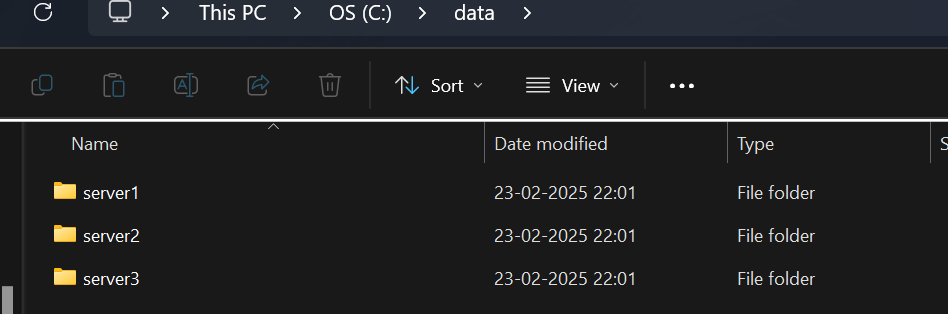
**Practical No. 7**

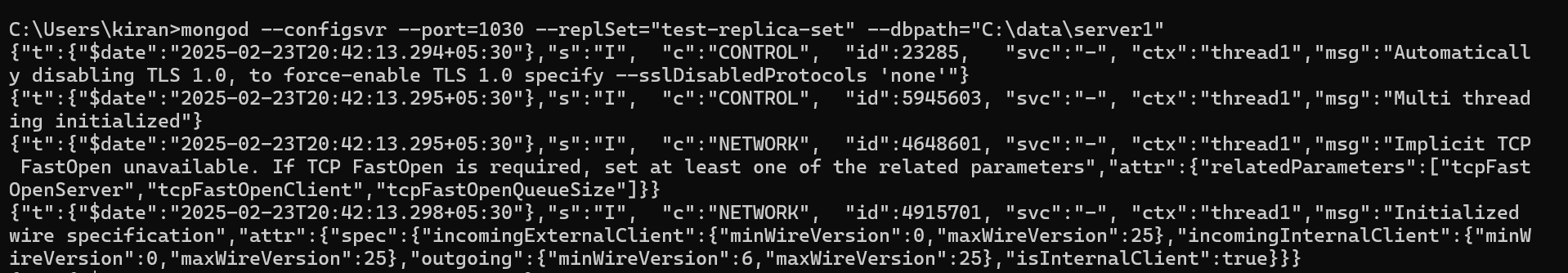
**Sharding Using MongoDB**

**Step 1: Create “data” folder inside that create “server1”, “server2”, “server3”.**

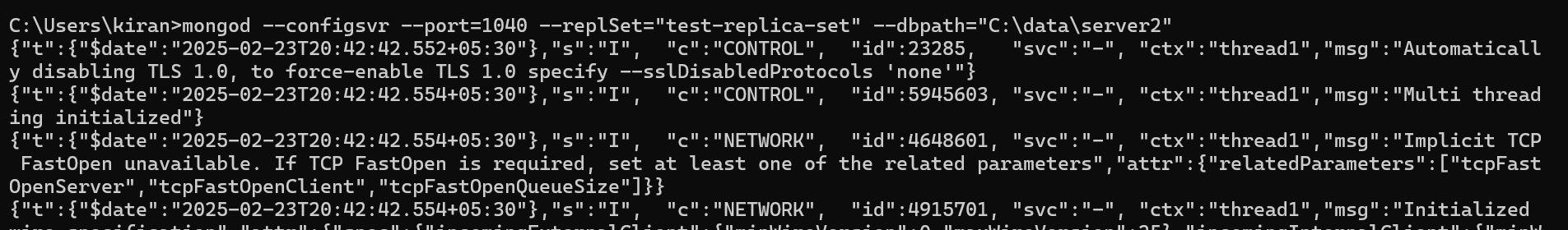


**Step 2: Initialize MongoDB Config Servers with configsvr and replSet options to form a Replica Set of Config Servers.**

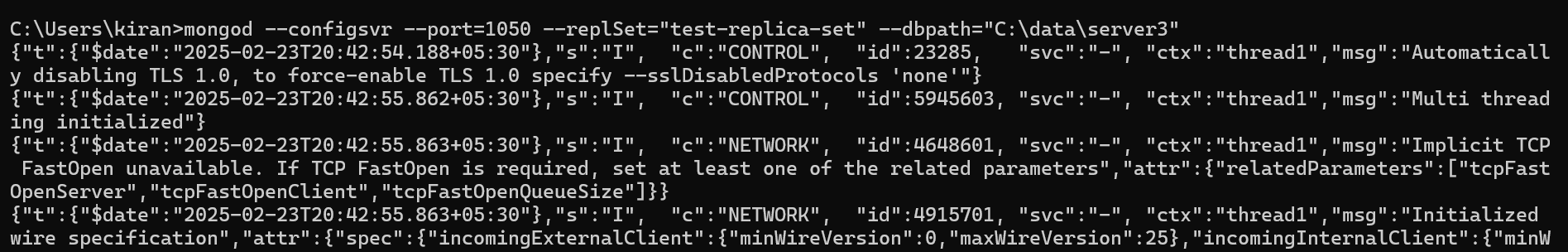
Server 1



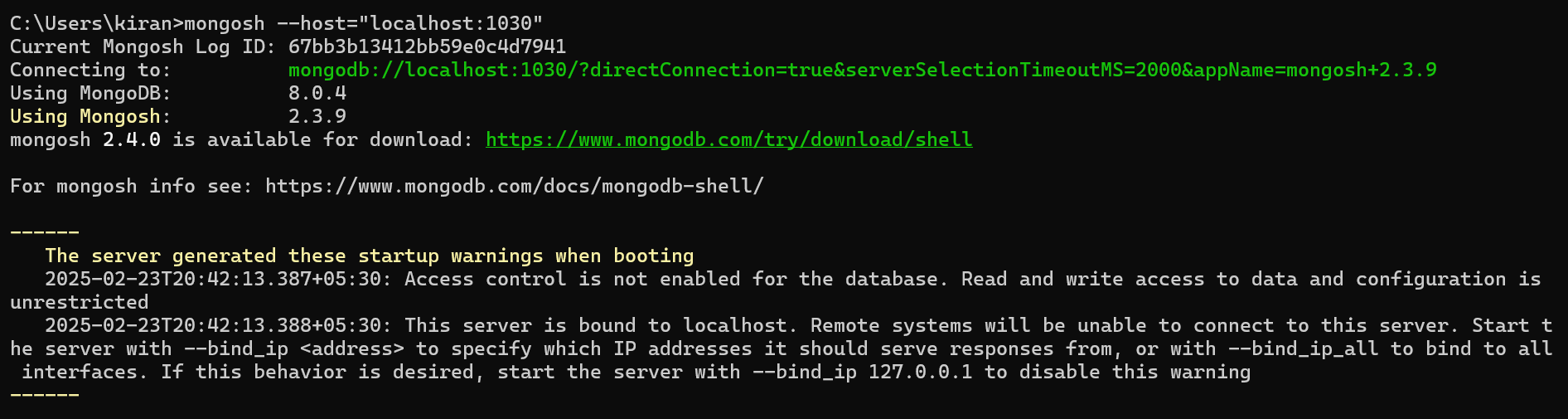
Server 2

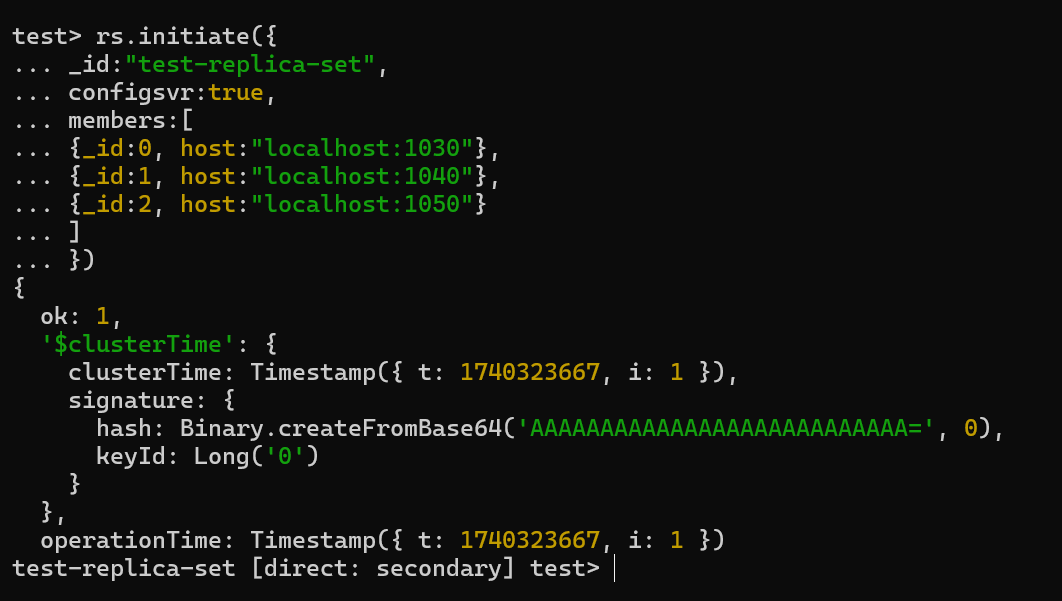


Server 3

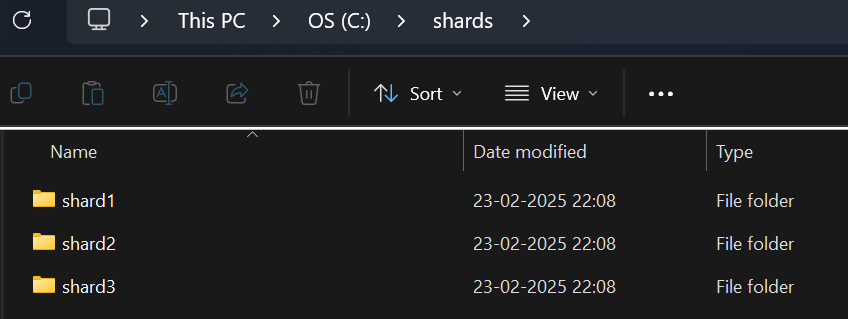


**Step 3: Connect to anyone of them using mongosh and Initiate Replica Set.**





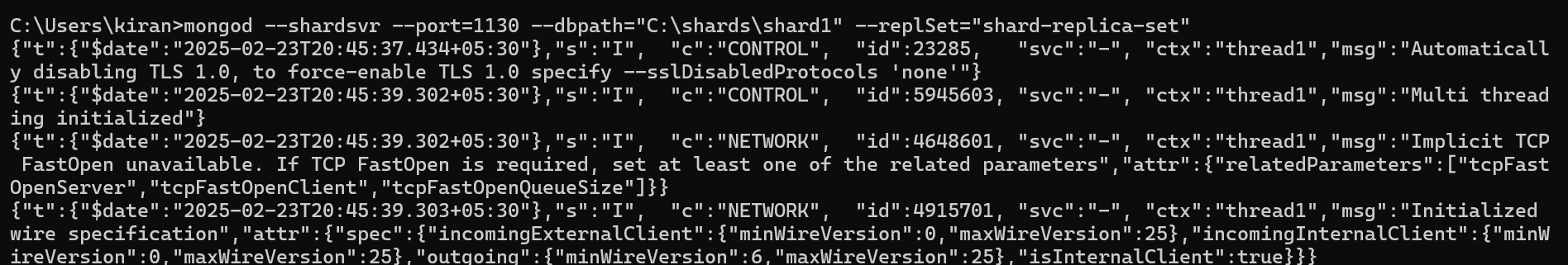
**Step 4: Create “shards” folder inside that create “shard1”, “shard2”, “shard3”.**



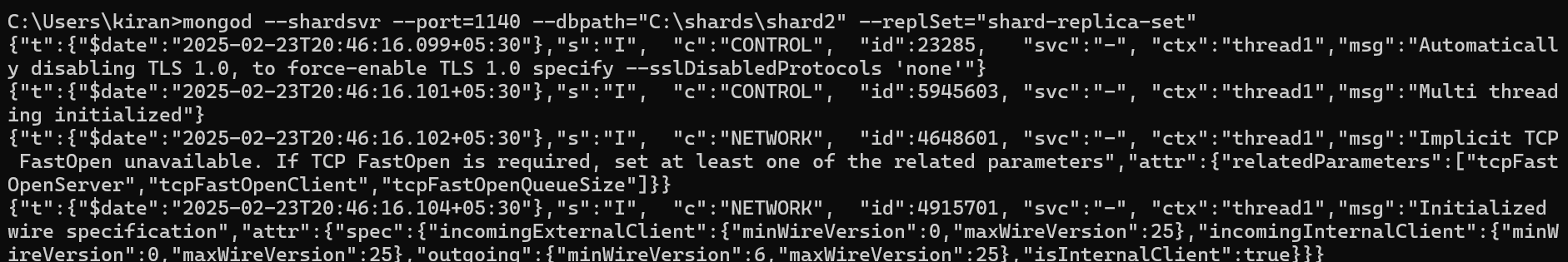
**Step 5:**

**Initialize MongoDB Shards**

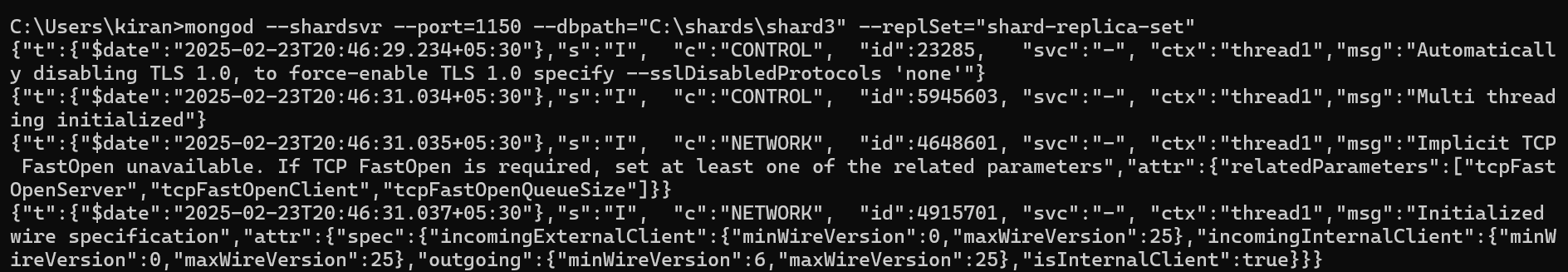
Shard 1



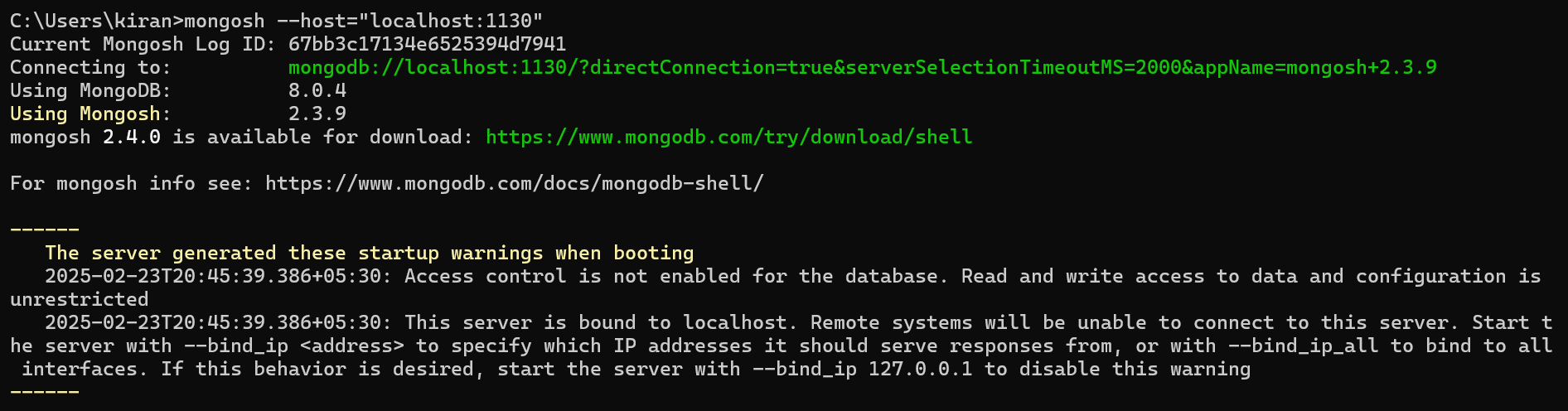
Shard 2



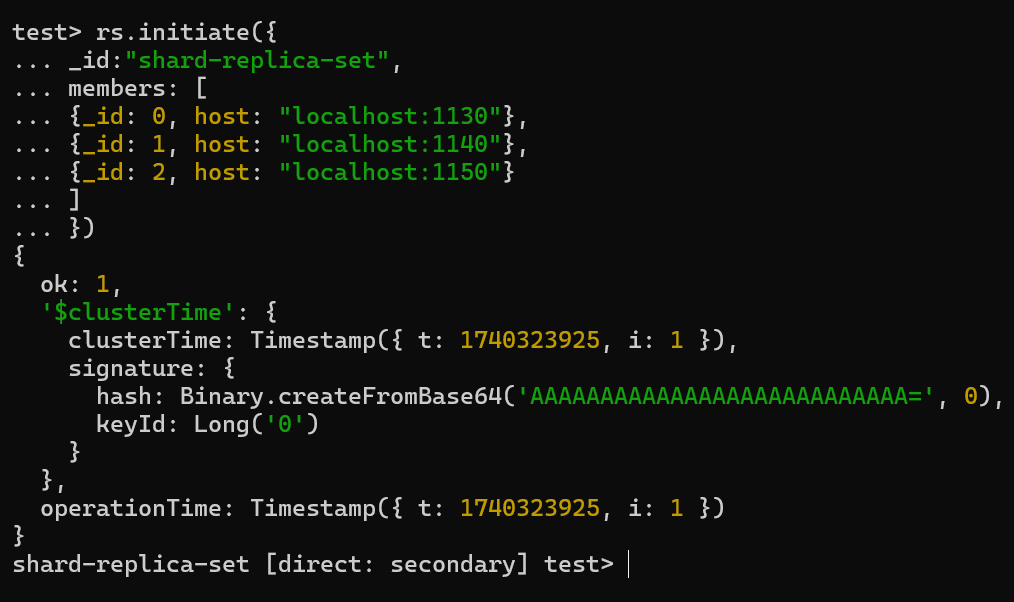
Shard 3



**Connect using mongosh**

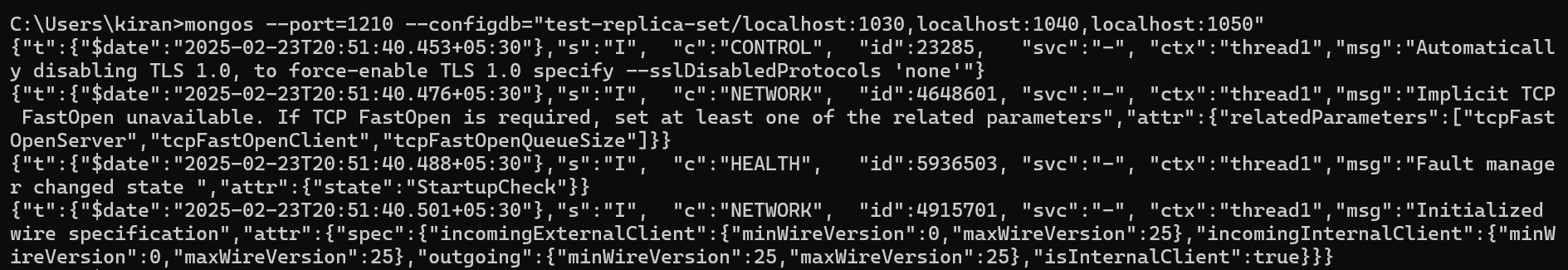


**Initiate Replica Set**

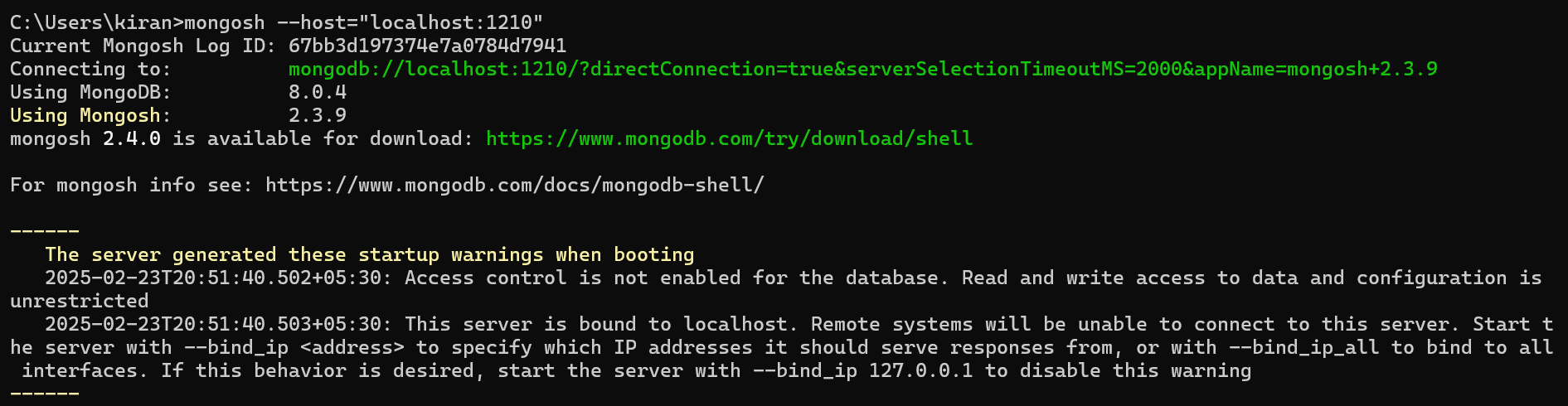


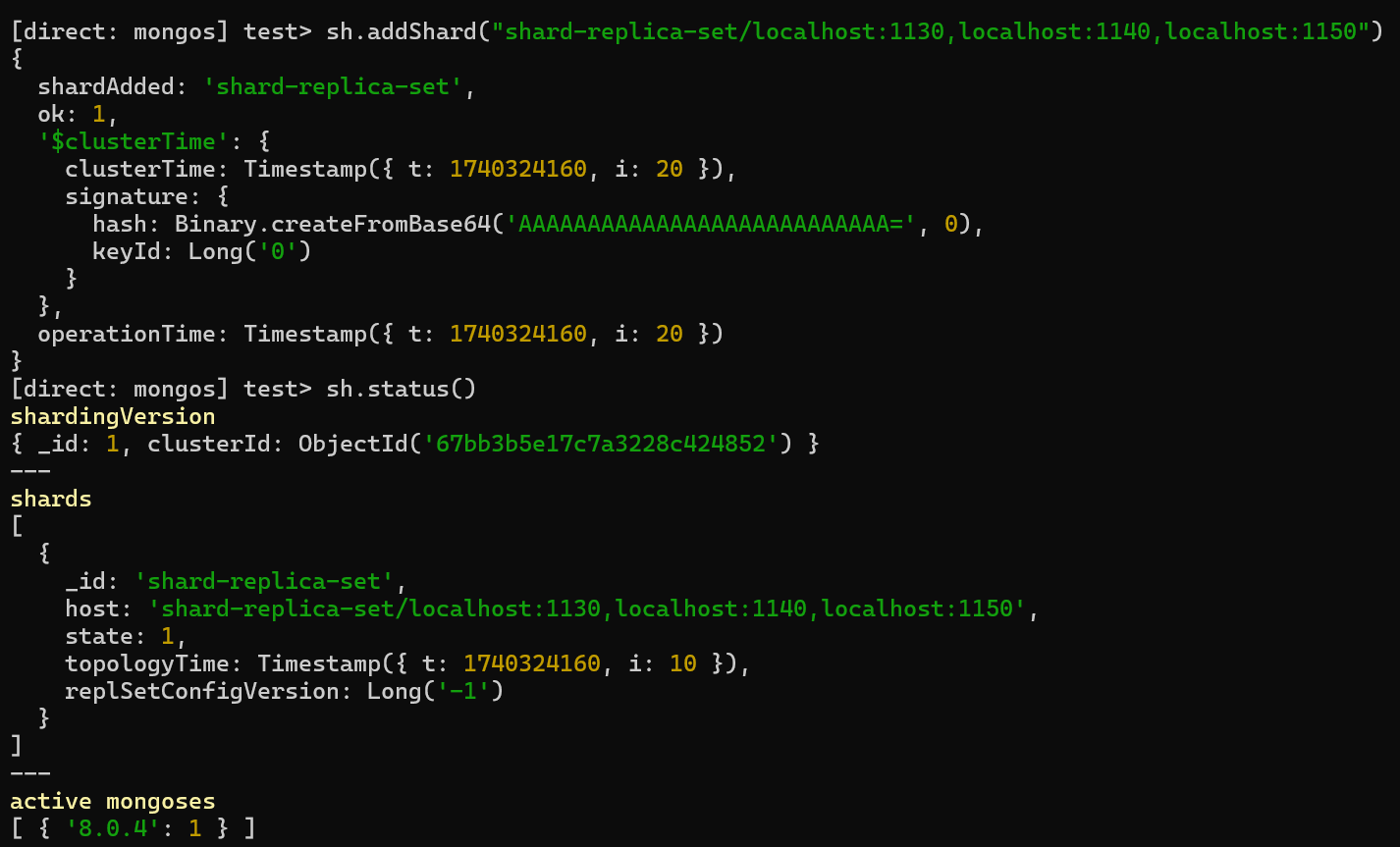
**Step 6:**

**Initialize a Query Router which is a mongos process.**



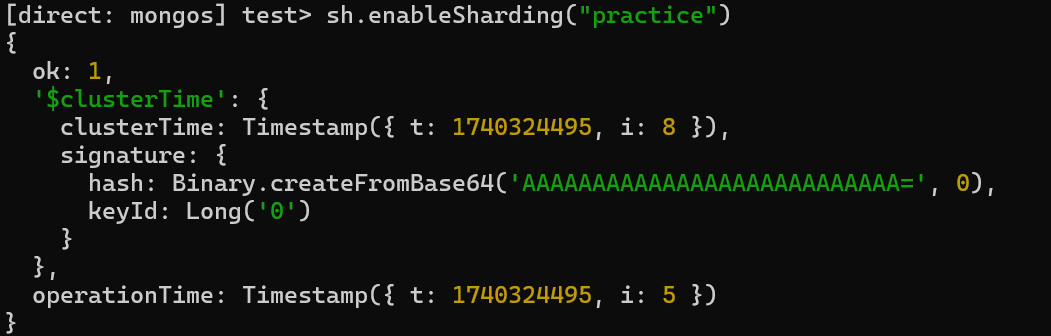
**Now, Connect Shards and Query Router (mongos)**



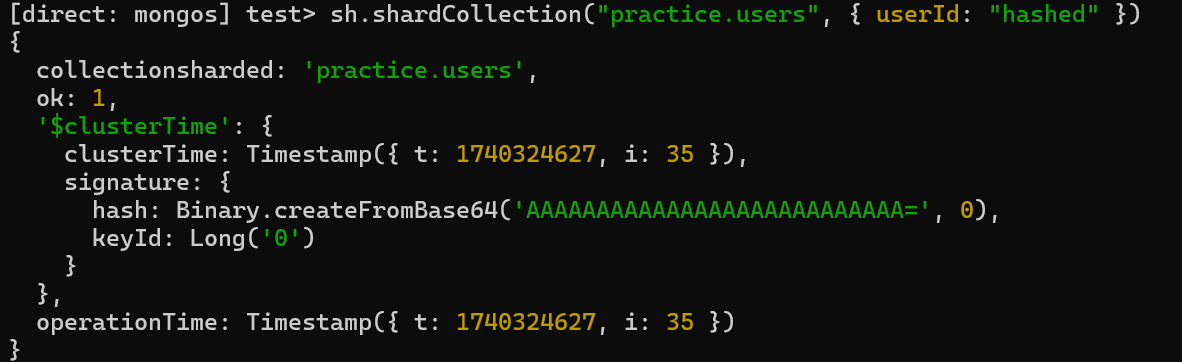


**Step 7:**

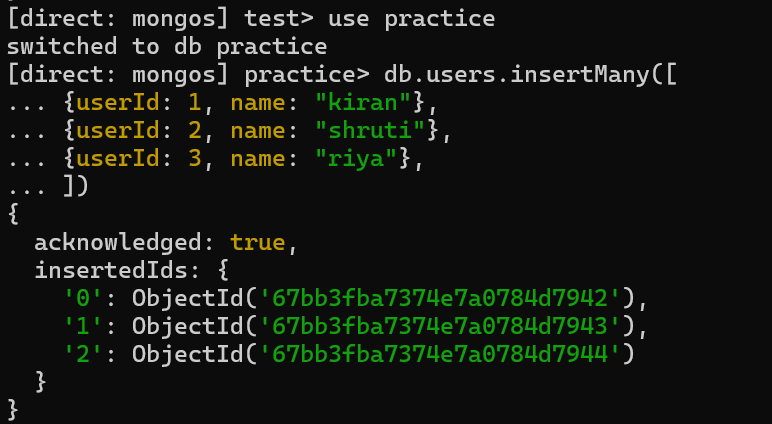
**Enable Sharding on a Specific Database of Shards Replica Set**



**Shard a Collection on the Sharding Enabled Database**



**Insert Sample Data and Verify**

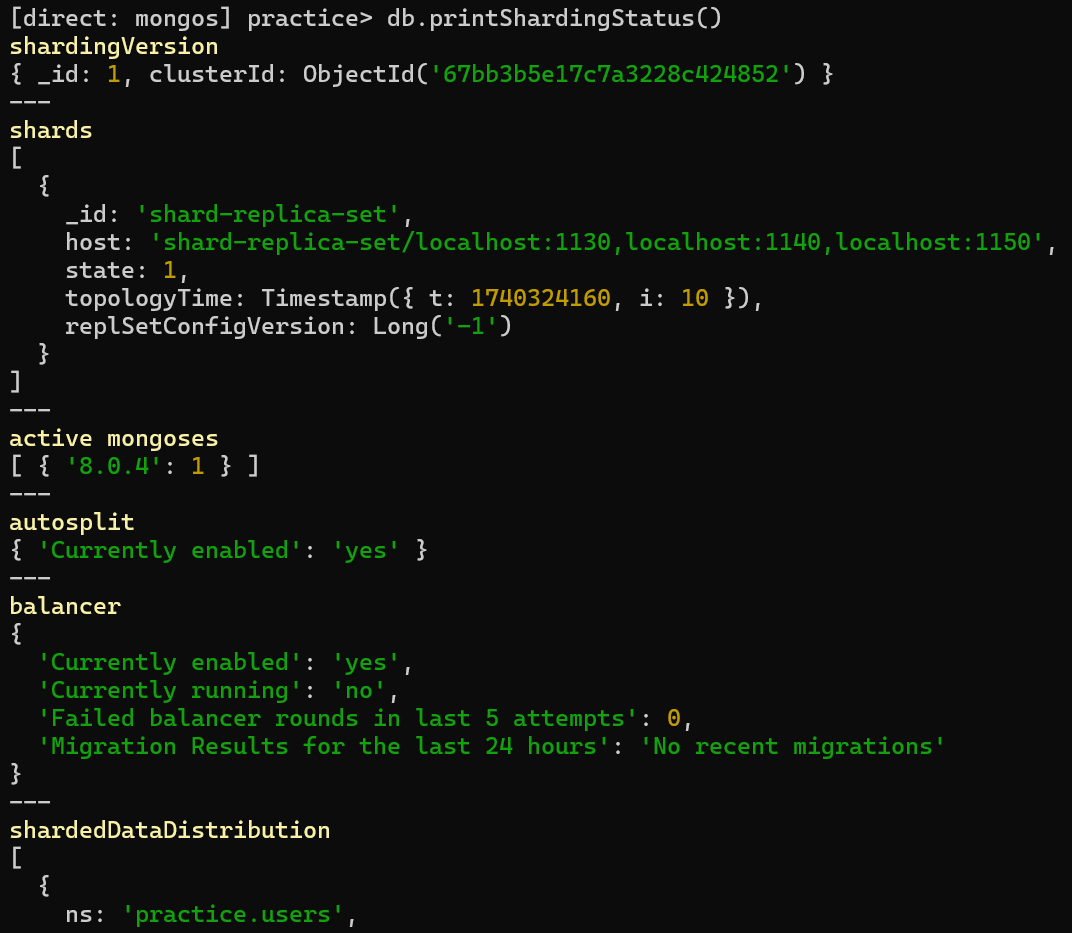


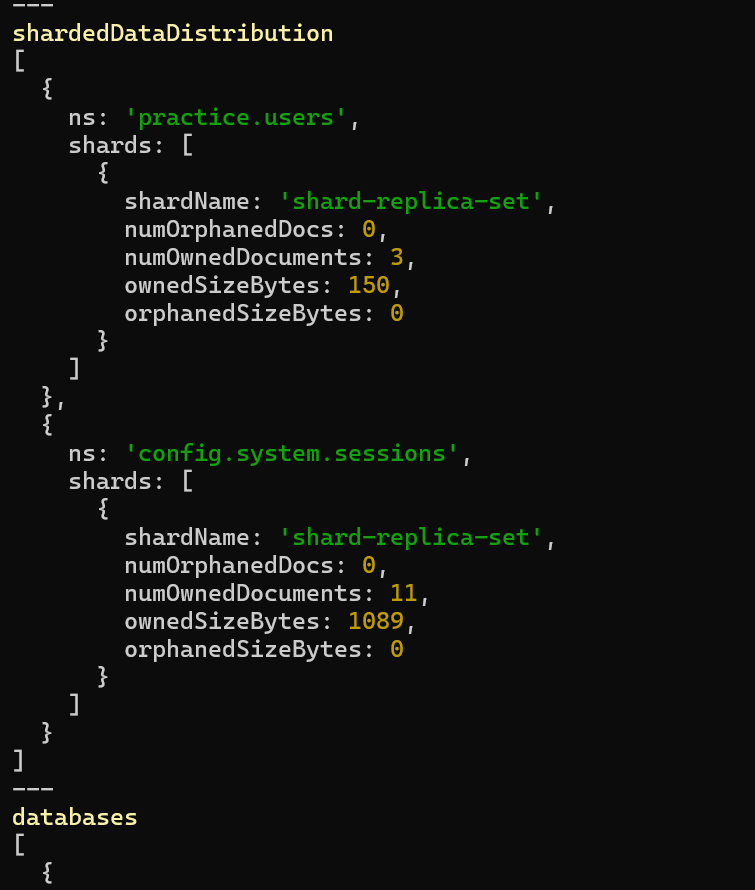
**Step 8:**

**To check where documents are stored**



**To check collection-level sharding**









**To check overall cluster health**

