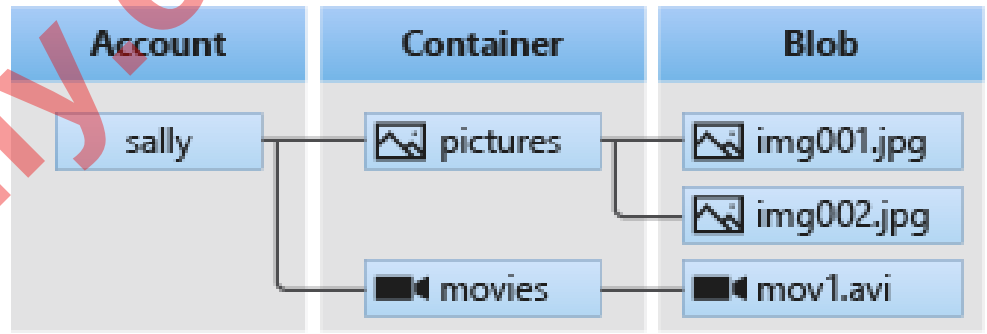
Azure Storage Account Services - Blob Storage

Azure Blobs Storage

- ✓ A "blob" stands for "binary large object," and it's a piece of data, like a file or a collection of data, in a single unit
- ✓ Container is used to store blobs
- ✓ Unlimited containers, and unlimited blobs
- ✓ Azure Blob storage is an object storage solution for the cloud to store massive amounts of data, such as text, images, logs etc.
- ✓ It is unstructured, means there are no restrictions on the kinds of data it can hold
- ✓ Can manage thousands of simultaneous uploads & downloads & can be reached from anywhere with an internet connection.



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Blob Types

- ✓ **Block Blob:** Suitable for most types of unstructured data, like images, videos, and backups.
- ✓ **Page Blob:** Typically used for virtual machine disks. It divides data into pages for random read and write operations.
- ✓ **Append Blob:** Designed for scenarios where you need to append data to an existing blob, like adding logs to a log file

- ✓ **IMPORTANT** – We must choose blob type at the time of its upload. Once a blob has been created, its type cannot be changed

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Blob Storage Tiers

- ✓ **Hot access tier:**
  - ✓ Optimized for storing data that is accessed frequently
  - ✓ Offers low-latency access of data.
  - ✓ Slightly higher storage cost compared to other tiers
- ✓ **Cool access tier:**
  - ✓ Optimized for data that is infrequently accessed and stored for at least 30 days
  - ✓ Cost-effective for storing data that doesn't need to be accessed frequently
- ✓ **Cold access tier:**
  - ✓ Optimized for storing data that is infrequently accessed and stored for at least 90 days.
- ✓ **Archive access tier:**
  - ✓ Appropriate for data, rarely accessed & stored for at least 180 days
  - ✓ Most cost-efficient tier but comes with a trade-off of higher retrieval times (hours)

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Key Points About Blob Storage Tiers

- ✓ Allow you to optimize costs while still organize your data based on attributes like frequency of access and planned retention period.
- ✓ Help to tag data stored in the cloud based on how it's generated, processed, and accessed over its lifetime.
- ✓ Choosing the right storage tier for your data is important
- ✓ Transitioning data between tiers may involve time and cost, so plan carefully