According to our book, MongoDB the Definitive Guide “A replica set is a group of servers with one primary” (Chodorow et al., 2019) The primary server is the one that does the writing, and the set has many secondary servers. (Chodorow et al., 2019) When the primary server fails the secondary servers are able to select another primary server within the set to become the new primary. (Chodorow et al., 2019) “Replication is a way of keeping identical copies of your data on multiple servers.” (Chodorow et al., 2019) The book also suggests that its “recommended for all production deployments.” (Chodorow et al., 2019) In order to replicate, once the primary has written the data the secondaries will then apply that data to reflect what the primaries data set. (*Replication — MongoDB Manual*, n.d.)

A failover “is the process of switching to a redundant or standby computer server, system, hardware component or network.” (*Failover*, n.d.)When the primary isn’t speaking with the other servers within the set it can be configured to automatically select a secondary to become the new primary and will return to normal operations if successful. (*Replication — MongoDB Manual*, n.d.)

A rollback is when the primary goes to do a write but then goes offline before the secondaries in the set have the opportunity to replicate the data. (Chodorow et al., 2019)The next primary that is elected may not have the data to write. It is “used to undo ops that that were not replicated before the failover” (Chodorow et al., 2019)A rollback should only be needed if the primary server had write operations and the secondaries were no able to replicate the data before the primary server went offline. (*Rollbacks During Replica Set Failover — MongoDB Manual*, n.d.)

Rollbacks and Failovers can be configured to automatically occur in MongoDB.

References:

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