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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   
   A screenshot of a computer

   AI-generated content may be incorrect.
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  
   A screenshot of a computer

   AI-generated content may be incorrect.
5. Now your will see your dataset file in the container  
   A screenshot of a computer

   AI-generated content may be incorrect.

**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.