



AMI & Snapshot





Today's Takeaways

- ▶ Amazon Machine Image (AMI)
- ▶ Snapshot





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Amazon Machine Image (AMI)

Amazon Machine Image (AMI)

What is AMI?



- An Amazon Machine Image (AMI) is used for launching virtual instances in the AWS environment.
- AMI are **like templates** that are configured with an **operating system** and other **software**, which determine the user's operating environment.
- You can copy an AMI. So you can launch **multiple instances** from a single AMI with the same configuration.

Amazon Machine Image

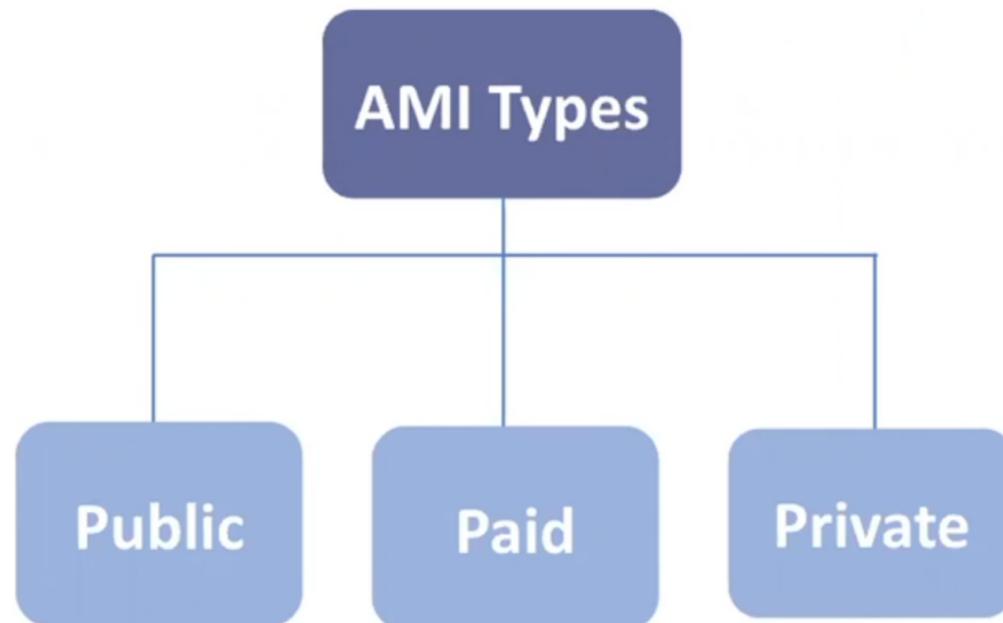


Windows 10 O/S

Amazon Machine Image (AMI)



Types of AMIs





2

Snapshot

Snapshot

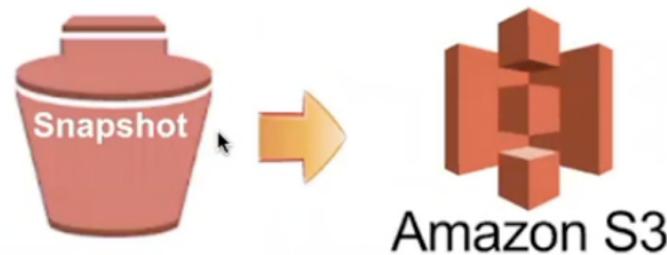
What is Snapshot?



- It is a [point-in-time copy](#) of your Amazon EBS Volume/Instance
- Snapshots are used for the [purpose of](#)
 - Backup
 - Copying AMI for creating multiple instances with the same features.
 - Creating a new Volume

Snapshot

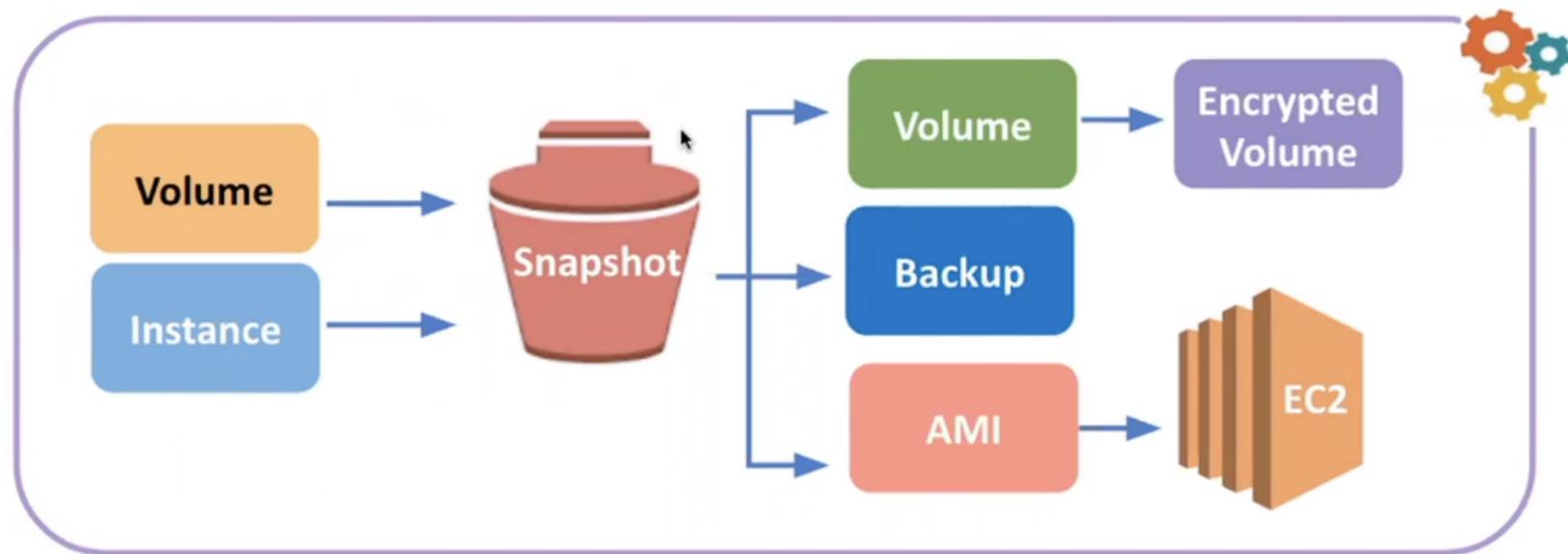
Features of the Snapshot



- Source from Volume or Instance
- Stored in Amazon S3
- Incremental storage
- Data Lifecycle Manager (DLM)

Snapshot

Lifecycle of Snapshot



Snapshot

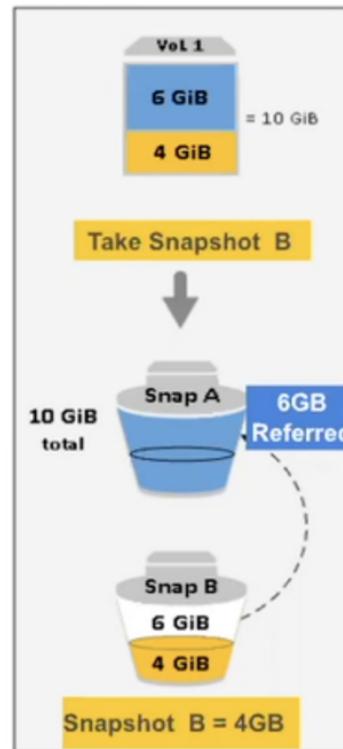
Incremental Backups

32 GiB vs. 16 GiB

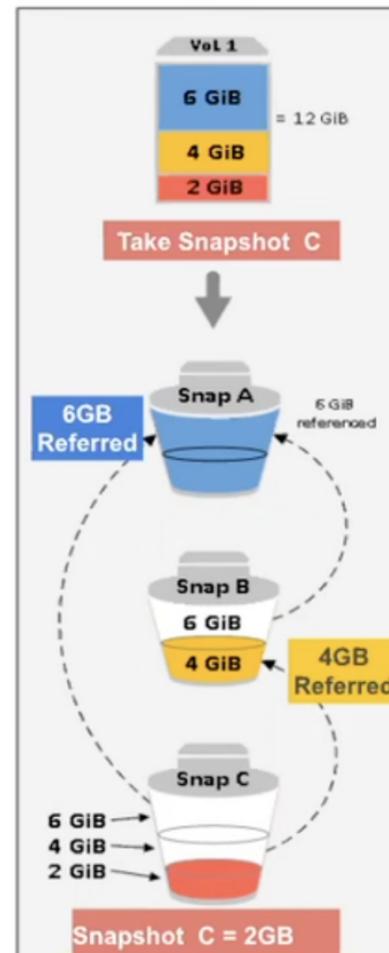
State 1 – 10 GiB



State 2 – 4 GiB changed



State 3 – 2 GiB added



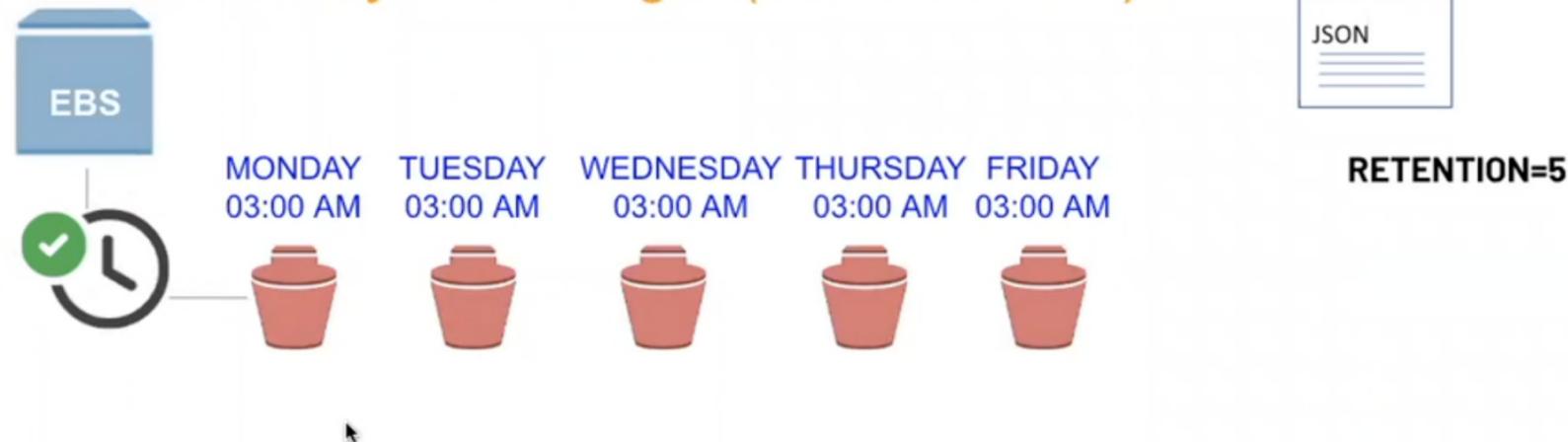
Snapshot A = 10 GB

Snapshot B = 4 GB Changed + Referred 6 GB Snapshot A

Snapshot C = 2 GB Added + Referred 6 GB Snapshot A + 4 GB Snapshot B

Snapshot

Data Lifecycle Manager (Amazon DLM)



Snapshot

Data Lifecycle Manager (Amazon DLM)



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MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY
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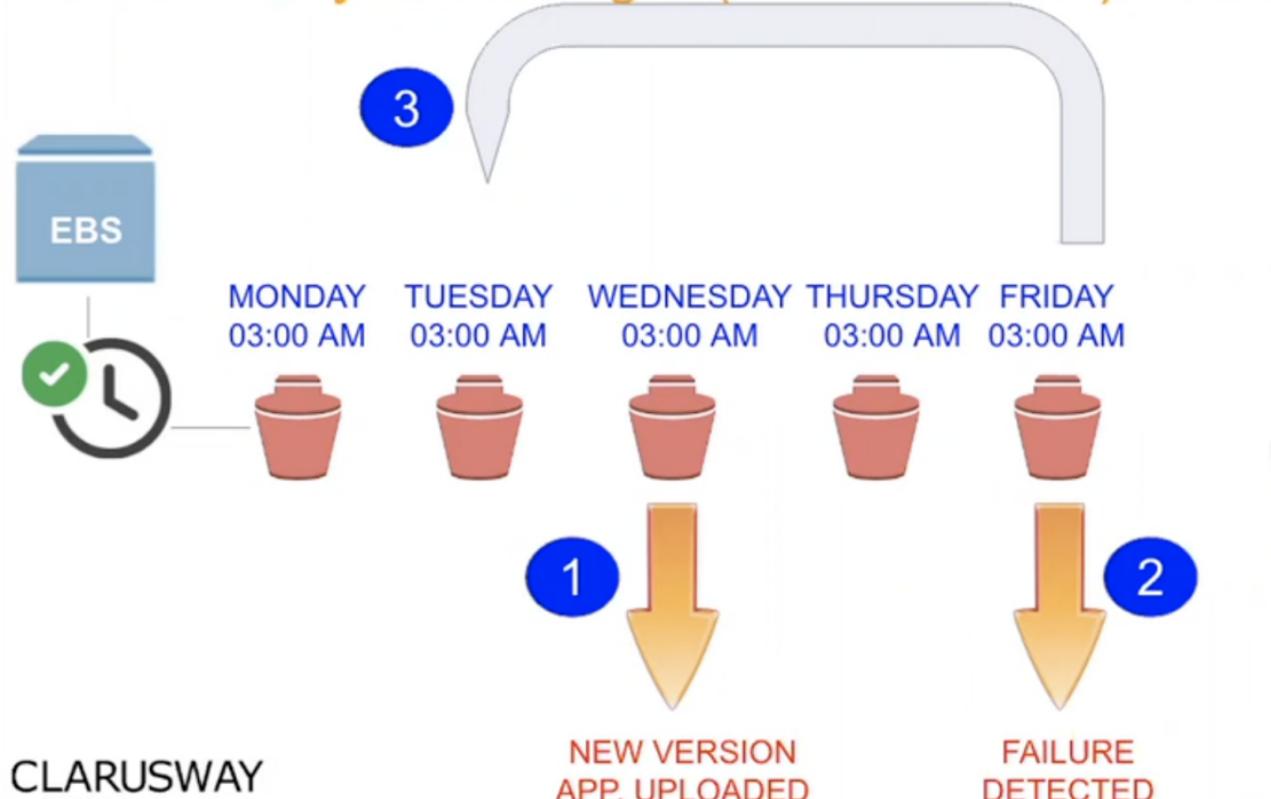


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Snapshot

Data Lifecycle Manager (Amazon DLM)- Backup and Restore



Snapshot

Encryption of Root Device via Snapshot



- Root device (volume) cannot be encrypted after creation. “How to encrypt unencrypted volume after creation” is a common question that can be asked in certification exams!
 - Take snapshot of unencrypted volume.
 - Copying the unencrypted Snapshot,
 - You are able to encrypt this Snapshot while coping
 - Create an encrypted volume from this copied Snapshot.

Golden AMI



- A golden AMI is an AMI that contains security patches, configuration, and agents required to by an organization. A “just enough OS” (jeOS) is the most basic golden AMI.
- It may also contain specific software components that make it easier and faster to start-up an instance .

