0x09. Web infrastructure design Project

Tasks

2-secured_and_monitored_web_infrastructure

- For every additional element, why you are adding it
  - Three major components are added that is two firewalls and SSL certificate
- What are firewalls for
  - a firewall is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules.
- Why is the traffic served over HTTPS
  - Hypertext Transfer Protocol Secure (HTTPS) is an extension of the Hypertext Transfer Protocol (HTTP). It uses encryption for secure communication over a computer network, and is widely used on the Internet.[1][2] In HTTPS, the communication protocol is encrypted using Transport Layer Security (TLS) or, formerly, Secure Sockets Layer (SSL). The protocol is therefore also referred to as HTTP over TLS,[3] or HTTP over SSL
- What monitoring is used for
  - It provides the capability of diagnosing and web application server performance
- How the monitoring tool is collecting data
  - From the Web server log
- Explain what to do if you want to monitor your web server QPS
  - I prefer to monitor from the network and application levels

Issues

- Terminating SSL at the load balancer level would leave the traffic between the load balancer and the web servers unencrypted.
- Having one MySQL server is an issue because it is not scalable and can act as a single point of failure for the web infrastructure.
- Having servers with all the same components would make the components contend for resources on the server like CPU, Memory, I/O, etc., which can lead to poor performance and also make it difficult to locate the source of the problem. A setup such as this is not easily scalable.