

**Course: Online Session AWS Weekday BC=230404**

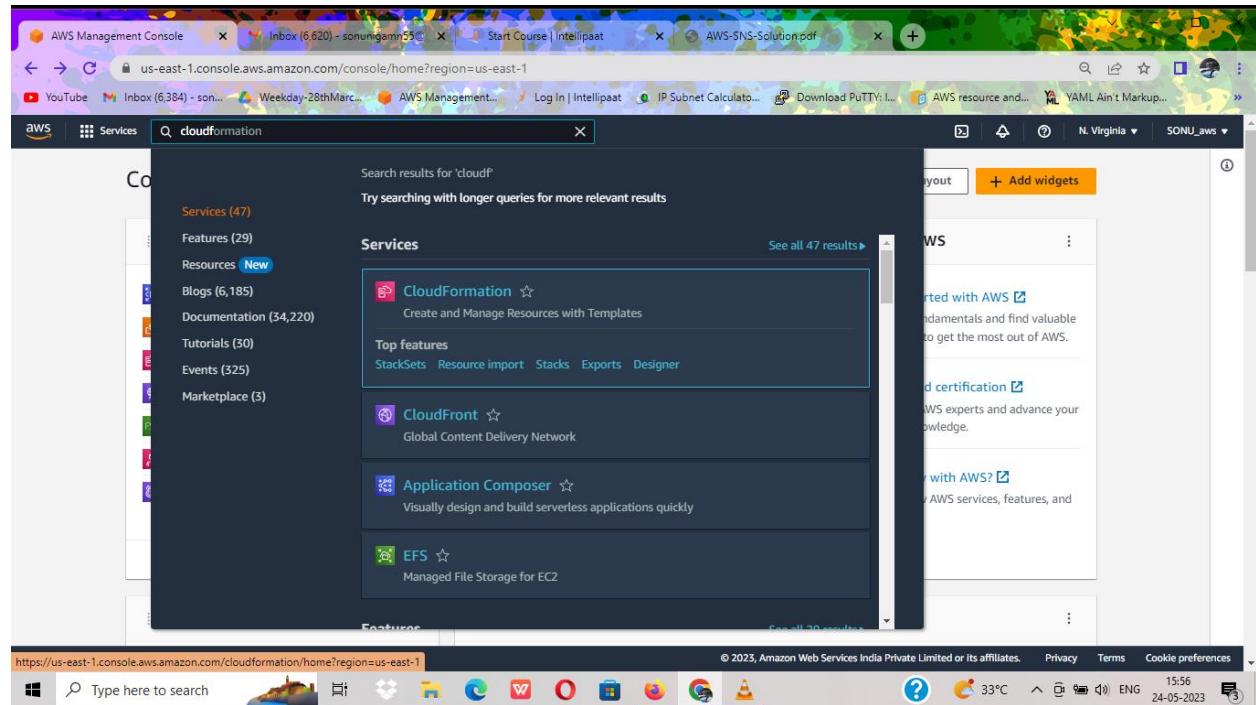
**Project– Project 3**

**NAME:** SONU NIGAM U S

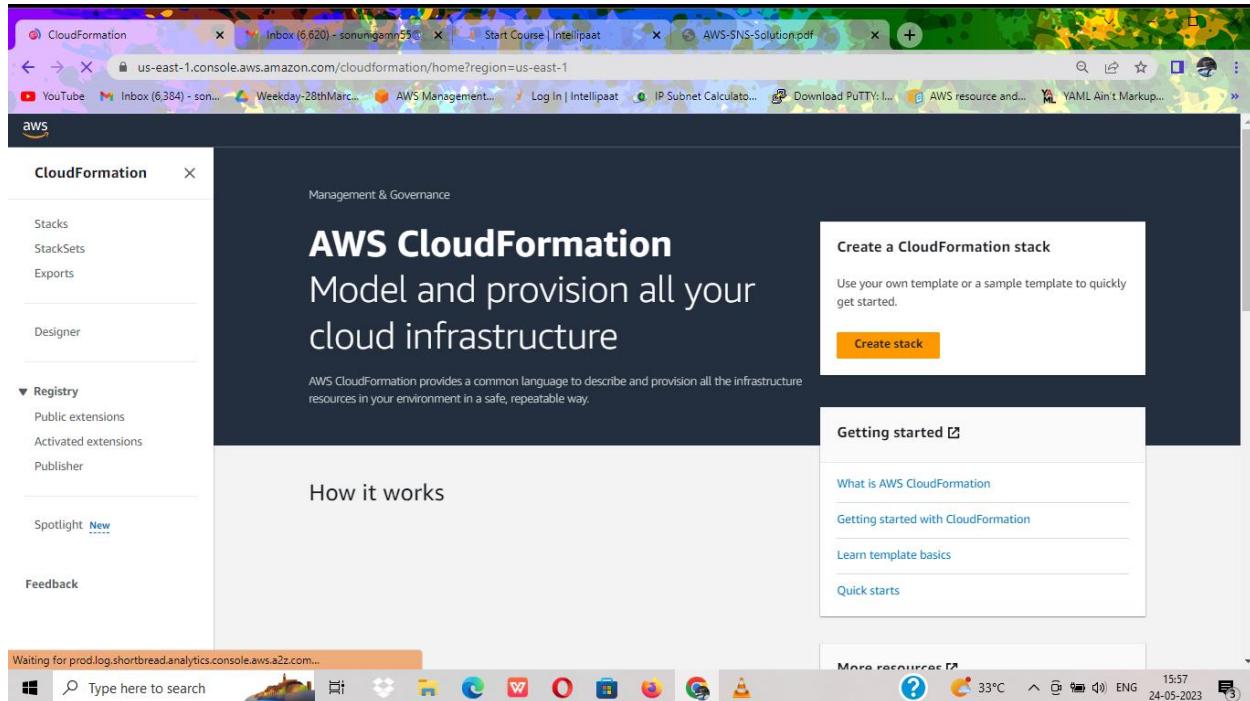
**Mail id:** [sonunigamn55@gmail.com](mailto:sonunigamn55@gmail.com)

**Problem Statement:** How to secure patient records online and send it privately to the intended party.

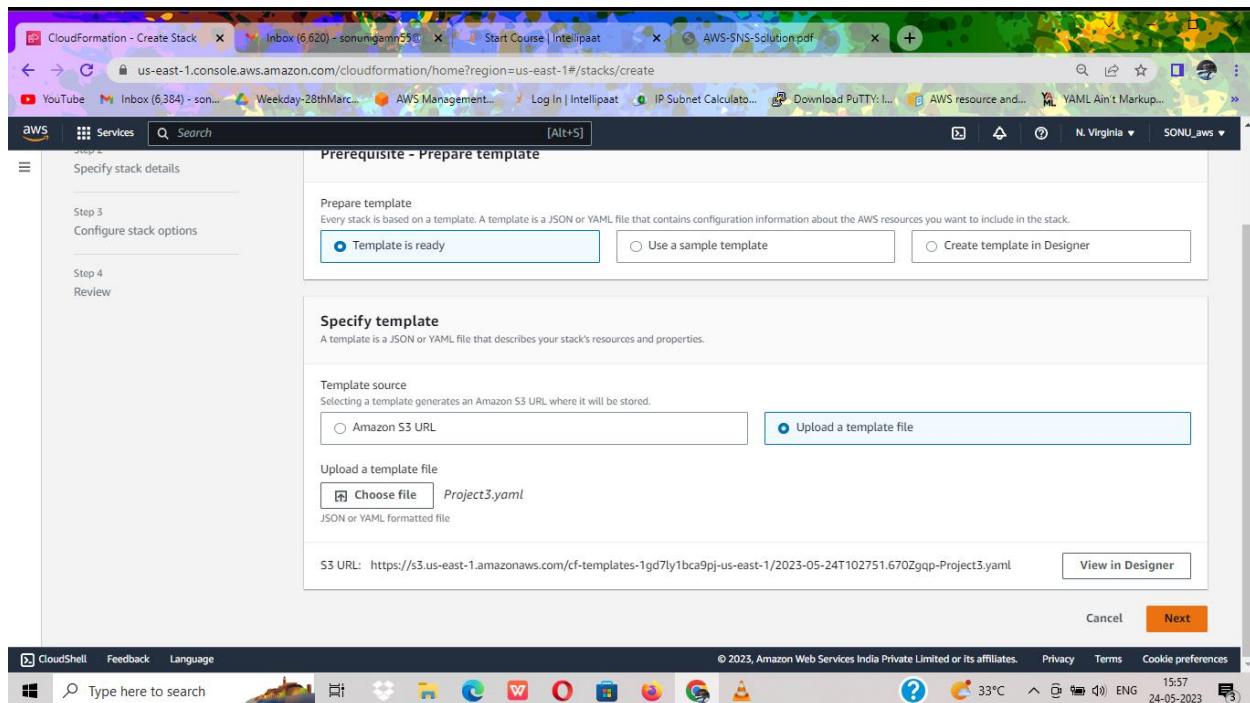
**1.Going to the cloudformation**



## 2 clicking on create stack



## 3 we upload our yaml template



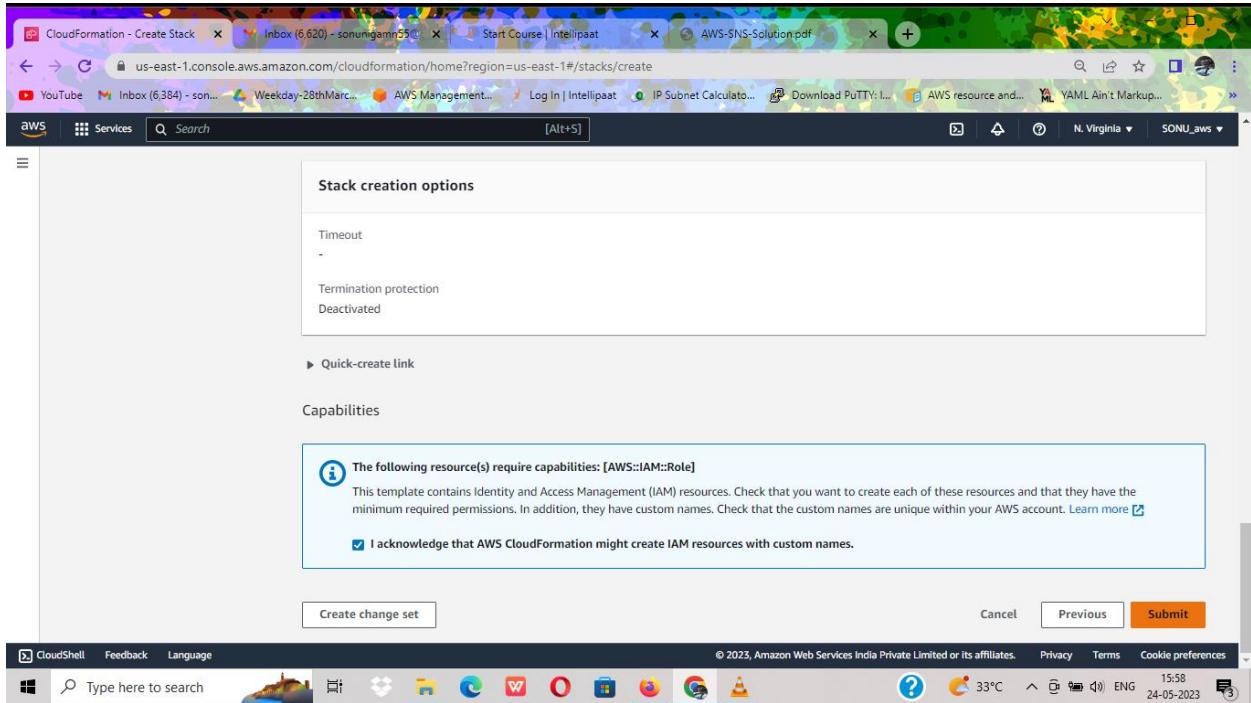
## 4 we name our stack

The screenshot shows the AWS CloudFormation - Create Stack wizard. The current step is "Specify stack details". The "Stack name" field contains "project-3". In the "Parameters" section, "KeyName" is set to "Select AWS::EC2::KeyPair::KeyName" and "SSHLocation" is set to "0.0.0.0/0".

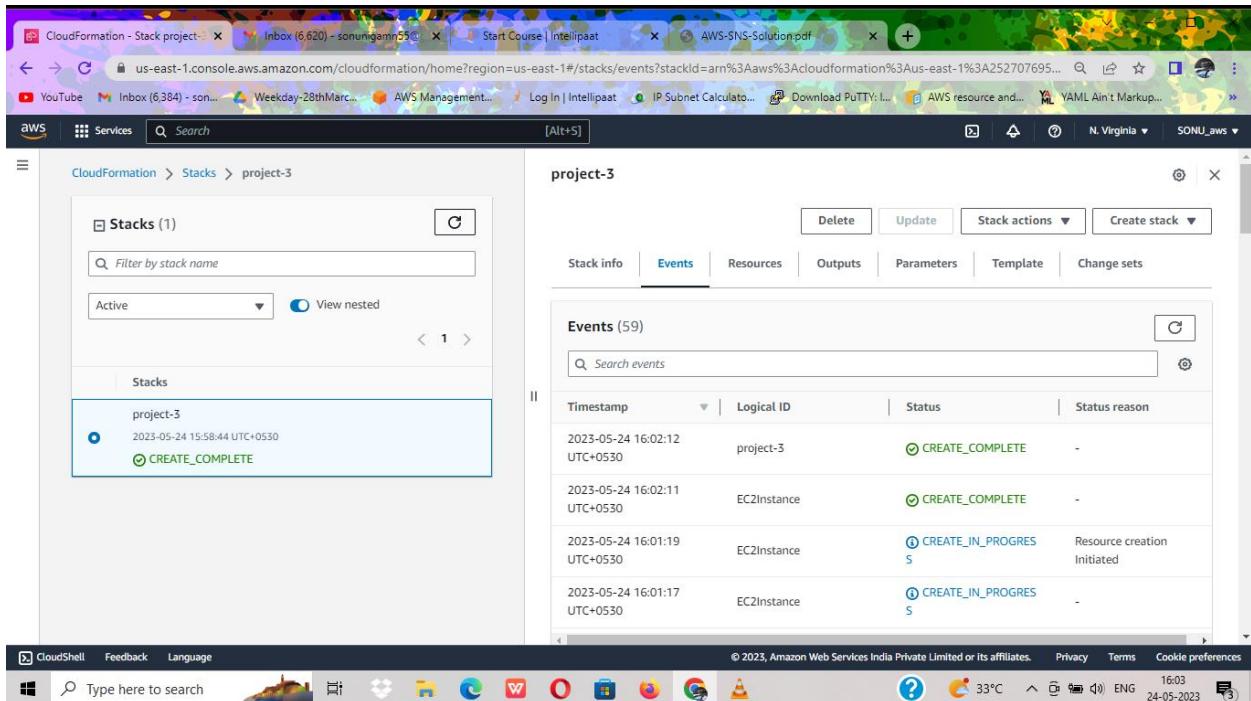
## 5 next

The screenshot shows the AWS CloudFormation - Create Stack wizard. The current step is "Specify stack details". The "Stack name" field contains "project-3". In the "Parameters" section, "KeyName" is set to "last\*key" and "SSHLocation" is set to "0.0.0.0/0".

## 6 we submit



## 7 and our resources are deployed



## 8 we go to our instance

The screenshot shows the AWS CloudFormation console with a search bar at the top containing 'ec2'. The left sidebar has a 'Stacks' section with a blue highlighted item. The main search results page displays 'Services (12)' and a list of services under 'Services'.

Service	Description
EC2	Virtual Servers in the Cloud
EC2 Image Builder	A managed service to automate build, customize and deploy OS images
Amazon Inspector	Continual vulnerability management at scale
AWS Firewall Manager	Central management of firewall rules

On the right side, there is a panel titled 'Stack actions' with buttons for 'Create stack' and 'Update stack'. Below it, a table shows the status of four stack resources:

Status	Status reason
CREATE_COMPLETE	-
CREATE_COMPLETE	-
CREATE_IN_PROGRESS	Resource creation initiated
CREATE_IN_PROGRESS	-

The browser address bar shows the URL: <https://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1>.

## 9 our instance is also launched

The screenshot shows the AWS EC2 Management console with a search bar at the top containing 'Search' and a 'New EC2 Experience' toggle. The left sidebar has sections for 'Instances' (selected), 'Images', and 'CloudShell'. The main area displays the 'Instances (1) Info' table.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 IP
VPCE-Tutorial...	i-0c35e24495d1c2cc9	Running	t2.micro	-	-	us-east-1c	ec2-3-89-156

Below the table, a modal window titled 'Select an instance' is open, showing a single entry: 'i-0c35e24495d1c2cc9'.

The browser address bar shows the URL: <https://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:instanceState=running>.

## 10 we go to our sns

The screenshot shows the AWS Management Console search results for 'sns'. The search bar at the top contains 'sns'. The left sidebar has a 'Services' section expanded, showing various services like EC2 Dashboard, Route 53 Resolver, and AWS Cloud Map. The main search results area shows 'Simple Notification Service' as the top result, described as 'SNS managed message topics for Pub/Sub'. Below it are 'Route 53 Resolver', 'Route 53', and 'AWS Cloud Map'. The right side of the screen shows a detailed view of the Simple Notification Service, including its alarm status, availability zone (us-east-1c), and public IPv4 address (ec2-3-89-156). The bottom of the screen shows the Windows taskbar and system tray.

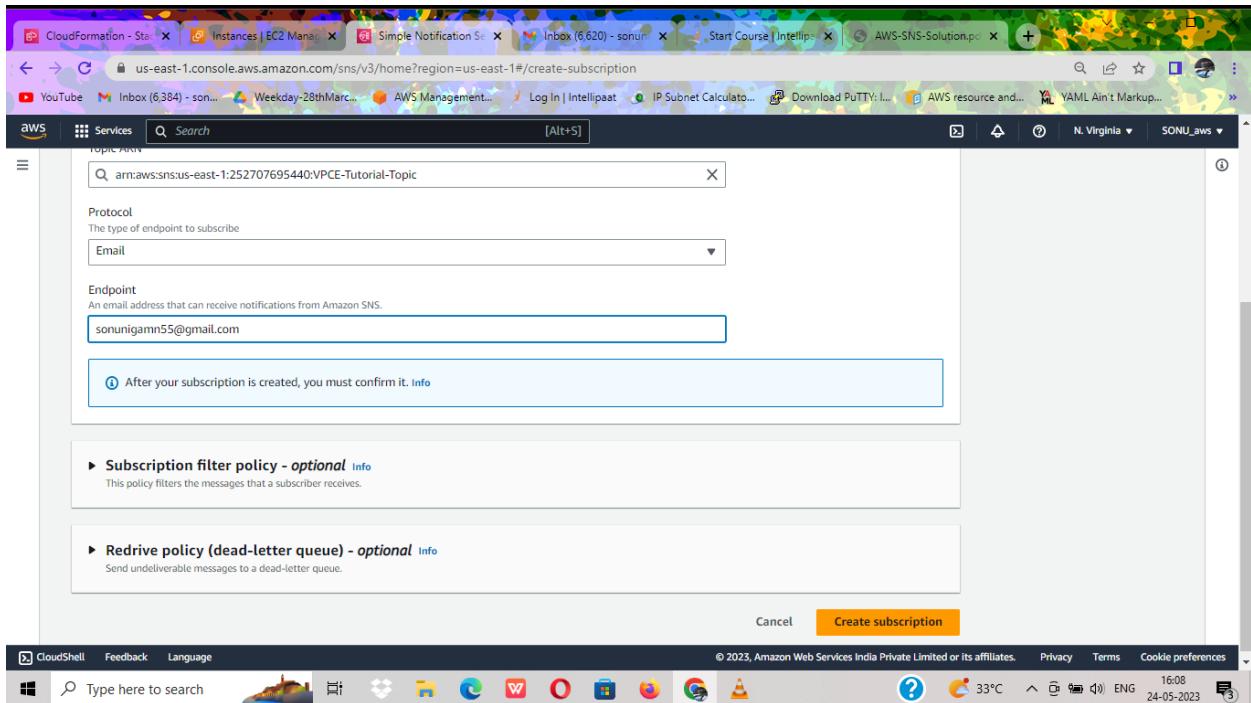
## 11 we now create our subscription

The screenshot shows the Amazon SNS Subscriptions page. The left sidebar has a 'Subscriptions' section expanded, showing options for mobile push notifications, text messaging (SMS), and origination numbers. The main content area shows a table of existing subscriptions:

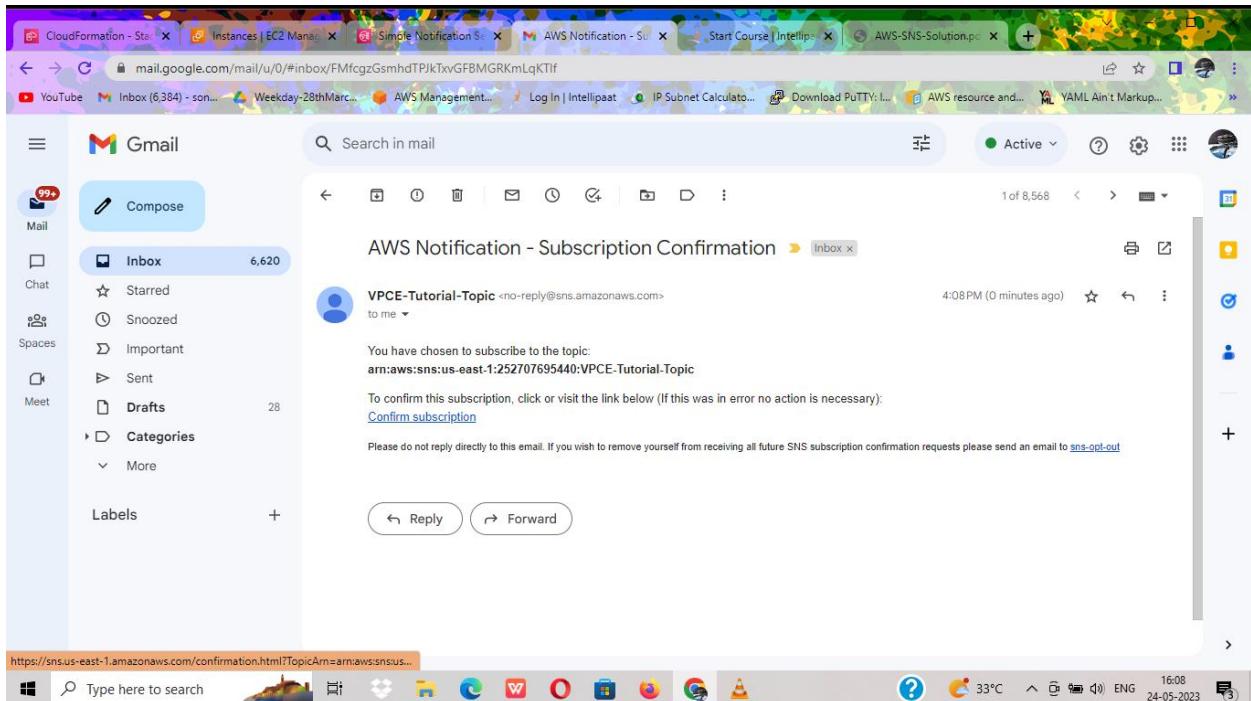
ID	Endpoint	Status	Protocol	Topic
33b8beb9-9166-4c66-a...	sonunigamn55@gmail.c...	Confirmed	EMAIL	CloudWatch_Alarm_1
76b3a295-4e37-47c3-8...	sonunigamn55@gmail.c...	Confirmed	EMAIL	CloudWatch_Alarms_CP...
9740ae04-c3a1-4d6e-a1...	arn:aws:lambda:us-east-...	Confirmed	LAMBDA	VPCE-Tutorial-Topic
e750ae89-2e48-4db1-a...	arn:aws:lambda:us-east-...	Confirmed	LAMBDA	VPCE-Tutorial-Topic

The bottom of the screen shows the Windows taskbar and system tray.

## 12 we give email type protocol



## 13 we received mail for subscription



## 14 we subscribe

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "sns.us-east-1.amazonaws.com/confirmation.html?TopicArn=arn:aws:sns:us-east-1:252707695440:VPCE-Tutorial-Topic&Token=2336412f37fb687f5d51e6e2425c464de07...". The page content is from the AWS Simple Notification Service and displays a green header with the AWS logo and the text "Simple Notification Service". Below this, a box contains the message "Subscription confirmed!" and the text "You have successfully subscribed." It also shows the subscription's ARN: "arn:aws:sns:us-east-1:252707695440:VPCE-Tutorial-Topic:ef742392-3fe8-4e5e-9fab-1fc5c3cd0c18". At the bottom of the box, there is a link "If it was not your intention to subscribe, click here to unsubscribe." The browser's address bar shows the full URL. The taskbar at the bottom of the screen includes icons for File Explorer, Edge, and other system tools.

## 15 our status is confirmed

The screenshot shows a web browser window displaying the AWS Amazon SNS service. The left sidebar shows navigation options like Dashboard, Topics, Subscriptions, Mobile, Push notifications, Text messaging (SMS), and Origination numbers. The main content area shows a message about important changes for sending text messages (SMS) to US destinations, noting that mobile carriers have changed regulations and require toll-free numbers (TFNs) to complete a registration process by September 30, 2022. Below this, a specific subscription is listed: "Subscription: ef742392-3fe8-4e5e-9fab-1fc5c3cd0c18". The "Details" section provides the ARN ("arn:aws:sns:us-east-1:252707695440:VPCE-Tutorial-Topic:ef742392-3fe8-4e5e-9fab-1fc5c3cd0c18"), Endpoint ("sonunigamn55@gmail.com"), Topic ("VPCE-Tutorial-Topic"), and Subscription Principal ("arn:aws:siam:252707695440:root"). The status is listed as "Status" with a green "Confirmed" button. The browser's address bar shows the URL "us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/subscription/arn:aws:sns:us-east-1:252707695440:VPCE-Tutorial-Topic:ef742392-3fe8-4e5e-9fab-1fc5c3cd0c18". The taskbar at the bottom of the screen includes icons for CloudShell, Feedback, Language, File Explorer, Edge, and other system tools.

## 16 we now go to our VPC

The screenshot shows the AWS Management Console search results for 'vpc'. The search bar at the top contains 'vpc'. On the left, there is a sidebar for 'Amazon SNS' with options like Dashboard, Topics, Subscriptions, Mobile (Push notifications, Text messaging (SMS), Origination numbers), and Services (12). The main search results show 'Services (12)' with 'VPC' as the top result under 'Top features' (Your VPCs, Subnet, Route table, Internet gateway, Egress-only internet gateways). Other services listed include AWS Firewall Manager, Detective, and Managed Services.

## 17 WE create our end point

The screenshot shows the 'Endpoints' page in the AWS VPC service. The URL in the address bar is 'us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#Endpoints'. The sidebar on the left includes 'VPC dashboard', 'EC2 Global View', 'Filter by VPC' (with a dropdown menu showing 'Select a VPC'), and sections for 'Virtual private cloud' (Your VPCs, Subnets, Route tables, Internet gateways, Egress-only internet gateways, Carrier gateways, DHCP option sets, Elastic IPs, Managed prefix lists) and 'Endpoints' (Endpoint services, NAT gateways, Peering connections). The main content area shows a table titled 'Endpoints' with columns for Name, VPC endpoint ID, VPC ID, and Service name. A message at the top right says 'No endpoint found'. Below the table, a section titled 'Select an endpoint' is visible.

## 18 we name and choose AWS service as SNS

The screenshot shows the 'Endpoint settings' section of the AWS VPC Endpoint creation wizard. In the 'Name tag - optional' field, 'project-3-endpoint' is entered. Under 'Service category', 'AWS services' is selected. In the 'Services (1/1)' section, 'com.amazonaws.us-east-1.sns' is listed as the service name, which is highlighted with a blue border. The interface includes standard AWS navigation and search bars at the top and bottom.

## 19 we select the instance AZs

The screenshot shows the 'Subnets (1/6)' section of the VPC endpoint creation wizard. Under 'Availability Zone', 'us-east-1c (use1-az6)' is selected, and its corresponding subnet ID, 'subnet-08c310f3fc759b68d', is displayed in a dropdown menu. Other subnets listed include 'us-east-1a (use1-az2)', 'us-east-1b (use1-az4)', 'us-east-1d (use1-az1)', 'us-east-1e (use1-az3)', and 'us-east-1f (use1-az5)'. The interface includes standard AWS navigation and search bars at the top and bottom.

20

The screenshot shows the AWS VPC Management console with the URL <https://us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#CreateVpcEndpoint>. The page displays a list of subnets in the 'Subnets (1/6)' section, all under 'Availability Zone us-east-1d (use1-az1)'. A specific subnet, 'subnet-08c310f3fc759b68d' (labeled 'VPCE-Tutorial-Subnet'), is selected. Below it, the 'IP address type' is set to 'IPv4'. In the 'Security groups (1/2)' section, two security groups are listed: 'default' (VPC ID: vpc-00cce9df09b575) and 'Tutorial Security Group' (VPC ID: vpc-00cce9df09b575). The 'Tutorial Security Group' is selected. At the bottom, there are buttons for 'CloudShell', 'Feedback', 'Language', and a search bar. The status bar at the bottom right shows the date and time as 24-05-2023 16:14.

21 create

The screenshot shows the AWS VPC Management console with the URL <https://us-east-1.console.aws.amazon.com/vpc/home?region=us-east-1#CreateVpcEndpoint>. A modal window titled 'Tags' is open, allowing the addition of key-value pairs. One tag is added: 'Name' with value 'project-3-endpoint'. Below the tag input fields, a note says 'You can add 49 more tags.' At the bottom of the modal, there are 'Cancel' and 'Create endpoint' buttons. The background shows the same VPC endpoint creation interface as the previous screenshot. The status bar at the bottom right shows the date and time as 24-05-2023 16:14.

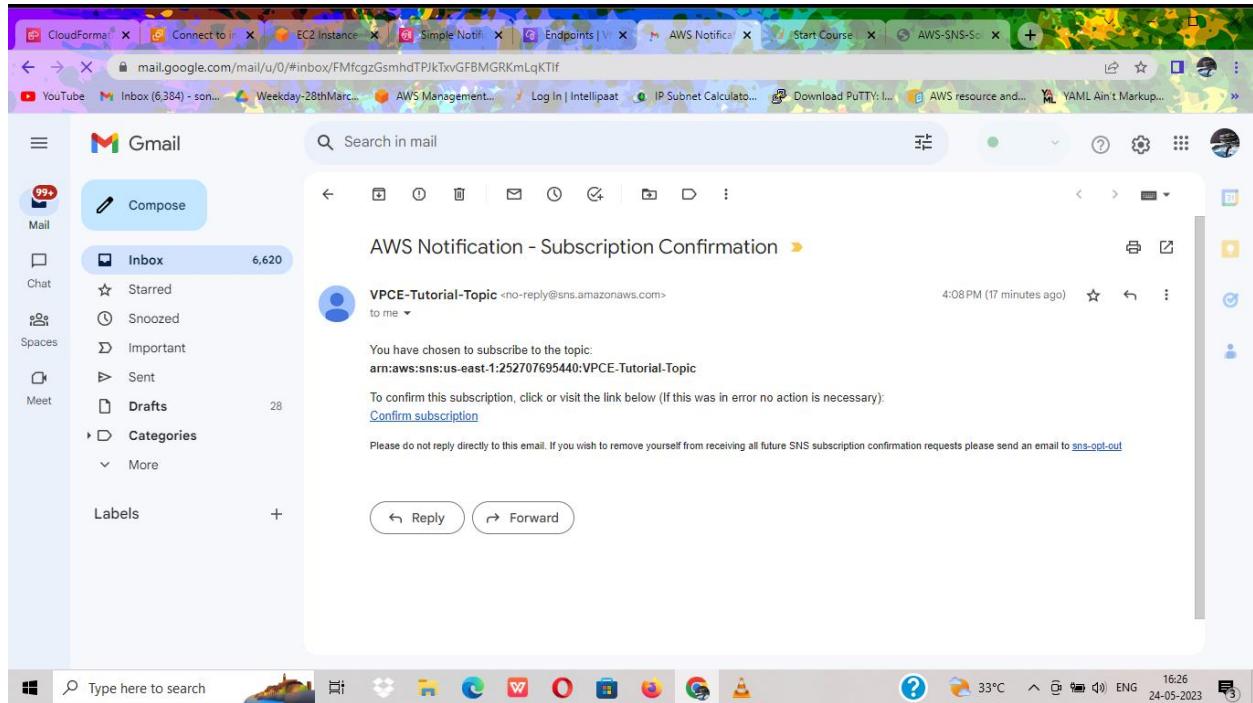
## 22 we copy our topic ARN

The screenshot shows the AWS SNS console with the URL <https://us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/topic/arm:aws:sns:us-east-1:252707695440:VPCE-Tutorial-Topic>. The page displays the 'VPCE-Tutorial-Topic' details, including its Name (VPCE-Tutorial-Topic), Display name (VPCE-Tutorial-Topic), ARN (<arn:aws:sns:us-east-1:252707695440:VPCE-Tutorial-Topic>), Topic owner (252707695440), and Type (Standard). The 'Subscriptions' tab is selected, showing three existing subscriptions. A tooltip indicates that the ARN is copied to the clipboard.

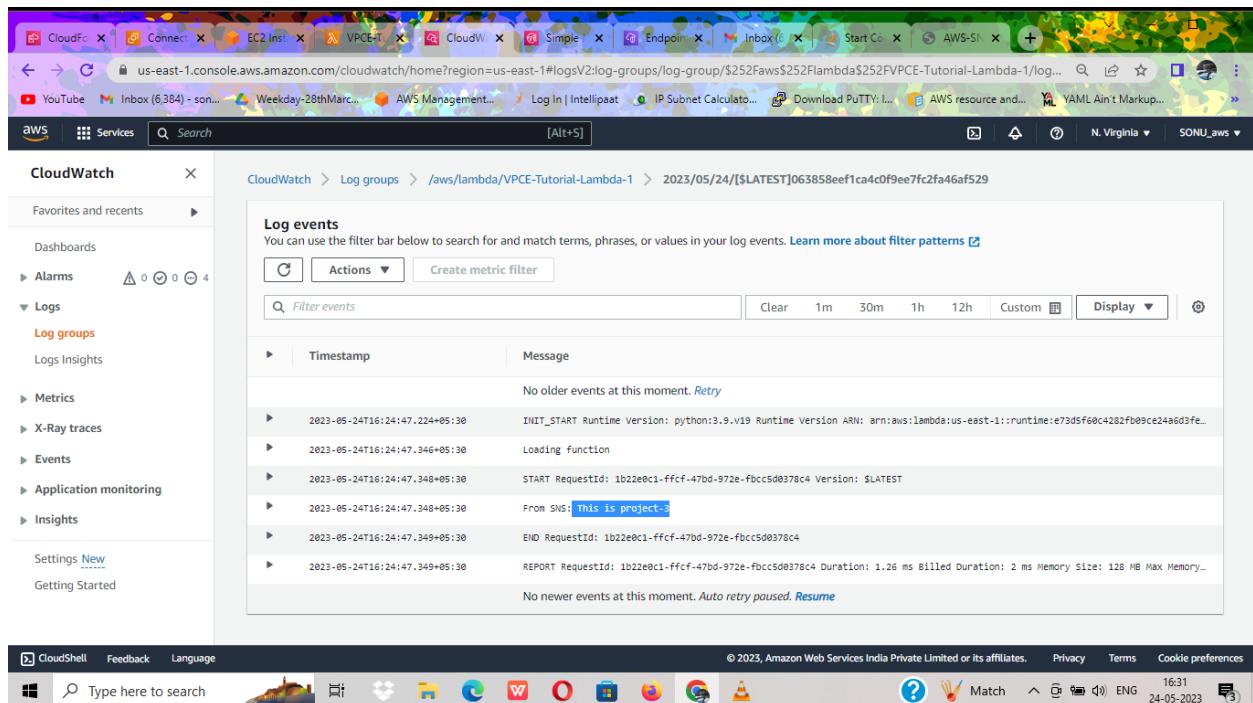
## 23 we use in the instance command as shown which generate message id

The screenshot shows an EC2 instance terminal window with the URL <https://aws.amazon.com/amazon-linux-2/>. The user runs the command `aws sns publish --region us-east-1 --topic-arm arn:aws:sns:us-east-1:252707695440:VPCE-Tutorial-Topic --message "Hello"`. The output shows that the connection failed to the endpoint URL `"https://sns.us-east-1.amazonaws.com"`, and then successfully published the message to the specified topic, returning the message ID `b7b7372b-165b-5b3a-9008-6bccf96d61f2`.

## 24 we also received email



## 25 we can also check in logs



26 we got our mail our architecture is working fine and the project is successful

