Lesson 8
MongoDB

MongoDB

- An open source DBMS
- Programs create and manage databases
- Manages the collection and document data store
- Functions for querying and accessing the required information

MongoDB Document Model

- Well defined
- Structure of document is clear
- Document is the unit of storing data in a MongoDB database
- Documents are analogous to the records of RDBMS table
- Insert, update and delete operations can be performed on a collection

MongoDB Document Model

- Document use JSON (JavaScript Object Notation) approach for storing data
- JSON is a lightweight, self-describing format used to interchange data between various applications
- JSON data basically has key-value pairs.

MongoDB

- MongoDB is (i) non-relational, (ii) NoSQL, (iii) distributed, (iv) open source, (v) document based, (vi) cross-platform, (vii) Scalable, (viii) flexible data model, (ix) Indexed, (x) multi-master (Section 3.5.1.3), and (xi) fault tolerant.
- Documents have dynamic schema.

MongoDB Features

- Each DB gets its own set of files on the file system
- A number of DBs can run on a single MongoDB server
- DB is default DB in MongoDB that stores within a data folder.

MongoDB Features

- Database Server is mongod
- Client is mongo
- Collection stores a number of MongoDB documents

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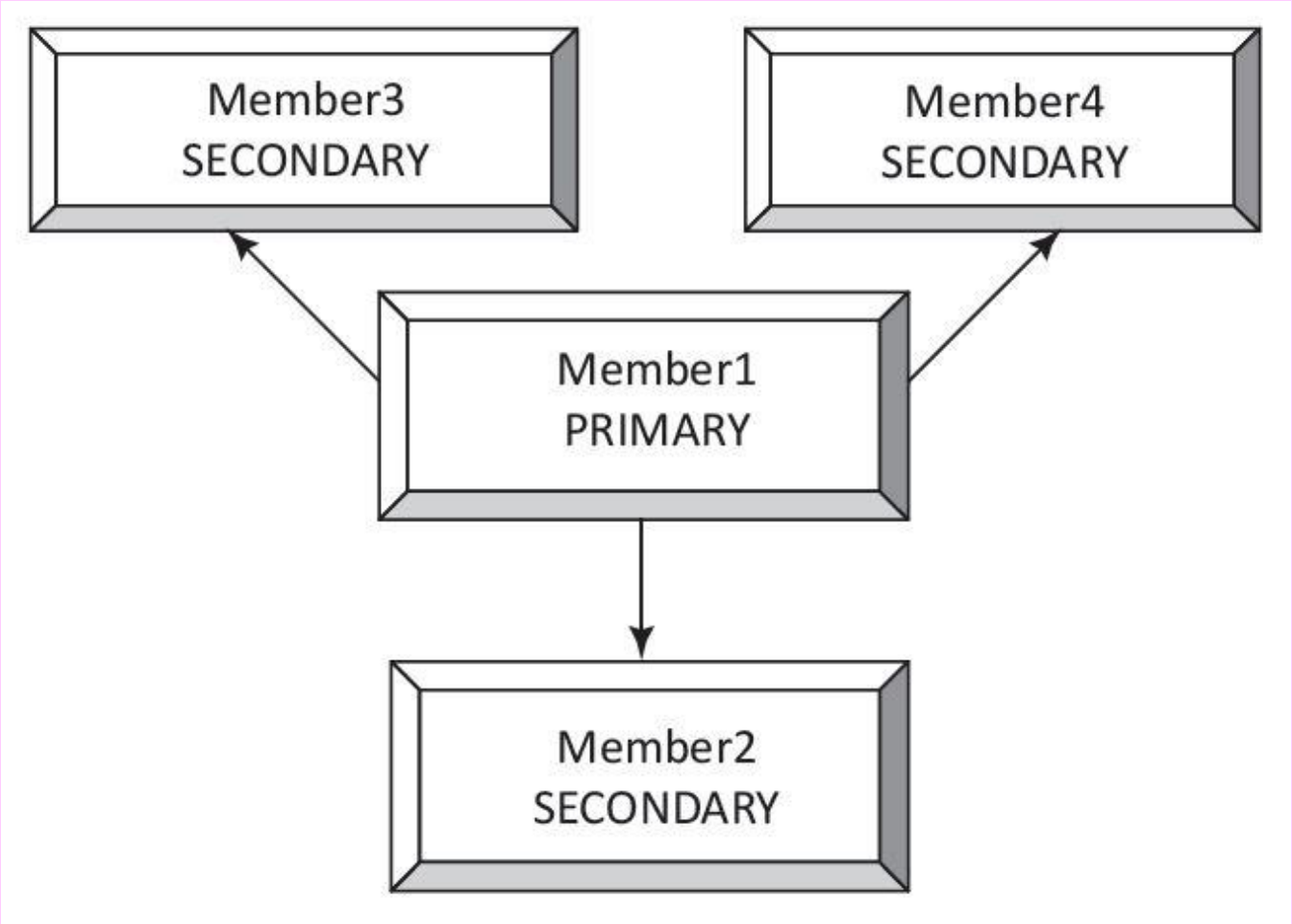
MongoDB

- Dynamic Schema
- Replication
- Auto-sharding
- The whole collection of shards forms a single logical DB. If a DB has a 1 terabyte dataset distributed amongst 20 shards, then each shard contains only 50 Giga Byte of data.

Figure 3.13 Replicated set on creating secondary members



MongoDB

- Data Types (Table 3.10)
- Rich Queries and Other DB Functionalities
- querying commands (Table 3.12)

Commands

- To create a collection
- To add array in a collection
- To view all documents in a collection
- To update a document
- To delete a document

Summary

We learnt :

- MongoDB
- Document Model JSON based
- Client Server Based distribution
- Data Types and Query Commands

End of Lesson 8 on **MongoDB**