



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.

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Introduction

Domain Name System (DNS) is a crucial component of web applications, enabling human-readable domain names (e.g., www.example.com) to be mapped to machine-readable IP addresses. This eliminates the need for users to remember complex numerical IP addresses, enhancing accessibility and user experience.

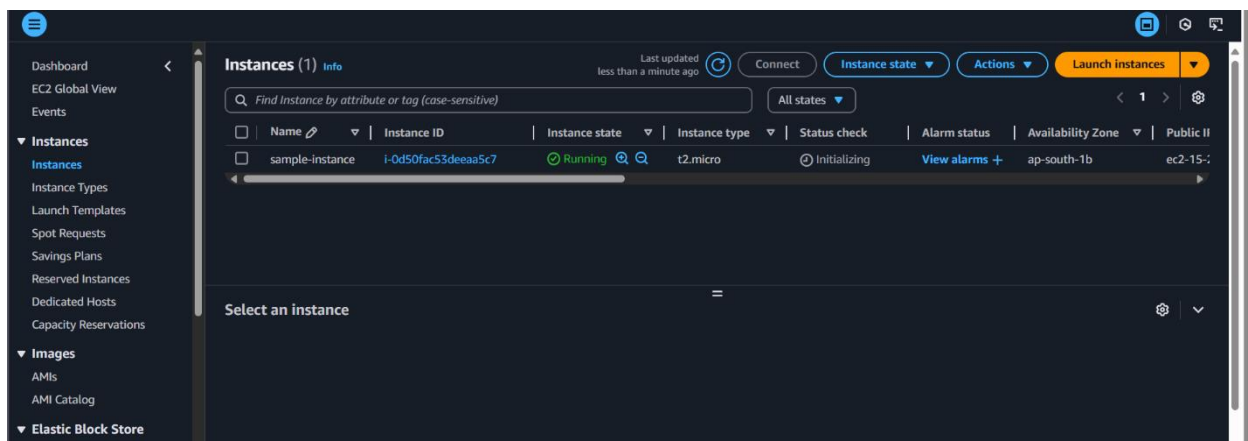
Objectives

- Set up a DNS record using a cloud provider's DNS service (e.g., AWS Route 53).
- Map your web application's IP or Load Balancer to a domain name.
- Verify and test DNS resolution by accessing the domain in a web browser.

Step by Step Overview

1. Create an EC2 instance

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

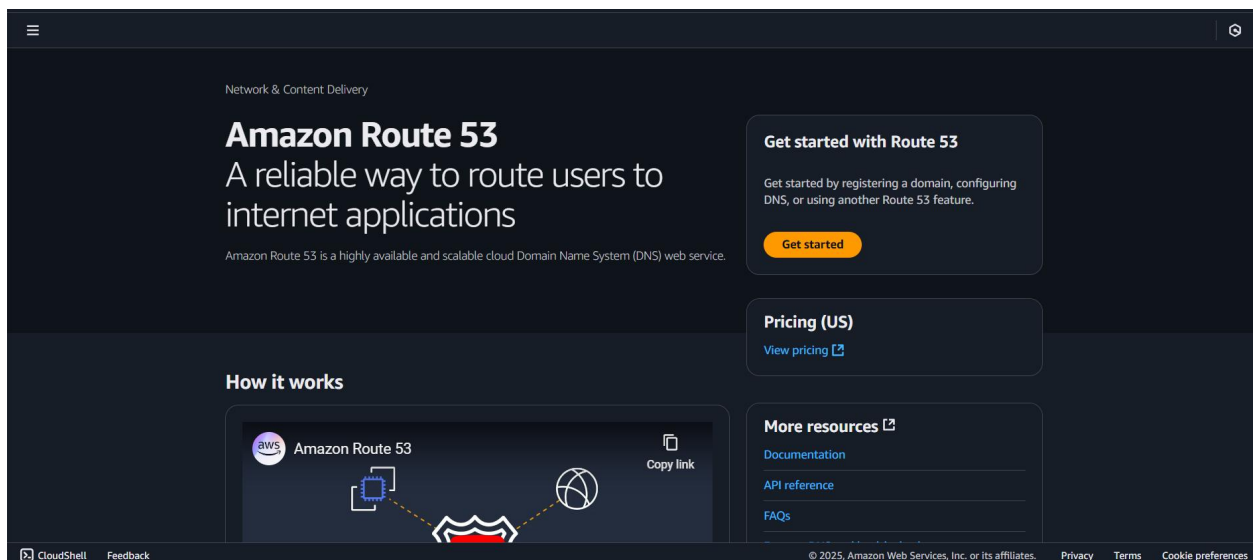
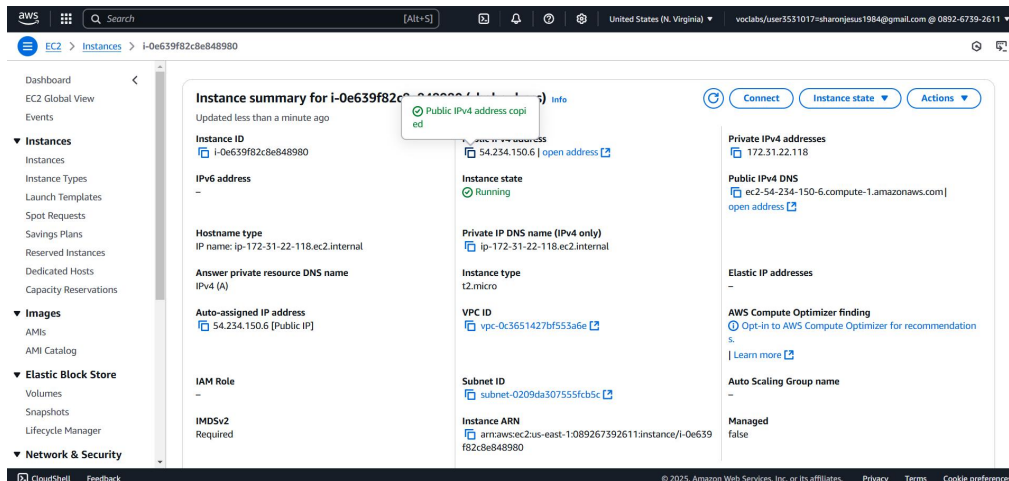


2. Open the EC2 dashboard

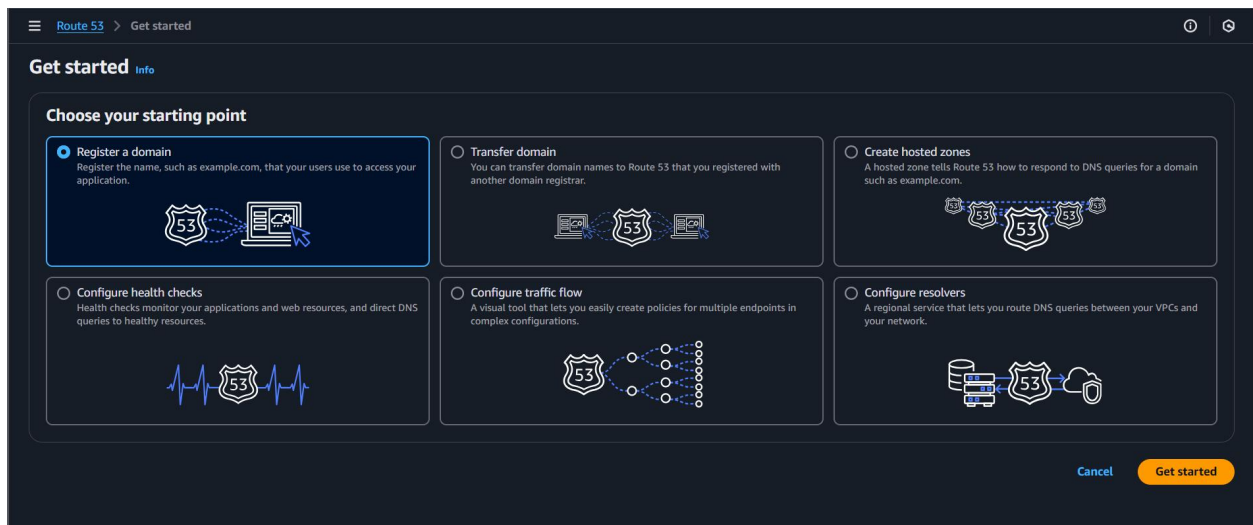
Find your instance and copy the Public IPv4 Address.

3. Register a domain name

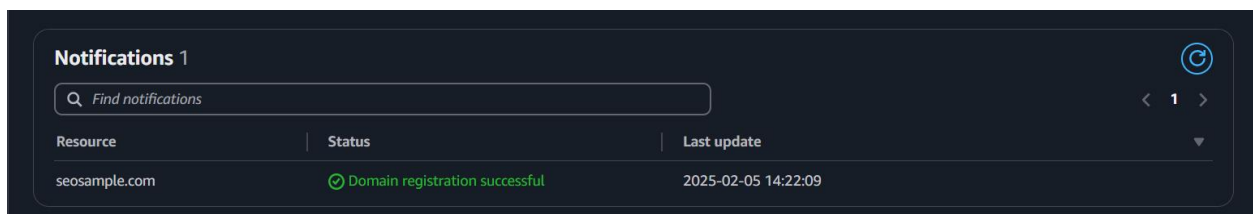
- Open Amazon Route53



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

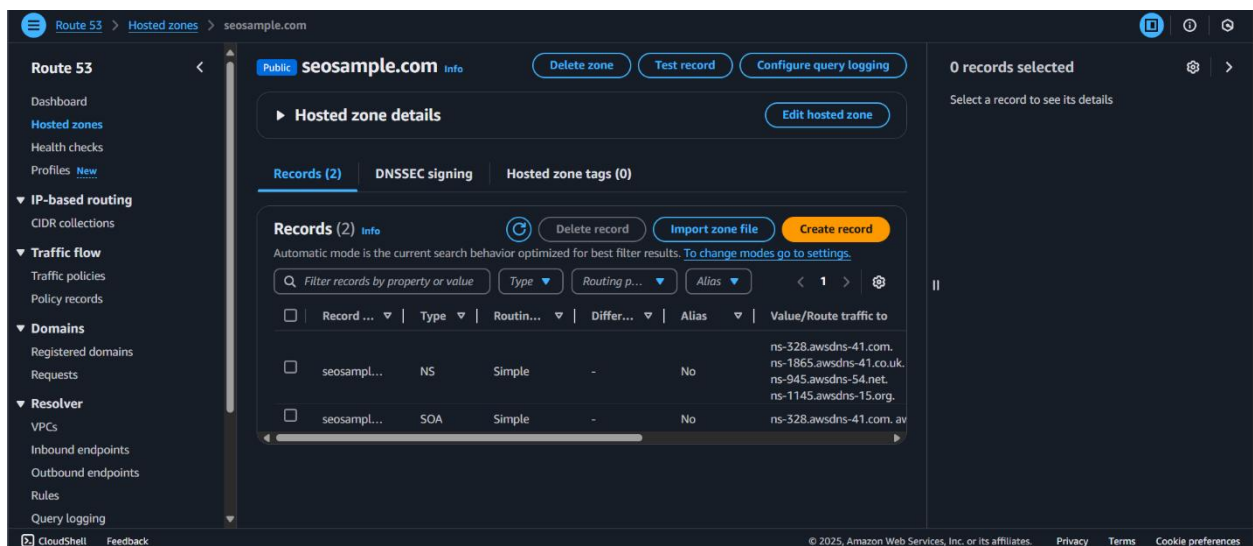


- Now you have successfully registered a Domain. (it might take a few minutes)



4. Hosted Zone

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



5. Create Records

- Click **Create record**.
- Choose **Simple routing** → 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.

Route 53 > Hosted zones > seosample.com > Create record

Create record

Quick create record [Switch to wizard](#)

Record 1 [Delete](#)

Record name [Info](#) seosample.com

Record type [Info](#)

Alias ☒

Value [Info](#)

Enter multiple values on separate lines.

TTL (seconds) [Info](#) [1m](#) [1h](#) [1d](#)

Routing policy [Info](#)

Recommended values: 60 to 172800 (two days)

[Add another record](#)

Record for seosample.com was successfully created. [View status](#) [×](#)

Route 53 propagates your changes to all of the Route 53 authoritative DNS servers within 60 seconds. Use "View status" button to check propagation status.

Public seosample.com [Info](#) [Delete zone](#) [Test record](#) [Configure query logging](#)

Hosted zone details [Edit hosted zone](#)

Records (3) [DNSSEC signing](#) [Hosted zone tags \(0\)](#)

Records (3) [Info](#) [Delete record](#) [Import zone file](#) [Create record](#)

Automatic mode is the current search behavior optimized for best filter results. [To change modes go to settings.](#)

[Type](#) [Routing p...](#) [Alias](#) [< 1 >](#) [⚙️](#)

<input type="checkbox"/>	Record ...	Type	Routin...	Differ...	Alias	Value/Route traffic to
<input type="checkbox"/>	seosaml...	A	Simple	-	No	15.207.71.54

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.

```
Server:  dns.google
Address:  8.8.8.8

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

Outcome:

- Custom Domain Access
- Improved User Experience & Branding
- DNS Mapping to Web Application
- Verification of DNS Configuration