AWS CSA-Pro Reviews ACloudGuru Section 2 Data Stores Part 3

The last review of each section will be based off the quiz, lab, the challenge questions, and the whitepapers given to everyone at the end of each section. Here are the links to each whitepaper that these questions are based on.

<https://d1.awsstatic.com/whitepapers/Storage/AWS%20Storage%20Services%20Whitepaper-v9.pdf>

<https://d1.awsstatic.com/whitepapers/Multi_Tenant_SaaS_Storage_Strategies.pdf>

<https://d0.awsstatic.com/whitepapers/performance-at-scale-with-amazon-elasticache.pdf>

The first section will be based off of the questions I got not from the whitepapers. I will label when it changes and which whitepaper that section of questions is based on.

In storage which consistency model values availability over consistency. What about consistency over availability? Which AWS services align with each model?

How do you setup EFS to multi-az?

What database approach would be best for storing and analyzing the complex interpersonal relationships of people involved in organized crime? Is there a second lesser option you can use?

What is the Glacier Vault Lock and what can you do with it?

What is the main benefit of using an Instance Store?

What are the 2 consistency models and what do they stand for?

What are 2 ways you can increase the speed of read operations?

What is DAX? What are the 3 main scenarios you would use it in?

What is the main disadvantage of using requester pays?

For each storage gateway, what options do you have for mounting them?

What is AWS Glue? When should you use it?

What is the AWS Glue Data Catalog?

What is an AWS Glue Crawler?

What is Amazon Quicksights?

**Storage Whitepaper (Top Link)**

What are the 4 common usage patterns of S3? Why would you use S3 for this reason?

What is CloudSearch?

What should you use for Dynamic Website Hosting?

What is Multi-Part upload and what benefits do you gain from using it?

What is S3 Transfer Acceleration?

What is the Durability and Availability of S3?

What is the Scalability and Elasticity of S3?

What are the encryption methods you can use with S3?

What is versioning?

What is MFA Delete?

What is S3 access logging? What type of details does it provide?

How do you store data into Glacier?

What are some performance patterns of Glacier?

What are range retrievals in Glacier?

What is the Durability and Availability of Glacier?

What is the Scalability and Elasticity of Glacier?

What is the Security of Glacier?

What are the usage patterns of EFS?

What is the Performance of EFS?

What are the 2 types of performance modes you can use for EFS? When should you use each?

What CloudWatch metric can you check to see the amount of burst you have?

What is the Durability and Availability of EFS?

What is the Scalability and Elasticity of EFS?

What are the 3 ways to secure EFS?

What are the Usage Patterns of EBS?

What are the 4 EBS drive types and their uses?

What does EBS-Optimized option do?

What is the Durability and Availability of EBS?

What is the Scalability and Elasticity of EBS?

What is the Security of EBS?

What are the Usage patterns of Instance Stores?

What is the Performance of Instance Stores?

What is the Durability and Availability of Instance Stores?

What is the Scalability and Elasticity of Instance Stores?

What are the 4 types of Storage Gateways and what do each provide?

What are the Usage Patterns of Storage Gateways?

What is the Durability and Availability of Storage Gateway?

What is the Scalability and Elasticity of Storage Gateways?

What is the Security of Storage Gateways?

What is AWS Snowball?

What are the Usage Patterns of AWS Snowball?

What time frame should you start considering the use of AWS Snowball?

How can you transfer more than 80TB in the same time frame using Snowball?

What are the common use cases of Snowball?

What is the Durability and Availability of Snowball?

What is the Scalability and Elasticity of Snowball?

What is the Security of Snowball?

What are the origin types for CloudFront?

What are the Usage Patterns of CloudFront?

What are the 2 types of distributions?

What is the Performance of CloudFront?

What is the Durability and Availability of CloudFront?

What is the Scalability and Elasticity of CloudFront?

What is the Security of CloudFront?

**SaaS Whitepaper (Middle Link)**

What are the 3 SaaS partitioning models?

What are the pros and cons for each model?

How and why can you take a hybrid approach?

What are some of the considerations of migrating your data to each model?

What are some of the considerations of securing your data with each model?

What are some management and monitoring considerations for each model?

What is the linked account silo model?

How can you do each model with DynamoDB?

How can you do each model with RDS?

How can you do each model with Redshift?

**Performance at scale with Amazon Elasticache Whitepaper (Last Link)**

What is in-memory caching and what benefits does it provide against your data layer?

What is Amazon Elasticache?

What are some advanced use cases of an in-memory cache?

What are common use cases for in-memory caching?

What is the relationship with Elasticache and your DB tier?

What are some alternatives to Elasticache and their use cases?

What are some uses cases for Memcached and Redis? What are some of their differences between each other?

Which should you use between the 2 engines and why? Both is a possible answer.

Is object caching your primary goal, for example to offload your DB?

Are you interested in as simple of a caching model as possible?

Are you planning on running large cache nodes and require multithreaded performance with utilization of multiple cores?

Do you want to scale your cache horizontally as you grow?

Does your app need auto increment or decrement counters?

Are you looking for more advanced data types, such as lists and sets?

Does sorting and ranking datasets in memory help you, such as leaderboards?

Are publish and subscribe capabilities of use to your applications?

Is persistence of your key store important?

Do you want a multi-az implementation?

Done with that game!

What are considered hotspots of data?

When is Memcached the best choice for your app?

What does the preferred zone option and spread nodes across zones option allow you to do when deploying a Memcached cluster?

Which instance families are the best for cache nodes and why?

What is the port for Memcached and Redis?

How is the architecture setup for best practice and why should you do this?

When should you decide to cache an item? When shouldn’t you use caching?

What is a cache hit? What is a cache miss?

What is lazy population caching?

What is write on through caching?

What are some advantages and disadvantages of the lazy vs the write on through caching?

What are some simple strategies for cache expiration?

What is the thundering herd?

What are some advantages to choosing Redis? How should you architect Redis?

How can you distribute your read and writes with Redis? What are some disadvantages of doing this?

How does auto failover with Redis work? Will you lose anything?

What are some advanced data sets with Redis?

How should you monitor your cache efficiency?

What are Evictions and what does it mean if they get too high?

What are CacheMisses and what does it mean if they get too high?

What are BytesUsedForCachedItems and what does it mean if they get too high?

How can you optimize your Memcached memory usage? What about for Redis?

What is Redis backup and restore? How does that workflow work?

What is auto discovery for Memcached and what does it do?