ALX PROJECT

0x09. Web Infrastructure Design

Explanations :

1- **For every additional element, why you are adding it ?**

Adding more servers allows the system to handle increased traffic and load. By distributing incoming requests across multiple servers
Having multiple servers increases redundancy in the system. If one server fails or experiences issues, the load balancer can redirect traffic to other healthy servers, ensuring uninterrupted service and minimizing downtime.
Distributing workload across multiple servers can improve overall system performance. With more computing resources available, requests can be processed more quickly, leading to faster response times for clients.

2- **What are firewalls for ?**

Firewalls act as a barrier between a trusted internal network and untrusted external networks, such as the internet. They control incoming and outgoing network traffic based on predetermined security rules, thus preventing unauthorized access and protecting against cyber threats.

3- **Why is the traffic served over HTTPS ?**

It ensures that all the data being transferred through the internet between the client and the server secure by making it impossible to be read.

4- **What monitoring is used for ?**

Monitoring systems provide real-time visibility into network activities, allowing administrators to detect anomalies, suspicious behavior, or security incidents promptly. By analyzing logs generated by firewalls and monitoring tools, organizations can identify security threats, investigate incidents, and take appropriate remedial actions.

5- **How the monitoring tool is collecting data ?**

Sumo Logic is a cloud-based log management and analytics platform that collects, aggregates, and analyzes log data from various sources to provide insights into application and infrastructure performance, security, and operational efficiency. Sumo Logic employs several methods to collect data.

6- Explain what to do if you want to monitor your web server QPS

Select a monitoring tool that supports collecting and visualizing QPS metrics. Some popular monitoring tools include Prometheus, Grafana, Datadog, Nagios, Zabbix, and Sumo Logic. Make sure the tool you choose can integrate with your web server and provide the necessary QPS metrics.