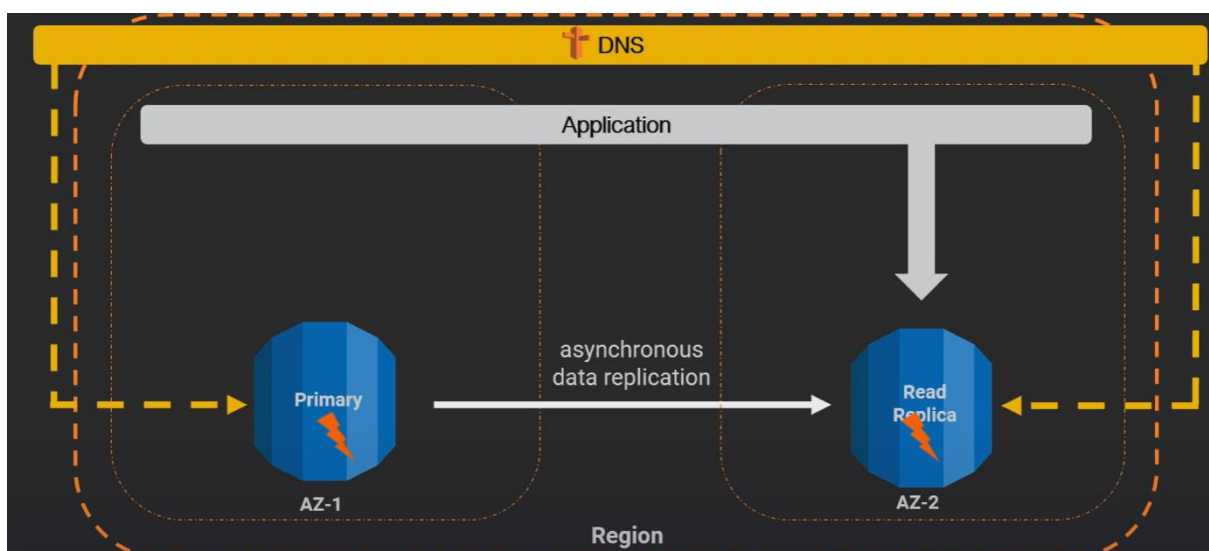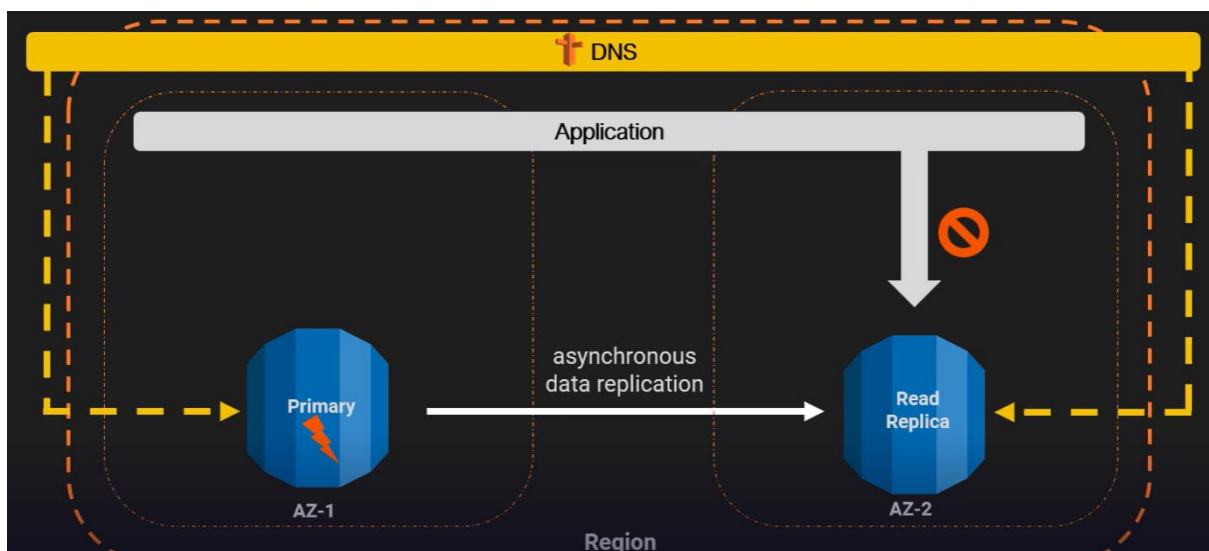RDS Read Replica:

A Read Replica is a read-only database instance.

Updates to Source are asynchronously replicated to Read Replica:
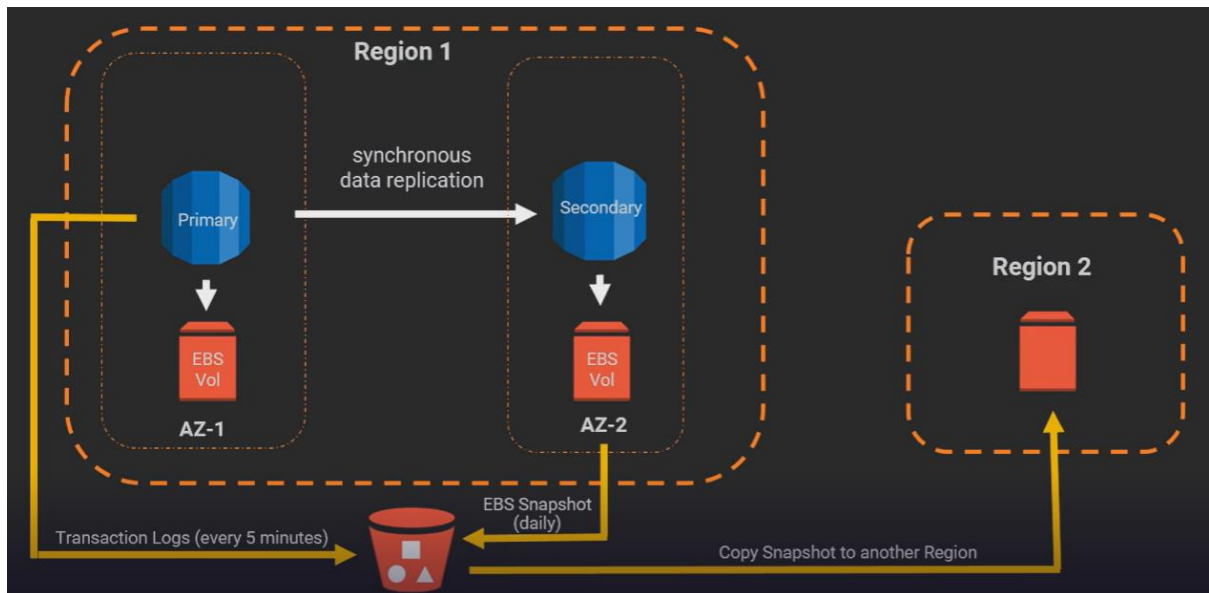
- This means the Read Replica is "eventually consistent."
- Querying a Read Replica does not guarantee latest data will be returned.
- Replication Lag metric indicates how stale the data could be.

When to Use Read Replica:
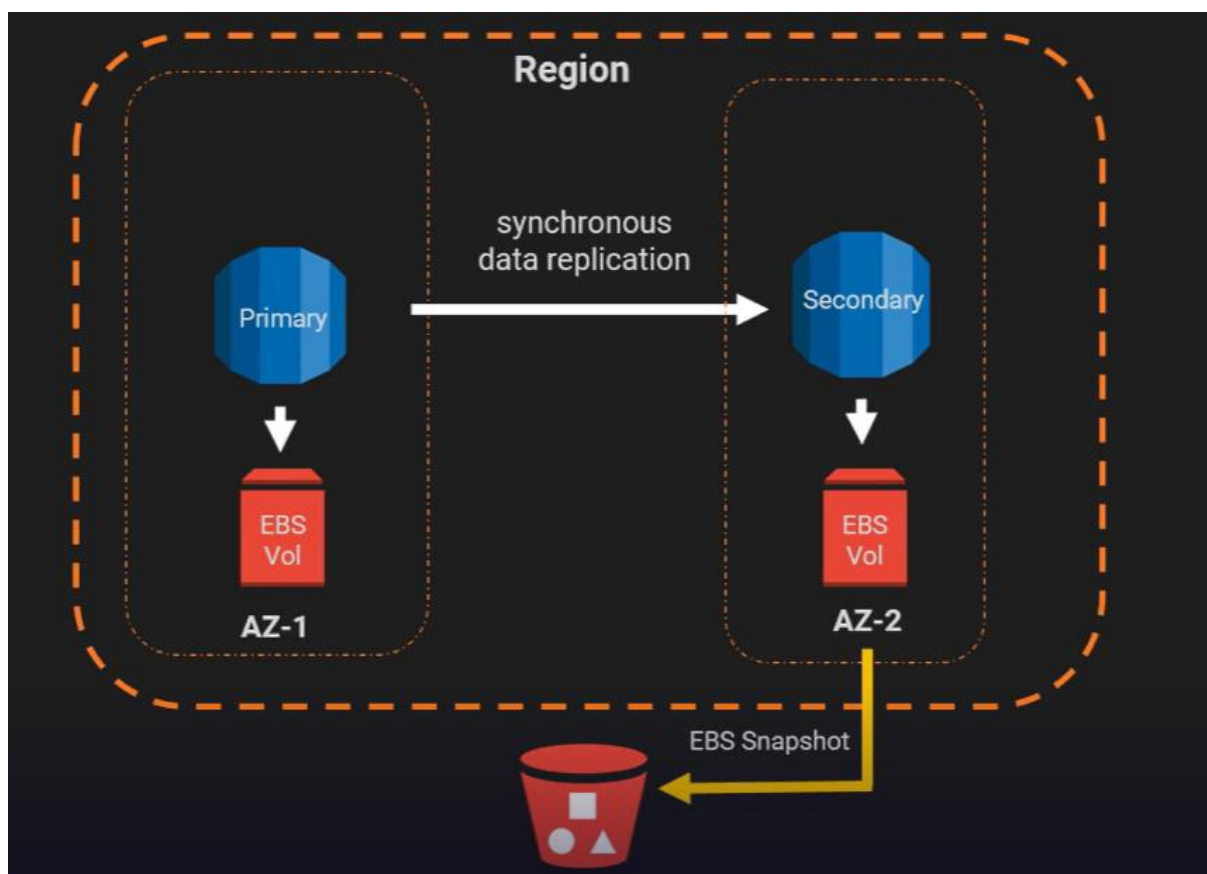
Automated Backups:

Automated Backup options:

1. **Backup Window**
   - When the backups should be taken

2. **Retention Period**
   - How long a backup should be kept
   - Between 1 and 35 days (7 days is default)

Manual Snapshot:

Snapshots (Automated and Manual) only store the difference:
- First snapshot of a DB Instance contains all the data
- Subsequent snapshots are incremental (only stores what has changed since the last snapshot)

Performance Impact of taking a backup:
- Single AZ

  - Brief I/O suspension (few seconds – few minutes)
- Multi-AZ

  - Snapshot is taken on Secondary so no impact

  - *Excluding SQL Server*

You can copy your snapshots to another region, or account

Automated Backups	Manual Snapshots
• Scheduled backup window	• Manually created
• Specify Backup Retention	• Kept until you delete them
• Supports Point in time recovery	• Restores to a saved snapshot
• Great for Disaster Recovery	• Used for checkpoints before large changes
	• Non-Production environments