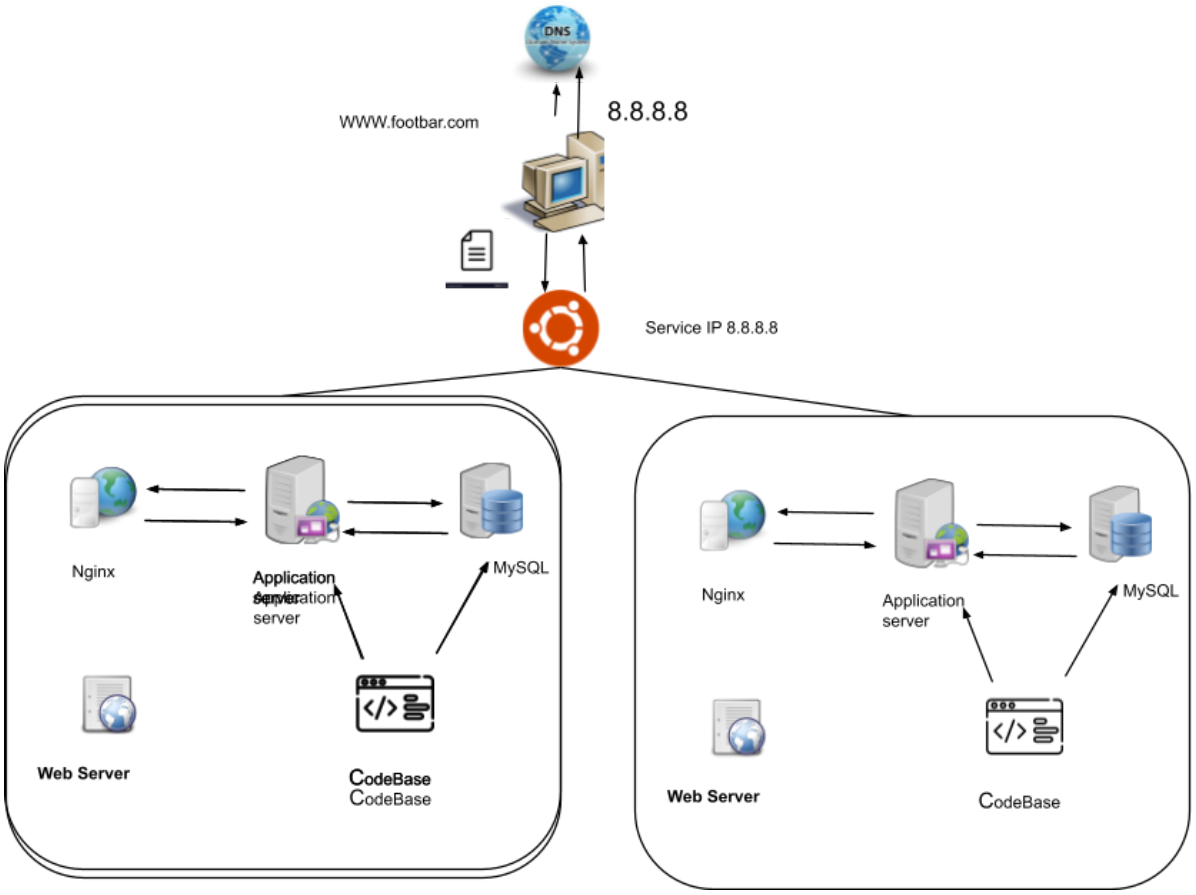

Function of components

Servers: Reduce redundancy and high availability.

Web Server: Handles HTTP requests and serves static content.

Application Server: Executes dynamic code.

Load Balancer: Distributes traffic evenly.

Application Files: Contains website code.

Database: Stores data.

Load Balancer Algorithm:

Round-robin algorithm is used to distribute requests equally among servers.

Active-Active vs. Active-Passive:

Active-Active: Both servers handle traffic simultaneously.

Active-Passive: One server is active, the other is on standby.

Database Primary-Replica Cluster:

Primary (Master): Accepts write requests.

Replica (Slave): Replicates data from the primary and handles read requests.

Issues with This Infrastructure:

1. **Single Points of Failure (SPOF):**

Lack of redundancy for load balancer, web server, and application server.

If any of these fail, the entire system may be affected.

2. **Security Issues:**

No Firewall: We need a firewall to control incoming/outgoing traffic.

No HTTPS: Lack of encryption for data in transit.
No Monitoring: We should monitor server health, performance, and security.