1.**How a database Primary-Replica (Master-Slave) cluster works**: Master-slave replication enables data from one database server (the master) to be replicated to one or more other database servers (the slaves). The master logs the updates, which then ripple through to the slaves.

2. **What distribution algorithm your load balancer is configured with and how it works**: Round-robin load balancing is the simplest and most commonly-used load balancing algorithm. The method used to distribute incoming client requests to a server farm located behind LoadMaster is often called the load balancing “algorithm” and sometimes the load balancing “type”. LoadMaster supports a rich set of techniques ranging from simple round-robin load balancing to adaptive load balancing that responds to status information retrieved from the server farm

3. **Is your load-balancer enabling an Active-Active or Active-Passive setup, explain the difference between both:**

Active-active clusters: Client machines connect to a load balancer that distributes their workloads across multiple active servers.
Active-passive clusters: Client machines connect to the main server, which handles the full workload, while a backup server remains on standby, only activating in the event of a failure.

**The key difference between these two architectures is performance**. Active-active clusters give you access to the resources of all your servers during normal operation. In an active-passive cluster, the backup server only sees action during failover

**what is active- active**
Active-active clustering is a data resiliency architecture in which client workloads are distributed across two or more nodes in a cluster to keep your data safe and available in the event of an unexpected component failure.

**What is the difference between the Primary node and the Replica node in regard to the application:**

The primary node is the node in the BeyondTrust cluster that is configured as the primary site in failover

**What is a replica node?**
Node replication is the process of incrementally copying, or replicating , data that belongs to backup-archive client nodes. Data is replicated from one Tivoli® Storage Manager server to another Tivoli Storage Manager server. The server from which client node data is replicated is called a source replication server