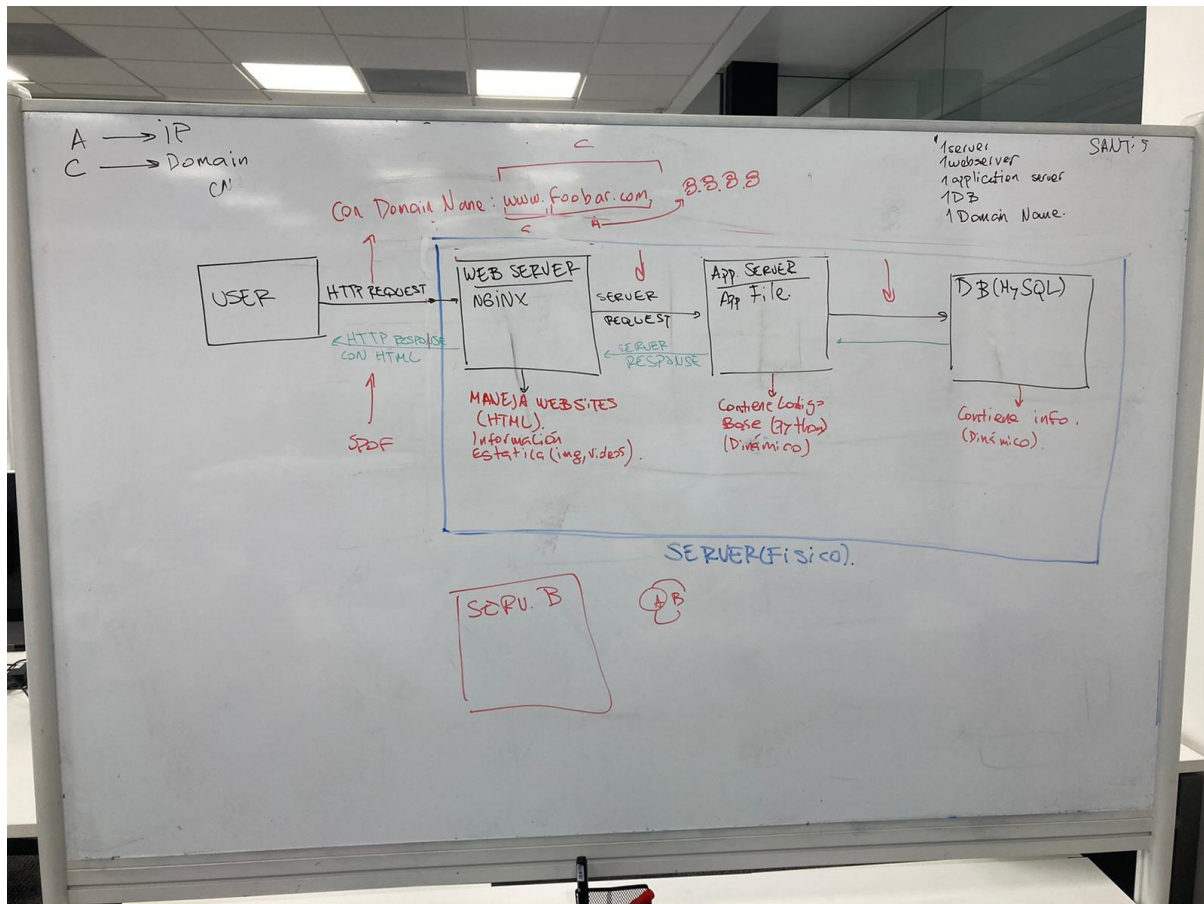


0. Simple Web Stack



Questions:

0) What is a server?

There are different types of servers but overall a server is a piece of hardware or software, a computer is a server for example, that via a model of client-server, provides various functionalities mainly storing and sharing data. Programs or applications can also be run in said servers.

1) Role of the Domain Name:

The domain name is like a pointer to an ip address, for example:
foobar.com refers to ip 8.8.8.8

2) Type of dns record of "www" in "www.foobar.com":

It's of type CNAME and refers to the domain name foobar.com

3) Role of the different servers:

Web Server: Is the server that gets the HTTP/HTTPS request from the client to then deliver it to the application server and in the responses it handles the HTML/CSS part to then give back to the user

Application Server: Gets the request from the web server about certain functionality that needs to be done, or data to give back. It has all the backend parts of the programs and webpages. Then it also sends certain request to the database center.

Database Server: Handles and stores all the data from the clients and programs. Gets the request from the app server and answers with the data.

4) What is the server using to communicate with the computer of the user requesting the website:

It's using an HTTP(Hyper Text Transfer Protocol) request and

Problems with these infrastructure:

1) SPOF:

It doesn't handle Single Points Of Failure, which are points in a system that in the case of a failure will stop the entire system.

2) Downtime for maintenance:

Due to not having an additional server whenever a maintenance to code for example needs to be done, there is going to be a downtime. With an additional server you could leave this one running during the break.

3) Cannot scale if too much incoming traffic due to not having a load balancer and extra servers