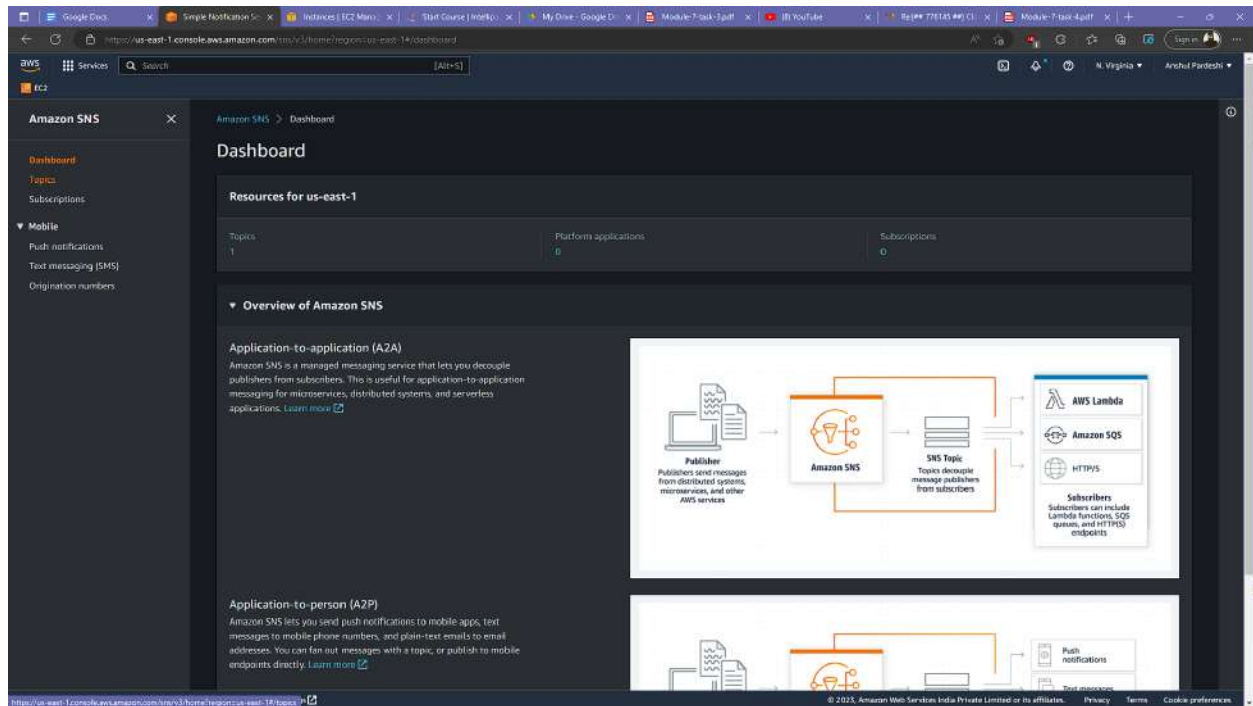


Module-7: Cloud Formation and SNS Assignment - 3

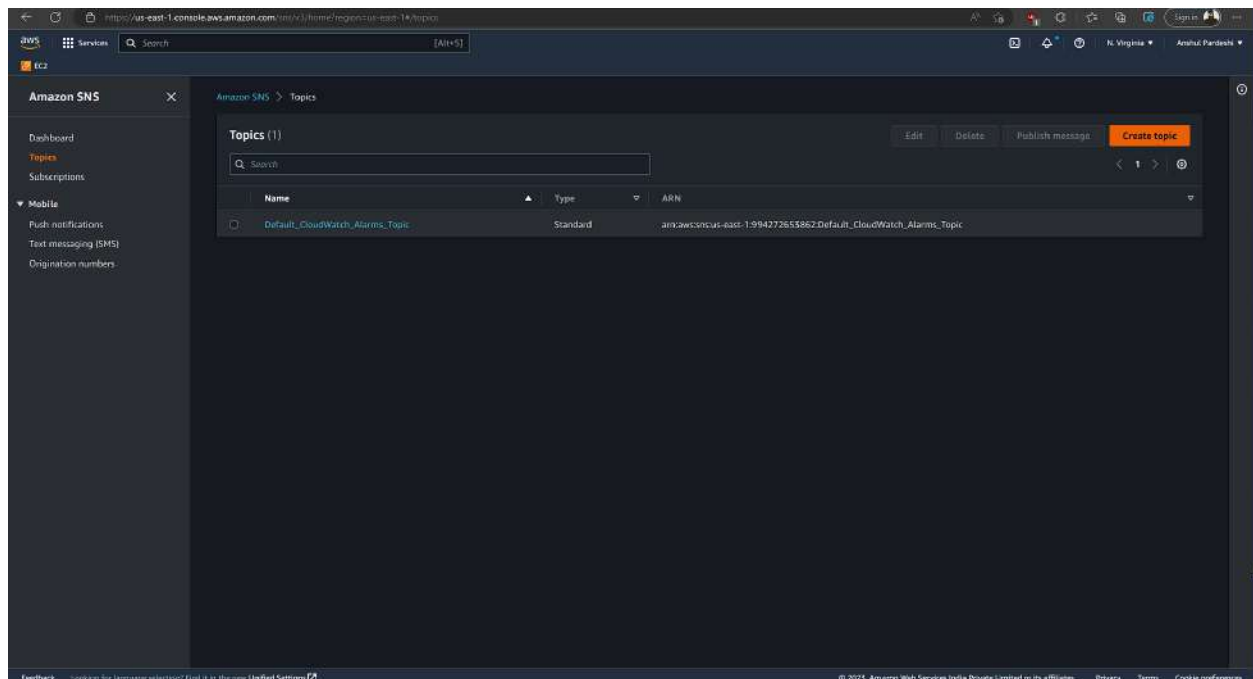
You have been asked to:

1. Use the template from CloudFormation task 1.
2. Add Notification to the CloudFormation stack using SNS, so you get a notification via mail for every step of the stack creation process.

Go to the SNS dashboard.



Create a topic.



Select the standard and name them according to you.

Create topic

Details

Type [info](#)
Topic type cannot be modified after topic is created.

☐ FIFO (first-in, first-out) [info](#)

- Strictly ordered message ordering
- Exactly-once message delivery
- High throughput, up to 300 publishes/second
- Subscription protocols: SQS

☒ **Standard** [info](#)

- Best-effort message ordering
- At-least-once message delivery
- Highest throughput in publishes/second
- Subscription protocols: SQS, Lambda, HTTP, SMS, email, mobile application endpoints

Name
for-assignment
Maximum 256 characters. Can include alphanumeric characters, hyphens (-) and underscores (_).

Display name - optional [info](#)
To use this topic with SMS subscriptions, enter a display name. Only the first 10 characters are displayed in an SMS message.
SNSTrial
Maximum 100 characters.

Encryption - optional [info](#)
Amazon SNS provides in-transit encryption by default. Enabling server-side encryption adds at-rest encryption to your topic.

Access policy - optional [info](#)
This policy defines who can access your topic. By default, only the topic owner can publish or subscribe to the topic.

Data protection policy - optional [info](#)
This policy defines which sensitive data to monitor and to prevent from being exchanged via this topic.

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Select create topic.

for-assignment
Maximum 256 characters. Can include alphanumeric characters, hyphens (-) and underscores (_).

Display name - optional [info](#)
To use this topic with SMS subscriptions, enter a display name. Only the first 10 characters are displayed in an SMS message.
SNSTrial
Maximum 100 characters.

Encryption - optional [info](#)
Amazon SNS provides in-transit encryption by default. Enabling server-side encryption adds at-rest encryption to your topic.

Access policy - optional [info](#)
This policy defines who can access your topic. By default, only the topic owner can publish or subscribe to the topic.

Data protection policy - optional [info](#)
This policy defines which sensitive data to monitor and to prevent from being exchanged via your topic.

Delivery retry policy (HTTP/S) - optional [info](#)
The policy defines how Amazon SNS retries failed deliveries to HTTP/S endpoints. To modify the default settings, expand this section.

Delivery status logging - optional [info](#)
These settings configure the logging of message delivery status to CloudWatch Logs.

Tags - optional [info](#)
A tag is a metadata label that you can assign to an Amazon SNS topic. Each tag consists of a key and an optional value. You can use tags to search and filter your topics and track your costs. [Learn more](#)

Cancel **Create topic**

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Select create subscription once topic is created.

The screenshot shows the Amazon SNS console in the 'for-assignment' topic view. A green notification banner at the top states: 'Topic for-assignment created successfully. You can create subscriptions and send messages to them from this topic.' The left sidebar shows the navigation menu with 'Topics' selected. The main content area displays the topic details, including the name 'for-assignment', ARN, and type 'Standard'. Below the details, there are tabs for 'Subscriptions', 'Access policy', 'Data protection policy', 'Delivery retry policy (HTTP/S)', 'Delivery status logging', 'Encryption', and 'Tags'. The 'Subscriptions' tab is active, showing a table with no subscriptions. A 'Create subscriptions' button is visible in the top right of the subscriptions section.

Name it and choose a place for notification, We select email here.

The screenshot shows the 'Create subscription' dialog in the Amazon SNS console. The 'Topic ARN' field is populated with 'arn:aws:sns:us-east-1:994272653862:for-assignment'. The 'Protocol' dropdown menu is open, showing various options: 'Amazon Kinesis Data Firehose', 'Amazon SQS', 'AWS Lambda', 'Email' (which is highlighted), 'Email-JSON', 'HTTP', 'HTTPS', 'Platform application endpoint', and 'SMS'. The 'Create subscription' button is visible at the bottom right of the dialog.

Add email id to whom you want to make a subscriber and choose create notification.

US mobile carriers have recently changed their regulations, and will require that all toll-free numbers (TFNs) complete a registration process with a regulatory body before September 30, 2022. If you currently have a toll-free number you must register your toll-free number by September 30, 2022 or you will no longer be able to use the toll-free number. [Learn more](#)

Amazon SNS > Subscriptions > Create subscription

Create subscription

Details

Topic ARN
arn:aws:sns:us-east-1:994272653862:for-assignment

Protocol
The type of endpoint to subscribe
Email

Endpoint
An email address that can receive notifications from Amazon SNS
anshulgardeshi1@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.

Cancel Create subscription

Confirmation is pending.

Important changes for sending text messages (SMS) to US destinations
US mobile carriers have recently changed their regulations, and will require that all toll-free numbers (TFNs) complete a registration process with a regulatory body before September 30, 2022. If you currently have a toll-free number you must register your toll-free number by September 30, 2022 or you will no longer be able to use the toll-free number. [Learn more](#)

View origination numbers

Subscription to for-assignment created successfully.
The ARN of the subscription is arn:aws:sns:us-east-1:994272653862:for-assignment:338d2220-c2de-48ce-9847-f029ff2ee625.

Amazon SNS > Topics > for-assignment > Subscription: 338d2220-c2de-48ce-9847-f029ff2ee625

Subscription: 338d2220-c2de-48ce-9847-f029ff2ee625

Edit Delete

Details

ARN
arn:aws:sns:us-east-1:994272653862:for-assignment:338d2220-c2de-48ce-9847-f029ff2ee625

Status
Pending confirmation

Endpoint
anshulgardeshi1@gmail.com

Protocol
EMAIL

Topic
for-assignment

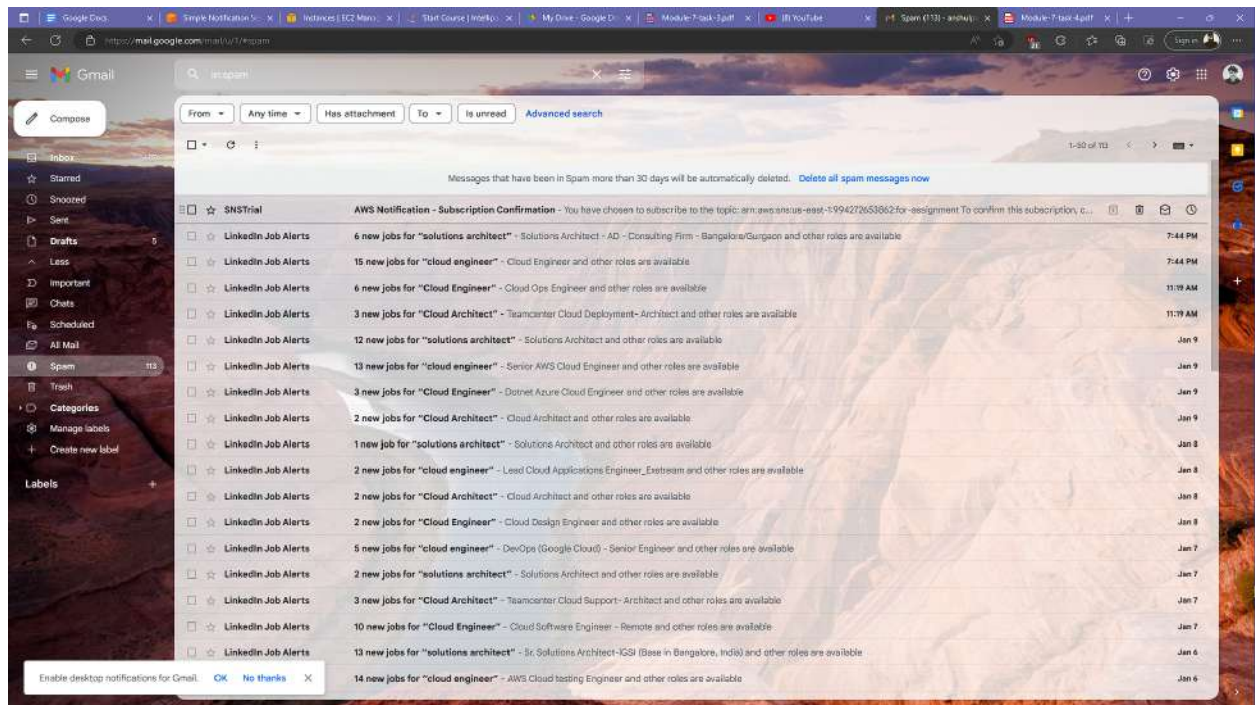
Subscription Principal
arn:aws:iam:994272653862:root

Subscription filter policy Redrive policy (dead-letter queue)

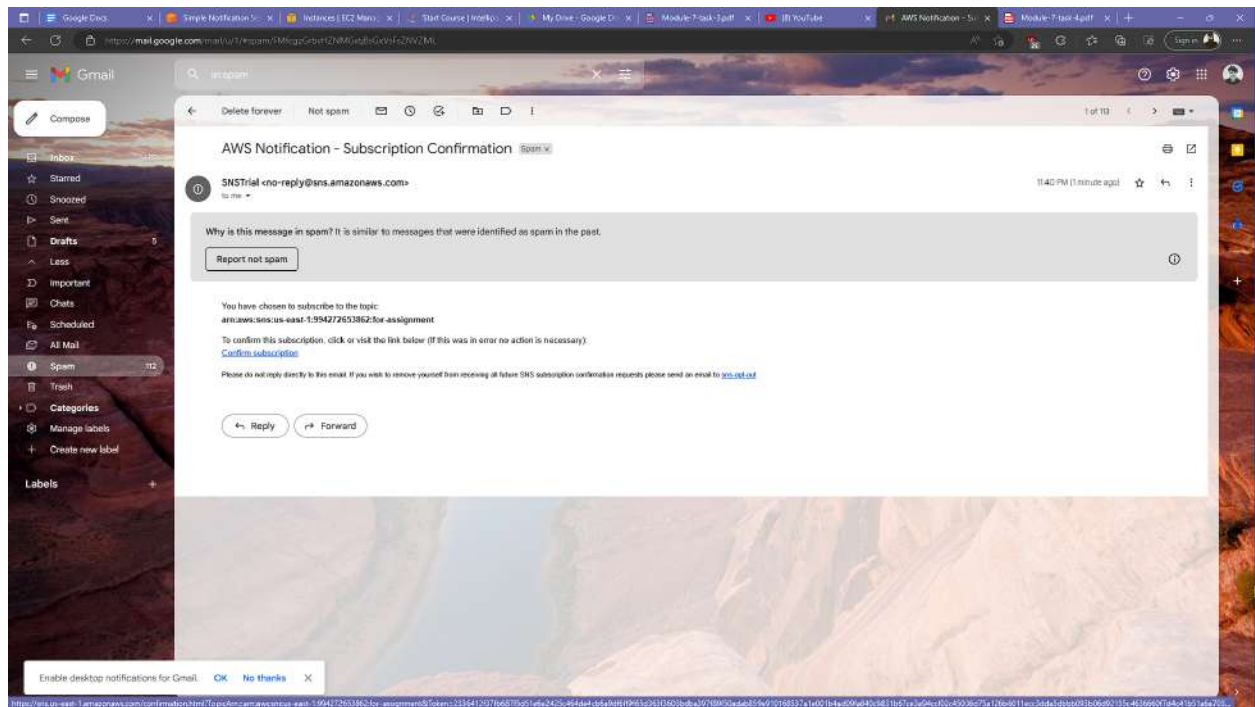
Subscription filter policy Info
This policy filters the messages that a subscriber receives.

No filter policy configured for this subscription.
To apply a filter policy, edit this subscription.

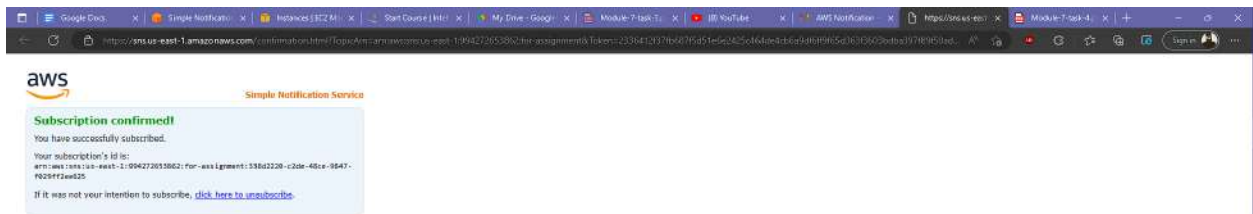
Got confirmation mail in spam.



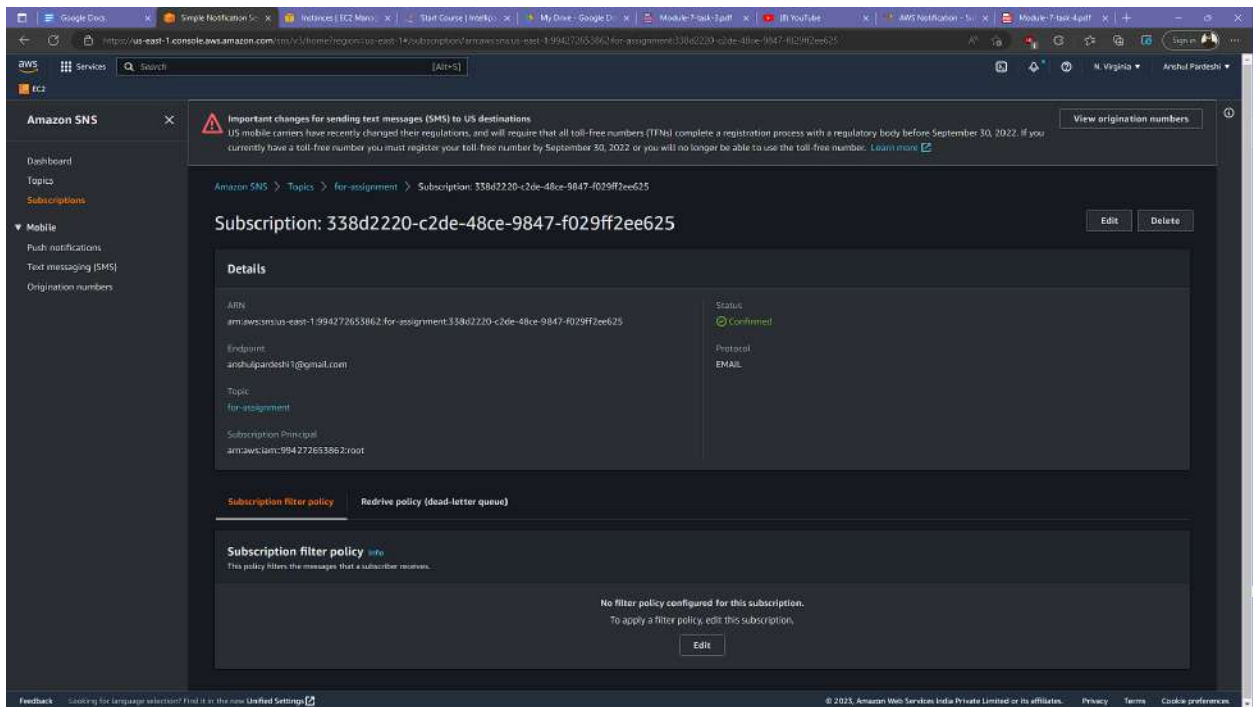
Accepted confirmation.



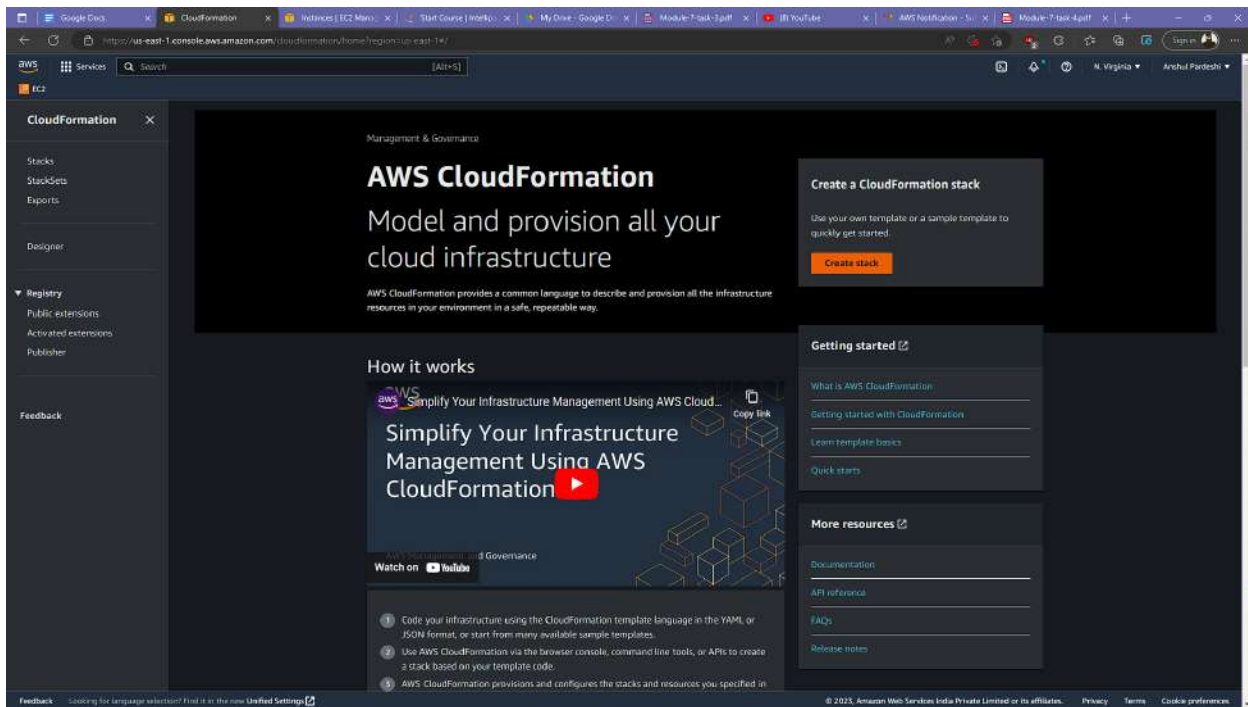
Confirmed Subscription.



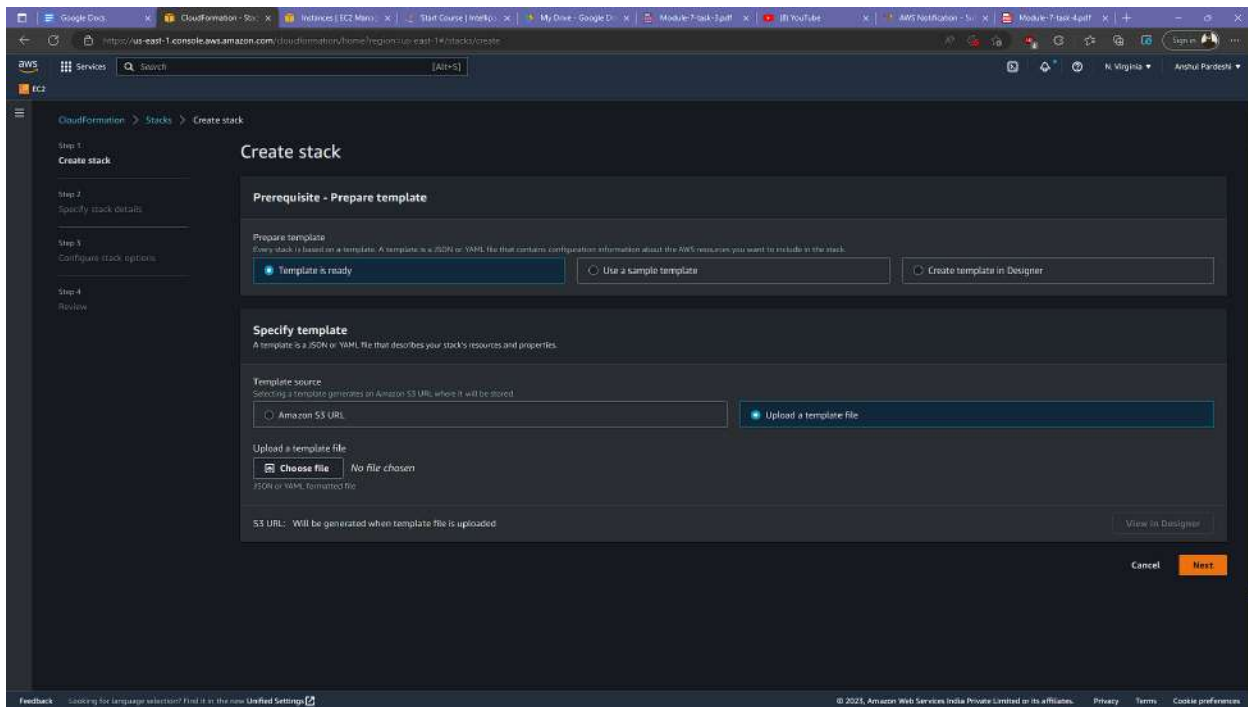
Confirmed.



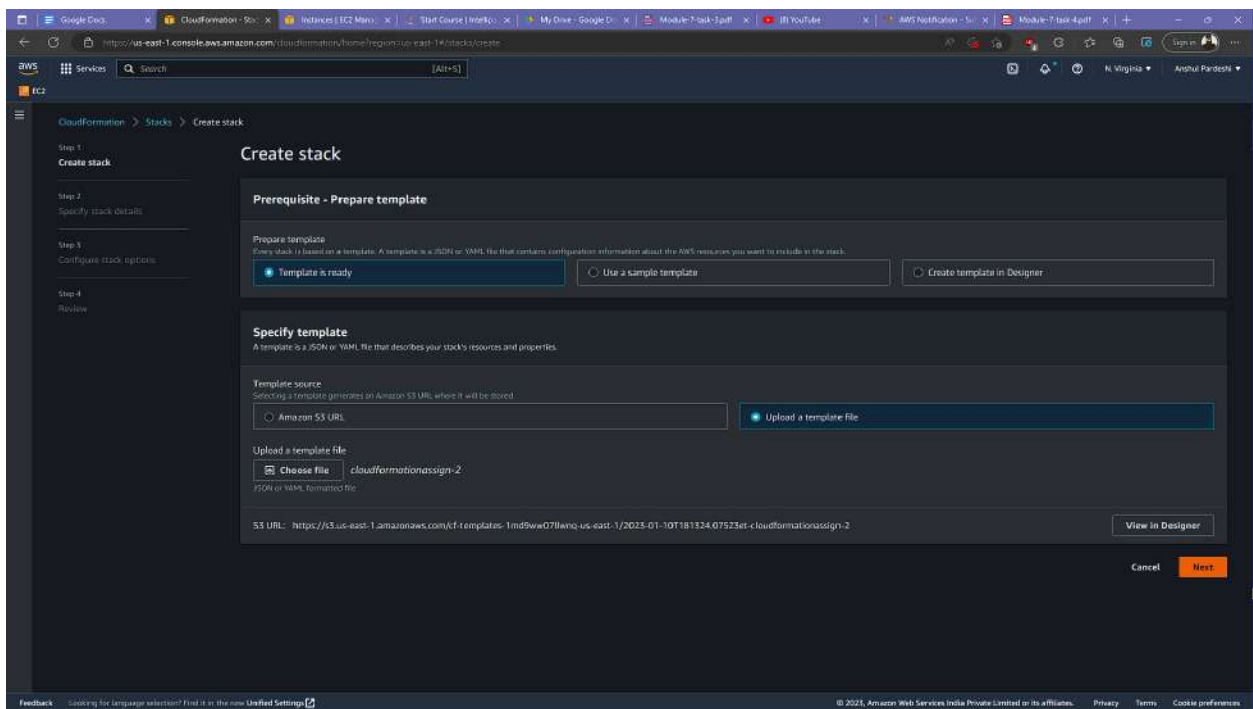
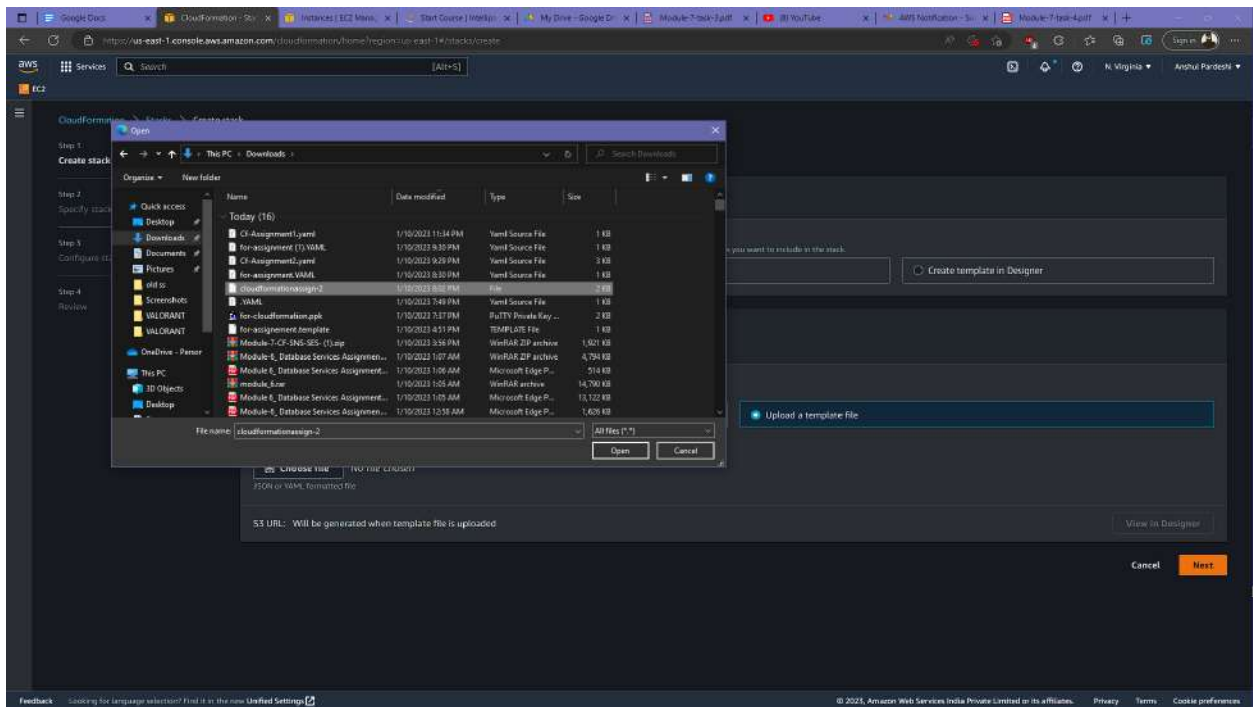
Now create a stack.



Choose the Task 1 template.



task 1 template chosen.



Name the stack

The screenshot shows the 'Specify stack details' step in the AWS CloudFormation console. The 'Stack name' field is populated with 'forCF-assignment'. Below it, the 'Parameters' section indicates 'No parameters' are defined in the template. The interface includes a sidebar with steps: Step 1: Create stack, Step 2: Specify stack details (active), Step 3: Configure stack options, and Step 4: Review forCF-assignment. At the bottom right, there are 'Cancel', 'Previous', and 'Next' buttons.

Stack name

Stack name

forCF-assignment

Stack name can include letters (a-z and A-Z), numbers (0-9), and dashes (-).

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

Expand Notification Options.

The screenshot shows the 'Advanced options' section of the AWS CloudFormation console. It includes sections for 'IAM role - optional', 'Stack failure options', and 'Advanced options'. The 'Stack failure options' section has two radio buttons: 'Roll back all stack resources' (selected) and 'Preserve successfully provisioned resources'. The 'Advanced options' section includes 'Stack policy', 'Rollback configuration', and 'Notification options'. The 'Notification options' section has a dropdown for 'SNS topic ARN - optional' and an 'Add SNS topic' button.

IAM role - optional

Choose the IAM role for CloudFormation to use for all operations performed on the stack.

IAM role name

Sample role name

Roll back

Stack failure options

Behavior on provisioning failure

Specify the roll back behavior for a stack failure. [Learn more](#)

☒ Roll back all stack resources

Roll back the stack to the last known stable state.

☐ Preserve successfully provisioned resources

Preserves the state of successfully provisioned resources, while rolling back failed resources to the last known stable state. Resources without a last known stable state will be deleted upon the next stack operation.

Advanced options

You can set additional options for your stack, like notification options and a stack policy. [Learn more](#)

Stack policy

Defines the resources that you want to protect from unintentional updates during a stack update.

Rollback configuration

Specify alarms for CloudFormation to monitor when creating and updating the stack. If the operation breaches an alarm threshold, CloudFormation rolls it back. [Learn more](#)

Notification options

SNS topic ARN - optional

Add SNS topic

Please don't edit this.

Choose the topic that we have just created.

Behavior on provisioning failure

Specify the roll-back behavior for a stack failure. [Learn more](#)

- ☒ Roll back all stack resources
- ☐ Preserve successfully provisioned resources

Roll back the stack to the last known stable state.

Preserves the state of successfully provisioned resources, while rolling back failed resources to the last known stable state. Resources without a last known stable state will be deleted upon the next stack operations.

Advanced options

You can set additional options for your stack, like notification options and a stack policy. [Learn more](#)

► Stack policy

Defines the resources that you want to protect from unintentional updates during a stack update.

► Rollback configuration

Specify alarms for CloudFormation to monitor when creating and updating the stack. If the operation breaches an alarm threshold, CloudFormation rolls it back. [Learn more](#)

▼ Notification options

SNS topic ARN - optional

- arn:aws:sns:us-east-1:994272655862:Default_CloudWatch_Alarms_Topic
- arn:aws:sns:us-east-1:994272655862:for-assignment

► Stack creation options

Cancel Previous Next

Next

Behavior on provisioning failure

Specify the roll-back behavior for a stack failure. [Learn more](#)

- ☒ Roll back all stack resources
- ☐ Preserve successfully provisioned resources

Roll back the stack to the last known stable state.

Preserves the state of successfully provisioned resources, while rolling back failed resources to the last known stable state. Resources without a last known stable state will be deleted upon the next stack operations.

Advanced options

You can set additional options for your stack, like notification options and a stack policy. [Learn more](#)

► Stack policy

Defines the resources that you want to protect from unintentional updates during a stack update.

► Rollback configuration

Specify alarms for CloudFormation to monitor when creating and updating the stack. If the operation breaches an alarm threshold, CloudFormation rolls it back. [Learn more](#)

▼ Notification options

SNS topic ARN - optional

- arn:aws:sns:us-east-1:994272655862:for-assignment

Add SNS topic

Create new SNS topic

► Stack creation options

Cancel Previous Next

Submit

The screenshot shows the 'Create stack' page in the AWS CloudFormation console. The page is divided into several sections: 'No stack policy' (indicating no policy is defined), 'Rollback configuration' (with fields for Monitoring time and CloudWatch alarm ARN), 'Notification options' (with a field for SNS topic ARN), and 'Stack creation options' (with fields for Timeout and Termination protection). At the bottom, there is a 'Quick-create link' and a 'Create change set' button. The right sidebar contains 'Cancel', 'Previous', and 'Submit' buttons.

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Stack is processed.

The screenshot shows the 'Stacks' page in the AWS CloudFormation console. The left sidebar shows a list of stacks, with 'forCF-assignment' selected. The main panel displays the 'Stack info' tab for the 'forCF-assignment' stack. The 'Events' section shows a single event with the status 'CREATE_IN_PROGRESS'.

CloudFormation > Stacks > forCF-assignment

Stacks (1)

Filter by stack name

Active ☐ View nested

Stacks

forCF-assignment
2023-01-10 23:44:57 UTC+05:30
CREATE_IN_PROGRESS

forCF-assignment

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change sets

Events (1)

Search events

Timestamp	Logical ID	Status	Status reason
2023-01-10 23:44:57 UTC+05:30	forCF-assignment	CREATE_IN_PROGRESS	User initiated

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Notifications are incoming.

