Task 3

Scale Up

Recently added to the infrastructure:

- 1 Server.
- 1 Load-Balancer (HAproxy) configured as cluster with the other one.
- Split components (web server, application server, database) with their own server (7 servers).

Reasons to add it:

- ## 1 Server, 1 Load-Balancer

  In our infrastructure, there is already one server acting as a load balancer, with one more server added to create a cluster with the first server, configuring it as an active-passive cluster, we are only implementing a highly available load balancer in our infrastructure.

  If the active server goes down for any reason, the passive server will be active immediately with near zero-time delay, keeping our web infrastructure 99.999% online.

- ## Split Components

  By splitting our infrastructure components across dedicated servers, we enhance scalability.

  When the need arises to augment the number of web servers in our infrastructure, a simple configuration adjustment enables seamless integration into the cluster.

  This ease of scalability extends to other servers within our infrastructure as well.

  Additionally, we've introduced a dedicated database management server tasked with efficiently handling data queries by directing them to the appropriate database server.

  Furthermore, isolating databases from their respective servers not only facilitates the expansion of storage capacity without any downtime for the database servers but also ensures the proper synchronization of backups between databases.

  Looking at the broader perspective, this approach of splitting our infrastructure stands out as the optimal strategy for creating a sophisticated and robust system.

  It guarantees uninterrupted services during scaling operations and paves the way for the incorporation of new features and services into our web infrastructure.