

lavraging storage services s3

Questions	Notes
The bigger picture	<ul style="list-style-type: none"> • companire today need to collect, storeand analyze the data they've accumulated over the years on a massive scale. storage services in the cloud provide a place for companies to store data.
Let's take a look closer	<ul style="list-style-type: none"> • you can set security at the bucket level or individual object level using access control lists (ACLs) , bucket policies , or access point policies • you can use s3 access logs to track the access to your buckets and objects • you can enable versioning to create multiple versions of your file in order to protect against accidental deletion and to use previous version • s3 is a regional service ,but bucket names must be globally unique.
Data Accessibility	<ul style="list-style-type: none"> • Durability and availability are 2 very diff aspects of data accessibility • Durability : is important so your objects are never lost or compromised_amazon s3 designed for 99.99999% of durability • Availability is important so you can access your data quicklyt when you need it_Amazon s3 standard is designed for 99.9999% availability.
s3 standard	<ul style="list-style-type: none"> • general purpose storage • data stored across multiple AZ • Low latency and high throughput • Recommended for: <ul style="list-style-type: none"> ◦ Frequently accessed data <p>D=99.999999%</p> <p>A=99.99%</p>
s3 intelligent-Tiering	<ul style="list-style-type: none"> • Automatically moves your data to the most cost-effective storage class • automatic cost savings • No retrieval fees • data stored across multuple AZ. • Recommended for: <ul style="list-style-type: none"> ◦ data with unknown or changing access pettern like a data lake, new application <p>D=99.999999%</p> <p>A=99.99%</p>
S3 standard-Infrequent access	<ul style="list-style-type: none"> • data accessed les frequently but requires rapid access • data stored across multiple AZ • cheaper than s3 standard • Recommended for: <ul style="list-style-type: none"> ◦ long-lived data ◦ Infrequently accessed ◦ Millisecond access when needed
S3 one zone -Infrequent ACCess (IA)	<ul style="list-style-type: none"> • like S3 standard-IA but data stored in a single AZ • costs 20% less than S3 standard-IA • data stored in this storage class can be lost • Recommended for: <ul style="list-style-type: none"> ◦ re-creatable data ◦ Infrequently accessed with millisecond acess ◦ Availibilty and durability not essential
S3 Glacier	<ul style="list-style-type: none"> • Long-term Data storage and archival for lower costs • Data retrieval Takes longer • 3 retreival options : 1-5 minutes, 3-5 hours , or 5-12 hours • data stored across multiple AZ. • Recommended for: <ul style="list-style-type: none"> ◦ long term backups ◦ cheaper storage option ◦
S3 Glacier deep archive	

	<ul style="list-style-type: none"> Like S3 glacier but longer access times 2 retrieval Options : 12 hours or 48 hours cheapest of all S3 options Data stored across multiple AZ Recommended for: <ul style="list-style-type: none"> Long-term data archival accessed once twice a year retraining data for regulatory compliance requirements Durability of 99,9999% No availability
S3 Outposts	<ul style="list-style-type: none"> Provides Object storage On-premises A single storage class store data across multiple devices and servers Recommended for: <ul style="list-style-type: none"> data that needs to be kept local Demanding application performance needs
S3 in the real world	<ul style="list-style-type: none"> Static websites: Deploy static websites to s3 and use Cloudfront for global distribution data archive: Archive datta using amazon Glacier as a storage option for amazon s3 mobile apps:Mobile apps users xan upload files to an Amazon s3 bucket analytics systems: store data in amazon s3 for use with analytics service like Redshift and athena

Résumé

- S3: is a regional service but has a global namespace
- S3 offers unlimited sstorage with many storage classes .Understand the use cases for each storage class