## Route 53

Amazon Route 53 is a scalable and highly available Domain Name System (DNS) web service offered by Amazon Web Services (AWS).

It provides domain registration, DNS routing, and health checking of resources within your infrastructure.

DNS is a system that translates human-readable domain names (like <a href="https://www.example.com">www.example.com</a>) into IP addresses that computers use to identify each other on the network.

### **Route 53 Overview**

Route 53 offers a variety of domain registration, management, and DNS services, making it easier for businesses and developers to route end-user traffic to internet applications.

## **Domain Registration**

- Route 53 allows you to register new domain names, or you can transfer existing domain names from other registrars to Route 53.
- It supports various top-level domains (TLDs) such as .com, .net, .org, and country-code TLDs.

## **DNS Management**

- Route 53 provides a scalable and highly available DNS infrastructure to route end-user requests to globally distributed AWS resources.
- It supports the creation and management of various DNS record types, including A (IPv4 address), AAAA (IPv6 address), CNAME (canonical name), MX (mail exchange), TXT (text), and more.

# **Traffic Routing and Health Checking**

- Route 53 allows you to configure health checks for your resources, and it can automatically route traffic away from unhealthy resources to healthy ones.
- Traffic can be routed based on various policies, such as simple round-robin, weighted round-robin, latency-based routing, geolocation-based routing, and failover.