

Lesson 09 Demo 03

Creating an S3 Bucket Using CloudFormation

Objective: To demonstrate the process of creating an S3 Bucket stack using CloudFormation

Tools required: AWS Management Console

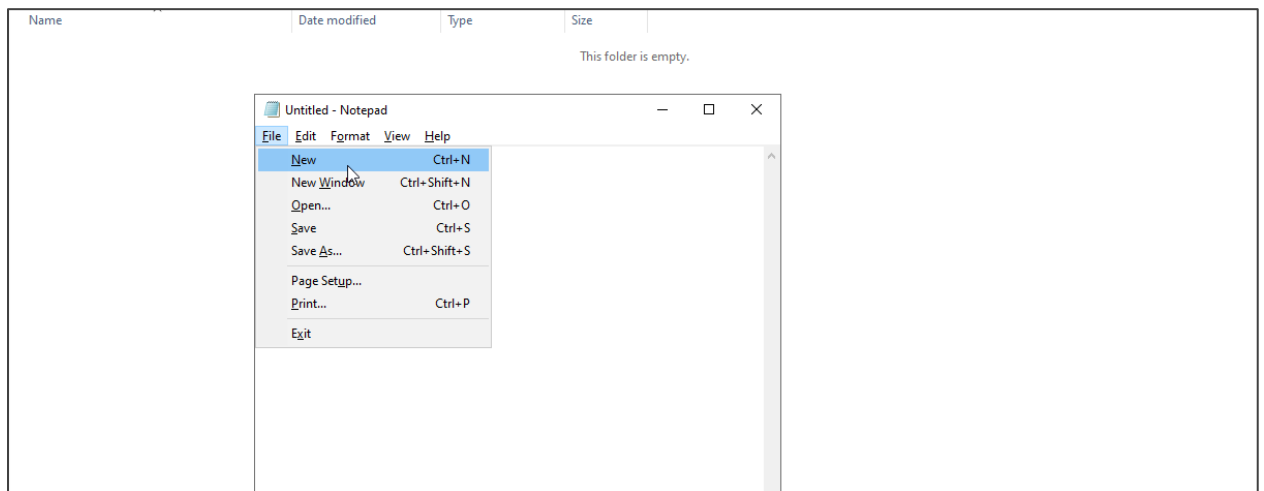
Prerequisites: None

Steps to be followed:

1. Create a template
2. Create an S3 Bucket stack

Step 1: Create a template

1.1 Open a new file in Notepad



1.2 Write the following code in Notepad for the S3 bucket template:

Resources:

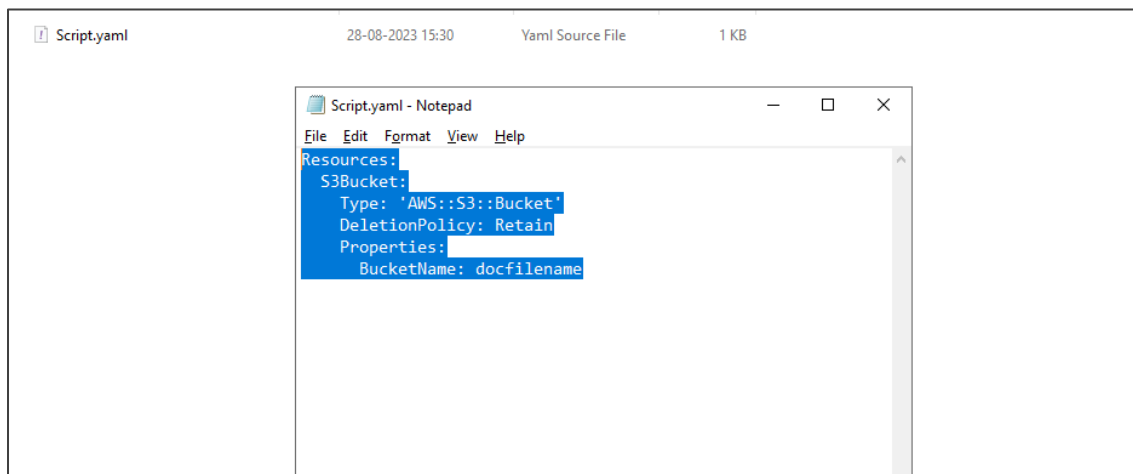
S3Bucket:

Type: 'AWS::S3::Bucket'

DeletionPolicy: Retain

Properties:

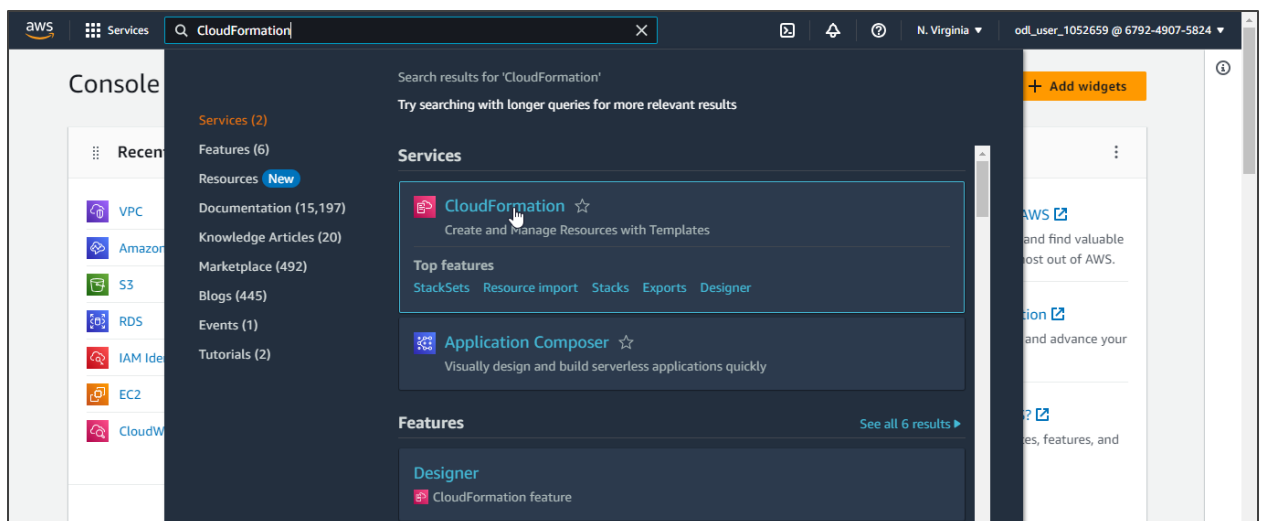
BucketName: docfilename1



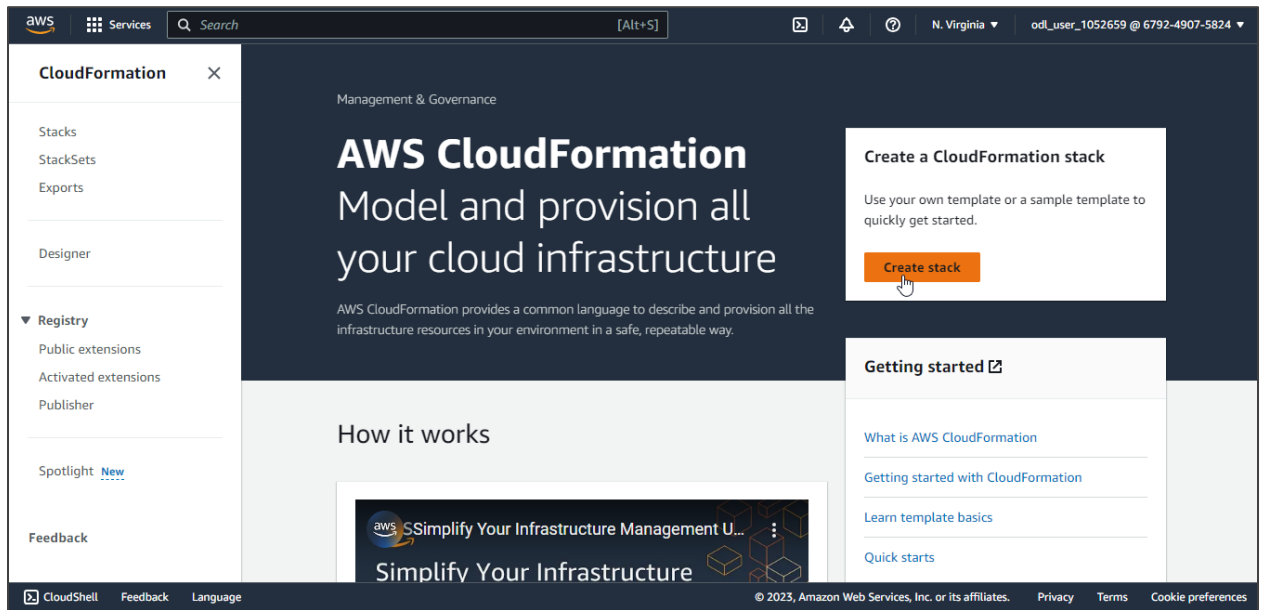
You must save the file with a **.yaml** extension on your local system.

Step 2: Create an S3 Bucket stack

2.1 Go to the **AWS Management Console** and search for **CloudFormation**

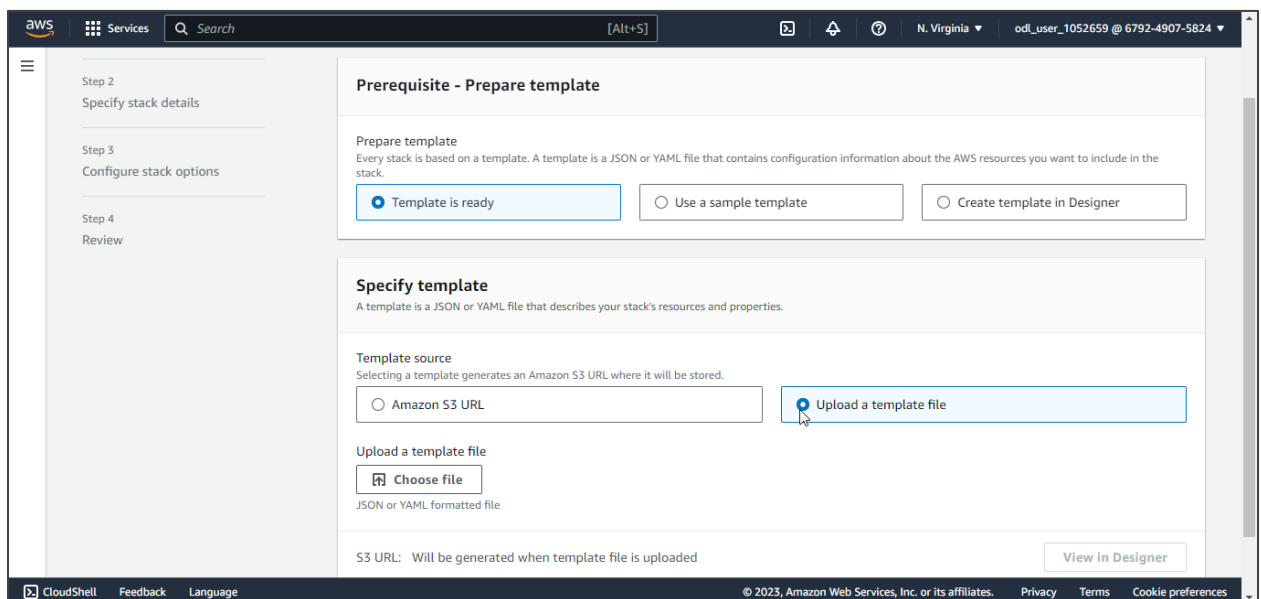


2.2 In the CloudFormation Management Console, click on Create stack



2.3 In the Create stack console, perform the following:

- Choose **Upload a template file** in the **Specify template** section
- Click on **Choose file** and upload the template created in Step 1. Now, click **Next**

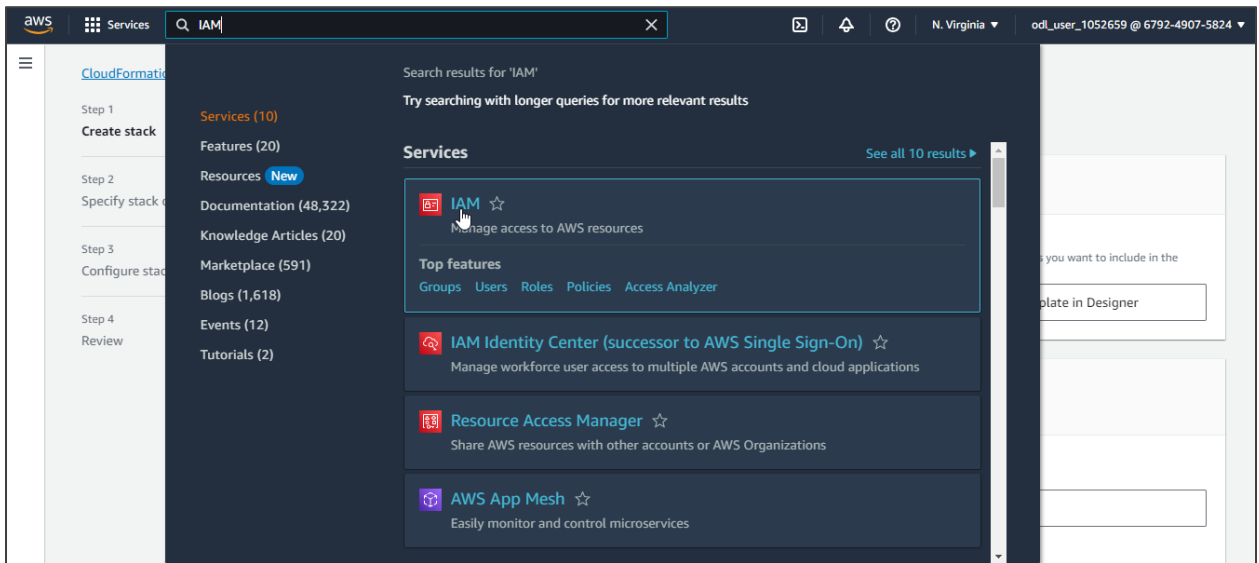


The screenshot shows the AWS CloudFormation console with the 'Specify template' step selected. The 'Template ready' radio button is chosen. Under 'Template source', the 'Upload a template file' radio button is selected. A file named 'Script.yaml' has been uploaded, and its S3 URL is displayed. The 'Next' button is highlighted with a mouse cursor.

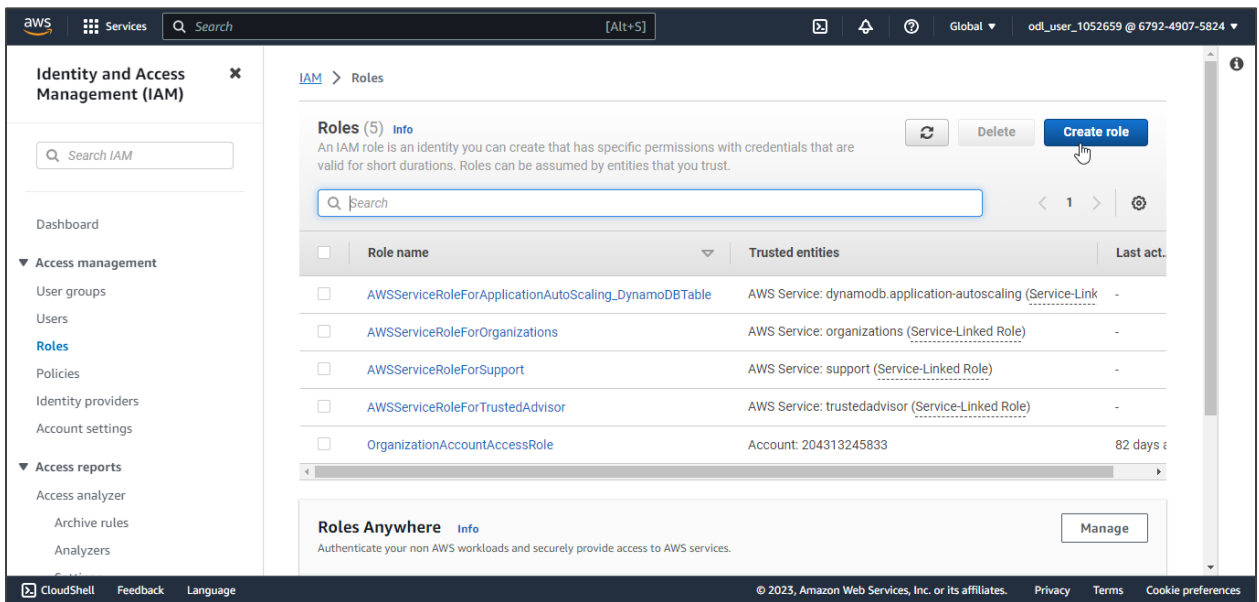
2.4 Enter an arbitrary name for the stack and click **Next**

The screenshot shows the 'Specify stack details' step in the AWS CloudFormation console. The 'Stack name' field contains the text 'Simpli-first-bucket'. Below it, a message states: 'Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-)'. The 'Parameters' section shows 'No parameters' defined in the template. The 'Next' button is highlighted with a mouse cursor.

2.5 Open the **Duplicate** tab in the dashboard search and select the **IAM**



2.6 Select **Roles** and click on the **Create role** button



2.7 In the **Select trusted entity** section, specify the following values:

- Trusted entity type: **AWS service**
- Use case: **CloudFormation**

aws Services Search [Alt+S]

Global odl_user_1052659 @ 6792-4907-5824

Add permissions

Step 3
Name, review, and create

☒ **AWS service**
Allow AWS services like EC2, Lambda, or others to perform actions in this account.

☐ **AWS account**
Allow entities in other AWS accounts belonging to you or a 3rd party to perform actions in this account.

☐ **Web identity**
Allows users federated by the specified external web identity provider to assume this role to perform actions in this account.

☐ **SAML 2.0 federation**
Allow users federated with SAML 2.0 from a corporate directory to perform actions in this account.

☐ **Custom trust policy**
Create a custom trust policy to enable others to perform actions in this account.

Use case
Allow an AWS service like EC2, Lambda, or others to perform actions in this account.

Common use cases

☐ **EC2**
Allows EC2 instances to call AWS services on your behalf.

☐ **Lambda**
Allows Lambda functions to call AWS services on your behalf.

Use cases for other AWS services:

CloudFormation

☒ **CloudFormation**
Allows CloudFormation to create and manage AWS stacks and resources on your behalf.

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2.8 Click on the **Next** button

aws Services Search [Alt+S]

Global odl_user_1052659 @ 6792-4907-5824

Name, review, and create

☒ **AWS service**
actions in this account.

☐ **AWS account**
a 3rd party to perform actions in this account.

☐ **Web identity**
identity provider to assume this role to perform actions in this account.

☐ **SAML 2.0 federation**
Allow users federated with SAML 2.0 from a corporate directory to perform actions in this account.

☐ **Custom trust policy**
Create a custom trust policy to enable others to perform actions in this account.

Use case
Allow an AWS service like EC2, Lambda, or others to perform actions in this account.

Common use cases

☐ **EC2**
Allows EC2 instances to call AWS services on your behalf.

☐ **Lambda**
Allows Lambda functions to call AWS services on your behalf.

Use cases for other AWS services:

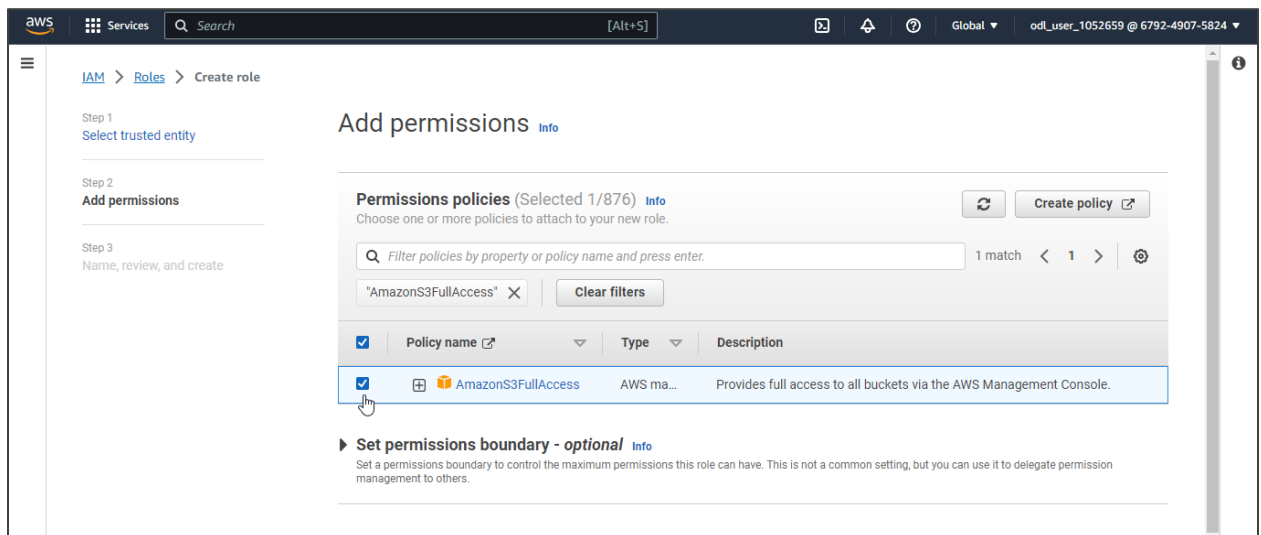
CloudFormation

☒ **CloudFormation**
Allows CloudFormation to create and manage AWS stacks and resources on your behalf.

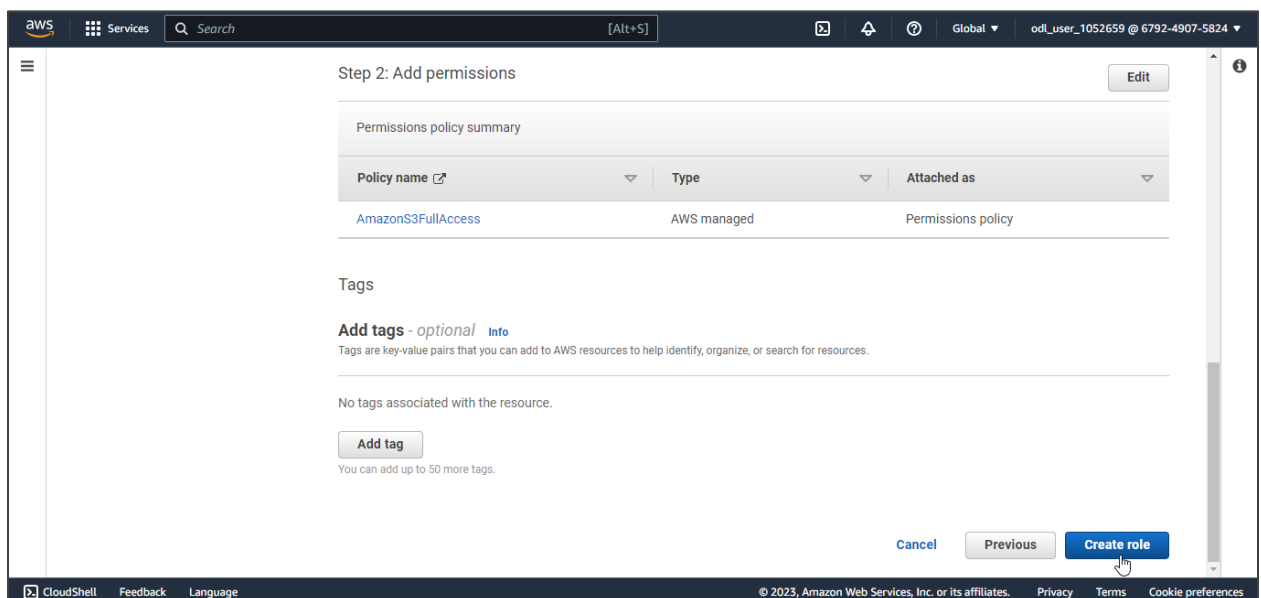
Cancel **Next**

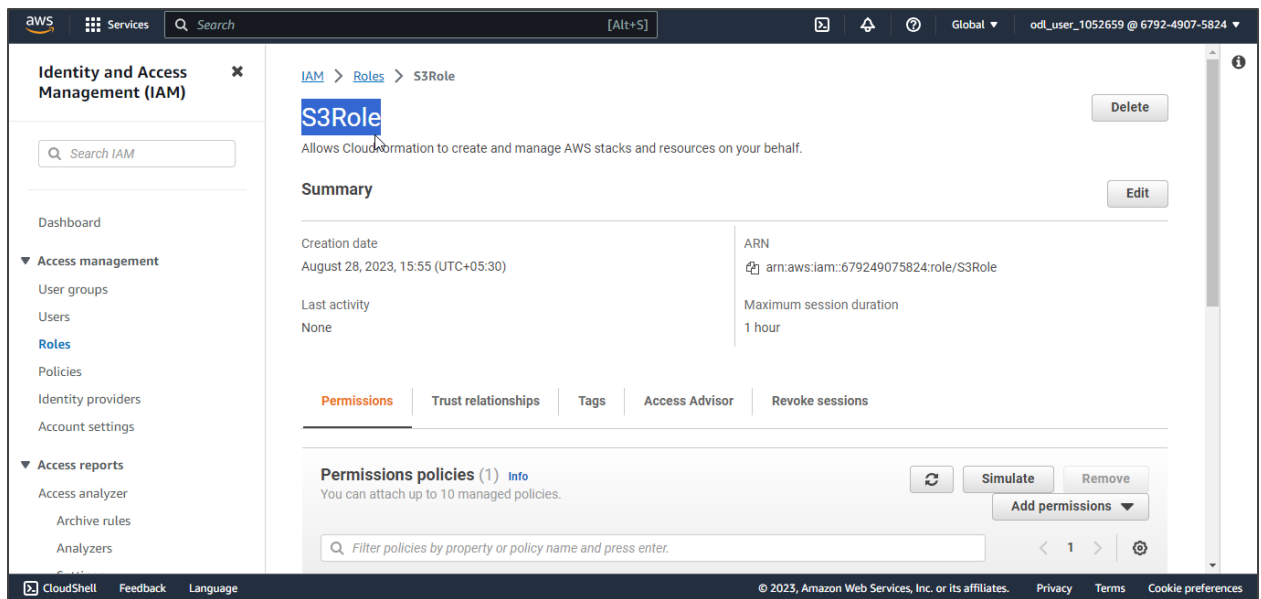
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2.9 In the **Permissions policies**, search for and select **AmazonS3FullAccess**



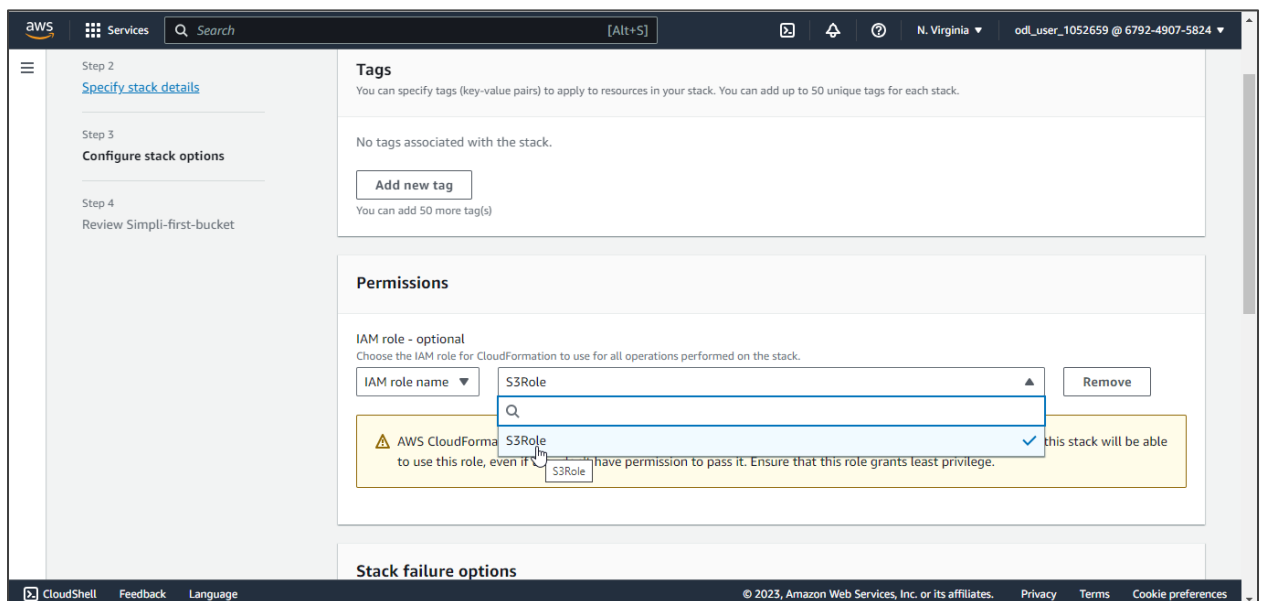
2.10 Enter the role name and click on the **Create role** button



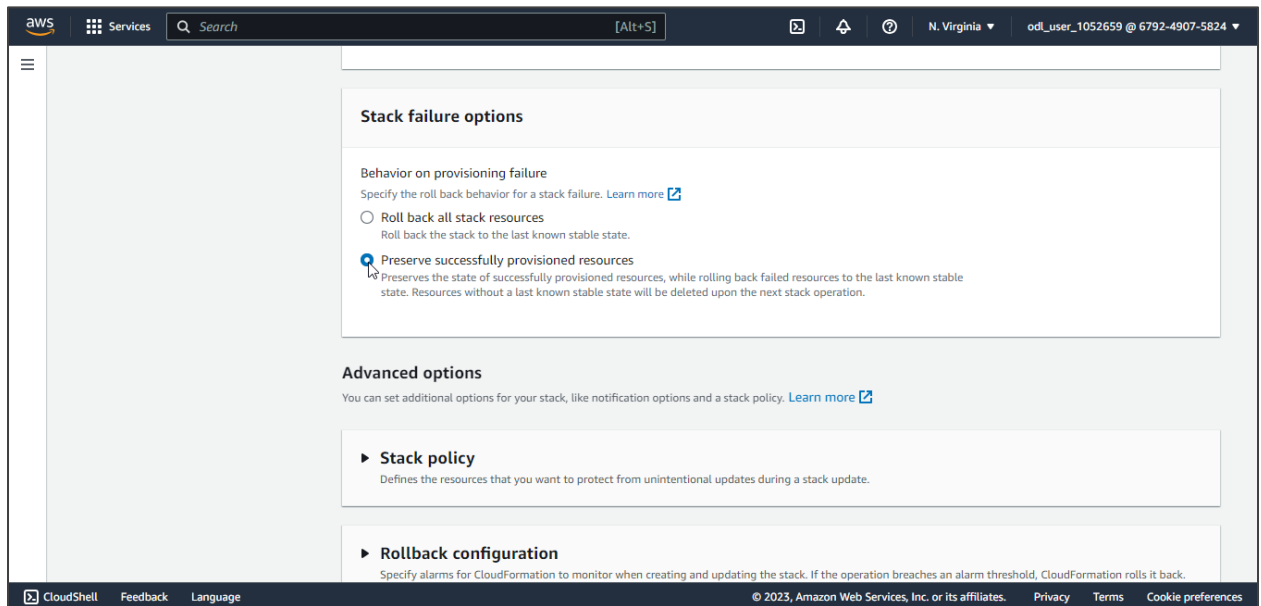


The IAM role has been created successfully.

2.11 Go back to the Stack. Now, in the **Configure stack options** page, select the IAM role.

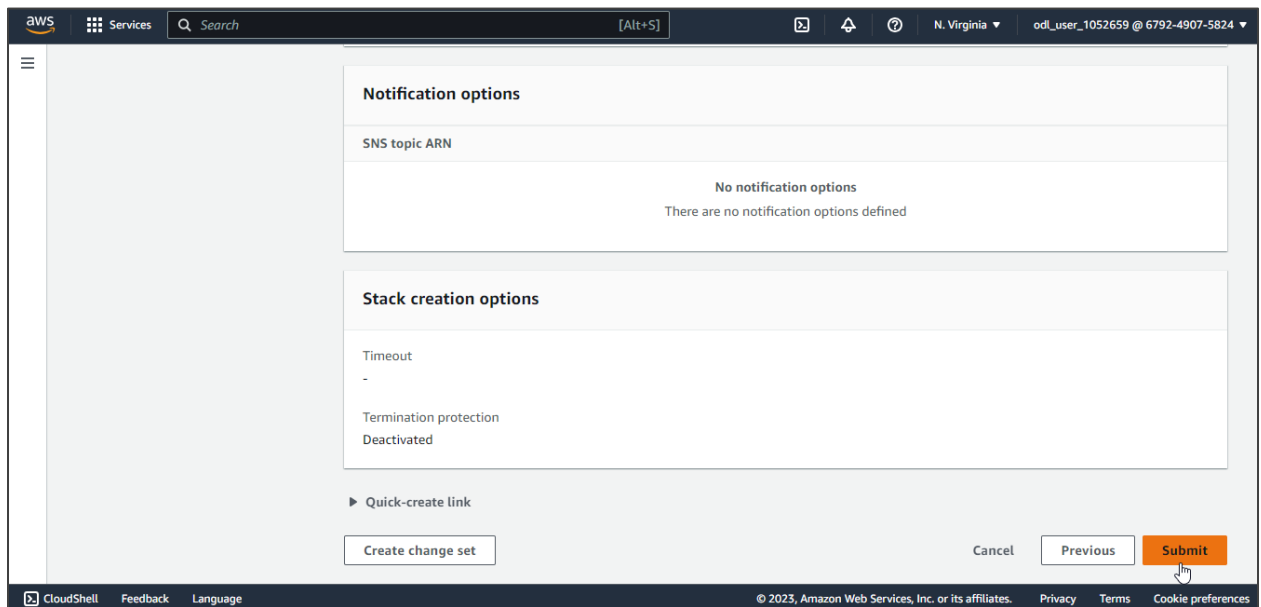


2.12 In **Stack failure options**, select **Preserve successfully provisioned resources** and click **Next**

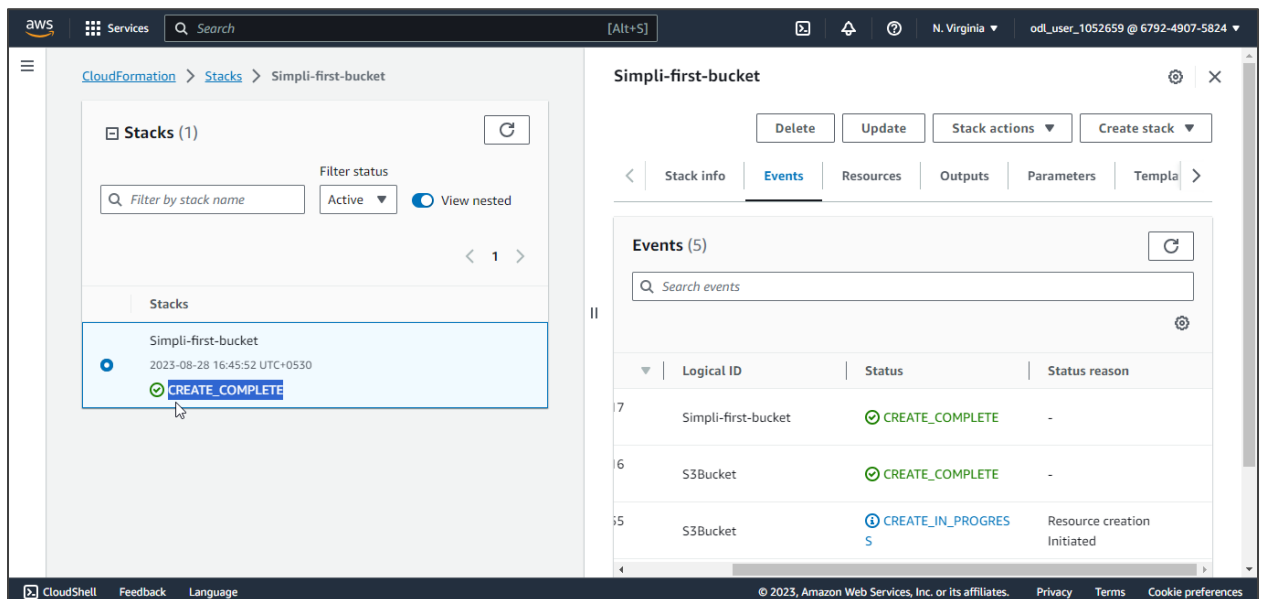


The screenshot shows the AWS CloudFormation console interface. At the top, there's a navigation bar with the AWS logo, 'Services', a search bar, and user information. The main content area is titled 'Stack failure options'. Under 'Behavior on provisioning failure', there are two radio button options: 'Roll back all stack resources' and 'Preserve successfully provisioned resources'. The second option is selected. Below this, there's an 'Advanced options' section with expandable cards for 'Stack policy' and 'Rollback configuration'. The footer contains links for 'CloudShell', 'Feedback', 'Language', and copyright information.

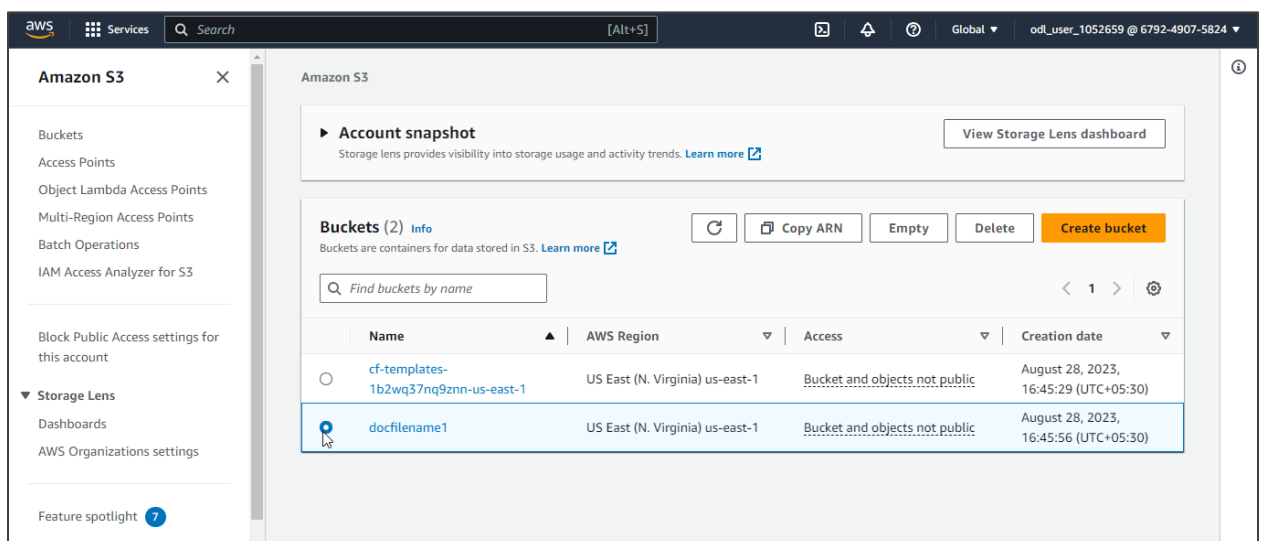
2.13 Review all the settings under the **Review** tab and click **Submit**



The screenshot shows the 'Review' tab in the AWS CloudFormation console. It displays 'Notification options' with an empty 'SNS topic ARN' field and a message stating 'No notification options defined'. Below this is the 'Stack creation options' section, which shows 'Timeout' as '-' and 'Termination protection' as 'Deactivated'. At the bottom, there's a 'Quick-create link' section with a 'Create change set' button. On the right side, there are three buttons: 'Cancel', 'Previous', and 'Submit'. The 'Submit' button is highlighted in orange and has a mouse cursor pointing at it. The footer is identical to the previous screenshot.



The newly created S3 bucket will be displayed in the list.



By following these steps, you have successfully created an S3 bucket using CloudFormation.