AZURE CLOUD COMPUTING

MINOR PROJECT-1

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Project Description:

Create an azure storage account using the azure portal and create a BLOB storage(Hot tier) inside a container.

Upload one image as well as a short video and set different access permissions (private and public). ENABLE ACCESS TRACKING and add a rule in the lifecycle management policies telling that

i. if the page blob which we created is not accessed for 10 days then change its access tier to cool.

ii. If the blob is not modified for 45 days, delete the blob.

Requires screen recording to be enabled for task submission and write a 1 page report mentioning the steps to do this task.

LINK TO THE MINOR PROJECT VIDEO FILE:

https://drive.google.com/file/d/173yC_5KGYCOpy3aGBeVCHReijRwgdqr_/view?usp=sharing

INTRODUCTION:

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.

Azure Storage lifecycle management offers a rule-based policy that you can use to transition blob data to the appropriate access tiers or to expire data at the end of the data lifecycle. A lifecycle policy acts on a base blob, and optionally on the blob's versions or snapshots. For more information about lifecycle management policies, see Optimize costs by automatically managing the data lifecycle.

A lifecycle management policy is comprised of one or more rules that define a set of actions to take based on a condition being met. For a base blob, you can choose to check one of two conditions:

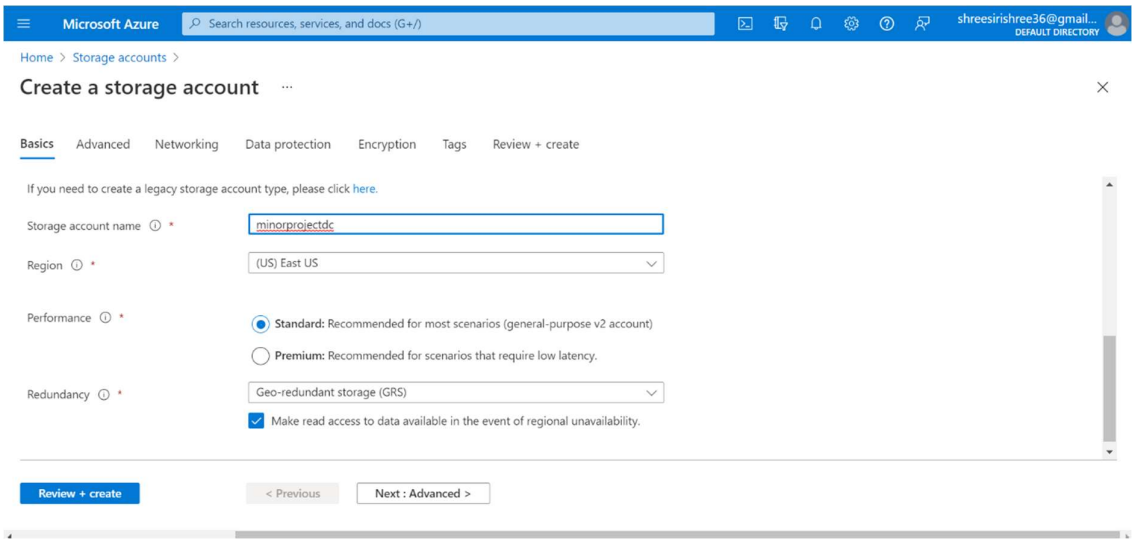
- The number of days since the blob was last modified.
- The number of days since the blob was last accessed. To use this condition in an action, you must first optionally enable access time tracking.

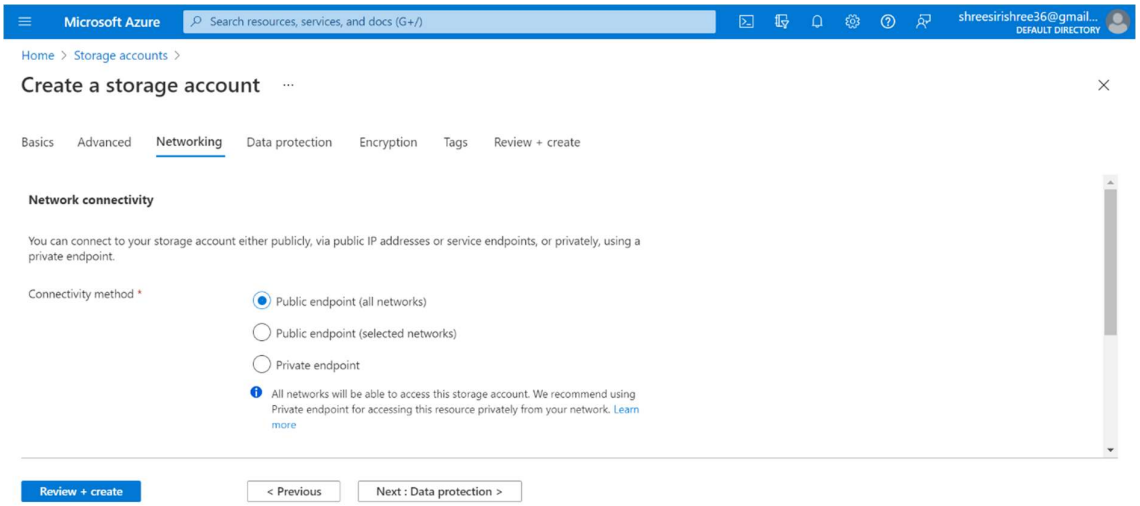
When the selected condition is true, then the management policy performs the specified action. For example, if you have defined an action to move a blob from the hot tier to the cool tier if it has not been modified for 30 days, then the lifecycle management policy will move the blob 30 days after the last write operation to that blob.

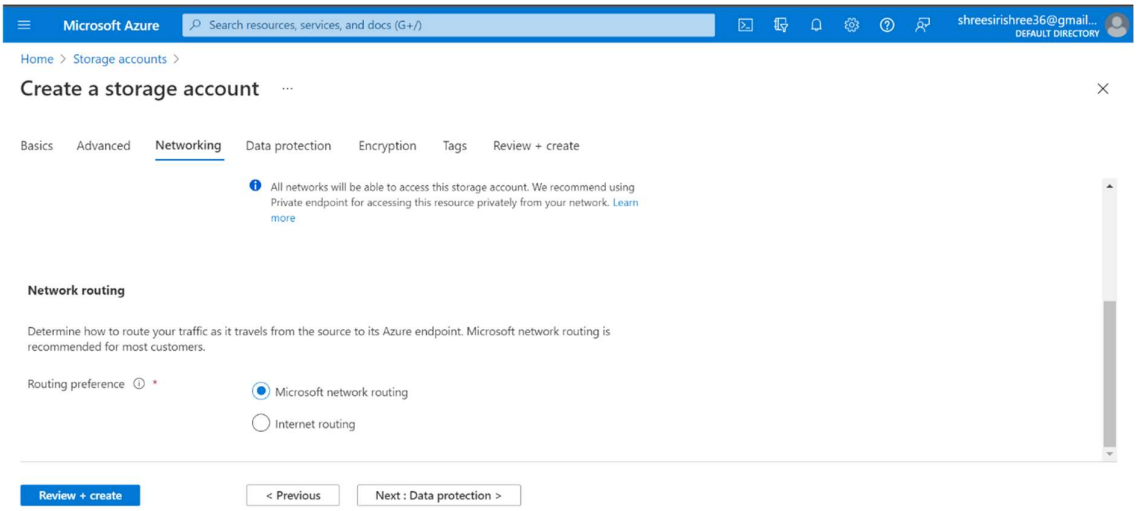
For a blob snapshot or version, the condition that is checked is the number of days since the snapshot or version was created.

Steps of creating a blob storage account using Azure Storage Accounts (without any rules under Lifecycle Management) :

- Open Azure portal.
- Select Storage Accounts under Azure services.
- Click on Create.
- Enter the project details.
- Enter the subscription type in which the storage account is created. In my case Azure for students is used.
- Select the resource group for creation of storage account. A new resource group can be created by selecting create new.
- Under instance details fill in the name of the storage account that is required to be created.
- Rest all is given by default. The storage account by default gets created in the hot tier itself.
- Under networking three options are provided namely **public endpoint (all networks), public endpoint (selected networks), private endpoint.** Anyone out of the three can be selected. **I have selected public endpoint (all networks) for my storage account.**
- Click on review and create. The required storage account gets created once the validation is passed.

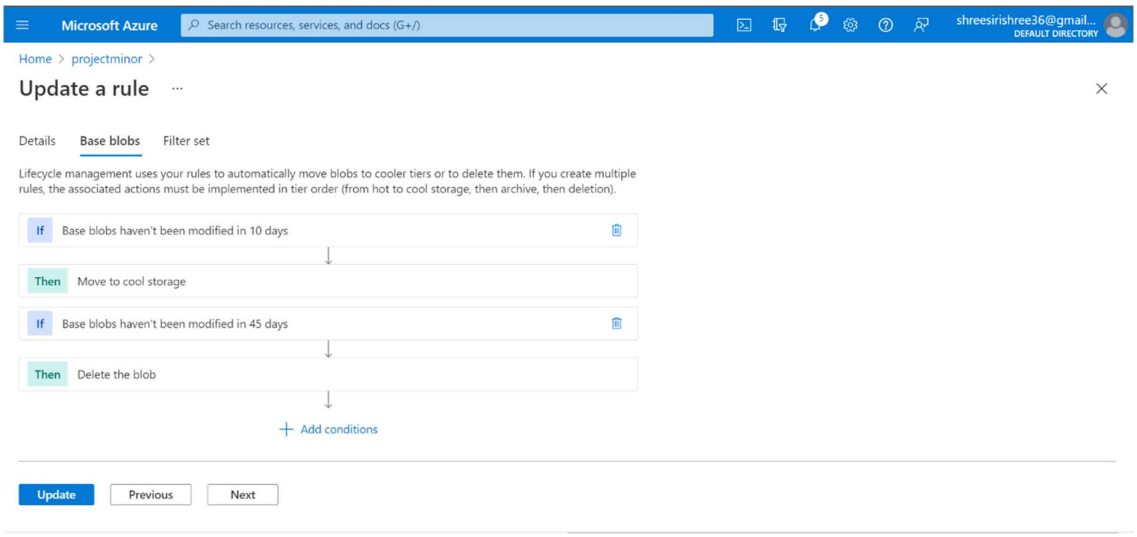


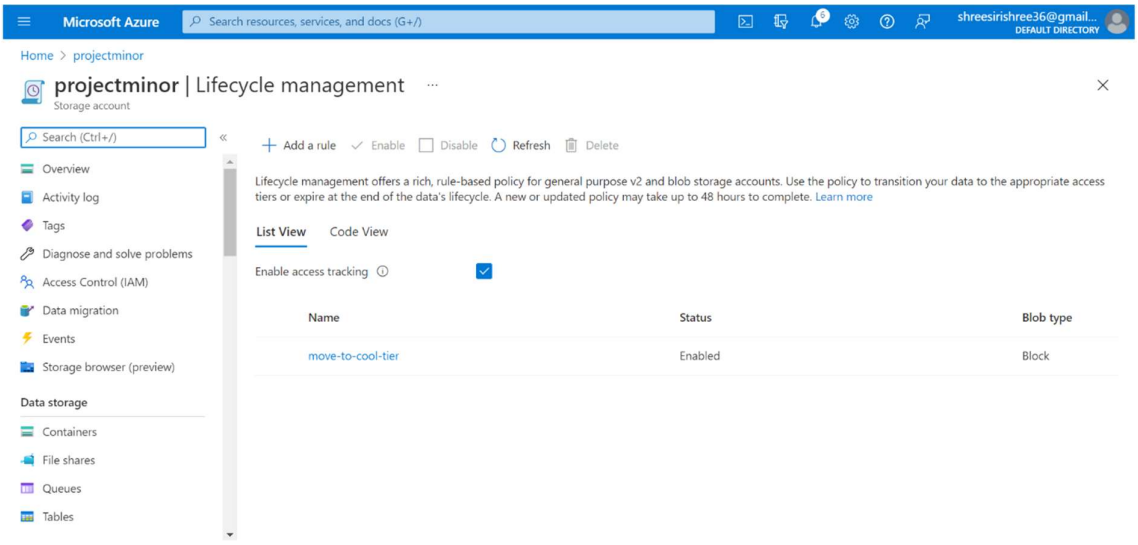




Optionally enabling access tracking:

- Navigate to the data management in the resource of the storage account created. Under it select the Lifecycle management.
- Go to the list view. Enable the access tracking by checking the checkbox. Then navigate to ADD to add rules and filters.
- Select Limit blobs with filters in the details, which creates an extra option of the Filter set.
- Add the number of days and the rules to be initiated in the Base Blobs.
- In the filter set give a valid blob prefix and click on add.
- The lifecycle management policy will be updated.





Code View:

```
{
 "rules": [
  {
    “eabled": true,
    "name": "move-to-cool-tier",
    "type": "Lifecycle",
    "definition": {
     "actions": {
```

```
      "baseBlob": {
        "tierToCool": {
          "daysAfterModificationGreaterThan": 10
        },
        "delete": {
          "daysAfterModificationGreaterThan": 45
        }
      }
    },
    "filters": {
      "blobTypes": [
        "blockBlob"
      ],
      "prefixMatch": [
        "mycontainer/project"
      ]
    }
  }
 ]
}
```