

ALX PROJECT: Web Infrastructure Design

Task 3: Scale Up - Definitions and Explanations

Purposeful Addition of New Elements:

The integration of each new element within our infrastructure serves distinct purposes aimed at enhancing its overall performance and resilience:

- **Allocation of Additional Servers:** Each new server facilitates the segregation of individual components, such as the web server, Nginx, application server (code base), and database (MySQL), onto dedicated resources. Moreover, maintaining an extra server with all components serves as a failover mechanism, poised to assume operational duties in the event of component or server failures.
- **Active Monitoring and Firewall Implementation:** Every server is subject to active monitoring protocols and fortified with a firewall to bolster the overall security posture of our infrastructure.
- **Introduction of an Additional Load Balancer:** The incorporation of an extra load balancer plays a pivotal role in efficiently distributing increased traffic loads across the entirety of our infrastructure, ensuring optimal performance and reliability even under heightened demand.