



# Placement Empowerment Program Cloud Computing and DevOps Centre

Implement DNS for Your Application: Set up a DNS record to map your web application's IP or load balancer to a domain name.

Name: Shalini D Department : IT



#### Introduction

Imagine having your own unique address on the internet that makes it easy for users to access your web application. This is where Domain Name System (DNS) comes into play. DNS allows us to translate human-friendly domain names, like www.example.com, into machine-friendly IP addresses that computers use to locate each other on the internet. By implementing DNS for your application, you'll be ensuring that your application is easily accessible, memorable, and professional.

#### **Objectives**

The primary objective of setting up a DNS record for your web application is to map your web application's IP address or load balancer to a domain name. This process involves creating DNS records that link your domain name to the corresponding IP addresses or load balancers. Once completed, users can simply type your domain name into their browsers and be seamlessly directed to your web application, enhancing their user experience and ensuring that your application is easily found online.

## **Step by Step Overview**

## 1. Create an EC2 instance

- log into your aws account.
- create an EC2 instance.



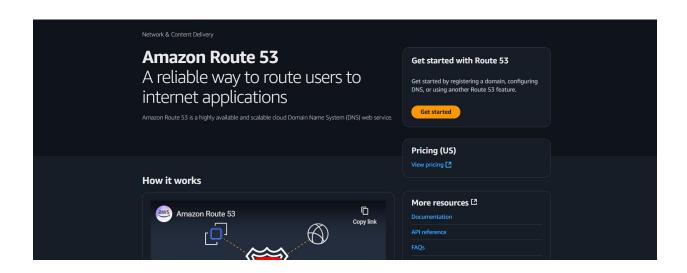
## 2. Open the EC2 dashboard

Find your instance and copy the Public IPv4 Address.

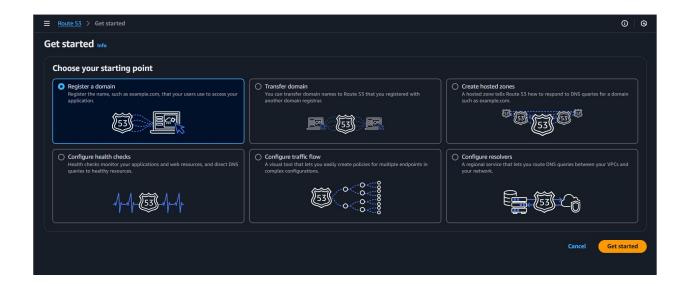


## 3. Register a domain name

- Open Amazon Route53

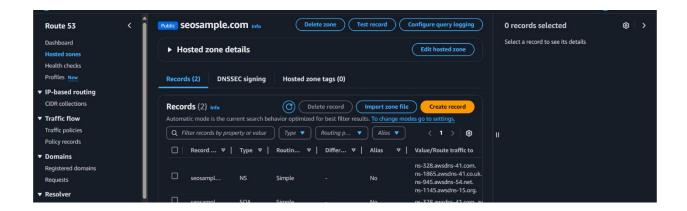


- Click **Register Domain** and follow the steps to purchase a domain.



## 4. Hosted Zone

When you register the domain, AWS automatically creates a host zone.



#### 5. Create Records

- Click Create record.
- Choose Simple routing  $\rightarrow$  Click Next.
- Configure the record:

- Record name: Leave blank for root domain (example.com) or enter www for www.example.com.
- Record type: Choose A IPv4 address.
- Value: Paste your EC2 Public IPv4 Address (e.g., 3.123.45.67).
- TTL: Keep default (300 seconds).
- Click Create record.



#### 6. Verify the Domain

Wait a few minutes, then test if the domain resolves correctly.

Using **nslookup <domainname.com>** - you can test the configurations of your EC2 instance.

Non-authoritative answer: Name: seosample.com Address: 15.207.71.54

## **Outcome:**

By successfully setting up a DNS record for your web application, you will achieve the following outcomes:

**Enhanced Accessibility:** Users will be able to access your web application through a memorable and user-friendly domain name instead of an IP address, improving the overall user experience.

**Professionalism:** A custom domain name adds a level of professionalism and credibility to your web application, making it more appealing to users and potential customers.

**Brand Recognition:** A unique domain name helps in building and reinforcing your brand identity, making it easier for users to remember and return to your application.

**SEO Benefits:** Search engines prioritize domain names over IP addresses, which can lead to better visibility and ranking in search engine results.

**Flexibility:** Using a DNS record allows you to easily manage and update the routing of traffic to your application, whether it's for load balancing, scaling, or transitioning to new servers without disrupting user access.