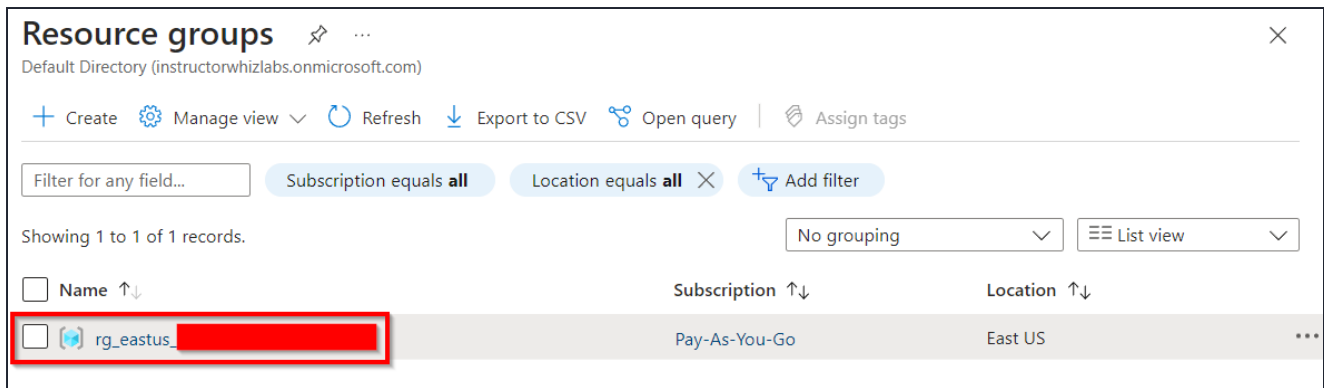
Task 8: Delete the Resources

In this task, we will delete all the resources.

1. In the search box at the top of the Azure portal, enter **Resource groups**. Select **Resource groups** from the search results.



2. Click on the name of the **Resource groups**.



Resource groups

Default Directory (instructorwhizlabs.onmicrosoft.com)

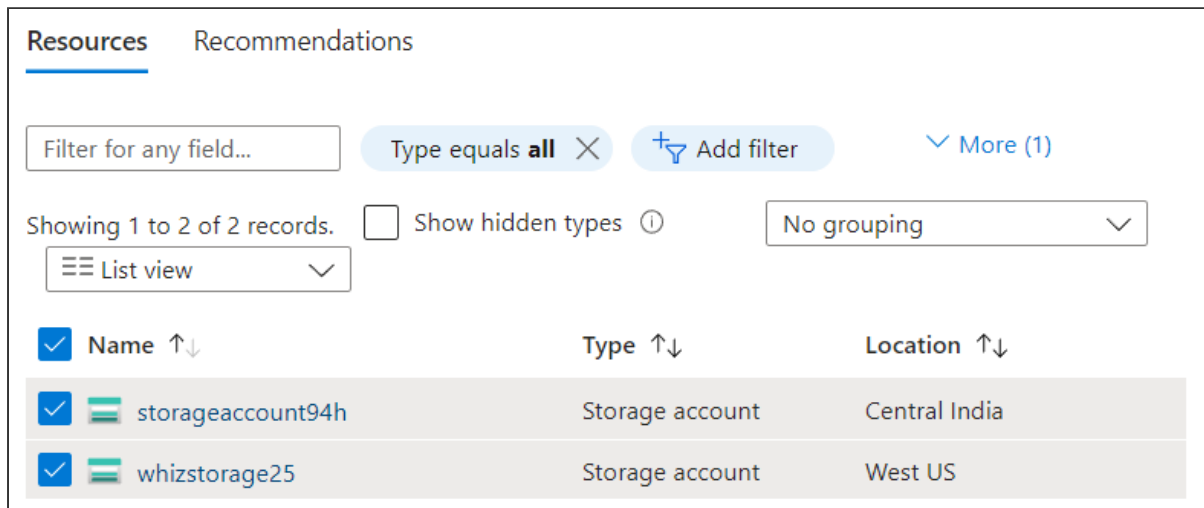
+ Create Manage view Refresh Export to CSV Open query Assign tags

Filter for any field... Subscription equals all Location equals all Add filter

Showing 1 to 1 of 1 records. No grouping List view

<input type="checkbox"/> Name ↑↓	Subscription ↑↓	Location ↑↓
<input type="checkbox"/> rg_eastus	Pay-As-You-Go	East US

3. Select all the Resources in that **Resource groups**.



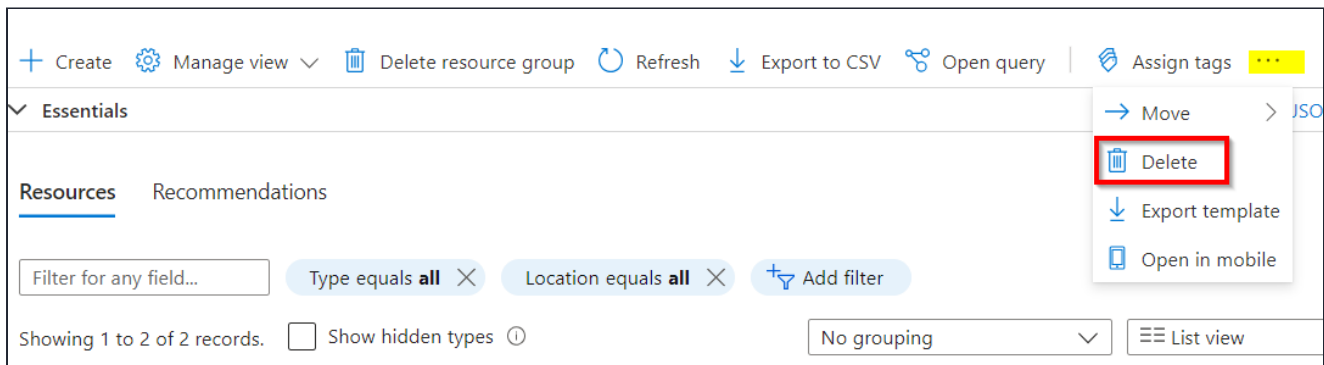
Resources Recommendations

Filter for any field... Type equals all Add filter More (1)

Showing 1 to 2 of 2 records. Show hidden types No grouping List view

<input checked="" type="checkbox"/> Name ↑↓	Type ↑↓	Location ↑↓
<input checked="" type="checkbox"/> storageaccount94h	Storage account	Central India
<input checked="" type="checkbox"/> whizstorage25	Storage account	West US

4. Go to three dots to the right and then click **Delete** button.



+ Create Manage view Delete resource group Refresh Export to CSV Open query Assign tags

Essentials

Resources Recommendations

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 2 of 2 records. Show hidden types No grouping List view

- Move
- Delete**
- Export template
- Open in mobile

5. Now type **delete** in the box present at the bottom.

Delete Resources

The selected resources along with their related resources and contents will be permanently deleted. If you are unsure of the selected resource dependencies, navigate to the individual resource page to perform the delete operation. More details of the resource dependencies are available in the manage experience.

Resources to be deleted (2)

Name	Resource type	
storageaccount94h	Storage account	Remove
whizstorage25	Storage account	Remove

Enter "delete" to confirm deletion *

delete

Delete

Cancel

6. Click on **Delete** to confirm deletion of resources.

Delete confirmation

Deleting the selected resources and their internal data is a permanent action and cannot be undone.

Delete

Go back

Completion and Conclusions

1. You have successfully logged into Azure Portal.
2. You have successfully created a storage account
3. You have successfully Created a container
4. You have successfully uploaded a blob to the container.
5. You have successfully given public access permission to your blob.
6. You have successfully listed and downloaded the present blob in your container.
7. You have successfully Validated the lab.
8. You have successfully deleted the resources.

End Lab

1. You have successfully completed this lab.
2. Click on **Sign out** in Azure Portal by clicking on the logout button in the top right corner inside Azure Profile.
3. Click on **End Lab** once you have completed the Lab.

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