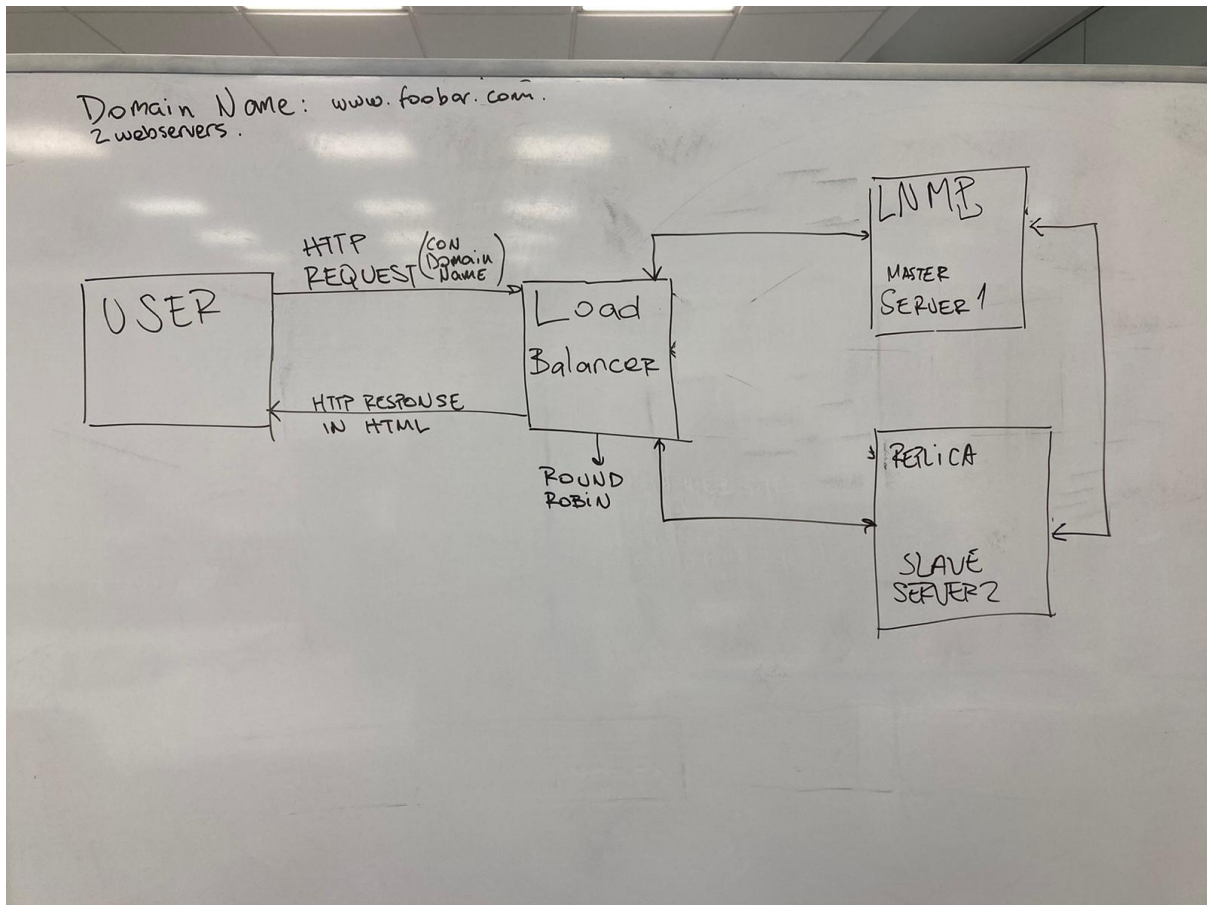# 1. Distributed web infrastructure

We added a load balancer and a second server that contains a replica of the database of master server 1.
The load balancer function is to handle the flow of the requests to properly manage the servers and their capability.
The second server's role is to help carry the load and manage better the downtime when maintenance is needed.

1) What distribution algorithm your load balancer is configured with and how it works:
    Our Load Balancer has a distribution via the Round Robin Algorithm, so it works sending one request to each server at a time, then to the next one and so on until it manages all the requests.

2) Is your load-balancer enabling an Active-Active or Active-Passive setup, explain the difference between both:
    The difference is that A-A both servers are actively running at the same time handling requests and in A-P the passive one is sort of in a "sleep" state which gets switched to active in the case of a failover with the mainly active server.

3) How a database Primary-Replica (Master-Slave) cluster works:
    The replica is a copy of the master or primary database that only has reading capabilities. This comes in handy when you need some kind of backup service or failure in the main one.

Whenever a cluster happens the main one is shut down to repair, then the replica is activated during the downtime. Then when the master is active again it's updated and set to work again. Then the replica copies the master again to come back to being equal.

4) Difference between Primary Node and Replica Node in the application:
Same as in the database case, the replica node only has read permissions and is a copy of the primary one. It comes handy to better handle downtimes and high availability.

Problems:
We continue to not have SPOFs, we have no security through firewalls or monitoring in the points where data is handled.