**What is Load Balancing**

Load balancing manages website traffic by distributing it across multiple servers, ensuring smooth performance and preventing overload.

**Why Use Load Balancing in AWS?**

AWS load balancing helps by:

* Distributing traffic evenly.
* Handling traffic spikes automatically.
* Redirecting traffic if a server fails.
* Enhancing security.

**Types of AWS Load Balancers**

1. **ALB (Application Load Balancer)** – Best for websites needing advanced routing.
2. **NLB (Network Load Balancer)** – Handles high traffic with low latency.
3. **GLB (Gateway Load Balancer)** – Manages traffic for security applications.
4. **CLB (Classic Load Balancer)** – Older version, mostly replaced by ALB and NLB.

**How AWS Load Balancing Works**

1. A user visits your site.
2. The load balancer selects an available server.
3. It forwards the request to that server.
4. If a server fails, traffic is redirected.

**How to Use AWS Load Balancing**

1. **Sign in to AWS.**
2. **Create a Load Balancer.**
3. **Configure settings (target groups, security rules, routing).**
4. **Register Instances (EC2 or other resources).**
5. **Set Up Health Checks.**
6. **Monitor using AWS CloudWatch.**

**Benefits**

* **Performance** – Prevents overload.
* **High Availability** – Keeps services running.
* **Security** – Protects against attacks.
* **Scalability** – Adapts to demand.

**Conclusion :** AWS Load Balancing ensures smooth, secure, and scalable application performance by distributing traffic efficiently.