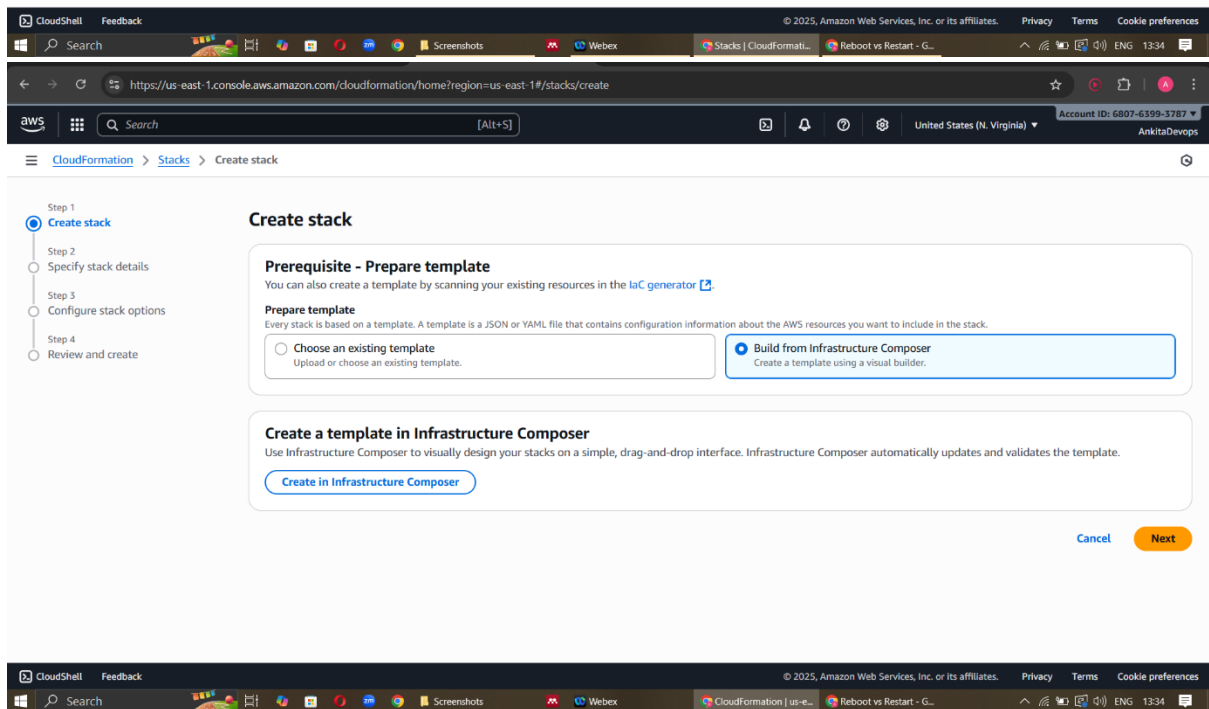
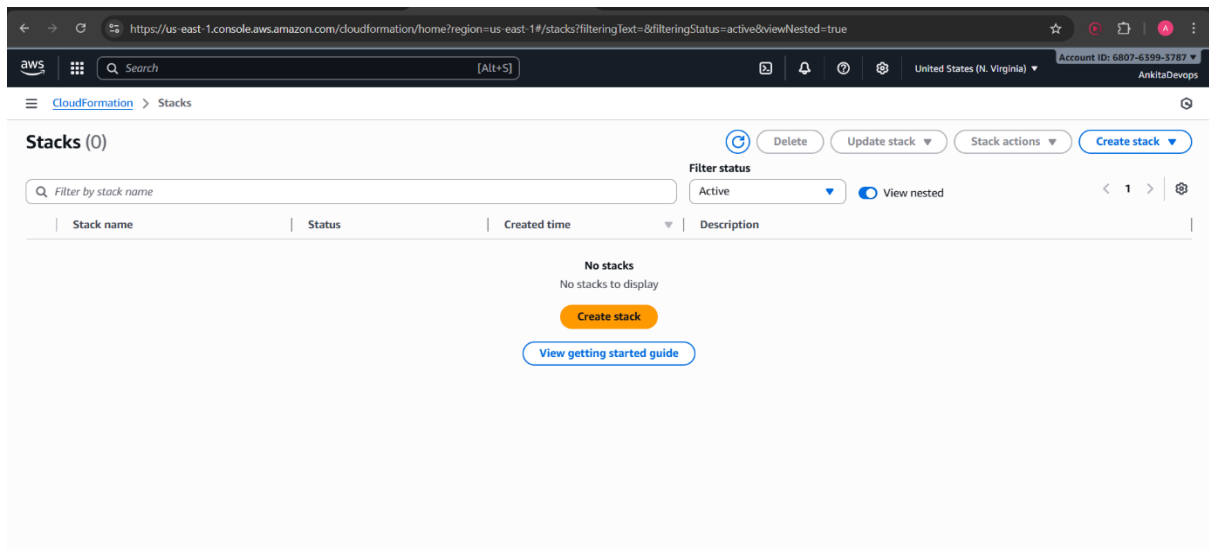


Capstone project 2 (Ankita Mardana)



https://us-east-1.console.aws.amazon.com/composer/canvas?region=us-east-1&srcConsole=cloudformation

CloudFormation > Infrastructure Composer

Unsaved changes CloudFormation console mode Menu

Infrastructure Composer

List Resources

Search for a resource

Enhanced components (14)

- API Gateway
- Cognito UserPool
- Cognito UserPoolClient
- DynamoDB Table
- EventBridge Event rule
- EventBridge Schedule

Canvas Template YAML JSON

Valid Create template

```
1 AWSTemplateFormatVersion: '2010-09-09'
2 Description: Hospital Reports VPC with EC2
3
4 Resources:
5   MyVPC:
6     Type: AWS::EC2::VPC
7     Properties:
8       CidrBlock: 10.0.0.0/16
9       EnableDnsSupport: true
10      EnableDnsHostnames: true
11      Tags:
12        - Key: Name
13          Value: HospitalVPC
14
15   PublicSubnet:
16     Type: AWS::EC2::Subnet
17     Properties:
18       VpcId: !Ref MyVPC
19       CidrBlock: 10.0.1.0/24
20       MapPublicIpOnLaunch: true
```

No template validation errors

CloudShell Feedback

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Search

https://us-east-1.console.aws.amazon.com/cloudformation/home?region=us-east-1#/stacks/create?templateURL=https%3A%2F%2Fs3.us-east-1.amazonaws.com%2Fcf-templates-e8u26...

CloudFormation > Stacks > Create stack

Step 1 Create stack

Step 2 Specify stack details

Step 3 Configure stack options

Step 4 Review and create

Create stack

Prerequisite - Prepare template

You can also create a template by scanning your existing resources in the [IaC generator](#).

Prepare template

Every stack is based on a template. A template is a JSON or YAML file that contains configuration information about the AWS resources you want to include in the stack.

☐ Choose an existing template
Upload or choose an existing template.

☒ Build from Infrastructure Composer
Create a template using a visual builder.

Create a template in Infrastructure Composer

Use Infrastructure Composer to visually design your stacks on a simple, drag-and-drop interface. Infrastructure Composer automatically updates and validates the template.

✓ Your template was successfully imported from Infrastructure Composer.

Amazon S3 URL

<https://s3.us-east-1.amazonaws.com/cf-templates-e8u269gki74y-us-east-1/template-1756454923833.yaml>

[Edit in Infrastructure Composer](#)

Cancel Next

CloudFormation > Stacks > Create stack

Step 1 Create stack
Step 2 **Specify stack details**
Step 3 Configure stack options
Step 4 Review and create

Specify stack details

Provide a stack name

Stack name

project2-stack

Stack name must contain only letters (a-z, A-Z), numbers (0-9), and hyphens (-) and start with a letter. Max 128 characters. Character count: 14/128.

Parameters

Parameters are defined in your template and allow you to input custom values when you create or update a stack.

No parameters

There are no parameters defined in your template

Cancel Previous Next

CloudFormation > Stacks > project2-stack

Stacks (1)

Filter by stack name

Filter status: Active View nested

Stacks

- project2-stack
2025-08-29 13:39:38 UTC+0530
CREATE_COMPLETE

project2-stack

Delete Update stack Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change sets

Table view Timeline view

Events (1)

Search events

| Timestamp | Logical ID | Status | Detailed status |
|------------------------------|----------------|--------------------|-----------------|
| 2025-08-29 13:39:38 UTC+0530 | project2-stack | CREATE_IN_PROGRESS | - |

← → ↻ https://us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#vpcs

aws Search [Alt+S] United States (N. Virginia) Account ID: 6807-6399-3787 AnkitaDevops

VPC > Your VPCs

VPC dashboard < EC2 Global View Filter by VPC

▼ Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet gateways

Carrier gateways

DHCP option sets

Elastic IPs

Managed prefix lists

NAT gateways

Peering connections

Route servers [New](#)

▼ Security

Network ACLs

Security groups

Your VPCs (1/2) info Last updated less than a minute ago Actions Create VPC

Find VPCs by attribute or tag

| Name | VPC ID | State | Block Public... | IPv4 CIDR | IPv6 CIDR |
|---------------|-----------------------|-----------|-----------------|---------------|-----------|
| - | vpc-02a5a50c89d0bcfb4 | Available | Off | 172.31.0.0/16 | - |
| ✓ HospitalVPC | vpc-001aeb96f93b8a6b3 | Available | Off | 10.0.0.0/16 | - |

vpc-001aeb96f93b8a6b3 / HospitalVPC

Details Resource map CIDRs Flow logs Tags Integrations

Details

| | | | |
|---|--|--|--|
| VPC ID vpc-001aeb96f93b8a6b3 | State Available | Block Public Access Off | DNS hostnames Enabled |
| DNS resolution Enabled | Tenancy default | DHCP option set dopt-0a489067f0b54dea2 | Main route table rtb-042caf8860dcfb726 |
| Main network ACL acl-000b2b05292f809... | Default VPC vpc-000b2b05292f809... | IPv4 CIDR 10.0.0.0/16 | IPv6 pool - |

← → ↻ https://us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/homepage

aws Search [Alt+S] United States (N. Virginia) Account ID: 6807-6399-3787 AnkitaDevops

Application Integration

Amazon Simple Notification Service

Pub/sub messaging for microservices and serverless applications.

Amazon SNS is a highly available, durable, secure, fully managed pub/sub messaging service that enables you to decouple microservices, distributed systems, and event-driven serverless applications. Amazon SNS provides topics for high-throughput, push-based, many-to-many messaging.

Create topic

Topic name
A topic is a message channel. When you publish a message to a topic, it fans out the message to all subscribed endpoints.

project2

Next step

[Start with an overview](#)

Pricing

Amazon SNS has no upfront costs. You pay based on the number of messages you publish, the number of messages you deliver, and any additional API calls for managing topics and subscriptions. Delivery pricing varies by endpoint type.

[Learn more](#)

Benefits and features

Reliably deliver messages with durability
Amazon SNS uses cross-availability-zone replication to ensure message durability.

Automatically scale your workload
Amazon SNS leverages the proven AWS managed infrastructure to automatically scale your workload.

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

Endpoints

Find endpoints by attribute or tag

| Name | VPC endpoint ID | Endpoint type | Status | Service name |
|-------------------|-----------------|---------------|--------|--------------|
| No endpoint found | | | | |

Select an endpoint

CloudShell Feedback

https://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:v=3;case-tags=true%5C,client:false;\$region-tags=false%5C,client:false

Instances (1/9)

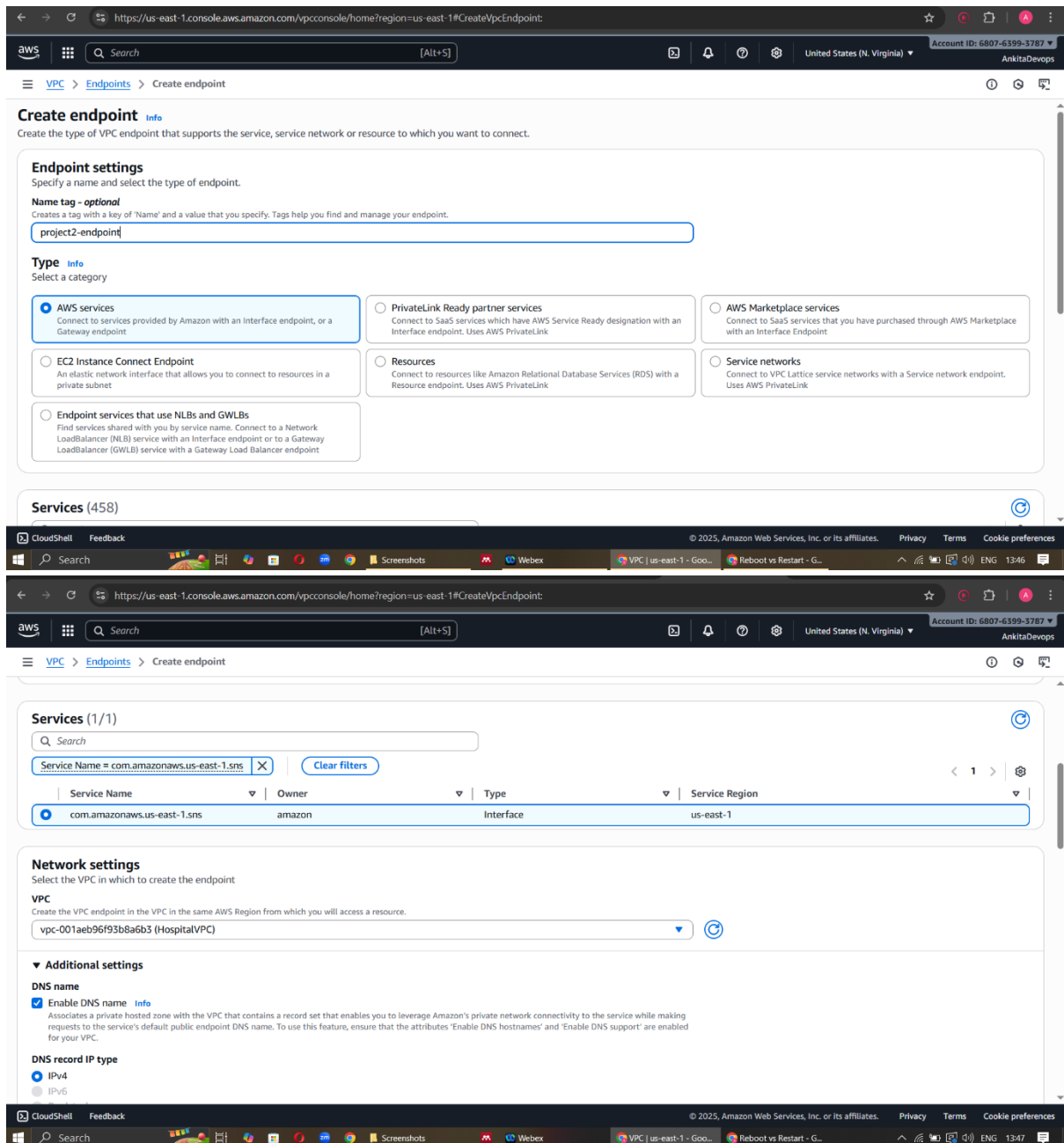
Find Instance by attribute or tag (case-sensitive)

| Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 |
|-----------------|---------------------|----------------|---------------|-------------------|---------------|-------------------|-------------|
| For practice | i-05f987d28a963beb7 | Stopped | t2.micro | - | View alarms + | us-east-1b | - |
| ansible child | i-0ec09582b8157158d | Stopped | t2.micro | - | View alarms + | us-east-1b | - |
| Jenkins | i-0b804275f4bc4ba4d | Stopped | t2.micro | - | View alarms + | us-east-1b | - |
| dev-machine | i-00644f08bfd396eb | Terminated | t2.micro | - | View alarms + | us-east-1b | - |
| | i-07e6b91e72315dc1f | Terminated | t2.micro | - | View alarms + | us-east-1b | - |
| ansible master | i-08c835a659c79209f | Stopped | t2.micro | - | View alarms + | us-east-1b | - |
| Docker-practice | i-0ec473ce8cc178870 | Stopped | t2.micro | - | View alarms + | us-east-1b | - |
| project2 | i-0b36478f7902a7513 | Running | t2.micro | 2/2 checks passed | View alarms + | us-east-1a | ec2-18-204 |
| | i-0cf1bb4662179e811 | Terminated | t2.micro | - | View alarms + | us-east-1d | - |

i-0b36478f7902a7513 (project2)

Details Status and alarms Monitoring Security Networking Storage Tags

Instance summary



← → ↻ https://us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#CreateVpcEndpoint

aws Search [Alt+S] United States (N. Virginia) Account ID: 6807-6399-3787 AnkitaDevops

VPC > Endpoints > Create endpoint

IP address type

- IPV4
- IPV6
- Dualstack

Security groups (2) info

Q Search

VPC ID : vpc-001aeb96f93b8a6b3 Clear filters

| <input type="checkbox"/> | Group ID | Group name | VPC ID | Description |
|--------------------------|----------------------|--|-----------------------|----------------------------|
| <input type="checkbox"/> | sg-0022e719f96af133d | project2-stack-MySecurityGroup-D2dj... | vpc-001aeb96f93b8a6b3 | Allow SSH and HTTP |
| <input type="checkbox"/> | sg-08e0bed0e709458b9 | default | vpc-001aeb96f93b8a6b3 | default VPC security group |

Policy info

VPC endpoint policy controls access to the service.

Full access

Allow access by any user or service within the VPC using credentials from any Amazon Web Services accounts to any resources in this Amazon Web Services service. All policies — IAM user policies, VPC endpoint policies, and Amazon Web Services service-specific policies (e.g. Amazon S3 bucket policies, any S3 ACL policies) — must grant the necessary permissions for access to succeed.

Custom

Use the policy creation tool to generate a policy, then paste the generated policy below.

1

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Search

VPC | us-east-1 - Goo... Reboot vs Restart - G...

↑ ENG 13:47

← → ↻ https://us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#Endpoints:vpce-0ad2a25549e7ee97f

aws Search [Alt+S] United States (N. Virginia) Account ID: 6807-6399-3787 AnkitaDevops

VPC > Endpoints

Subnets

Route tables

Internet gateways

Egress-only internet gateways

Carrier gateways

DHCP option sets

Elastic IPs

Managed prefix lists

NAT gateways

Peering connections

Route servers New

▼ Security

- Network ACLs
- Security groups

▼ PrivateLink and Lattice

- Getting started Updated
- Endpoints Updated
- Endpoint services
- Service networks Updated
- Lattice services
- Resource

Successfully created VPC endpoint

vpce-0ad2a25549e7ee97f

Endpoints (1/1) info

Q Find endpoints by attribute or tag

VPC endpoint ID : vpce-0ad2a25549e7ee97f Clear filters

| <input checked="" type="checkbox"/> | Name | VPC endpoint ID | Endpoint type | Status | Service name |
|-------------------------------------|-------------------|------------------------|---------------|---------|------------------------|
| <input checked="" type="checkbox"/> | project2-endpoint | vpce-0ad2a25549e7ee97f | Interface | Pending | com.amazonaws.us-east- |

vpce-0ad2a25549e7ee97f / project2-endpoint

Update in progress

Endpoint is in pending state, information might be out of date.

Details

Subnets

Security Groups

Notification

Policy

Monitoring

Tags

Details

Endpoint ID

vpce-0ad2a25549e7ee97f

Status

Pending

Creation time

Friday, August 29, 2025 at 13:48:19 GMT+5:30

Endpoint type

Interface

VPC ID

Status message

Private DNS names enabled

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VPC | us-east-1 - Goo... Reboot vs Restart - G...

↑ ENG 13:48

← → ↻ https://us-east-1.console.aws.amazon.com/iam/home?region=us-east-1#/roles

aws

Search

[Alt+S]

Global Account ID: 6807-6399-3787 AnkitDevops

Identity and Access Management (IAM)

Search IAM

Dashboard

Access management

Users

Roles

Policies

Identity providers

Account settings

Root access management New

Access reports

Access Analyzer

Resource analysis New

Unused access

Analyzer settings

Credential report

Organization activity

Roles (15) Info

An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.

Search

| <input type="checkbox"/> | Role name | Trusted entities | Last activity |
|--------------------------|---|---|----------------|
| <input type="checkbox"/> | AmazonRedshift-CommandsAccessRole-20250703T005236 | AWS Service: redshift-serverless, anx | 57 days ago |
| <input type="checkbox"/> | aws-elasticbeanstalk-ec2-role | AWS Service: ec2 | 16 days ago |
| <input type="checkbox"/> | aws-elasticbeanstalk-service-role | AWS Service: elasticbeanstalk | 16 days ago |
| <input type="checkbox"/> | AWSBackupDefaultServiceRole | AWS Service: backup | 57 days ago |
| <input type="checkbox"/> | AWSServiceRoleForAutoScaling | AWS Service: autoscaling (Service-Link | 27 minutes ago |
| <input type="checkbox"/> | AWSServiceRoleForBackup | AWS Service: backup (Service-Linked | 12 days ago |
| <input type="checkbox"/> | AWSServiceRoleForCloudWatchEvents | AWS Service: events (Service-Linked | - |
| <input type="checkbox"/> | AWSServiceRoleForElasticLoadBalancing | AWS Service: elasticloadbalancing (\$ | 29 minutes ago |
| <input type="checkbox"/> | AWSServiceRoleForGlobalAccelerator | AWS Service: globalaccelerator (Serv | 75 days ago |
| <input type="checkbox"/> | AWSServiceRoleForRDS | AWS Service: rds (Service-Linked Rol | 18 minutes ago |
| <input type="checkbox"/> | AWSServiceRoleForRedshift | AWS Service: redshift (Service-Linke | 54 days ago |
| <input type="checkbox"/> | AWSServiceRoleForSupport | AWS Service: support (Service-Linker | 90 days ago |

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Identity and Access Management (IAM)

Search IAM

Dashboard

Access management

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Policies

Identity providers

Account settings

Root access management New

Access reports

Access Analyzer

Resource analysis New

Unused access

Analyzer settings

Credential report

Organization activity

Role project2-roles created.

View role

×

Roles (16) Info

An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.

Search

| <input type="checkbox"/> | Role name | Trusted entities | Last activity |
|--------------------------|---|---|----------------|
| <input type="checkbox"/> | AmazonRedshift-CommandsAccessRole-20250703T005236 | AWS Service: sagemaker, and 2 mor | 57 days ago |
| <input type="checkbox"/> | aws-elasticbeanstalk-ec2-role | AWS Service: ec2 | 16 days ago |
| <input type="checkbox"/> | aws-elasticbeanstalk-service-role | AWS Service: elasticbeanstalk | 16 days ago |
| <input type="checkbox"/> | AWSBackupDefaultServiceRole | AWS Service: backup | 57 days ago |
| <input type="checkbox"/> | AWSServiceRoleForAutoScaling | AWS Service: autoscaling (Service-Link | 29 minutes ago |
| <input type="checkbox"/> | AWSServiceRoleForBackup | AWS Service: backup (Service-Linked | 12 days ago |
| <input type="checkbox"/> | AWSServiceRoleForCloudWatchEvents | AWS Service: events (Service-Linked | - |
| <input type="checkbox"/> | AWSServiceRoleForElasticLoadBalancing | AWS Service: elasticloadbalancing (\$ | 31 minutes ago |
| <input type="checkbox"/> | AWSServiceRoleForGlobalAccelerator | AWS Service: globalaccelerator (Serv | 75 days ago |
| <input type="checkbox"/> | AWSServiceRoleForRDS | AWS Service: rds (Service-Linked Rol | 20 minutes ago |
| <input type="checkbox"/> | AWSServiceRoleForRedshift | AWS Service: redshift (Service-Linker | 54 days ago |

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←

→

↺

https://us-east-1.console.aws.amazon.com/iam/home#/roles/create?trustedEntityType=AWS_SERVICE&selectedService=EC2&selectedUseCase=EC2

☆

🔍

🔔

👤

⚙️

Global

Account ID: 6807-6399-3787

AnkitaDevops

aws

🔍 Search

[Alt+S]

IAM

Roles

Create role

Step 1
Select trusted entity

Step 2
Add permissions

Step 3
Name, review, and create

Add permissions Info

Permissions policies (1/1075) Info

Choose one or more policies to attach to your new role.

🔍 sns

✕

Filter by Type

All types

5 matches

< 1 >

⚙️

| <input checked="" type="checkbox"/> | Policy name | Type | Description |
|-------------------------------------|---|-------------|---|
| <input checked="" type="checkbox"/> | AmazonSNSFullAccess | AWS managed | Provides full access to Amazon SNS via... |
| <input type="checkbox"/> | AmazonSNSReadOnlyAccess | AWS managed | Provides read only access to Amazon S... |
| <input type="checkbox"/> | AmazonSNSRole | AWS managed | Default policy for Amazon SNS service... |
| <input type="checkbox"/> | AWS ElasticBeanstalkRoleSNS | AWS managed | (Elastic Beanstalk operations role) Allo... |
| <input type="checkbox"/> | AWS IoT Device Defender Publish Findings to SNS | AWS managed | Provides messages publish access to S... |

▶ Set permissions boundary - optional

Cancel

Previous

Next

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📄 Screenshots

🗨 Webex

Create role | IAM | Glo...

Reboot vs Restart - G...

🔍

ENG

13:53

←

→

↺

https://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ModifyIAMRoleInstanceId=i-0b36478f7902a7513

☆

🔍

🔔

👤

⚙️

United States (N. Virginia)

Account ID: 6807-6399-3787

AnkitaDevops

EC2

Instances

i-0b36478f7902a7513

Modify IAM role

Modify IAM role Info

Attach an IAM role to your instance.

Instance ID

i-0b36478f7902a7513 (project2)

IAM role

Select an IAM role to attach to your instance or create a new role if you haven't created any. The role you select replaces any roles that are currently attached to your instance.

project2-roles

▼

🔍

Create new IAM role

Cancel

Update IAM role

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Modify IAM role | EC2...

Reboot vs Restart - G...

🔍

ENG

13:54

← → ↻ 🔍 https://us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/create-subscription

aws 🔍 Search [Alt+S] United States (N. Virginia) Account ID: 6807-6399-3787 AnkitDevops

Amazon SNS > Subscriptions > Create subscription

Create subscription

Details

Topic ARN

arn:aws:sns:us-east-1:680763993787:project2

Protocol
The type of endpoint to subscribe

Email

Endpoint
An email address that can receive notifications from Amazon SNS.

mardanabunu@gmail.com

After your subscription is created, you must confirm it. [Info](#)

► **Subscription filter policy - optional** [Info](#)
This policy filters the messages that a subscriber receives.

► **Redrive policy (dead-letter queue) - optional** [Info](#)
Send undeliverable messages to a dead-letter queue.

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Webex

Create subscription | S...

Reboot vs Restart - G...

ENG 13:58

← → ↻ 🔍 sns.us-east-1.amazonaws.com/confirmation.html?TopicArn=arn:aws:sns:us-east-1:680763993787:project2&Token=2336412f37fb687f5d51e6e2425a8a587855b1e0f1dd093931c3d05ea0d03901c8c0...



Simple Notification Service

Subscription confirmed!

You have successfully subscribed.

Your subscription's id is:

arn:aws:sns:us-east-1:680763993787:project2:c2ddfb13-f441-4993-8eef-b4e56837b8c5

If it was not your intention to subscribe, [click here to unsubscribe](#).

Windows taskbar with icons for Search, Task View, File Explorer, Microsoft Edge, Google Chrome, Firefox, Zoom, and other applications. The system tray shows the date and time as 14:04.

← → ↻ https://us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/publish/topic/arn:aws:sns:us-east-1:680763993787:project2

aws Search [Alt+S] United States (N. Virginia) Account ID: 6807-6399-3787 AnkitaDevops

Amazon SNS > Topics > project2 > Publish message

hospital reports

Maximum 100 printable ASCII characters

Message group ID - optional
An optional token for SQS fair queue usage. Propagated only to standard SQS queue subscriptions.

Enter message group ID

Maximum 128 characters. Can include alphanumeric characters and punctuation.

Time to Live (TTL) - optional [Info](#)
This setting applies only to mobile application endpoints. The number of seconds that the push notification service has to deliver the message to the endpoint.

Message body

Message structure

☒ Identical payload for all delivery protocols.
The same payload is sent to endpoints subscribed to the topic, regardless of their delivery protocol.

☐ Custom payload for each delivery protocol.
Different payloads are sent to endpoints subscribed to the topic, based on their delivery protocol.

Message body to send to the endpoint

1 "Your medical report is ready"

← → ↻ https://us-east-1.console.aws.amazon.com/sns/v3/home?region=us-east-1#/topic/arn:aws:sns:us-east-1:680763993787:project2

aws Search [Alt+S] United States (N. Virginia) Account ID: 6807-6399-3787 AnkitaDevops

Amazon SNS > Topics > project2

Amazon SNS

Dashboard

Topics

Subscriptions

▼ Mobile

Push notifications

Text messaging (SMS)

Message published to topic project2 successfully.
Message "ID": 856c2486-64d5-5bca-34c2-45ad9e30027b
Request "ID": 5599cc01-666c-5a93-8c78-ad2a0c8f1322

Publish another message

project2

Edit Delete Publish message

Details

Name
project2

Display name
-

ARN
arn:aws:sns:us-east-1:680763993787:project2

Topic owner
680763993787

Type
Standard

< Subscriptions Access policy Data protection policy Delivery policy (HTTP/S) Delivery status logging Encryption Tags >

Subscriptions (1)

Edit Delete Request confirmation Confirm subscription Create subscription

Search

< 1 > ⚙

| ID | Endpoint | Status | Protocol |
|----|----------|--------|----------|
|----|----------|--------|----------|

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Search Screenshots Webex project2 | Topics | S... Reboot vs Restart - ... Spam (3) - mardan... ENG 14:15

