

Q3 What is Sharding in MongoDB, and how does it work?

A3: Shard means a small part of a whole, in the process of sharding we divide a larger part into smaller parts. Sharding is a type of database partitioning in which a large database is divided or partitioned into smaller data and different nodes. These shards are small but are fast and easily manageable.

The data is partitioned into shards based on a predetermined criterion. A sharding scheme may divide the data based on geographic location or user id. Once the partition is done, it is distributed across multiple servers or nodes. Each server or node is responsible for storing and processing a subset of the data.

In order to know which shard contains the required data, we make use of the shard key, which is nothing but a unique identifier that is used for mapping purposes to the corresponding shard.