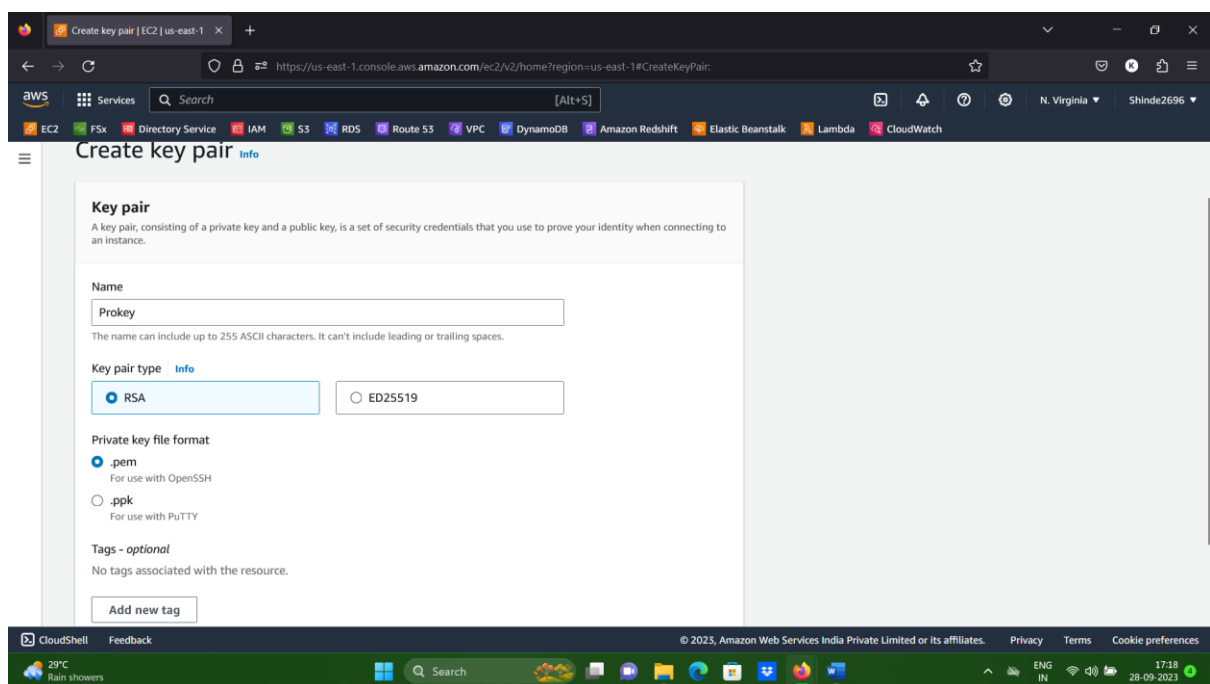


## Project 2

In this project, you will be working on a hospital project to send reports online and develop a platform so the patients can access the reports via mobile and push notifications. You will publish the report to an Amazon SNS keeping it secure and private. Your message will be hosted on an EC2 instance within your Amazon VPC. By publishing the messages privately, you can improve the message delivery and receipt through Amazon SNS.

Steps:

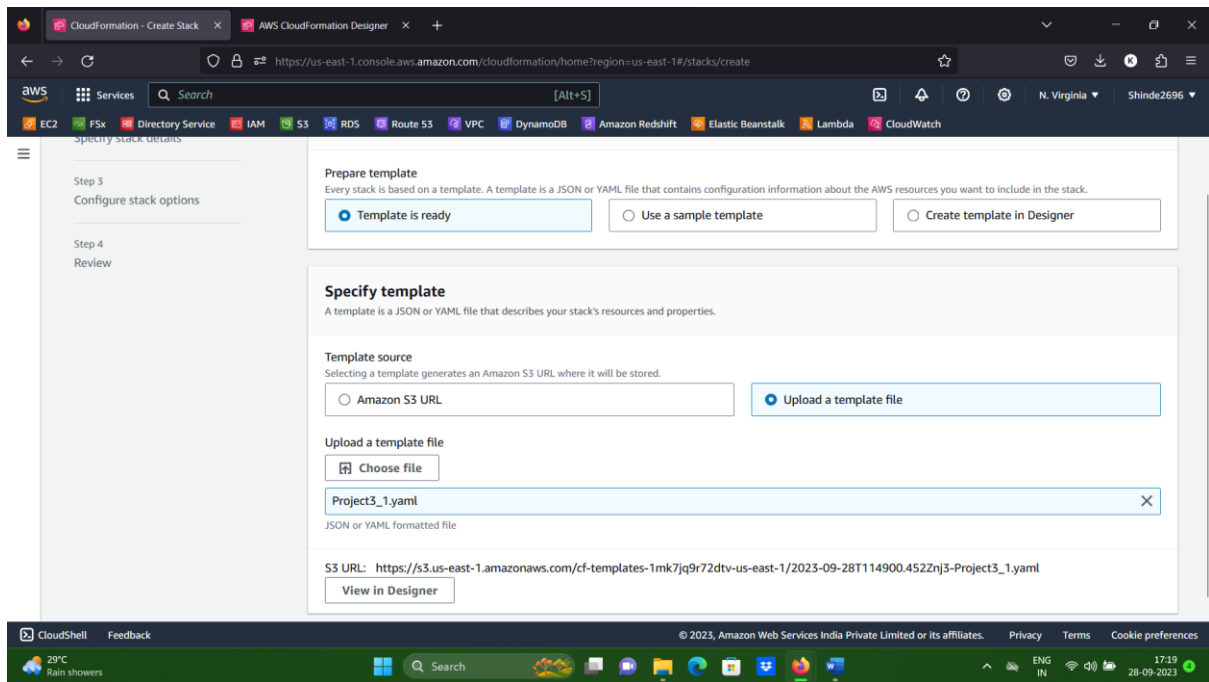
### Create a Key Pair



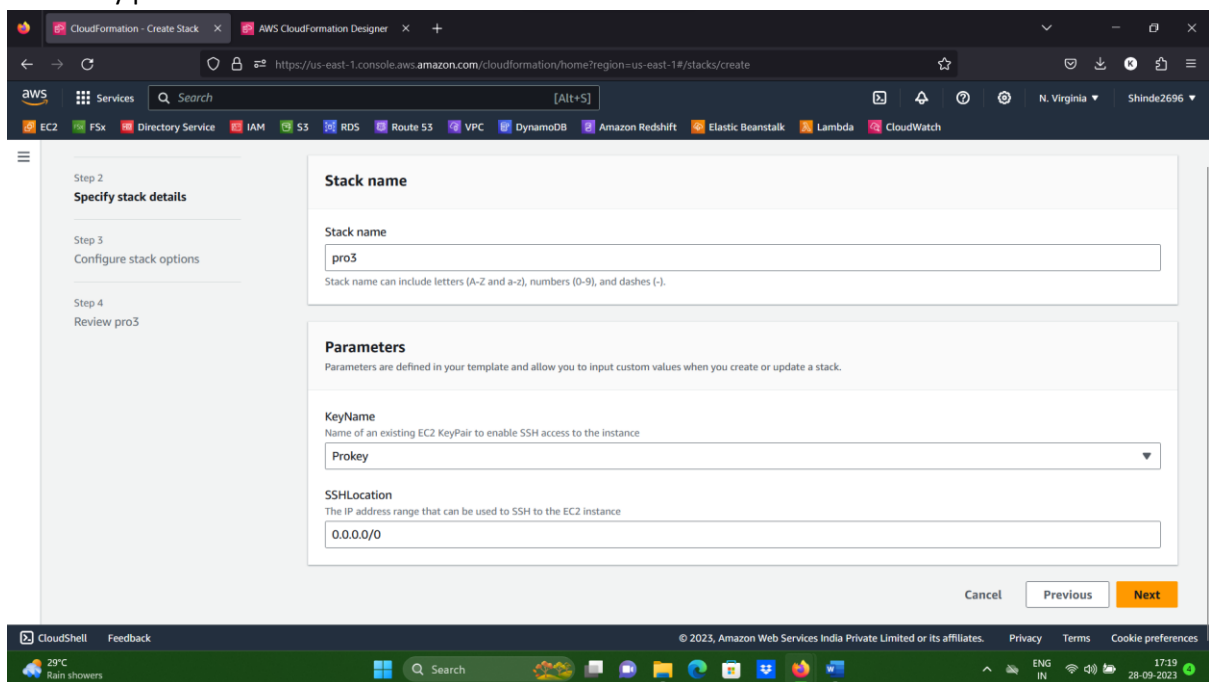
Now will create AWS Resources

Upload the AWS Resource file

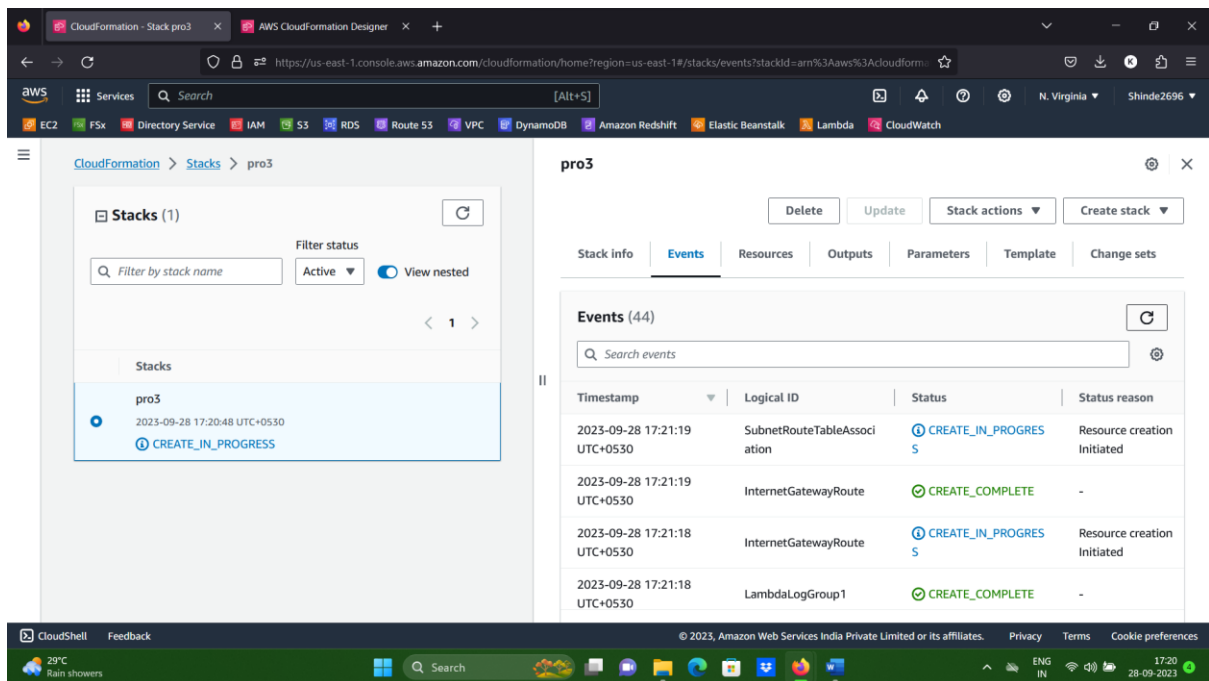
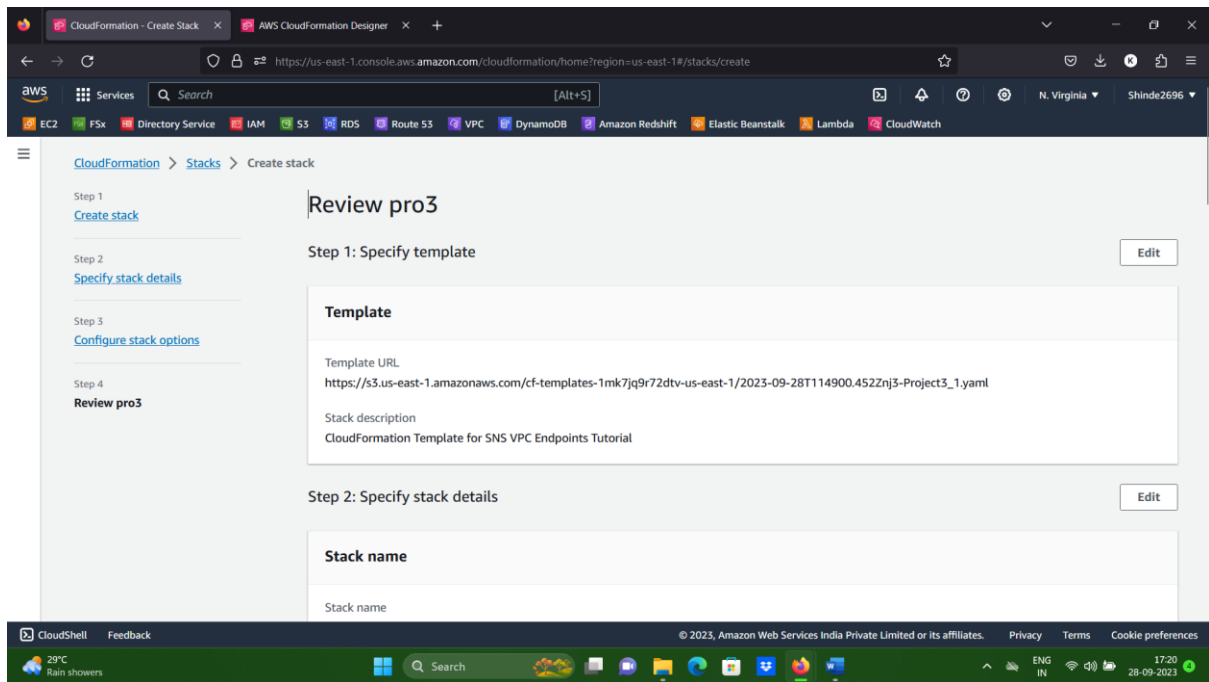




## Select key pair

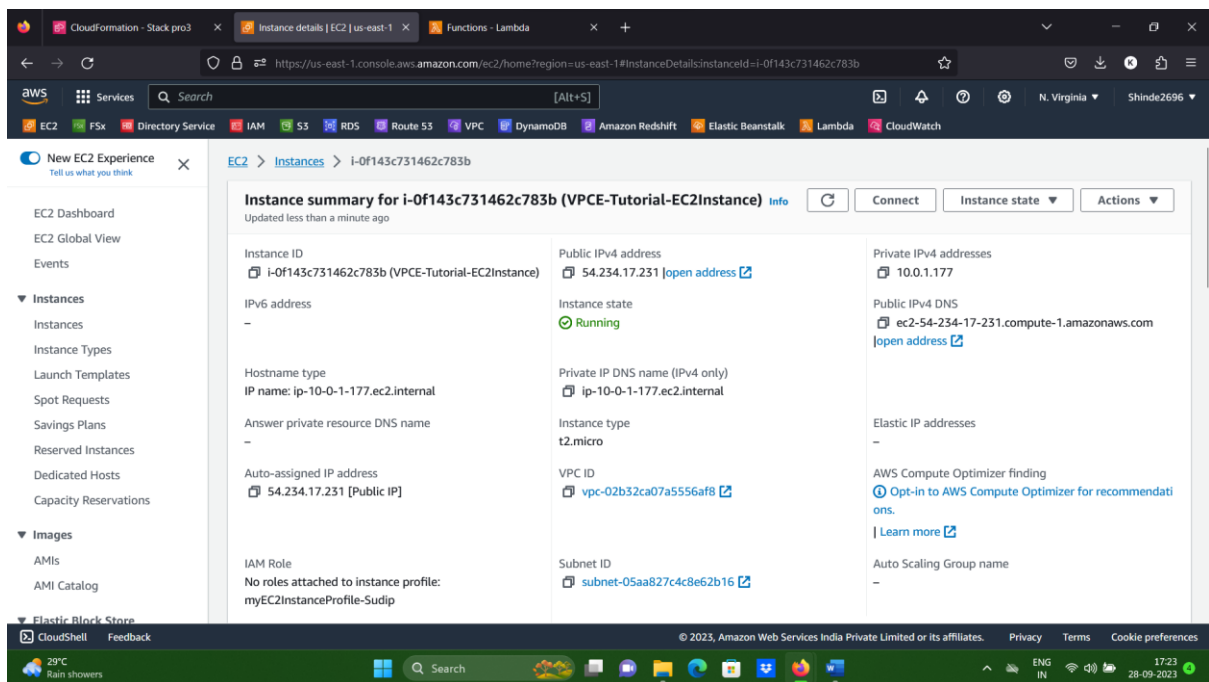
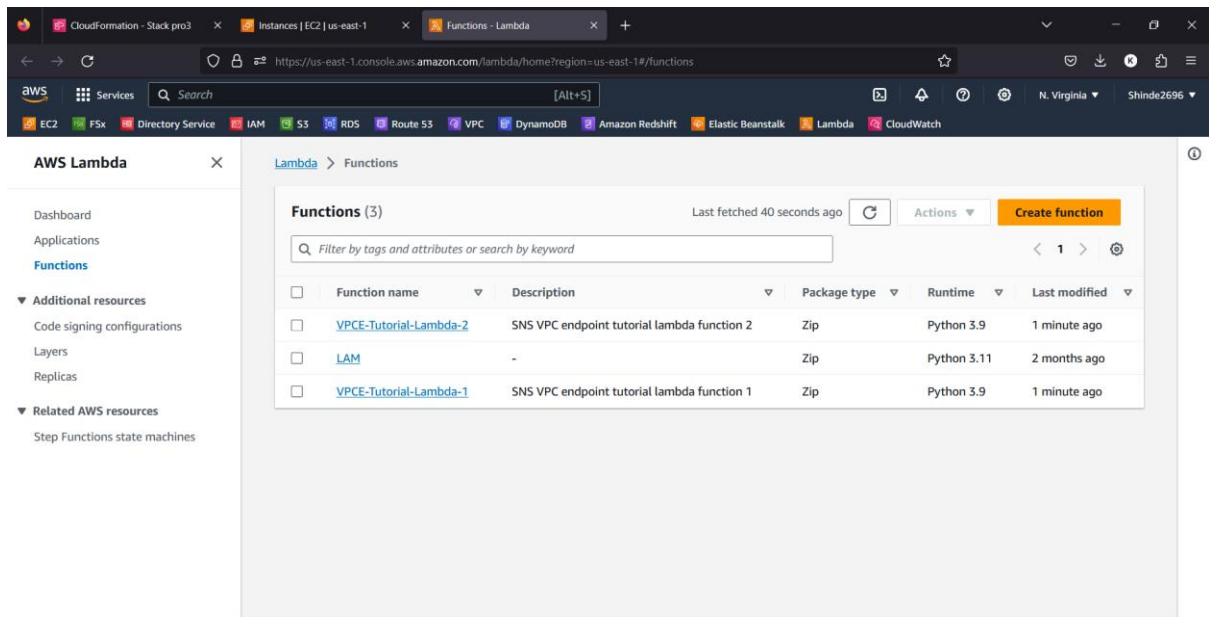


Click to create stack wait 5 Mins



Stack is create now check lambda function

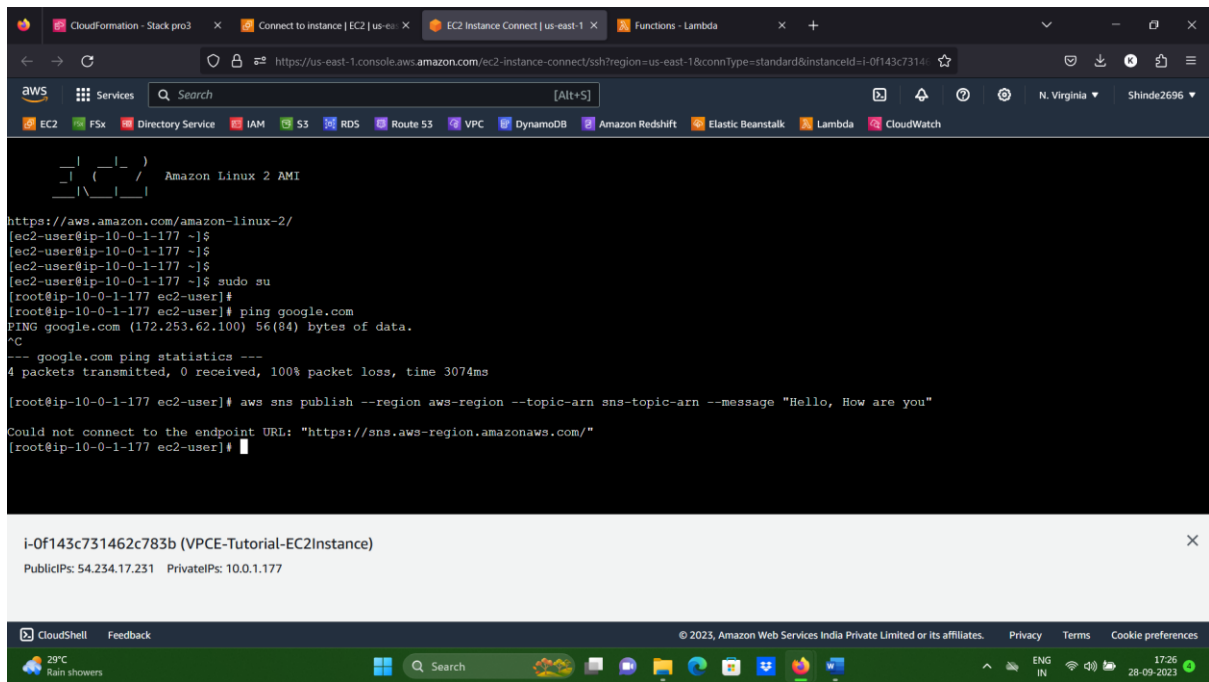
Now Go to your EC2 and Connect to it.



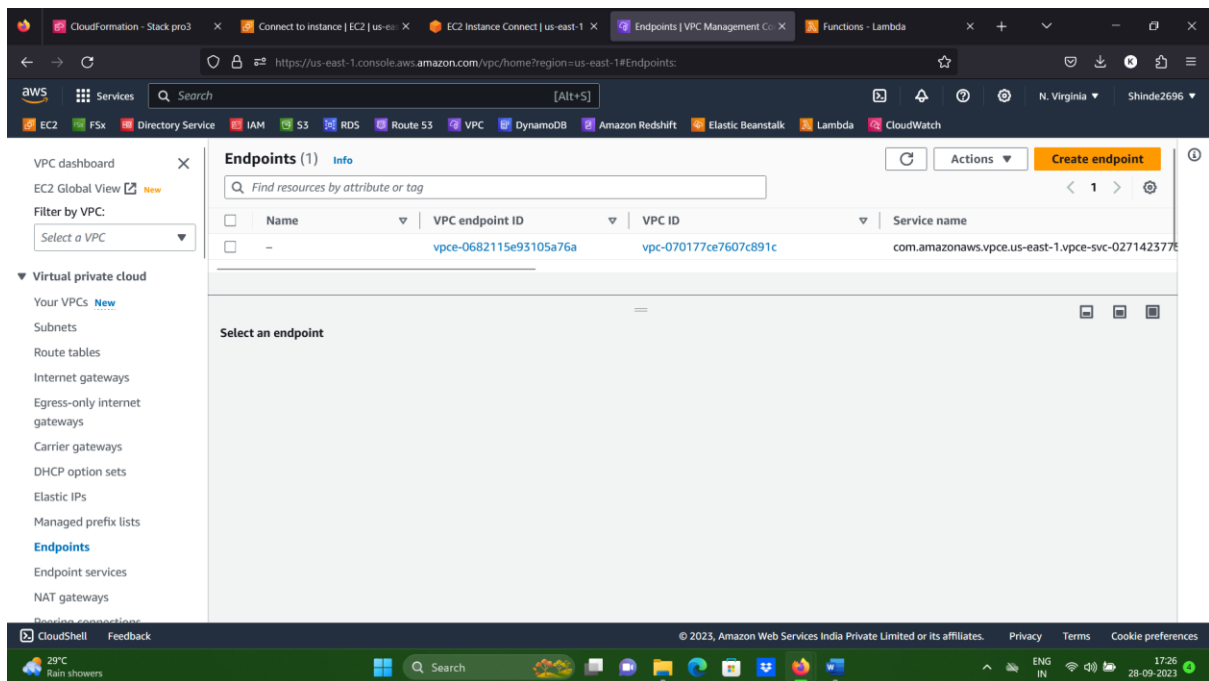
Now Go to your EC2 and Connect to it.

Now Ping Google

Now will try to publish this Hello Message to it.



We are not able to connect to it because we don't have any endpoint so let's create endpoint here



Give Name to endpoint

CloudFormation - Stack pro3 x Connect to instance | EC2 | us-east-1 x EC2 Instance Connect | us-east-1 x VPC | us-east-1 x Functions - Lambda x + - - - - -

https://us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#CreateVpcEndpoint

There are three types of VPC endpoints – Interface endpoints, Gateway Load Balancer endpoints, and Gateway endpoints. Interface endpoints and Gateway Load Balancer endpoints are powered by AWS PrivateLink, and use an Elastic Network Interface (ENI) as an entry point for traffic destined to the service. Interface endpoints are typically accessed using the public or private DNS name associated with the service, while Gateway endpoints and Gateway Load Balancer endpoints serve as a target for a route in your route table for traffic destined for the service.

### Endpoint settings

**Name tag - optional**  
Creates a tag with a key of 'Name' and a value that you specify.

Prosns

**Service category**  
Select the service category

☒ **AWS services**  
Services provided by Amazon

☐ **PrivateLink Ready partner services**  
Services with an AWS Service Ready designation

☐ **AWS Marketplace services**  
Services that you've purchased through AWS Marketplace

☐ **EC2 Instance Connect Endpoint**  
An elastic network interface that allow you to connect to resources in a private subnet.

☐ **Other endpoint services**  
Find services shared with you by service name

**Services (239)**

Find resources by attribute or tag

1 2 3 4 5 6 7 ... 24

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CloudFormation - Stack pro3 x Connect to instance | EC2 | us-east-1 x EC2 Instance Connect | us-east-1 x VPC | us-east-1 x Functions - Lambda x + - - - - -

https://us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#CreateVpcEndpoint

Service Name = com.amazonaws.us-east-1.sns Clear filters

Service Name Owner Type

### VPC

Select the VPC in which to create the endpoint

**VPC**  
The VPC in which to create your endpoint.

vpc-02b32ca07a5556af8 (VPCE-Tutorial-VPC)

► Additional settings

### Subnets (1/6) Info

<input checked="" type="checkbox"/>	Availability Zone	Subnet ID	Designate IP addresses	IPv4 address	IPv6 address
<input checked="" type="checkbox"/>	us-east-1a (use1-az4)	subnet-05aa827c4c8e62b...	<input type="checkbox"/>		
<input type="checkbox"/>	us-east-1b (use1-az6)	<a href="#">No subnet available</a>	<input type="checkbox"/>		
<input type="checkbox"/>	us-east-1c (use1-az1)	<a href="#">No subnet available</a>	<input type="checkbox"/>		
<input type="checkbox"/>	us-east-1d (use1-az2)	<a href="#">No subnet available</a>	<input type="checkbox"/>		

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## Create Endpoint

The screenshot shows the AWS Management Console interface. The left sidebar contains navigation links for various services, with 'Endpoints' highlighted under the 'Virtual private cloud' section. The main content area displays the details for the VPC endpoint 'vpce-00c5c0d075e0353a9'.

**vpce-00c5c0d075e0353a9 / Prosns**

**Details**

Endpoint ID vpce-00c5c0d075e0353a9	Status Available	Creation time Thursday, September 28, 2023 at 17:28:17 GMT+5:30	Endpoint type Interface
VPC ID vpc-02b32ca07a5556af8 (VPC-Tutorial-VPC)	Status message -	Service name com.amazonaws.us-east-1.sns	Private DNS names enabled Yes
DNS record IP type ipv4	IP address type ipv4	DNS names vpce-00c5c0d075e0353a9-q5ohohln.sns.us-east-1.vpc.amazonaws.com - (Z7HUB22UULQXV) vpce-00c5c0d075e0353a9-q5ohohln-us-east-1a.sns.us-east-1.vpc.amazonaws.com - (Z7HUB22UULQXV) sns.us-east-1.amazonaws.com - (Z01512962Y4EBLG7WX3E)	Private DNS names sns.us-east-1.amazonaws.com
Private DNS only inbound resolver endpoint -			

The screenshot shows the AWS Management Console interface for the Amazon SNS service. The left sidebar contains navigation links, with 'Topics' highlighted. The main content area displays the details for the SNS topic 'VPCE-Tutorial-Topic'.

**Amazon SNS**

**VPCE-Tutorial-Topic**

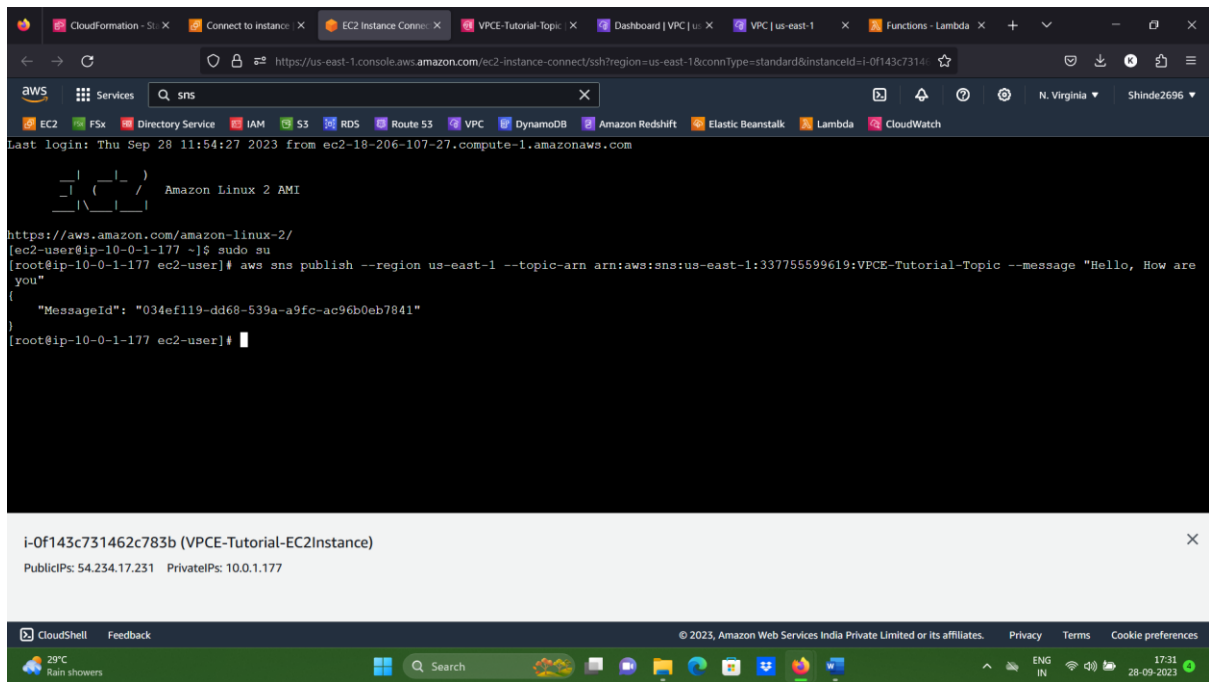
**Details**

Name VPCE-Tutorial-Topic	Display name VPCE-Tutorial-Topic
ARN arn:aws:sns:us-east-1:337755599619:VPCE-Tutorial-Topic	Topic owner 337755599619
Type Standard	

Below the details table, there are tabs for 'Subscriptions', 'Access policy', 'Data protection policy', 'Delivery policy (HTTP/S)', 'Delivery status logging', and 'Encryption'.

Now will try to publish and done here we able to publish message.

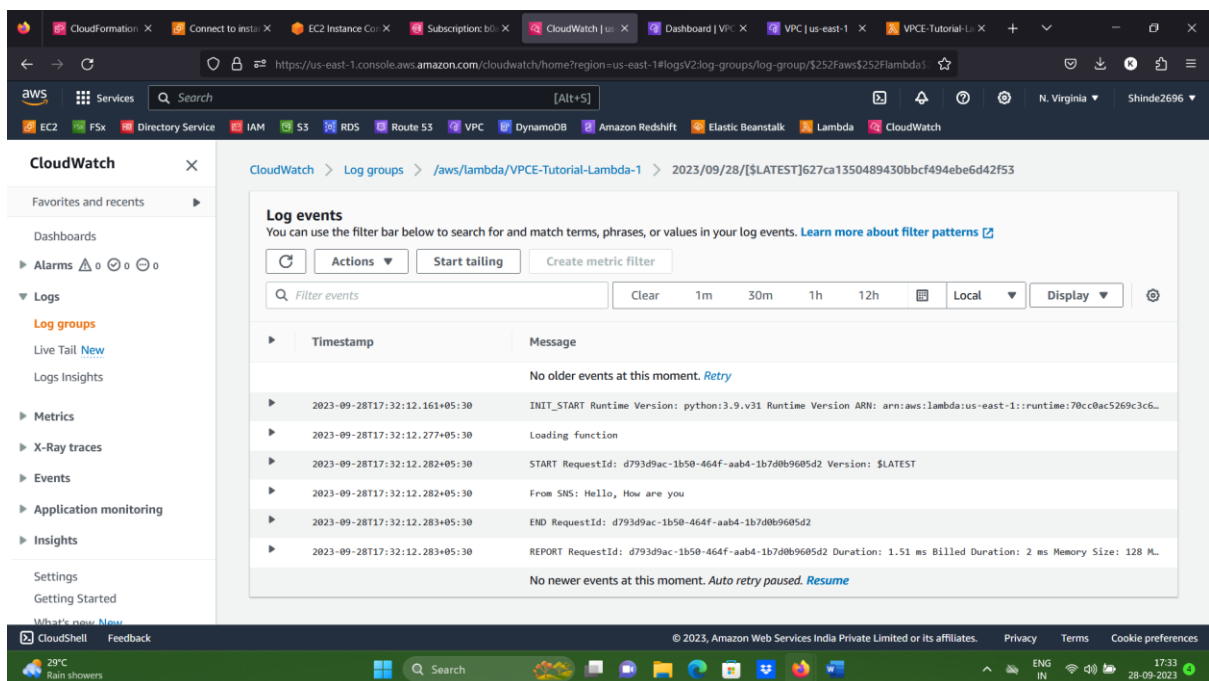




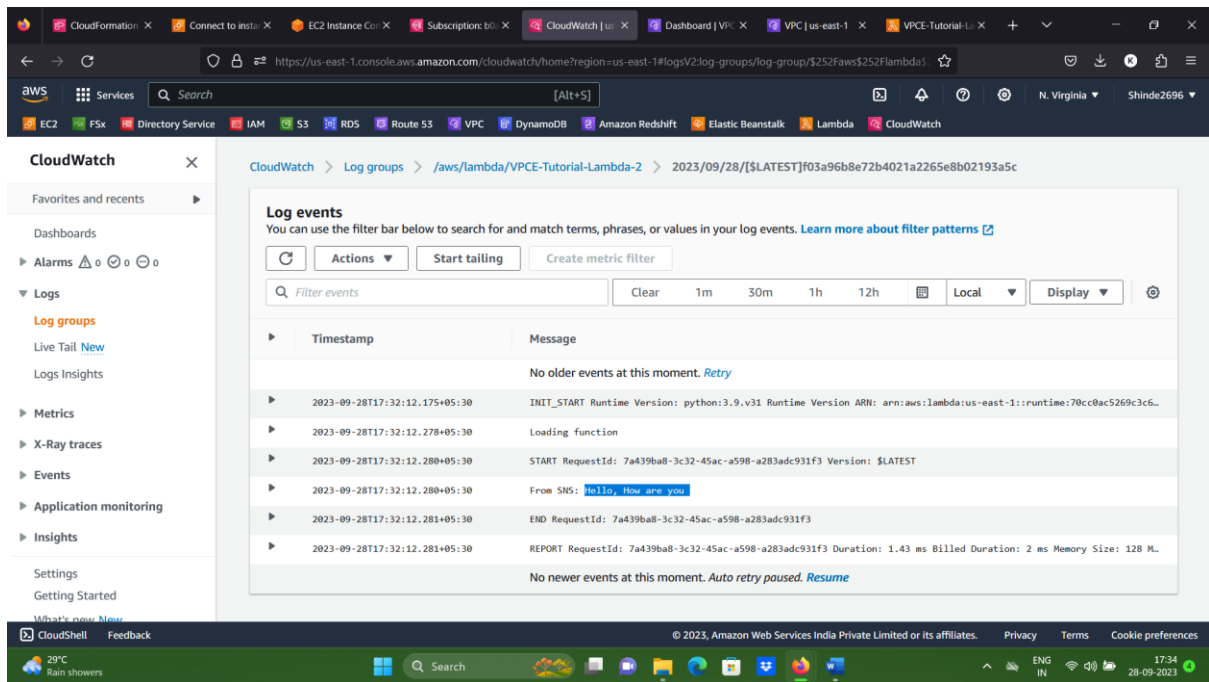
Here is the Message ID generated.

Now go to your Lambda function and check the Metrics where the Count is Increased or not.

Now go to cloud watch logs and check is there any message is generated or not.



We received on message.



Here we have completed our Project 3.