Task 3.
Definitions and Explanations.
1. Additional Elements and Reasons:
- New Server: The inclusion of an additional server serves multiple purposes. Firstly, it
    enables the segregation of each component (web server, application server, and
    database) onto their own dedicated servers, enhancing security and resource isolation.
    Secondly, having an extra server with all components acts as a backup in case of
    component or server failure, ensuring high availability and fault tolerance.
- Load Balancer: The introduction of an extra load balancer is aimed at improving the
    scalability and reliability of the infrastructure. By distributing incoming traffic across
    multiple servers, the load balancer helps to prevent overload on any single server,
    thereby enhancing performance and ensuring smooth operation even during periods of
    high traffic.
- Monitoring and Firewall:
  - Each server is equipped with monitoring capabilities to track performance metrics, system
    health, and detect potential issues proactively. This allows for timely intervention and
    troubleshooting to maintain optimal performance and uptime.
  - Additionally, each server is fortified with a firewall to control and filter incoming and
    outgoing traffic, bolstering security by mitigating potential threats and unauthorized
    access attempts.
- Redundancy and Fault Tolerance:
  - The deployment of multiple servers with replicated components ensures redundancy and
    fault tolerance within the infrastructure. In the event of a component or server failure,
    traffic can seamlessly be rerouted to the backup server, minimizing downtime and
    ensuring continuity of service.
- Scalability:
  - The separation of components onto individual servers and the inclusion of an additional
    load balancer facilitate scalability, allowing the infrastructure to accommodate increasing
    traffic demands with ease. This scalability ensures that the system can grow in tandem
    with the needs of the application or website it hosts.

By incorporating these additional elements, the web infrastructure is fortified with enhanced
    reliability, scalability, and security measures, laying a robust foundation for the ALX
    Project's online presence.