Service	Maximum Size/Scale
RDS	Varies by engine; max 64 TB per database instance (Aurora can scale beyond)
AuroraDB	Up to 128 TB of storage, with up to 15 read replicas and automatic scaling
DynamoDB	Virtually unlimited storage; limited by partition throughput (up to 10 GB per partition)
DocumentDB	Up to 64 TB of storage per cluster with auto-scaling capabilities
Keyspaces	Virtually unlimited storage; scales horizontally (managed Cassandra-compatible)
QLDB	Virtually unlimited, though subject to account-level limits (storage autoscaling)
Neptune	Up to 64 TB of storage per cluster, with horizontal read scaling across replicas
Timestream	Virtually unlimited storage; optimized for time-series data with auto-scaling
ElastiCache	Up to 335.5 TiB per cluster (Redis), depending on instance types and configuration
MemoryDB	Up to 500 nodes per cluster, each node can have up to 335.5 TiB (similar to ElastiCache)
Redshift	Scales up to exabytes (EB) with Redshift Spectrum; individual cluster can scale up to 16 PB of data

Key Notes:

- RDS: Maximum database size depends on the engine (e.g., MySQL, PostgreSQL, etc.) and instance type. The 64 TB limit is for databases that support Amazon Aurora; others may have lower limits.
- AuroraDB: Aurora automatically scales storage up to 128 TB as needed without downtime.
- DynamoDB: DynamoDB can store virtually unlimited data. Each partition can store up to 10 GB, but the service automatically partitions data for scalability and performance based on throughput requirements.
- DocumentDB: Scales automatically up to 64 TB of storage per cluster. This is sufficient for most document-based workloads.
- Keyspaces: Since Keyspaces is built on the Cassandra model, it offers virtually unlimited scalability with horizontal scaling.
- QLDB: While QLDB can scale to store virtually unlimited amounts of data, there are AWS account-level limits, and you may need to request limit increases if needed.
- Neptune: Supports up to 64 TB of data per cluster, but you can scale read operations horizontally using replicas.
- Timestream: No hard storage limit; optimized for time-series workloads, automatically scales based on data ingestion needs.
- ElastiCache: For Redis, the cluster limit is up to 335.5 TiB per cluster, with up to 500 shards supported. For Memcached, the upper limit depends on the instance types used and the number of nodes.
- MemoryDB: Similar to ElastiCache for Redis, MemoryDB clusters can handle large data volumes, up to 500 nodes with up to 335.5 TiB per node.
- Redshift: Redshift clusters can scale up to 16 PB of data in a single cluster. However, using Redshift Spectrum, you can query data stored in Amazon S3, extending the system's capacity to exabyte levels.

Considerations:

- Storage Auto-scaling: Many services like Aurora, DocumentDB, Timestream, and Neptune offer auto-scaling to manage storage growth seamlessly.
- Horizontal Scalability: Services like DynamoDB, Neptune, Keyspaces, and Redshift provide horizontal scaling, allowing them to handle massive datasets through partitioning or sharding.
- Memory-bound Systems: For ElastiCache and MemoryDB, the size is limited by the amount of memory available on each node or cluster.