



St. JOSEPH'S
GROUP OF INSTITUTIONS
OMR, CHENNAI - 119

PLACEMENT EMPOWERMENT PROGRAM

Cloud Computing & DevOps Centre

Creating a “Storage Account” in Azure and uploading files in it. Also configuring access permissions [Access levels, Network access restrictions, Access Keys, and SAS]

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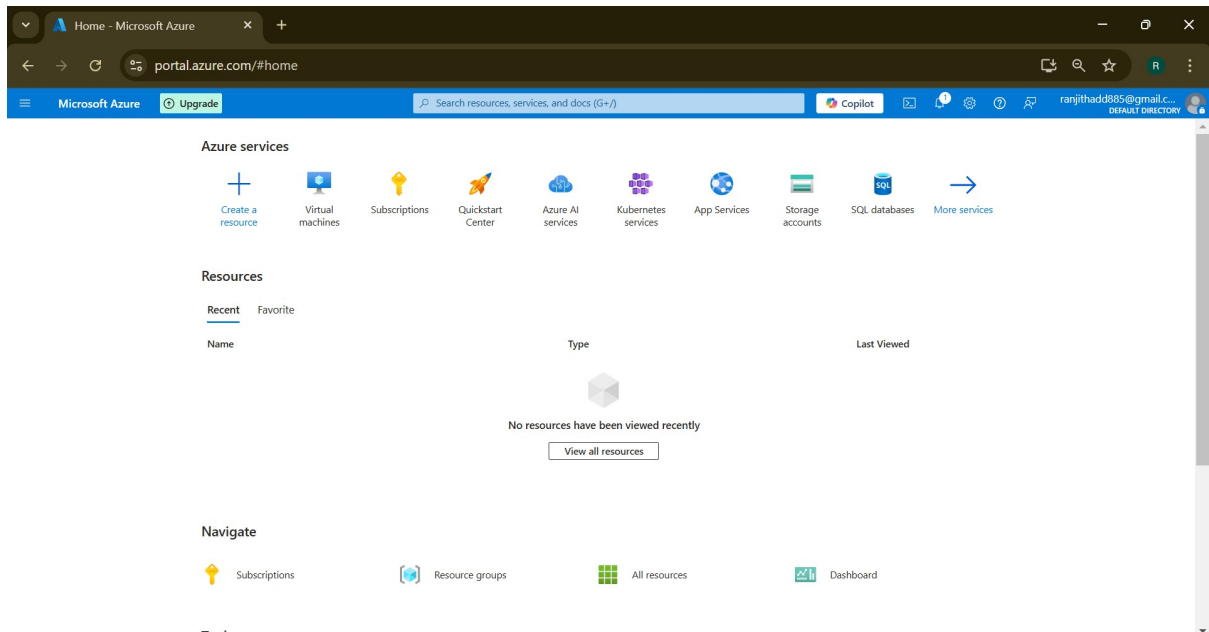
Dept: CSE

INTRODUCTION

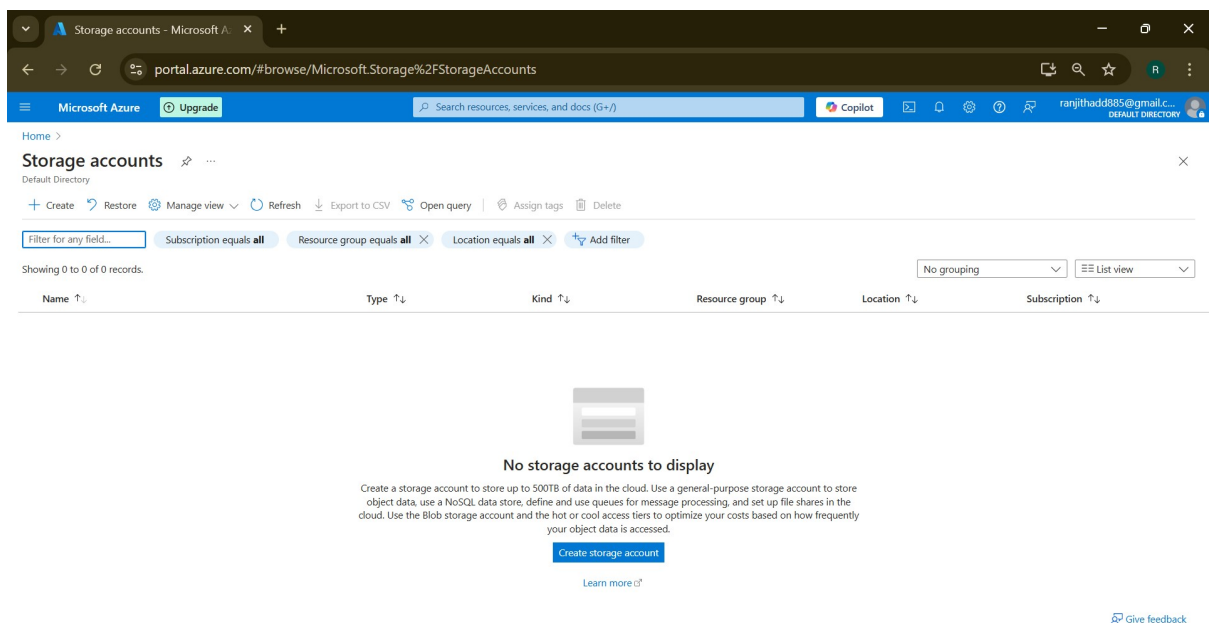
- Creating a Storage Account in Azure involves setting up a secure and scalable storage solution for file management. Begin by navigating to the Azure Portal, selecting Storage Accounts, and clicking Create. Provide details like subscription, resource group, region, and redundancy options, then finalize by clicking Review + Create. Once the storage account is ready, create a Blob Container to organize your files and upload them directly through the portal or programmatically using the Azure SDK.
- To configure access permissions, consider multiple layers of security. Set Access Levels through role-based access control (RBAC) by assigning roles such as Storage Blob Data Owner or Data Reader under the Access Control (IAM) section. Manage Network Access Restrictions by enabling firewalls or virtual network rules to limit access. Access Keys provide full control and should be used cautiously with regular key rotation for enhanced security. For more granular and time-bound permissions, generate Shared Access Signatures (SAS) to grant temporary access without sharing sensitive keys. By combining these configurations, you ensure secure and efficient file management within Azure.

Step-by-step process:

Step 1: Go to Azure portal.

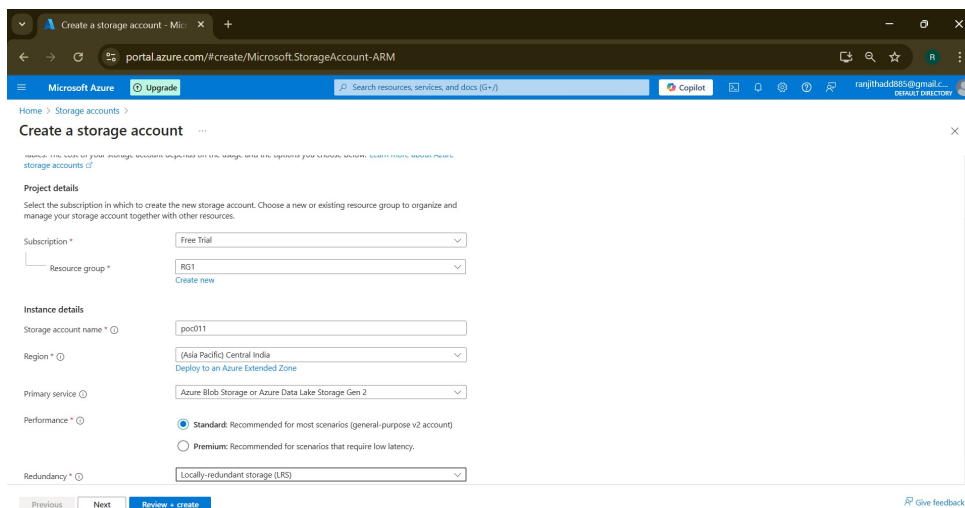


Step 2: Navigate to “Storage Accounts”.



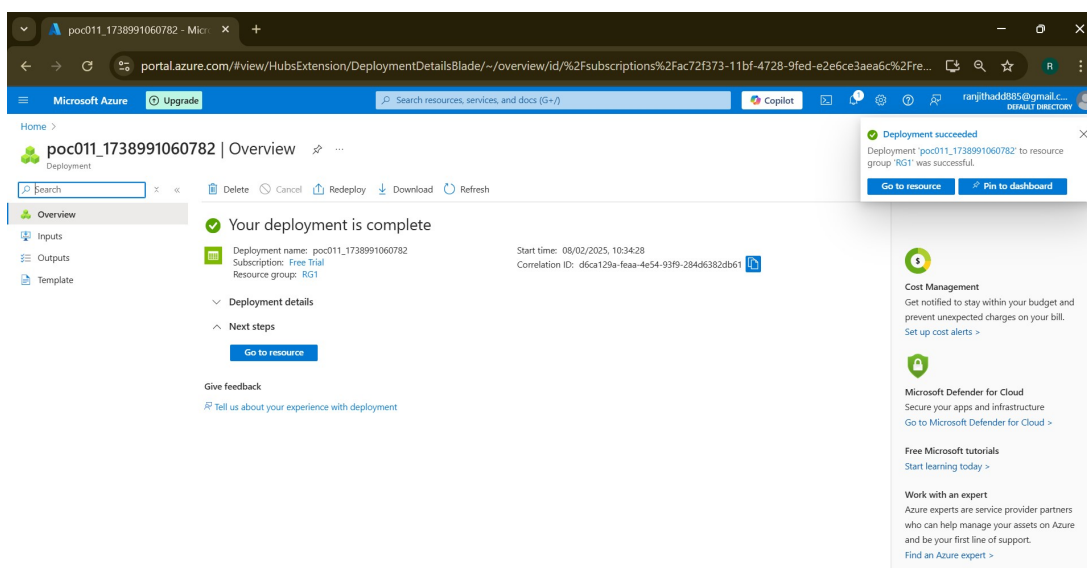
Step 3: Enter the following details: □

1. **Subscription:** Choose your subscription.
2. **Resource group:** Create a new one or select an existing resource group.
3. **Storage account name:** Enter a unique name.
4. **Region:** Select the nearest region.
5. **Performance:** Standard or Premium (choose based on requirements).
6. **Redundancy:** Select redundancy option (e.g., Locally-redundant storage).

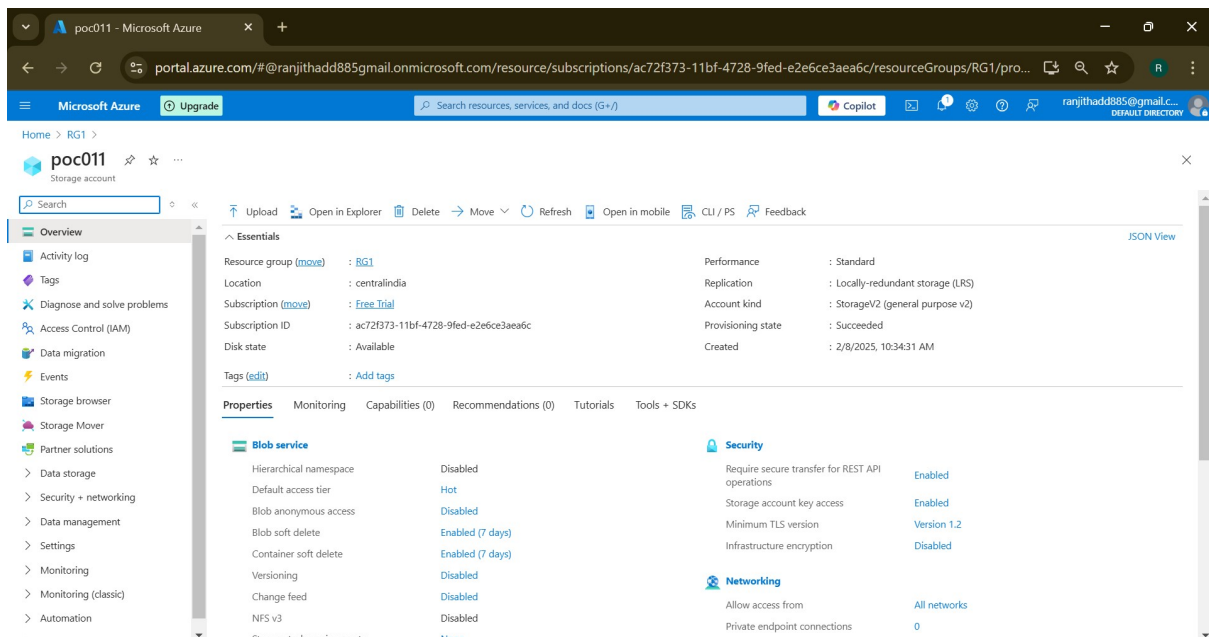


The screenshot shows the 'Create a storage account' form in the Microsoft Azure portal. The form is titled 'Create a storage account' and includes a 'Project details' section where the user selects a subscription (Free Trial) and a resource group (RG1). The 'Instance details' section includes fields for 'Storage account name' (poc011), 'Region' (Asia Pacific Central India), 'Primary service' (Azure Blob Storage or Azure Data Lake Storage Gen 2), 'Performance' (Standard), and 'Redundancy' (Locally-redundant storage (LRS)). The form has 'Previous', 'Next', and 'Review + create' buttons at the bottom.

Step 4: Once deployment is done go to the Resource Group to view your Storage account.

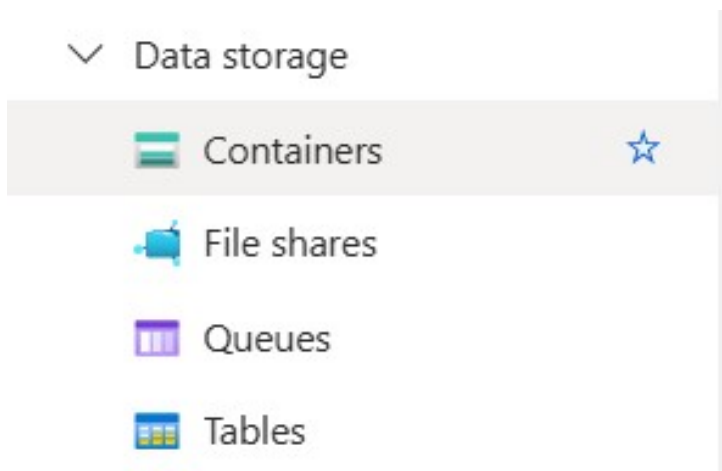


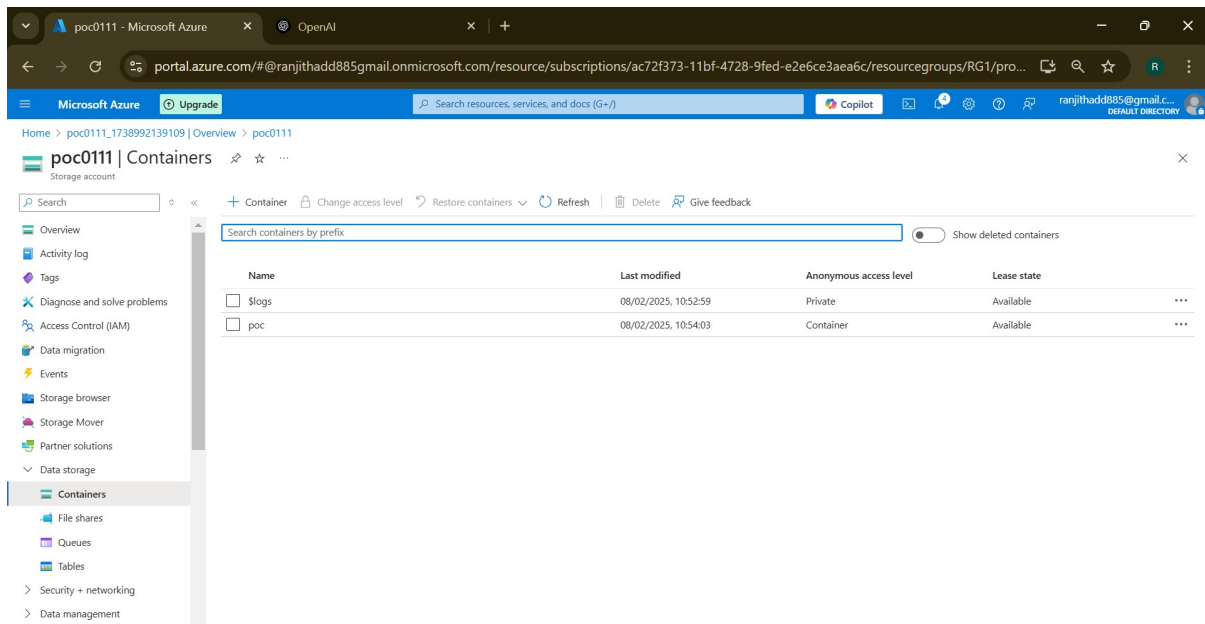
The screenshot shows the 'Overview' page for a deployment in the Microsoft Azure portal. The page title is 'poc011_1738991060782 | Overview'. The main content area displays 'Your deployment is complete' with a green checkmark. Below this, it shows the deployment name, subscription, and resource group. A 'Deployment details' section is also visible. On the right side, there is a 'Deployment succeeded' notification and a 'Cost Management' section. The left sidebar contains navigation links for 'Overview', 'Inputs', 'Outputs', and 'Template'.



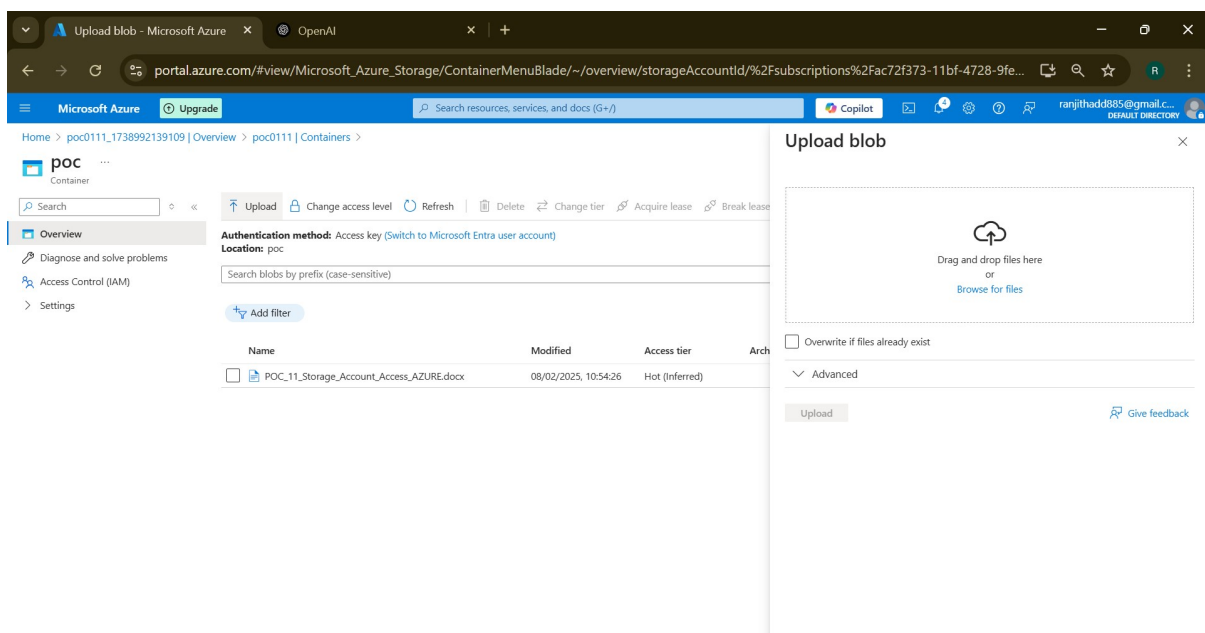
Step 5: Go to “Containers” which is located in data storage in your Storage account.

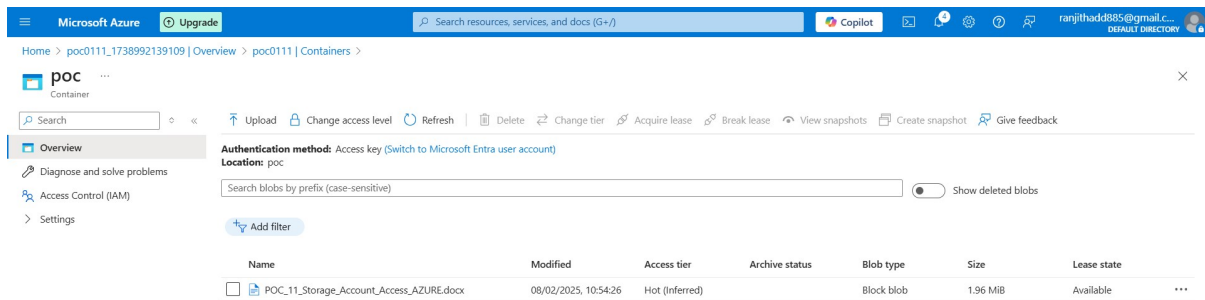
Then create a Blob Container:



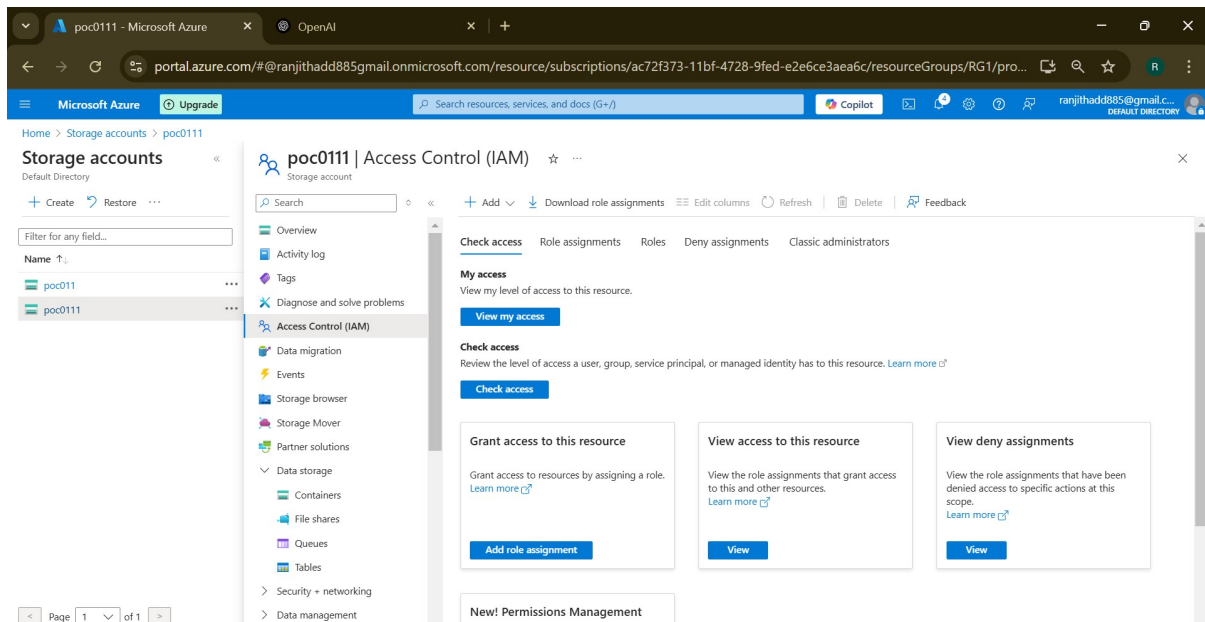


Step 6: Now open the “Container” you created and there will be an option to “+upload”, click on that for uploading files. And then click on upload.

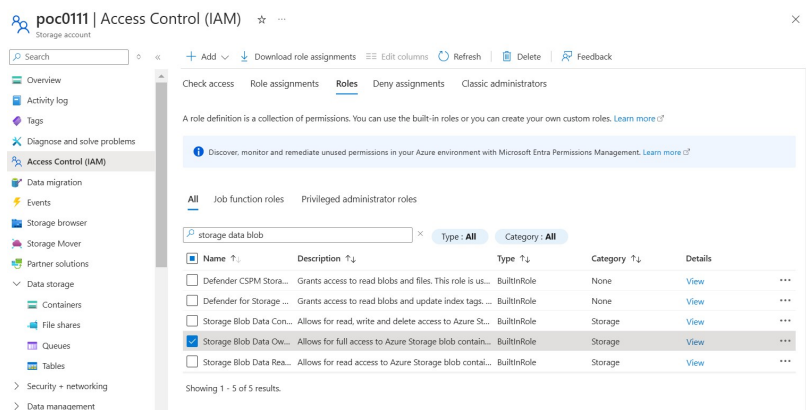


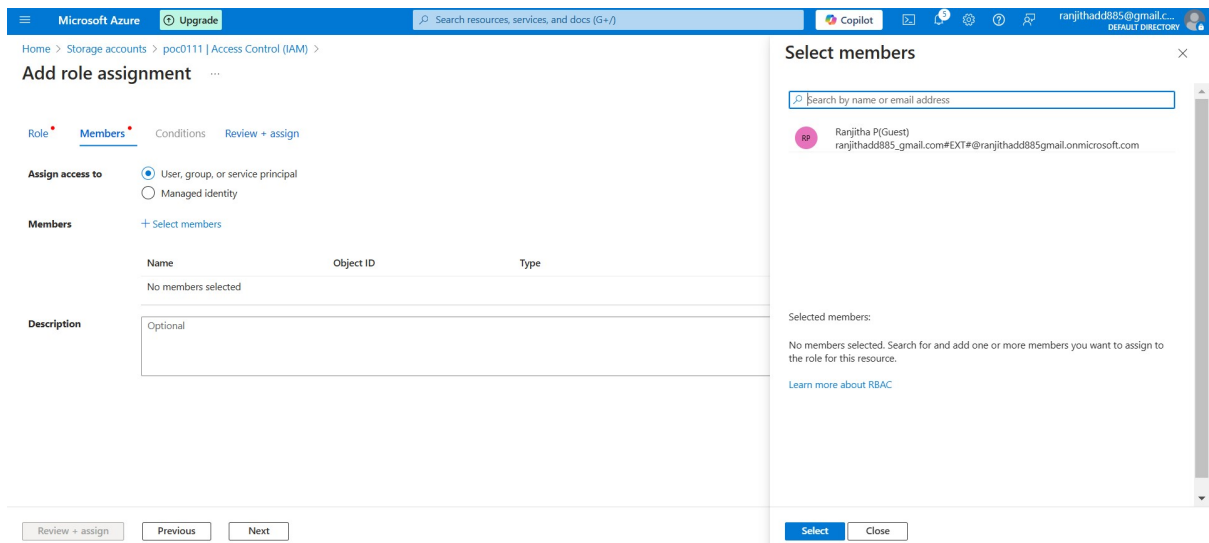


Step 7: Configuring access permissions. For that you need to go to “Storage Account > IAM > Roles

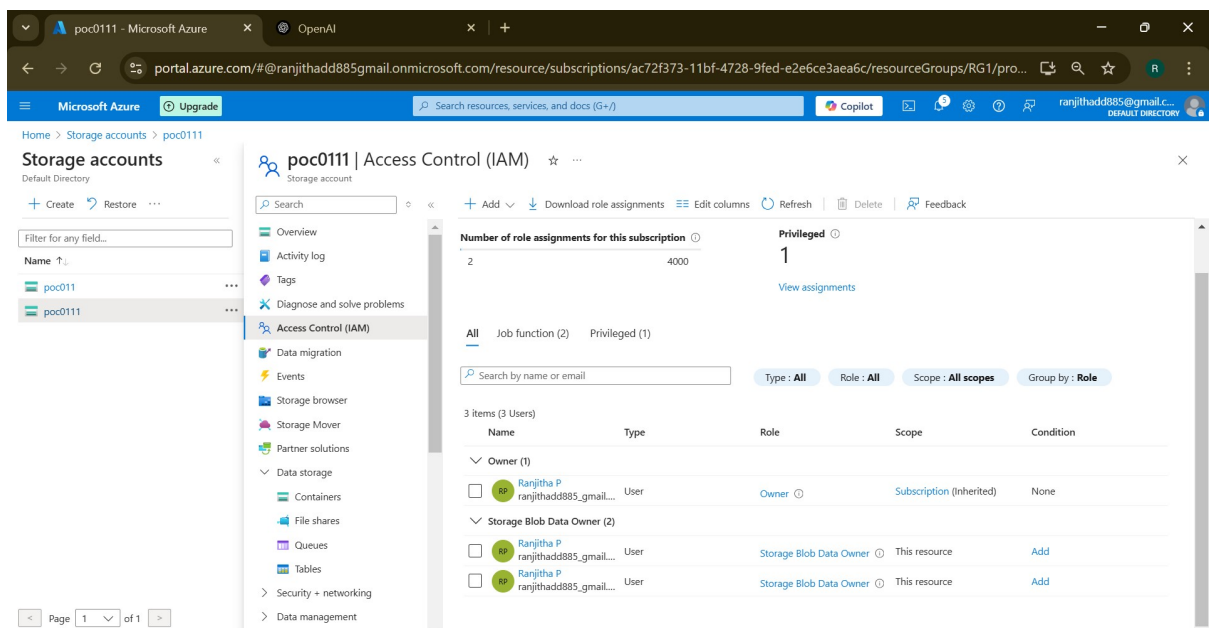


ROLES:





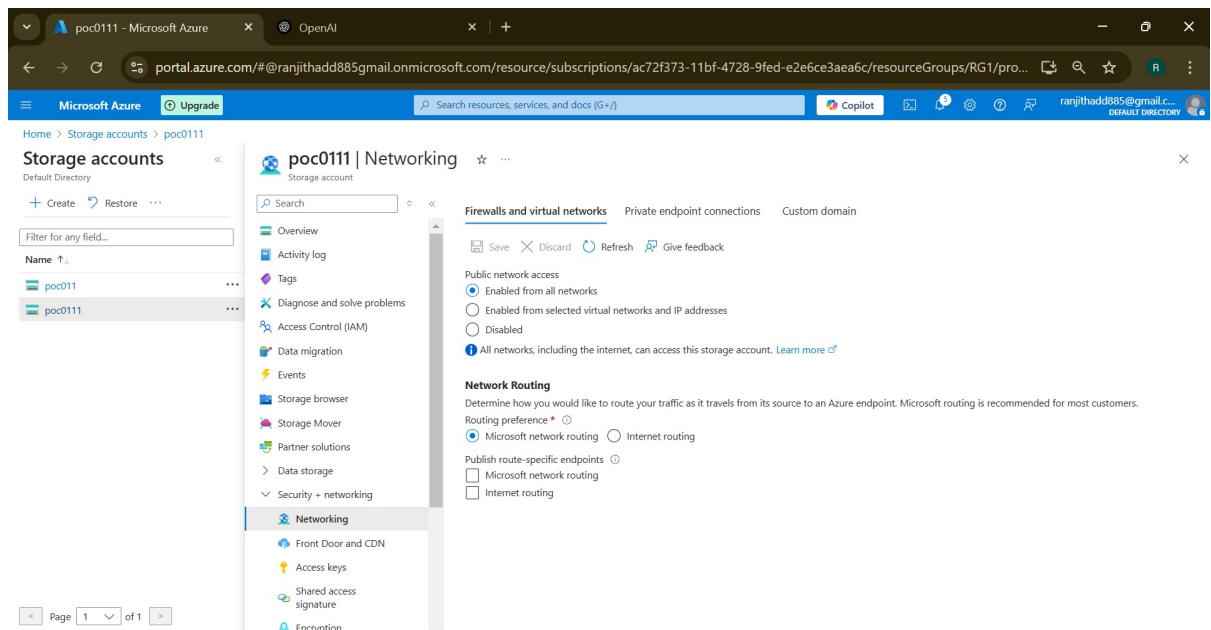
Step 8: Once done click on “Review+Assign”.



Step 9: Configuring Network access restrictions.

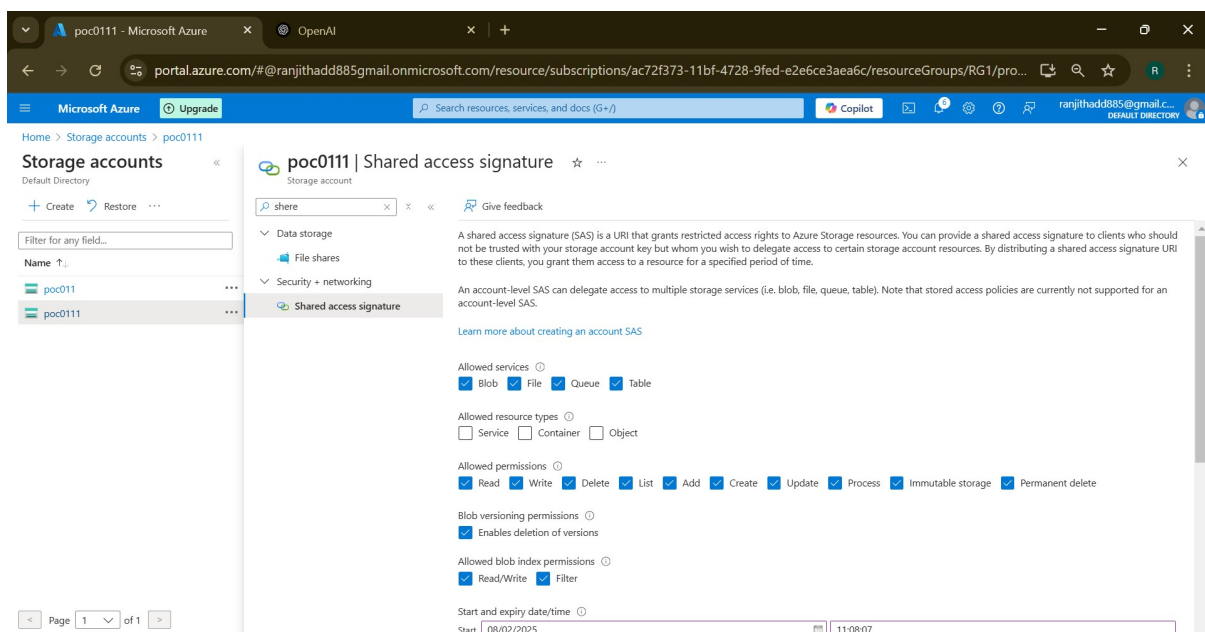
Go to Networking > Allow public (or) private access.

- **Enable public access.**
- **Set firewalls and virtual networks.** And then click on save.



Step 10: SAS: Shared access Signatures.

Storage Account > SAS



Signing key ⓘ

key1 ▼

Generate SAS and connection string

Generate SAS and connection string

Connection string

BlobEndpoint=https://poc0111.blob.core.windows.net;/QueueEndpoint=https://poc0111.queue.core.windows.net;/FileEndpoint=https://poc0111.file.core.windo...

SAS token ⓘ

sv=2022-11-02&ss=bf&srt=c&sp=rwldciytfx&se=2025-02-08T13:38:07Z&st=2025-02-08T05:38:07Z&spr=https&sig=bl1MRln8AWNlZzHtL%2B0b79Wh4iK%2...

Blob service SAS URL

https://poc0111.blob.core.windows.net/?sv=2022-11-02&ss=bf&srt=c&sp=rwldciytfx&se=2025-02-08T13:38:07Z&st=2025-02-08T05:38:07Z&spr=https&sig=...

File service SAS URL

https://poc0111.file.core.windows.net/?sv=2022-11-02&ss=bf&srt=c&sp=rwldciytfx&se=2025-02-08T13:38:07Z&st=2025-02-08T05:38:07Z&spr=https&sig=b...

Step 11: Access Keys.

Security > Networking > Access keys

Microsoft Azure Upgrade Search resources, services, and docs (G+/) Copilot ranjithadd885@gmail.com

Home > Storage accounts > poc0111

Storage accounts poc0111

Default Directory

+ Create Restore ...

Filter for any field...

Name ↑

poc0111

poc0111

Overview

Activity log

Tags

Diagnose and solve problems

Access Control (IAM)

Data migration

Events

Storage browser

Storage Mover

Partner solutions

Data storage

Security + networking

Networking

Front Door and CDN

Access keys

Shared access signature

Encryption

poc0111 | Access keys

Storage account

Search

Set rotation reminder Refresh Give feedback

Access keys authenticate your applications' requests to this storage account. Keep your keys in a secure location like Azure Key Vault, and replace them often with new keys. The two keys allow you to replace one while still using the other.

Remember to update the keys with any Azure resources and apps that use this storage account. [Learn more about managing storage account access keys](#)

Storage account name

poc0111

key1 Rotate key

Last rotated: 2/8/2025 (0 days ago)

Key

..... Show

Connection string

..... Show

key2 Rotate key

Last rotated: 2/8/2025 (0 days ago)

Key

..... Show

Connection string

..... Show

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