

ALX

WEB INFRASTRUCTURE DESIGN

Task 1

1. Additional Components:

Reason: Afford the system robust features

- a. **Server:** To better handle multiple requests that would otherwise overwhelm a single server

2. Distribution algorithm configured:

Round Robin Algorithm: Routes requests sequentially to all servers, i.e. one after another

3. Active-Active or Active-Passive setup:

The load balancer enables Active-Active: Both servers are actively running the same kind of service simultaneously

Difference:

Active-Active	Active-Passive
Clusters give off access to resources of all servers during normal operation	Backup server only sees action during failover

4. Database Primary-Replica (Master-Slave) cluster work:

Master-slave facilitates data from one database server to be replicated to slave databases

5. Primary node and replica node: The replica node is essentially a copy of the primary mode

Issues

1. SPOF:

The system is ideally in a single failure domain. This could be catastrophic as failure emanating from any single component leads to failure in all the other components.

2. Security Concern: Connection and access to servers are not protected

3. Monitoring; Servers are not monitored