MongoDB Sharding Setup

1. **Create a Separate Database for the Config Server**
    - Set up a dedicated database for the MongoDB configuration server. This will store metadata required for the sharded cluster.
2. **Start the MongoDB Instance in Configuration Mode**
    - Start the MongoDB instance as a configuration server on **Server D** by running the following command:

```
mongod --configsvr --dbpath /path/to/db --port 27019
```

    - Replace `/path/to/db` with the appropriate path to store the database files.
3. **Start the Mongos Instance by Specifying the Configuration Server**
    - Start the **mongos** instance and specify the configuration server:

```
mongos --configdb configReplSet/ServerD:27019
```

    - This connects **mongos** to the configuration server on **Server D**.
4. **Connect to the Mongo Shell**
    - Connect to the **mongos** instance using the Mongo shell:

```
mongo --host ServerD --port 27017
```

5. **Add Servers to the Cluster (Server A and Server B)**
    - From the **mongos** shell, add **Server A** and **Server B** to the sharded cluster:

```
sh.addShard("ServerA:27018")
sh.addShard("ServerB:27018")
```

6. **Enable Sharding on the Database**

   - Enable sharding for the **EmployeeDB** database:

```
use admin
sh.enableSharding("EmployeeDB")
```

7. **Enable Sharding for the Collection**

   - Enable sharding for the **Employee** collection within the **EmployeeDB** database. Choose a shard key (e.g., `employee_id`) that will be used to distribute data across shards:

```
use EmployeeDB
sh.shardCollection("EmployeeDB.Employee", { "employee
```

   - The above command enables sharding for the **Employee** collection and uses the **employee_id** field as the shard key.
