1.What is Elastic Load Balancer (ELB)?

Elastic Load Balancing (ELB) is a load-balancing service for Amazon Web Services (AWS) deployments. ELB automatically distributes incoming application traffic and scales resources to meet traffic demand.It also helps an IT team adjust capacity according to incoming application and network traffic. Load balancing divides the amount of work that a computer has to do among multiple computers so that users, in general, get served faster.

2.What are the key features provided by Elastic Load Balancer (ELB)?

Detection of unhealthy Elastic Compute Cloud (EC2) instances.

Spreading instances across healthy channels only.

Flexible cipher support.

Centralized management of Secure Sockets Layer (SSL) certificates.

Optional public key authentication.

Support for both IPv4 and IPv6.

3.How AWS Elastic Load Balancing Works?

A load balancer accepts incoming traffic from clients and routes requests to its registered targets (such as EC2 instances) in one or more Availability Zones. The load balancer also monitors the health of its registered targets and ensures that it routes traffic only to healthy targets. When the load balancer detects an unhealthy target, it stops routing traffic to that target. It then resumes routing traffic to that target when it detects that the target is healthy again.

A listener is a process that checks for connection requests. It is configured with a protocol and port number for connections from clients to the load balancer. Likewise, it is configured with a protocol and port number for connections from the load balancer to the targets.

4.What are the types of load balancers?

Elastic Load Balancing supports the following types of load balancers:

Application Load Balancers, Network Load Balancers, Gateway Load Balancers, Classic Load Balancers

5.Application Load Balancer?

It allows a developer to configure and route incoming end-user traffic to applications based in the Amazon Web Services (AWS) public cloud.It pushes traffic across multiple targets in multiple AWS Availability Zones.

6.Network Load Balancer?

The Network Load Balancing feature distributes traffic across several servers by using the TCP/IP networking protocol. It works by combining two or more computers that are running applications into a single virtual cluster, NLB provides reliability and performance for web servers and other mission-critical servers.

7.Gateway Load Balancers?

GLB enable you to deploy, scale, and manage virtual appliances, such as firewalls, intrusion detection and prevention systems, and deep packet inspection systems. A Gateway Load Balancer operates at the third layer of the Open Systems Interconnection (OSI) model, the network layer.

8.Classic Load Balancers?

It provides basic load balancing across multiple Amazon EC2 instances and operates at both the request level and connection level. Classic Load Balancer is intended for applications that are built within the EC2-Classic network.

9.What do you mean by a target group in AWS Load Balancing?

A target group tells a load balancer where to direct traffic to : EC2 instances, fixed IP addresses; or AWS Lambda functions, amongst others.

When creating a load balancer, you create one or more listeners and configure listener rules to direct the traffic to one target group.

10.What is VPC load balancer?

When you provision an Elastic Load Balancer for your VPC, you can assign security groups to it. You can place ELBs into VPC subnets, and you can also use subnet ACLs (Access Control Lists). The EC2 instances that you register with the Elastic Load Balancer do not need to have public IP addresses.

11.List the types of techniques that are used by load balancers?

Round Robin.

Weighted Round Robin.

Least Connection.

Weighted Least Connection.

Resource Based (Adaptive)

Resource Based (SDN Adaptive)

Fixed Weighting.

Weighted Response Time.