Readable Standby Instance V/S Read Replica

1 — Readable Standby Instance

1. Primary Purpose
   1. High availability and disaster recovery, with automatic failover capabilities
   2. Scaling read capacity and offloading read traffic from the primary instance
2. Replication Type — Synchronous replication, ensuring near real-time synchronization.
3. Failover Support
   1. Supports automatic failover.
   2. The standby instance can take over as the primary if the main instance fails.
4. Read/Write Capability — Primarily read-only in standby mode but switches to read-write during failover
5. Location of Instance — Deployed in a different Availability Zone (AZ) from the primary for high availability
6. Use Case — Ideal for high availability needs where failover is essential to minimize downtime.
7. Promotion to Primary — Automatically becomes the primary instance during failover

2 — Read Replica

1. Primary Purpose — Scaling read capacity and offloading read traffic from the primary instance
2. Replication Type — Asynchronous replication, allowing for a small lag in data
3. Failover Support
   1. Does not support automatic failover.
   2. Requires manual promotion if needed
4. Read/Write Capability
   1. Read-only.
   2. Used exclusively for read queries unless promoted to a primary.
5. Location of Instance — Can be deployed in the same or different regions as the primary
6. Use Case — Ideal for read-heavy applications needing to scale read operations
7. Promotion to Primary — Manual promotion to primary instance (if needed) but is not automatic

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