**Create a high-availability database cluster with Amazon Aurora**

We will use Amazon Aurora with MySQL compatibility, but you can follow a similar process for the PostgreSQL edition. You will create an Aurora Cluster via the Amazon RDS Management Console, add an Aurora Replica, test a failover scenario, and then terminate them.

**Steps**:

1.Enter the Amazon RDS Console and Create an Amazon Aurora cluster

->select Standard Create ->select Amazon Aurora

-> Enter a name for your DB cluster identifier, Master username, and password.

->select db.t2.small on db instance class

->Under Multi-AZ deployment, select No. While Amazon Aurora offers Multi-AZ deployment as a default option ->create database

2. Create an Aurora Replica for High Availability

-> the primary (writer) instance in our Aurora cluster will be listed in Databases. Select the instance name and take note of the availability zone under *Networking*.

->add reader then continue

3. Create an Aurora Replica for High Availability

->  Select the radio button next to your Reader DB instance and select Modify.

-> During a failover, Amazon RDS will promote the replica with the highest priority (starting with tier 0) to become the new primary instance. In this example, we do not have any existing replicas, so we will set the replica as the highest priority. Under Failover, select *Tier-0.*

If there is contention between two or more replicas in the same priority tier, Amazon RDS will promote the replica that is the same size as the primary instance.

->Select Continue, then Modify DB instance.

### 4. Test database failover

-> Select the radio button on the target instance. Then select Actions > Failover. This will cause the replica to be promoted as the new primary (or writer) instance and old primary (or writer) instance becomes a new read replica. -> select failover

->  The time it takes for the failover to complete depends on the amount of database activity at the time of failover but is typically under 60 seconds. You can monitor failover process under Log & events > Recent events.

The failover is transparent to the application by using endpoints. While the cluster and reader endpoints are used as DNS for the database, the instance connection will remain the same and automatically use the new db instance.