# What is the AWS Life Cycle Manager usage.

==> AWS **Lifecycle Manager**, specifically the **Amazon Data Lifecycle Manager (DLM)**, is a service that helps you automate the creation, retention, and deletion of **Amazon Elastic Block Store (EBS) snapshots** and **Amazon Machine Images (AMIs)**. By automating these processes, AWS Lifecycle Manager simplifies the management of backups, reduces manual tasks, and ensures you are complying with data retention policies.

## Key Uses of AWS Lifecycle Manager:

1. **Automated Backups (EBS Snapshots):** You can use AWS Lifecycle Manager to automatically create **EBS snapshots** at specified intervals (e.g., daily, weekly). This helps ensure that you have consistent backups of your data without needing to create snapshots manually.

   **Example:** You have an EBS volume attached to an EC2 instance running a database, and you want to automatically take a snapshot of this volume every 24 hours to ensure data recovery.

2. **Automated Deletion of Old Snapshots (Retention Policy):** AWS Lifecycle Manager lets you define **retention policies** to delete older snapshots or AMIs that are no longer needed. This helps you control storage costs by removing unnecessary backups automatically.

   **Example:** You set a policy to keep only the last 30 daily backups of your EBS volume and automatically delete older snapshots.

3. **Compliance with Data Retention Requirements:** By defining automated retention policies, AWS Lifecycle Manager ensures you meet compliance requirements for data retention. You can set policies to retain snapshots for a certain period, helping meet regulatory obligations.

   **Example:** A company is required by law to keep data for 7 years. You can configure Lifecycle Manager to retain snapshots for exactly that period and delete them automatically afterward.

4. **Amazon Machine Image (AMI) Management:** You can also use AWS Lifecycle Manager to manage **AMIs** (images of your EC2 instances). It helps create AMIs on a schedule and delete older ones as needed, ensuring that you always have up-to-date machine images without manual intervention.

   **Example:** You need to create AMIs of your EC2 instance every week to ensure you have a backup of the entire instance, including its configuration, and retain the last 5 images only.

5. **Consistency Across Environments:** AWS Lifecycle Manager allows you to apply consistent backup and retention policies across multiple environments, such as production and development. This ensures you maintain uniform data protection practices without manually managing each environment.

**Example:** You have a policy that creates and deletes backups for both production and testing environments based on the same lifecycle rules, ensuring consistency.

## Key Features:

- **Scheduled backups:** Automatically create EBS snapshots and AMIs based on a schedule (hourly, daily, weekly).
- **Retention policies:** Set policies to retain or delete snapshots after a specified time or number of backups.
- **Tagging support:** Apply lifecycle policies to resources based on tags, allowing better organization and grouping of resources.
- **Cross-region/cross-account copy:** Automate copying of snapshots across AWS regions or accounts for added redundancy and disaster recovery.

## Benefits:

- **Reduces manual effort** by automating snapshot and image management.
- **Cost optimization** by deleting old snapshots and reducing unnecessary storage usage.
- **Improved data protection and compliance** by automating the creation and retention of backups.
- **Ensures disaster recovery** by keeping consistent, up-to-date backups.