Fundamentals - AWS

Monday, January 05, 2026   10:08 AM

Region
1. A Region is a geographical location where AWS has multiple datacentres
2. **Key Characteristics**
   1. Each Region is physically isolated.
   2. Designed for fault tolerance and stability.
   3. Data residency and compliance depend on Region choice.

▷ **Availability Zone**
1. An Availability zone(AZ) is one or more physically separate datacentres within a region
2. **Key Characteristics**
   1. Each AZ has **independent power, cooling, and networking**
   2. Connected via **high-speed, low-latency private fiber**
   3. Named as: us-east-1a, us-east-1b, etc.
3. **Purpose**
   1. High Availability
   2. Fault Isolation
   3. Disaster Tolerance.

Best Practice
1. Always deploy workloads across **multiple Azs**