

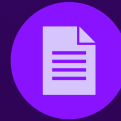
# Object Storage with S3

Storing (and accessing) any files from anywhere

- ▶ Understanding S3
- ▶ Buckets, Settings & Accessing Files
- ▶ Beyond Simple Storage: Static Websites & File Archival

# Understanding Object Storage

Focus on the file, not the  
underlying system



Store any kind of file with  
(almost) any kind of size

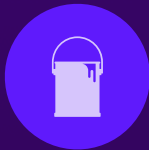
# Simple Storage Service (S3) Key Features



## File Storage

Upload via console, CLI, HTTP API, SDK, ...

Delete & read via console, CLI, etc.



## Buckets

Files are organized in buckets (“folders”)

Buckets are regional

Unique name required



## No File System

Flat structure, no directories

Prefixes help with organizing files



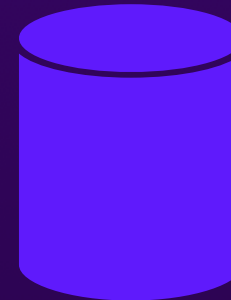
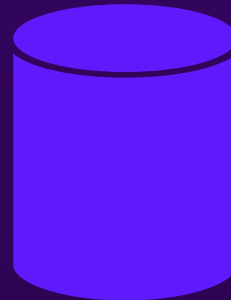
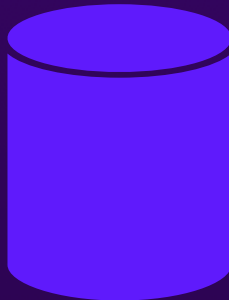
## Detailed Permissions System

Control bucket- and file-level access

Via Bucket Policies (Recommended)

Via ACLs

# Files Are Stored In Buckets



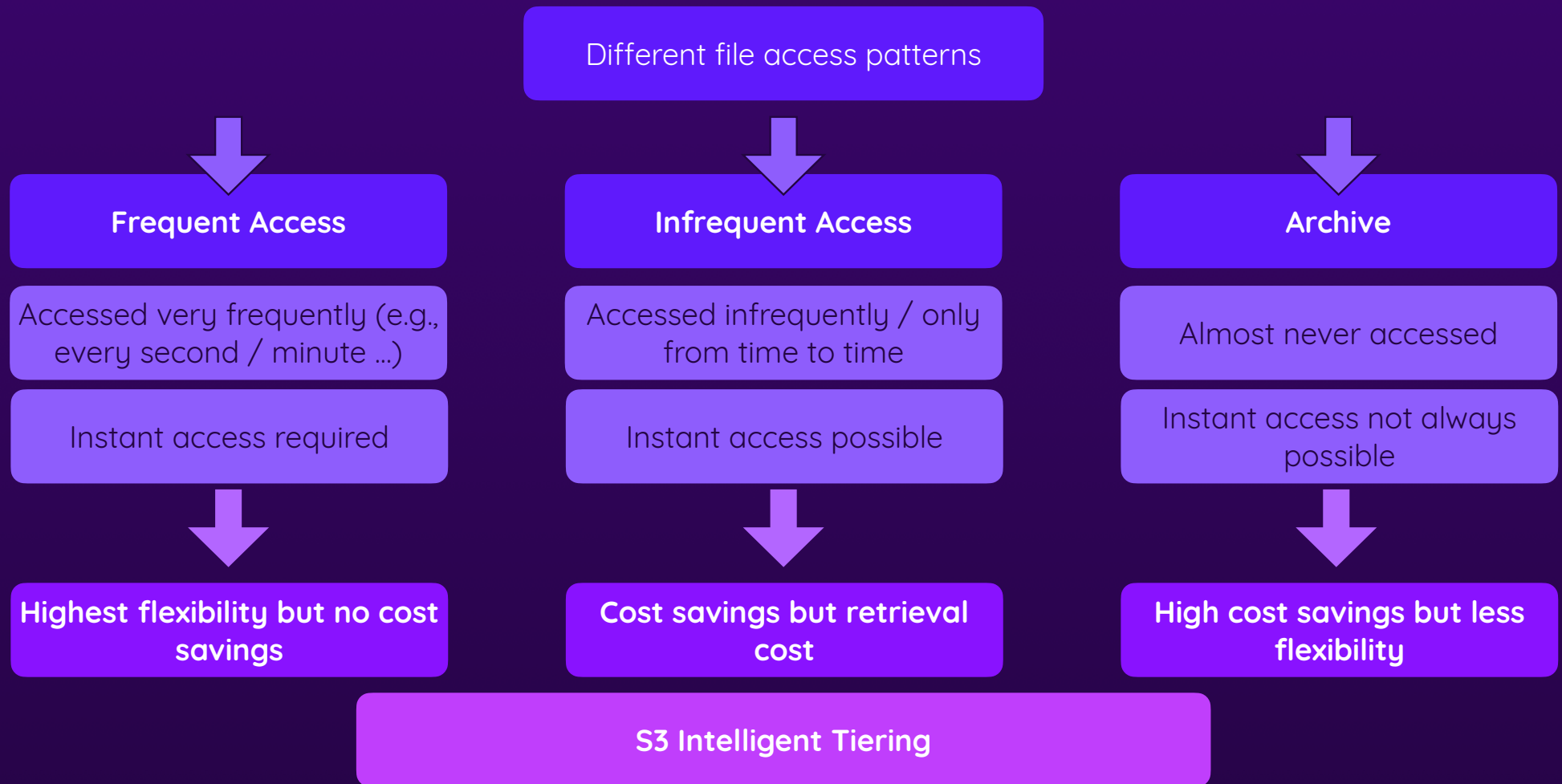
# Files Are Stored In Buckets



S3 does not provide a file system where you could create subfolders. Instead, all files are stored in buckets.

You can create as many buckets as needed.

# Storage Classes



# S3 Advanced Features



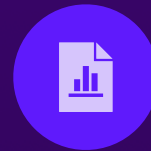
## Versioning

Store multiple versions of a file



## Lifecycle Management

Transition files between classes



## Inventory & Analytics

Understand stored files & data



## Compliance & Object Lock

Prevent object deletion / changes



## Replication

(Auto-)replicate objects cross-bucket



## Data Protection & Encryption

Automatically encrypt stored data



## Static Website Hosting

Upload & host (static) website files

# S3 vs EBS vs EFS



## **EBS**

Elastic Block Store

Attachable hard drives

EC2 only

Automatic scaling & multi  
attach possible



## **EFS**

Elastic File System

Attachable file systems

Multiple services

Automatic scaling & multi  
attach are key features



## **S3**

Simple Storage Service

Independent object storage

Access with or without services

Unlimited scaling built-in



# Summary



## S3 - Object Storage

Focus on the objects / files, not the underlying system

Organize files into buckets

Access (upload, delete, retrieve) via services, CLI, HTTP API, ...



## Managing Objects & Storage

Different storage classes for different access patterns

Lifecycle management

Fine-grained permission management

Encryption possible



## Advanced Features

Inventory overview & data analytics

Static website hosting

Versioning & object lock

Cross-region or single-region cross-bucket replication