

Lesson 09 Demo 07

Adding Deletion Policy to Protect Resources

Objective: To add a deletion policy for protecting specific AWS S3 bucket resources in a CloudFormation stack

Tools required: AWS Management Console

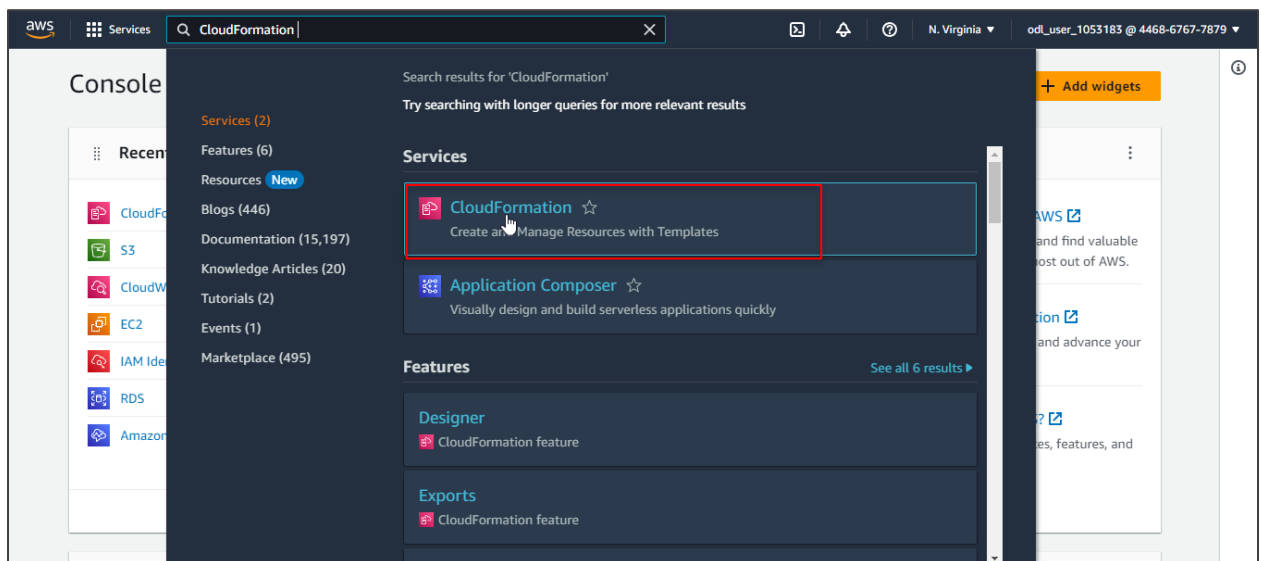
Prerequisites: An existing CloudFormation stack

Steps to be followed:

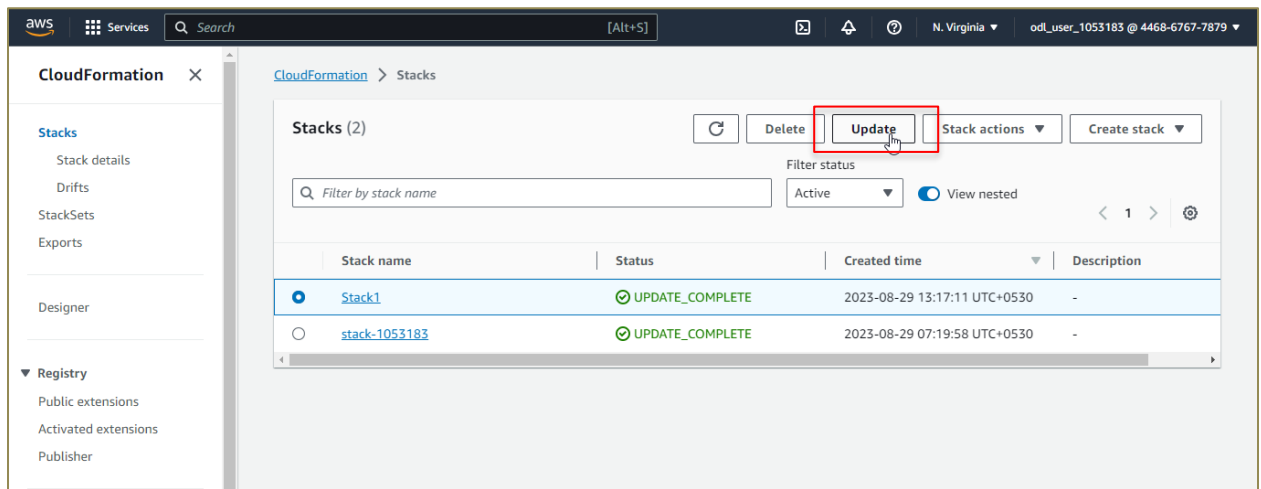
1. Edit deletion policy for a specific S3 bucket
2. Delete the stack

Step 1: Edit deletion policy for a specific S3 bucket

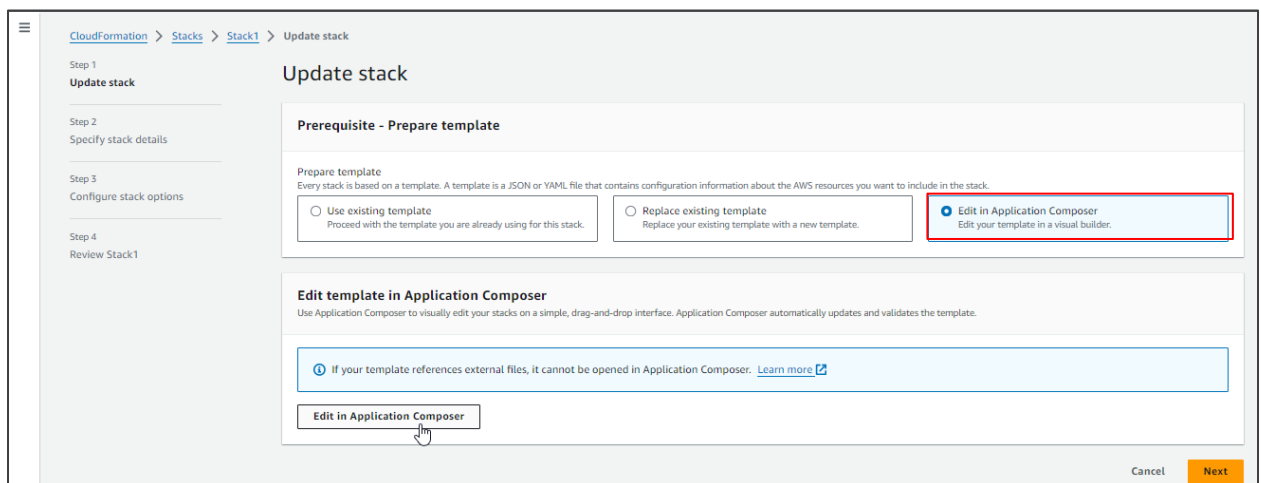
1.1 Open the AWS Management Console and select the AWS CloudFormation service



1.2 Select an existing stack containing the S3 bucket resources and click **Update** to initiate the update process



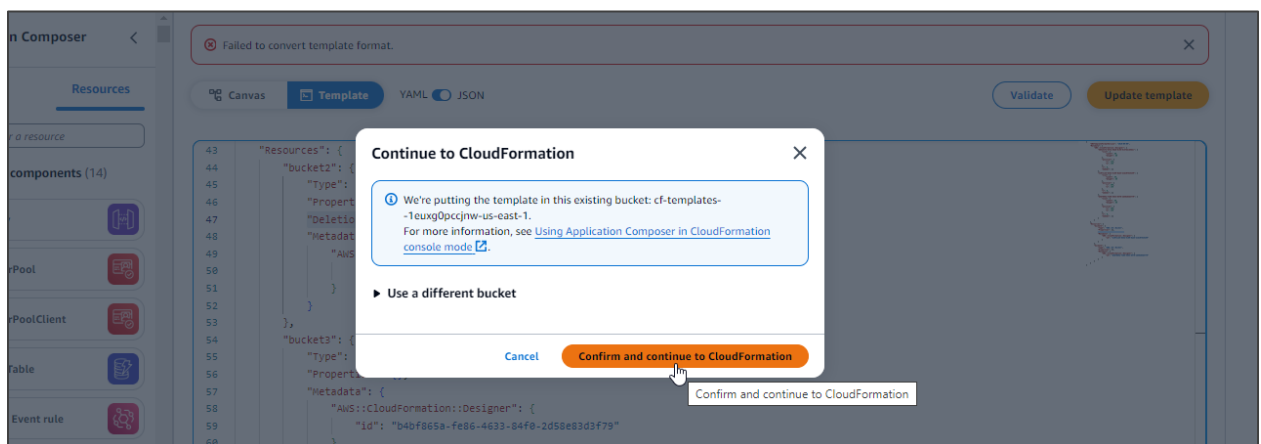
1.3 In the Update stack page, select **Edit in Application Composer** and click on **Edit in Application Composer**



1.4 In the Template tab, add the following deletion policy for a single bucket:
"DeletionPolicy": "Retain"



1.5 Click on **Update template** and then select **Confirm and continue to CloudFormation**



1.6 After the template is successfully imported, click **Next**

CloudFormation > Stacks > Stack1 > Update stack

Step 1
Update stack

Step 2
Specify stack details

Step 3
Configure stack options

Step 4
Review Stack1

Update stack

Prerequisite - Prepare template

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.

☐ Use existing template
Proceed with the template you are already using for this stack.

☐ Replace existing template
Replace your existing template with a new template.

☒ Edit in Application Composer
Edit your template in a visual builder.

Edit template in Application Composer
Use Application Composer to visually edit your stacks on a simple, drag-and-drop interface. Application Composer automatically updates and validates the template.

✔ Your template was successfully imported from Application Composer.

Amazon S3 URL
`https://s3.us-east-1.amazonaws.com/cf-templates--1euxg0pccjmw-us-east-1/template-1723605899995.json`

Edit in Application Composer

Cancel **Next**

1.7 Again, click **Next** in the Specify stack details page

CloudFormation > Stacks > Stack1 > Update stack

Step 1
Update stack

Step 2
Specify stack details

Step 3
Configure stack options

Step 4
Review Stack1

Specify stack details

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**

1.8 Click **Next** to proceed with the default configuration settings

Step 1
Update stack

Step 2
Specify stack details

Step 3
Configure stack options

Step 4
Review Stack1

Configure stack options

Tags - optional
Tags (key-value pairs) are used to apply metadata to AWS resources, which can help in organizing, identifying, and categorizing those resources. You can add up to 50 unique tags for each stack.

No tags associated with the stack.

Add new tag
You can add 50 more tag(s)

Permissions - optional
Specify an existing AWS Identity and Access Management (IAM) service role that CloudFormation can assume.

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

IAM role name: Sample-role-name Remove

Stack failure options

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

Next

State will be deleted upon the next stack operation.

Delete newly created resources during a rollback
Specify whether resources that were created during a failed operation should be deleted regardless of their deletion policy. [Learn more](#)

☒ Use deletion policy
Retains or deletes created resources according to their attached deletion policy.

☐ Delete all newly created resources
Deletes created resources during a rollback regardless of their attached deletion policy.

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

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

► **Rollback configuration - optional**
Specify alarms for CloudFormation to monitor when creating and updating the stack. If the operation breaches an alarm threshold, CloudFormation rolls it back.

► **Notification options**

Cancel Previous **Next**

1.9 Review the configurations and click **Submit** to proceed with the stack update

Notification options

SNS topic ARN

No notification options
There are no notification options defined

Change set preview

Changes (1)

Search changes

Action	Logical ID	Physical ID	Resource type	Replacement
Modify	bucket2	stack1-bucket2-jl3o6a...	AWS::S3::Bucket	False

View change set

Cancel Previous **Submit**

CloudFormation > Stacks > Stack1

Stacks (2)

Filter status: Active

View nested

Stacks
Stack1 2024-08-14 06:37:14 UTC+0530 UPDATE_COMPLETE
stack-1425016 2024-08-14 05:57:27 UTC+0530 CREATE_COMPLETE

Stack1

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change sets Git sync - new

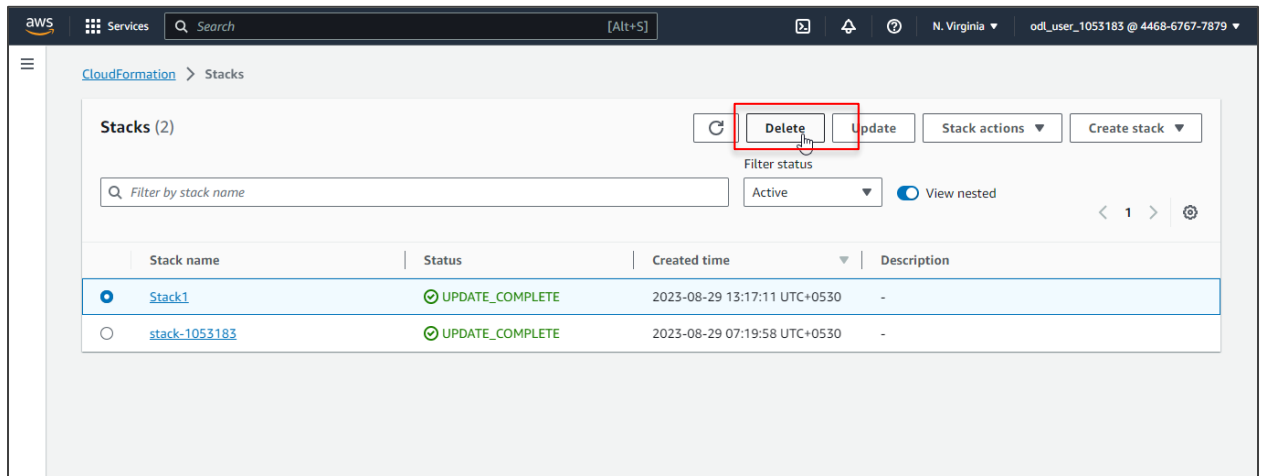
Events (20)

Search events

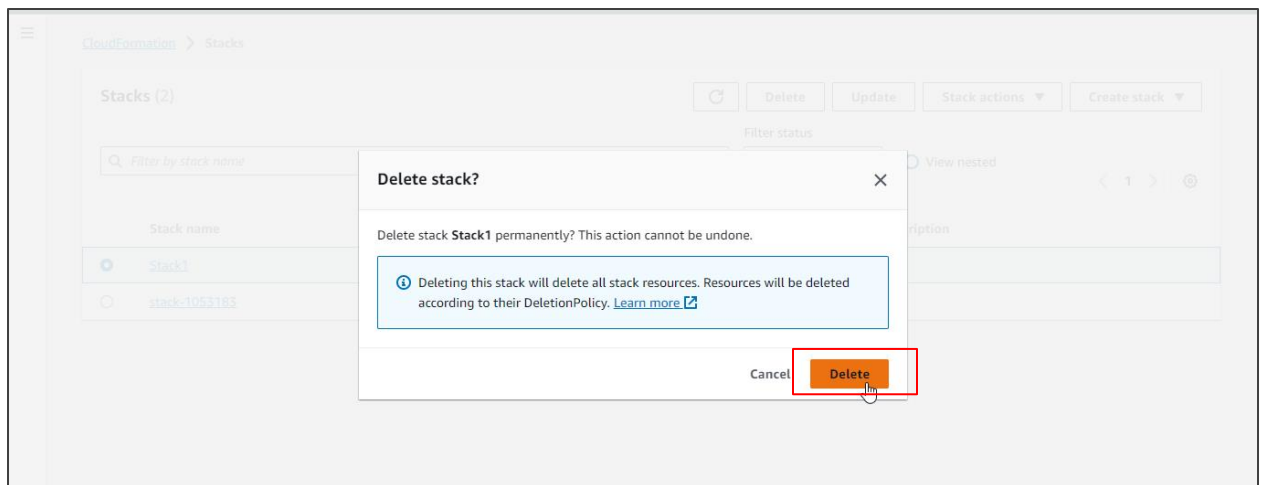
Timestamp	Logical ID	Status	Detailed status	Status reason
2024-08-14 09:12:30 UTC+0530	Stack1	UPDATE_COMPLETE	-	-
2024-08-14 09:12:29 UTC+0530	Stack1	UPDATE_COMPLETE_CLEANUP_IN_PROGRESS	-	-
2024-08-14 09:12:28 UTC+0530	bucket2	UPDATE_COMPLETE	-	-
2024-08-14 09:12:26		UPDATE_IN_PROGRESS	-	-

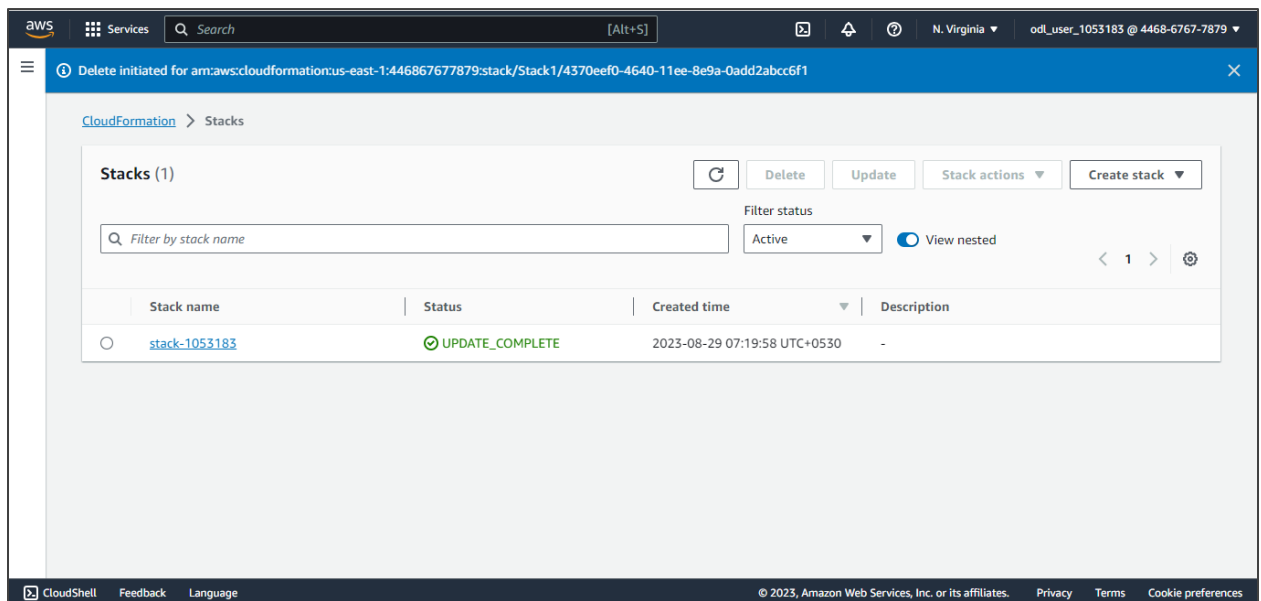
Step 2: Delete the stack

2.1 After the update is complete, select the stack created and click **Delete**



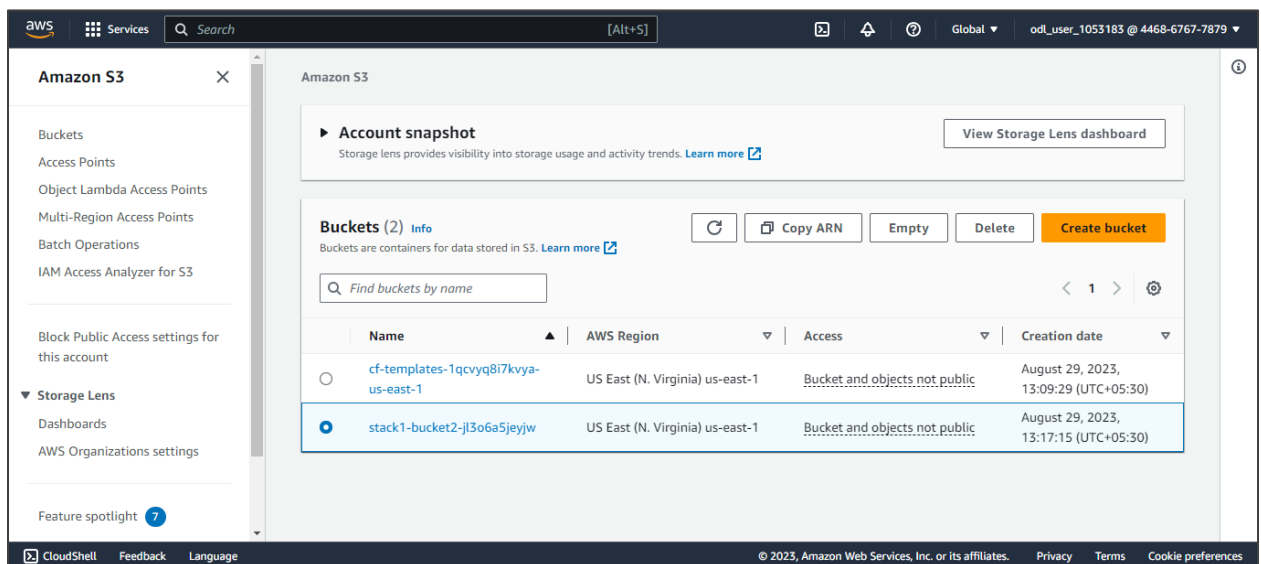
2.2 Select **Delete** when prompted





The stack is deleted successfully.

2.3 Navigate to the S3 bucket dashboard to verify the deletion of the S3 bucket specified in the stack



You will notice that one S3 bucket has not been deleted.

By following these steps, you have successfully updated the deletion policy for an AWS S3 bucket resource in a CloudFormation stack, ensuring its retention during stack deletion.