Ansh Ranjan
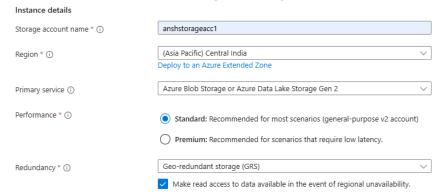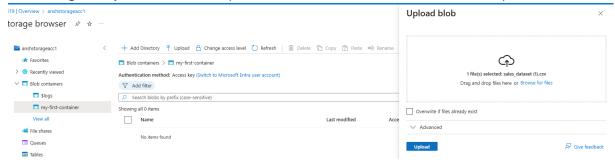## Azure Data

Exercise 1 – Azure Storage Options for Data

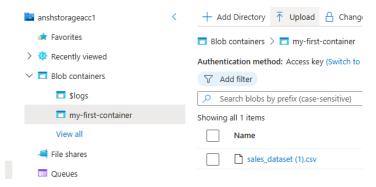**TASK 1 and 3: Creating a new Azure Storage Account and Upload a dataset**

1. In Storage Accounts click on Create
2. Select subscription and resource group and give it a name and pick redundancy type

3. Once created, to upload a file go to your storage account > Storage Browser > Blob Containers > Add container > Enter a name > Create
4. Then navigate to your container > Upload > Browser and select the file > click Upload

5. Now your will see your dataset file in the container

TASK 2: Explore difference between Blob Storage, File Storage, Queue Storage, Table Storage

Feature	Blob Storage	File Storage	Queue Storage	Table Storage
Data Type	Unstructured	Structured (files)	Messages	Structured (key-value pairs)
Structure	Blobs in containers	Files in directories	Messages in queues	Entities in tables
Access Protocol	HTTP/HTTPS	SMB/NFS	HTTP/HTTPS	HTTP/HTTPS
Use Cases	Media, backups, analytics	File shares, migrations	Messaging, workflows	NoSQL database, IoT
Scalability	Highly scalable	Up to 100 TiB per share	Millions of messages	Petabytes of data
Pricing	Size and access tier	Provisioned capacity and tier	Operations and data transfer	Data stored and operations

Each storage service in Azure is optimized for specific scenarios:

- Use **Blob Storage** for unstructured data like media files and backups.
- Use **File Storage** for shared file systems and legacy applications.
- Use **Queue Storage** for asynchronous messaging between components.
- Use **Table Storage** for structured NoSQL data with high scalability and performance.