



## **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: Hema S**

**Department : ECE**



**Introduction**

Domain Name System (DNS) is a crucial component of web applications, enabling human-readable domain names (e.g., [www.example.com](http://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.

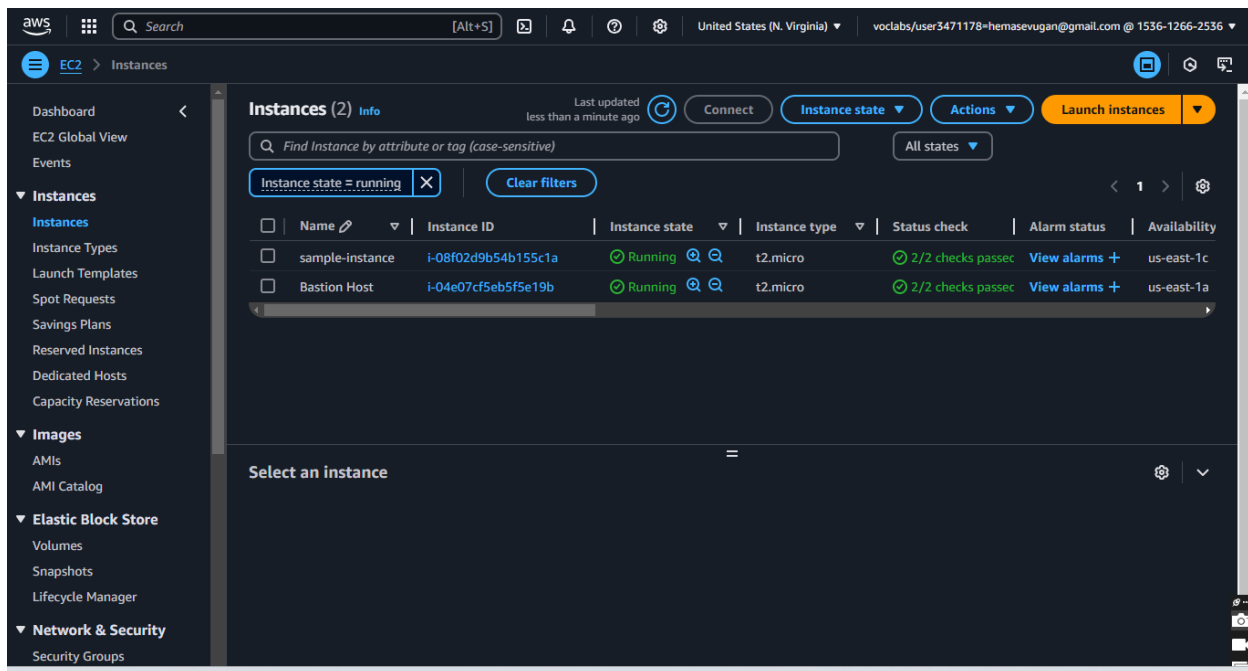
## Objectives

- 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

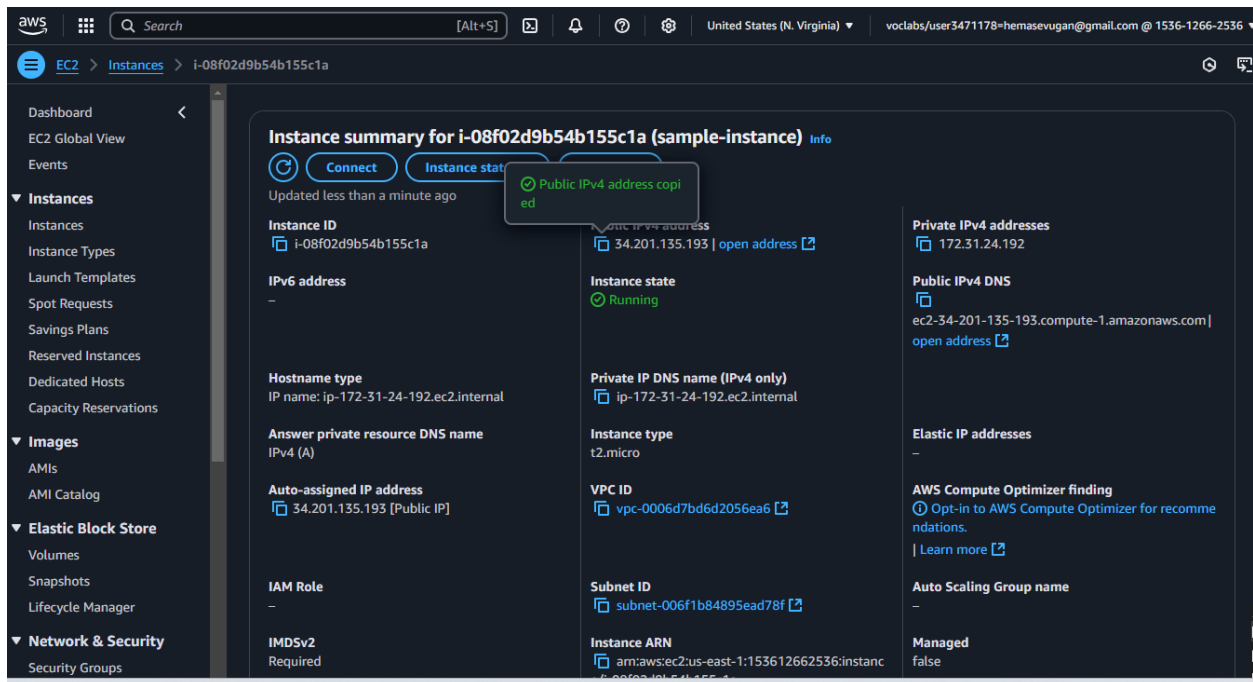
### 1. Create an EC2 instance

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



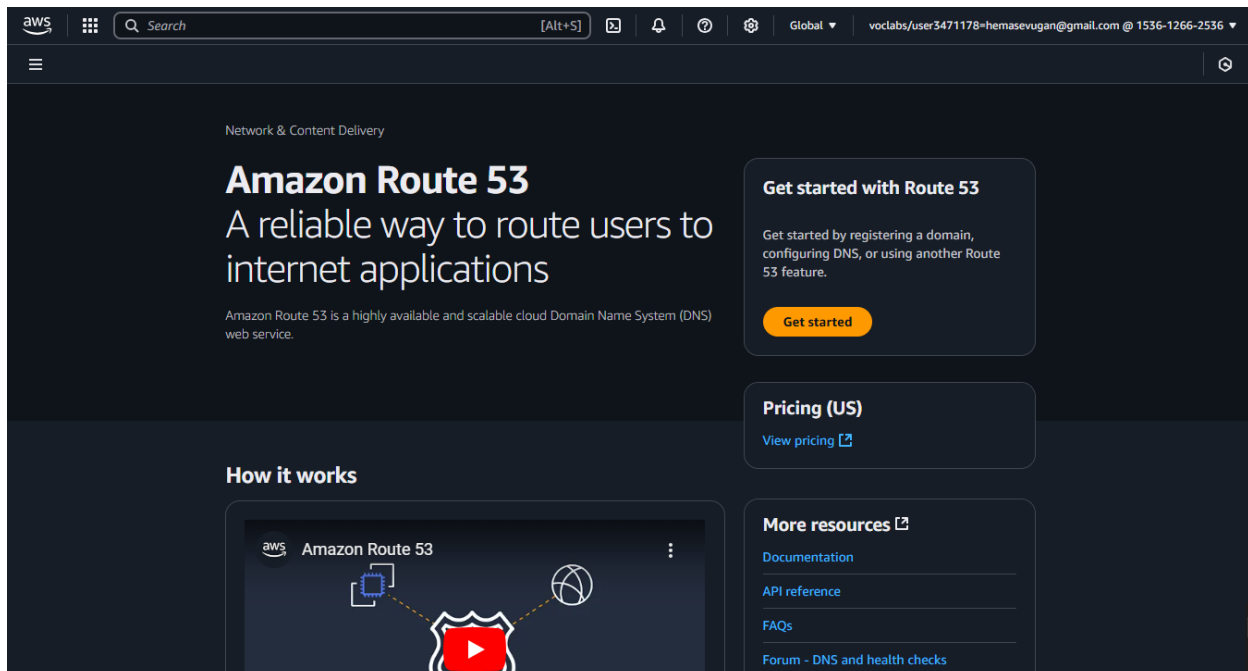
## 2. Open the EC2 dashboard

Find your instance and copy the Public IPv4 Address.

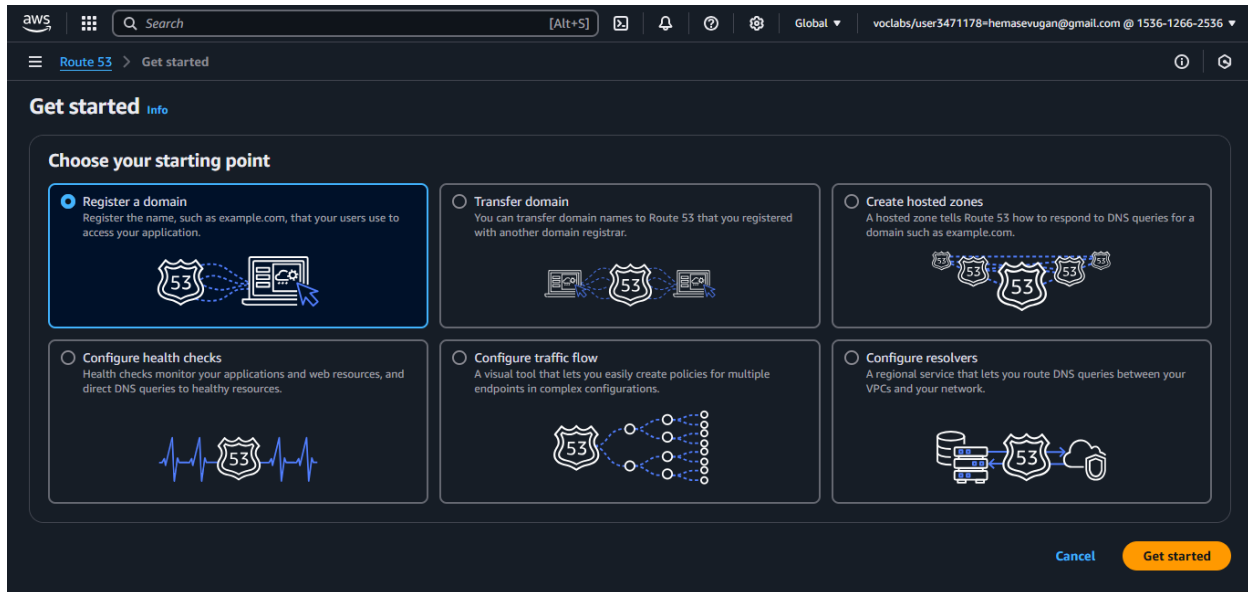


## 3. Register a domain name

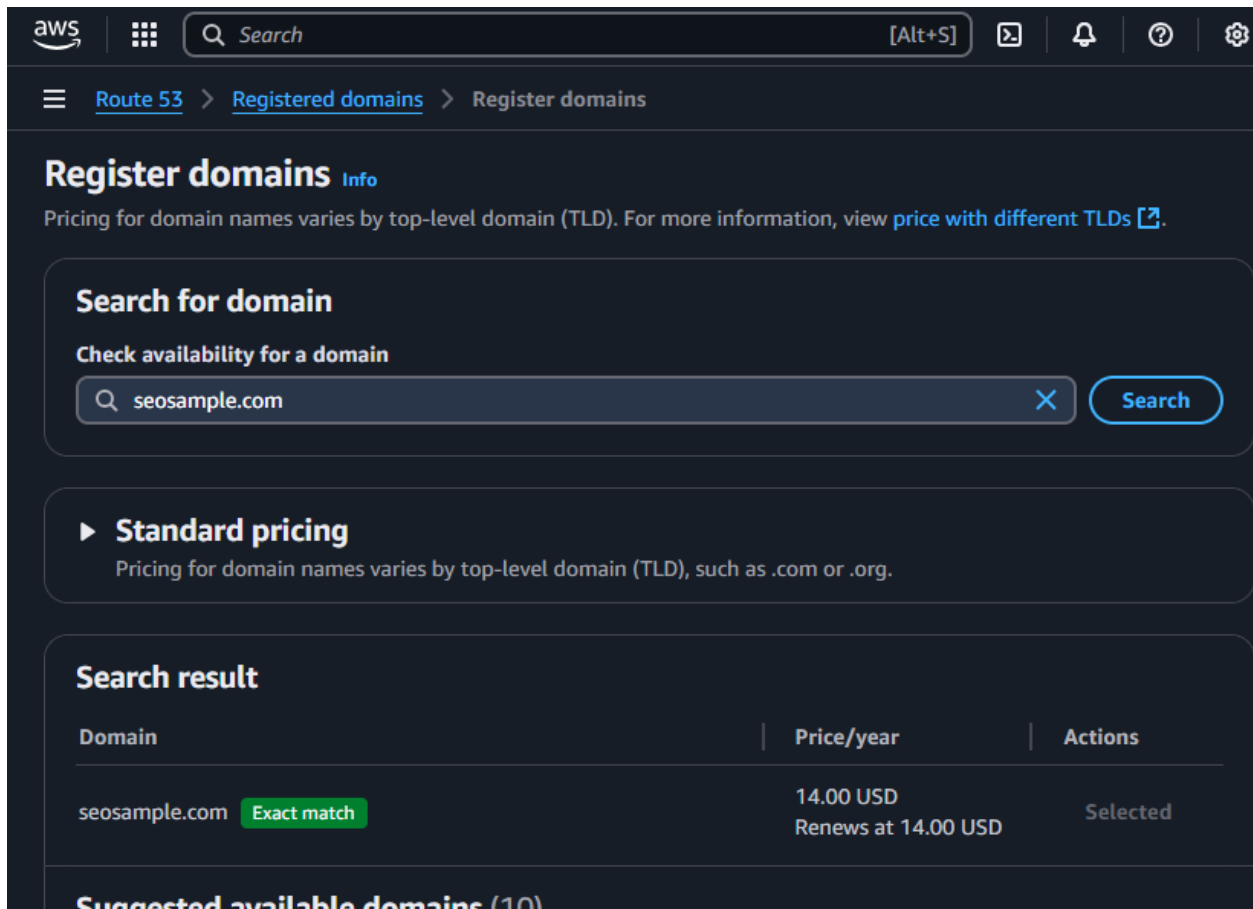
- Open Amazon Route53



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

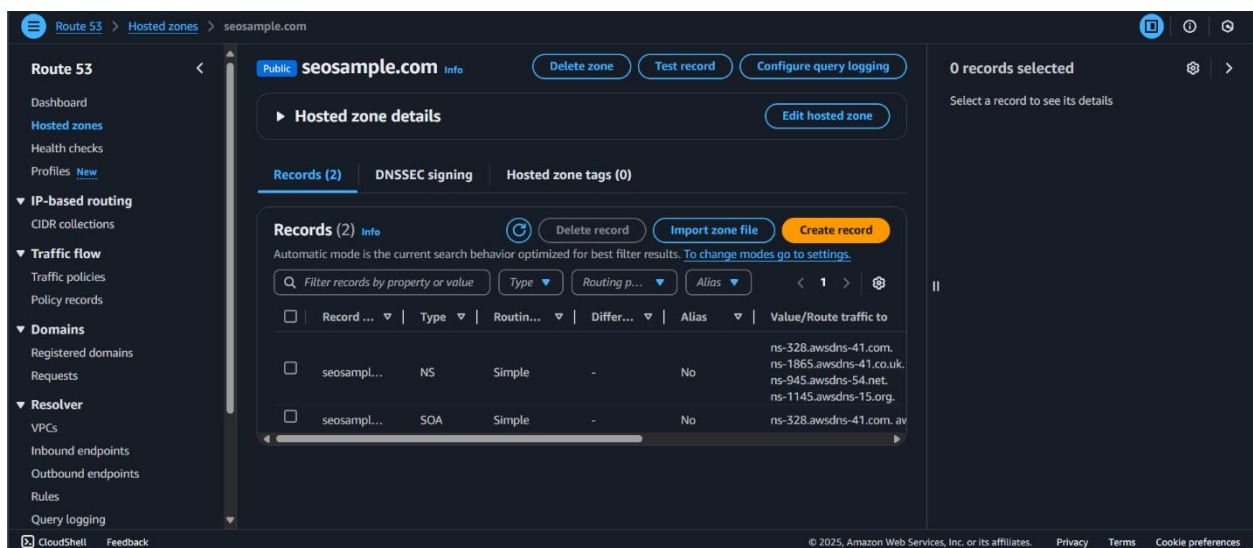


- Now you have successfully registered a Domain. (it might take a few minutes)



## 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

Record name [Info](#)  seosample.com [Delete](#)

Record type [Info](#)

Value [Info](#)

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

Routing policy [Info](#)

**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