**Elastic Loa Balancer**

**Types of Load Balancers:**

* Application Load Balancer
  + They are best suited for load balancing of HTTP and HTTPS traffic. They operate at Layer 7 and are application-aware. They are intelligent, and you can create advanced request routing, sending specified requests to specific web servers.
* Network Load Balancer
  + They are best suited for load balancing of TCP traffic where extreme performance is required. Operating at connection level (layer 4), Network Load Balancers are capable of handling millions of requests per second, while maintaining ultra-low latencies.
  + Use for extreme performance.
* Classic Load Balancer
  + These are the legacy Elastic load balancers. You can load balance HTTP/HTTPS applications and use layer 7-specific features such as X-Forwarded and sticky sessions. You can also use strict Layer 4 load balancing for applications that rely purely on the TCP protocol.

**Load balancer errors:**

* Classic load balancers:
  + If your application stops responding, the ELB (Classic Load Balancer) responds with a 504 error. This means that the application is having issues, this could be either at the Web Server layer or at the database layer. Identify where the application is failing, and scale it up or out where possible.

**ELB Exam Tips:**

* 3 types of Load Balancers;
  + Application Load Balancers.
  + Network Load Balancers.
  + Classic Load Balancers.
* 504 Error means the gateway has timed out. This means that the application is not responding within the idle timeout period.
  + Troubleshoot the application. Is it the web server or database server?
* If you need the IPv4 address of your end user, look for the X-Forwarded-For header.