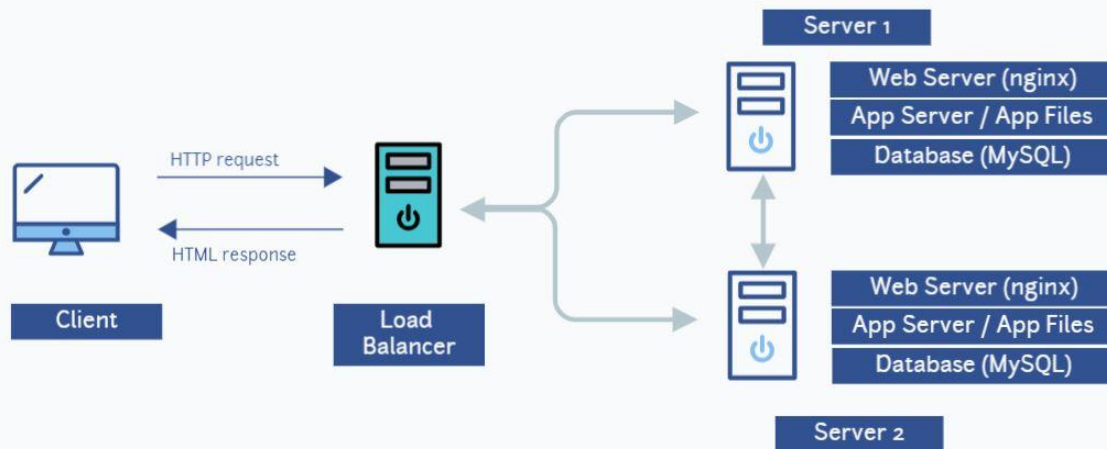


1. Distributed web infrastructure



- Why are we adding a second server:
A second server offers back up for the first. In case of breaking or maintenance our website won't need downtime. And in case of heavy traffic we can split the workload between servers
- Why are we adding a load balancer:
To be able to distribute the traffic between our servers.
- What distribution algorithm our load balancer is configured with and how it works:
We are using the Round Robin distribution algorithm. It rotates connection requests among web servers in the order they are received.
- Load balancer: Active-Active or Active-Passive setup? Difference between both:
We are using an Active-Active setup. The difference between both is that in an Active-Passive setup the second server works as back up, only activating in case of a failure.
- How a database Primary-Replica (Master-Slave) cluster works:
The data synchronization between Primary and Replica only occurs by the Master's order.
- What is the difference between the Primary node and the Replica node in regard to the application:
The Primary can modify the Replica but the Replica can not modify the Primary
- Where are SPOF: it's the load balancer, if it fails everything fail
- Security issues (no firewall, no HTTPS)
We are vulnerable to malicious attacks.
The firewall would protect the data on the server. HTTPS would protect the data in transit.
- No monitoring:
As we aren't monitoring our servers we are not able to do a diagnose about efficiency or hardware problems