Web Infrastructure:

→ Servers to provides redundancy and failover capability.

- **Database to stores data required by the application.**
- **Web Server to manages web traffic and serves static content efficiently.**
- **Application Server to handles dynamic content and business logic.**
- **Load-Balancer to distributes traffic to prevent any single server from becoming a bottleneck.**
- **Application Files to needed for the application to function.**

→ What distribution algorithm your load balancer is configured with and how it works:

- **Common algorithms include round-robin, least connections, and IP hash.**

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

- **Active-Active: All servers handle traffic simultaneously, balancing the load and providing redundancy.**
- **Active-Passive: Only one server handles traffic while the other remains idle, taking over only if the active server fails.**

→ How a database Primary-Replica (Master-Slave) cluster works:

- **The Primary (Master) node handles write operations and data changes.**
- **The Replica (Slave) nodes handle read operations and synchronize data from the Primary, providing load distribution and redundancy.**

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

- **The Primary node accepts writes and updates data.**
- **The Replica node only handles read queries and replicates data from the Primary node.**

→ Where are SPOF:

- **The database or the load balancer could be a SPOF if they fail and are not redundant.**

→ Security issues (no firewall, no HTTPS):

- **No Firewall: Lacks protection against unauthorized access and attacks.**
- **No HTTPS: Data transmitted over the network is not encrypted, risking exposure of sensitive information.**

→ No monitoring:

- **Absence of monitoring means potential issues may go unnoticed, leading to undetected performance problems or outages.**