Lesson End Project

Initiating a Lambda Function to Copy Content in S3 Buckets

Project agenda: To launch the Lambda function and perform the trigger operation on Lambda for processing incoming S3 events

Description: As a solution architect, you must replicate the contents of a bucket to other buckets deployed in different regions, thereby making the resources available.

Tools required: AWS Management Console

Prerequisites: None

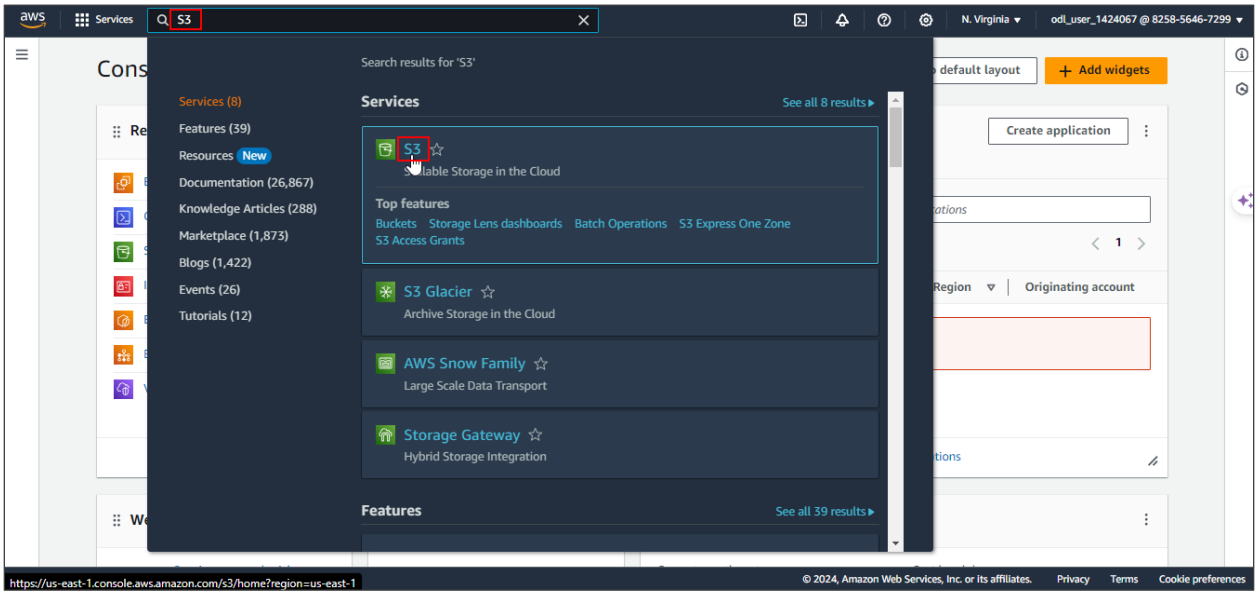
Expected deliverables: A fully functional Lambda function that copies content between specified S3 buckets, with necessary S3 configurations, event triggers, permissions, and documentation, along with test cases, to ensure proper functionality.

Steps to be followed:

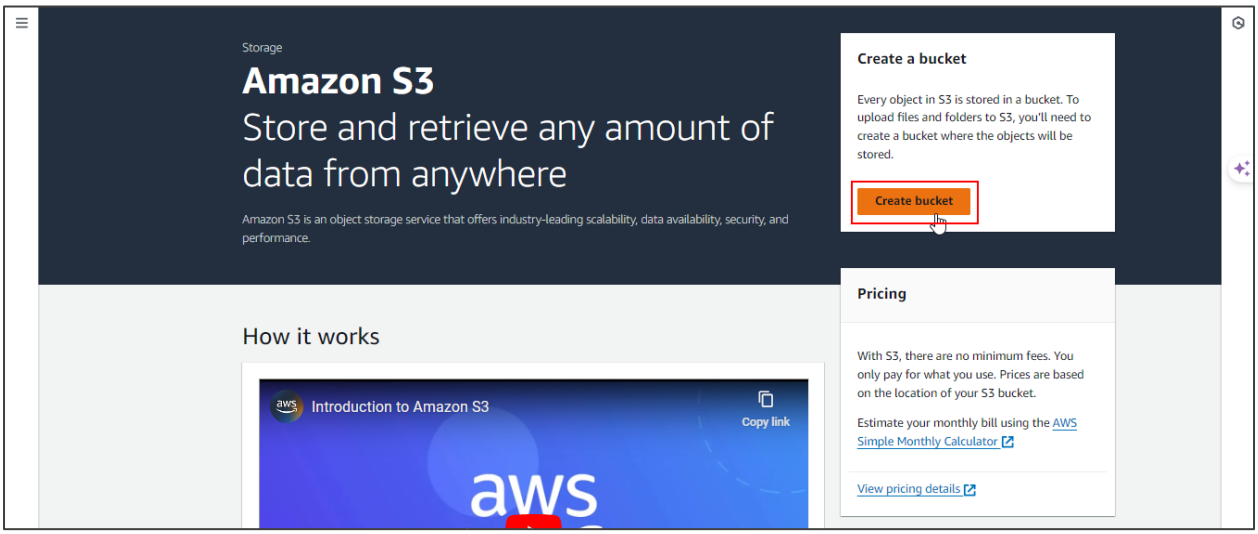
1. Create an S3 bucket
2. Create a Lambda function
3. Test the Lambda function
4. Create a trigger
5. Add a destination

Step 1: Create an S3 Bucket

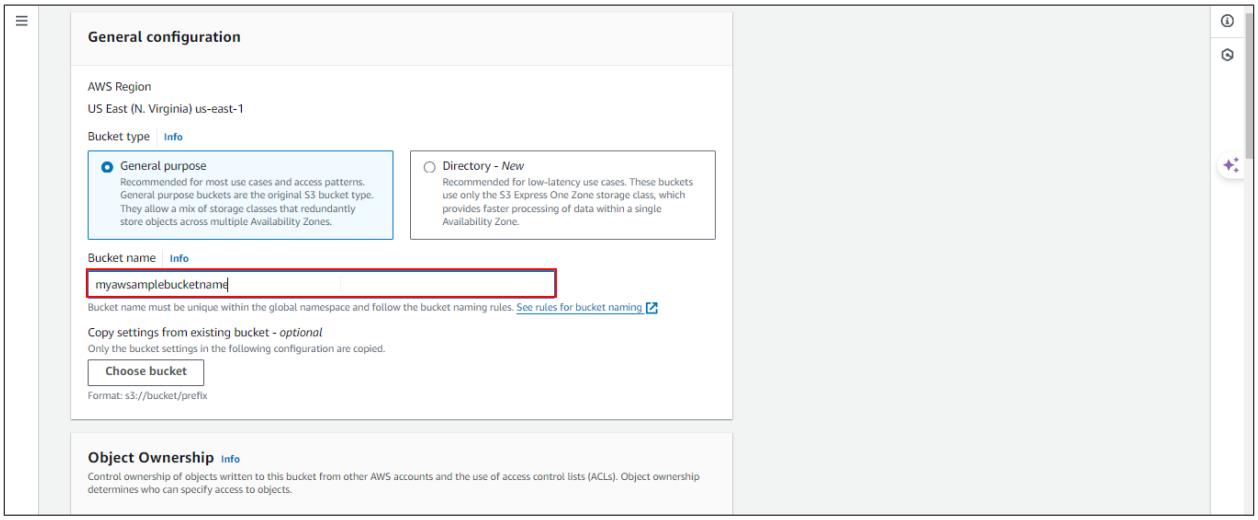
1.1 Navigate to the AWS Management Console and search for and click on **S3**



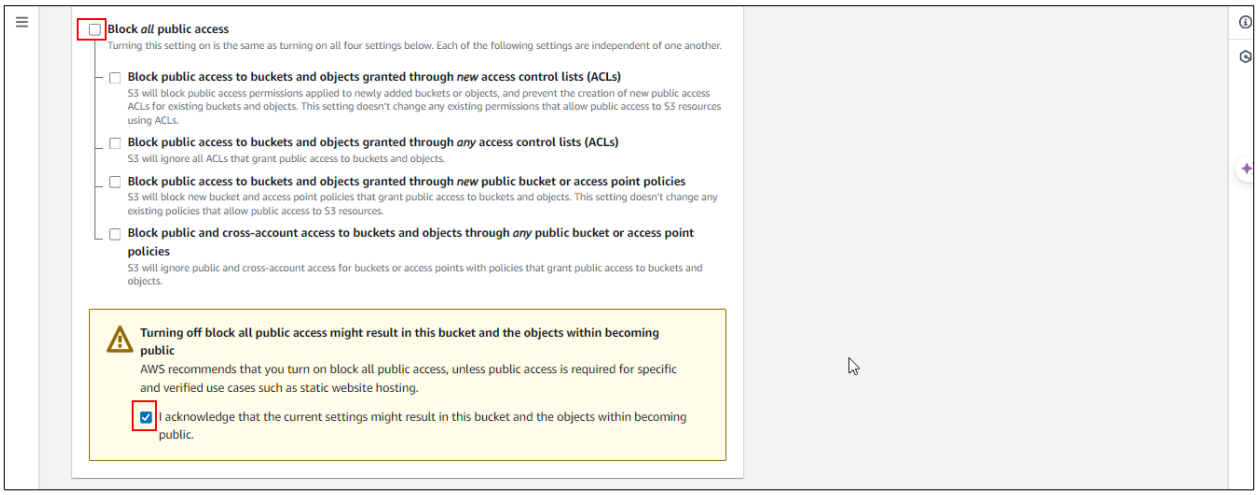
1.2 Click on **Create bucket**



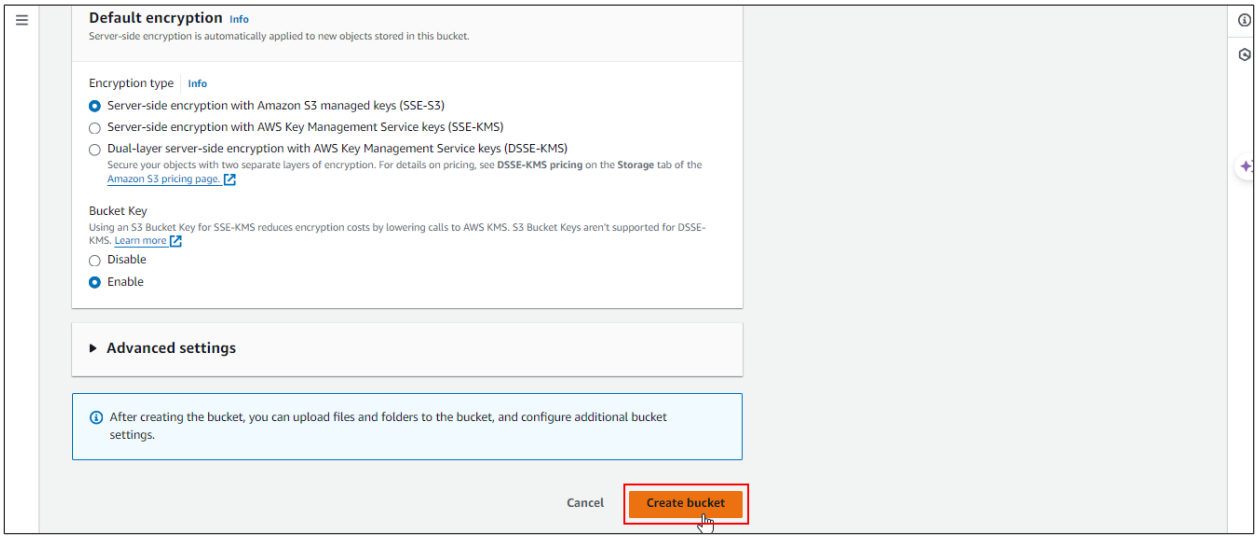
1.3 Name the bucket as **myawsamplebucketname**

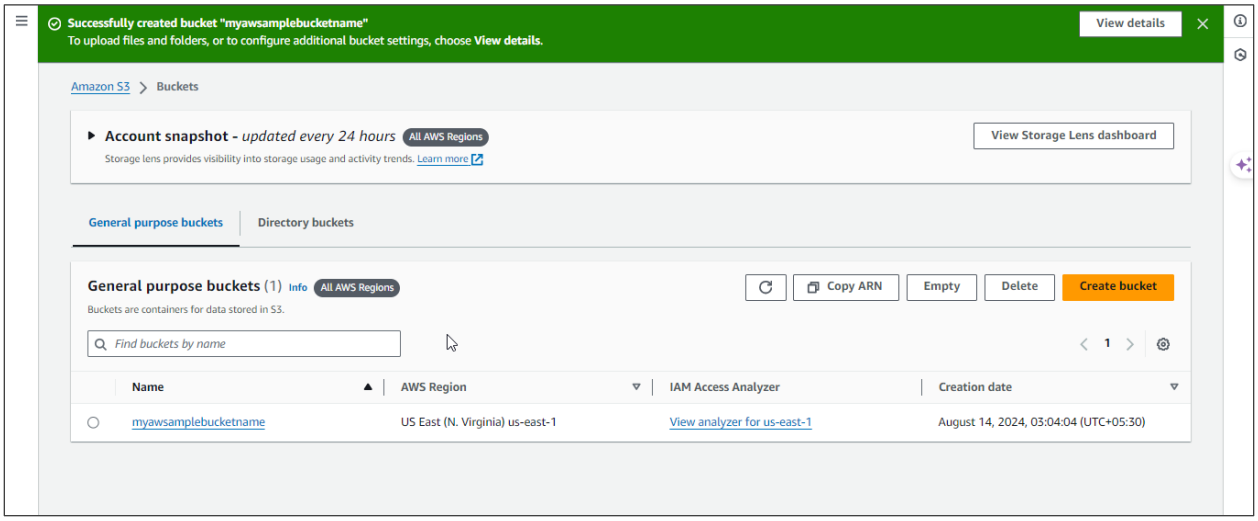


1.4 Ensure that **Block all public access** is unselected and **acknowledge** the configuration by checking the box



1.5 Click on **Create bucket**

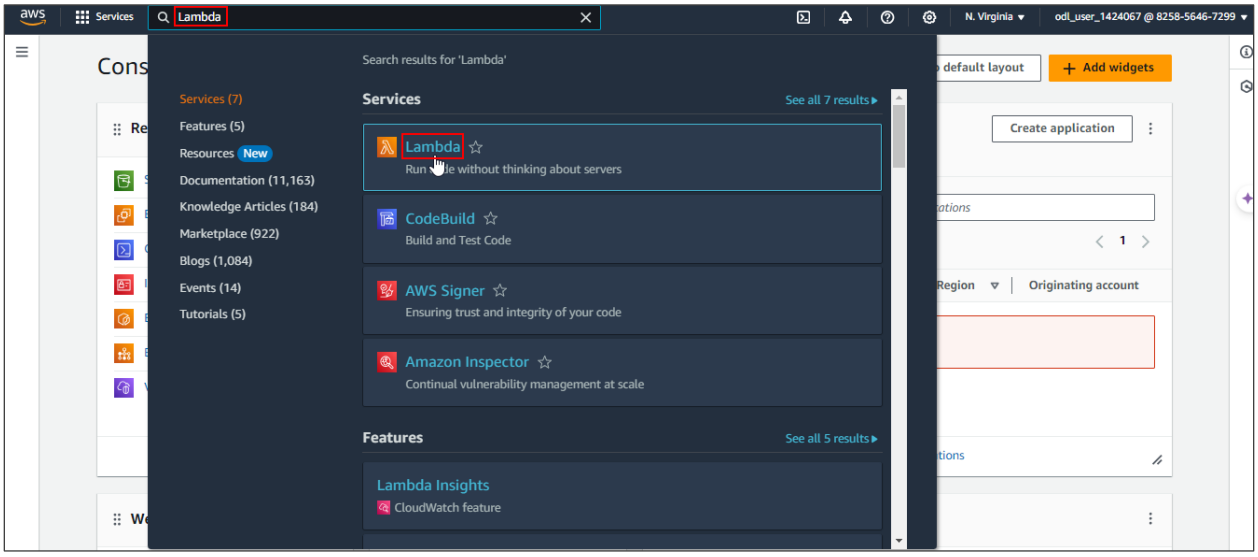




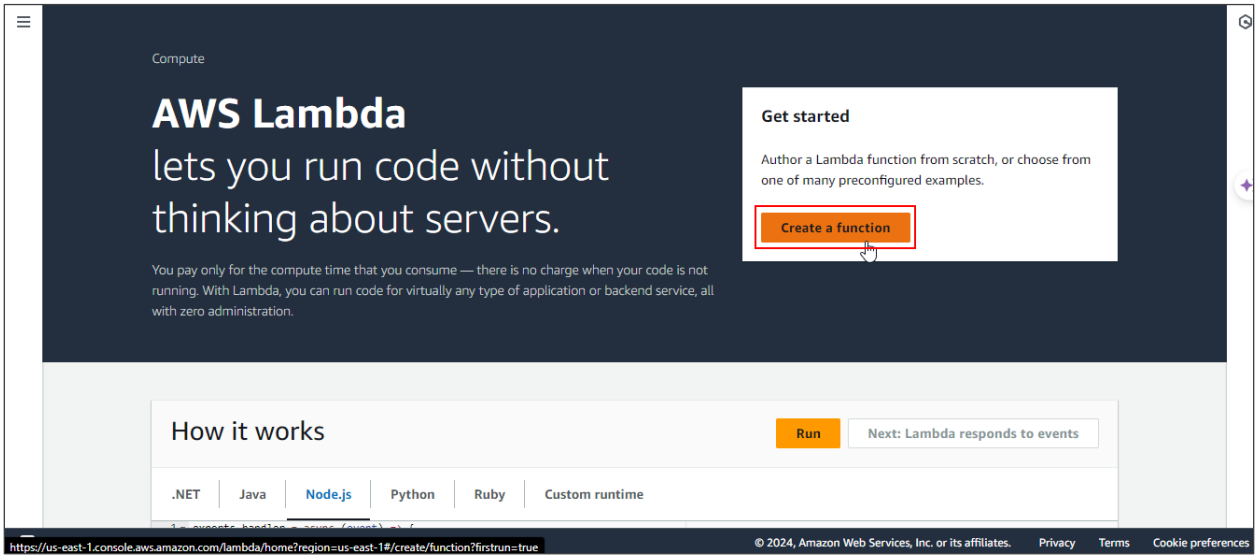
myawsamplebucketname has been created successfully.

Step 2: Create a Lambda function

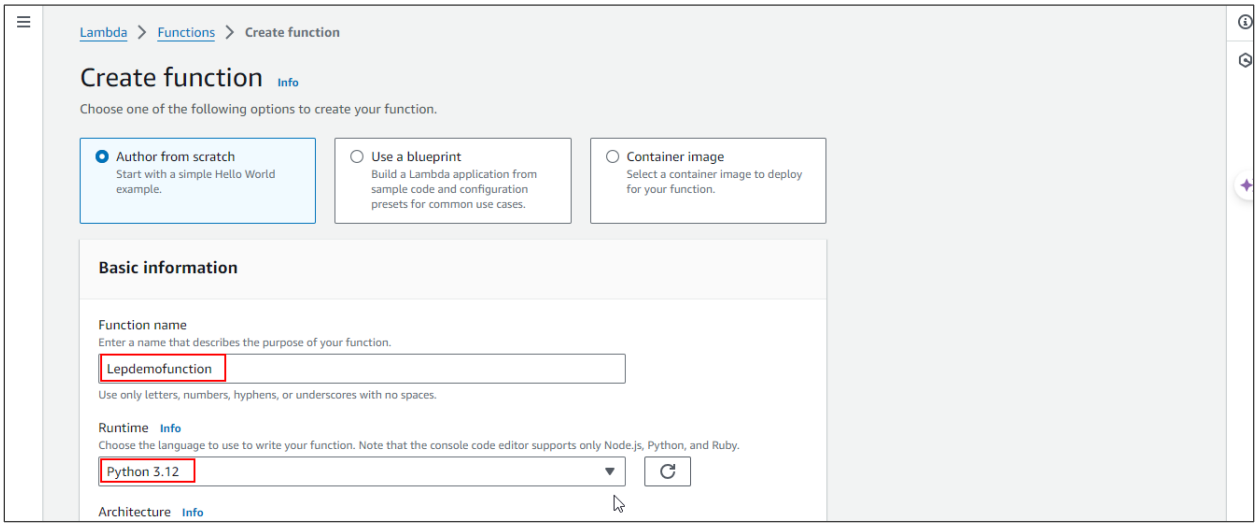
2.1 Navigate to the AWS console home dashboard, search for and click on **Lambda** as shown



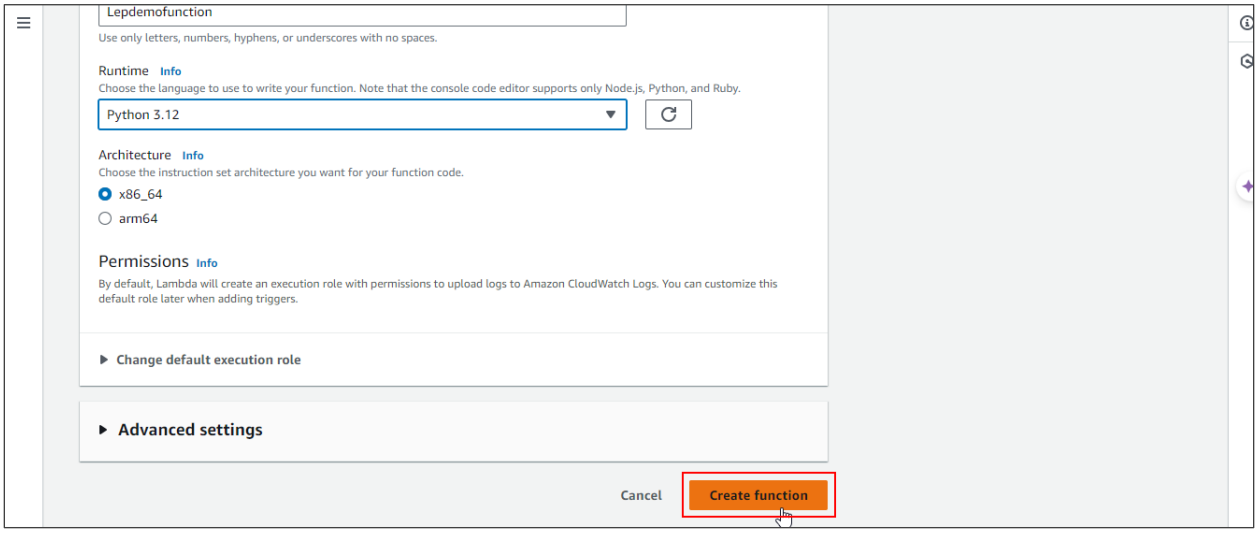
2.2 Click on **Create a function**

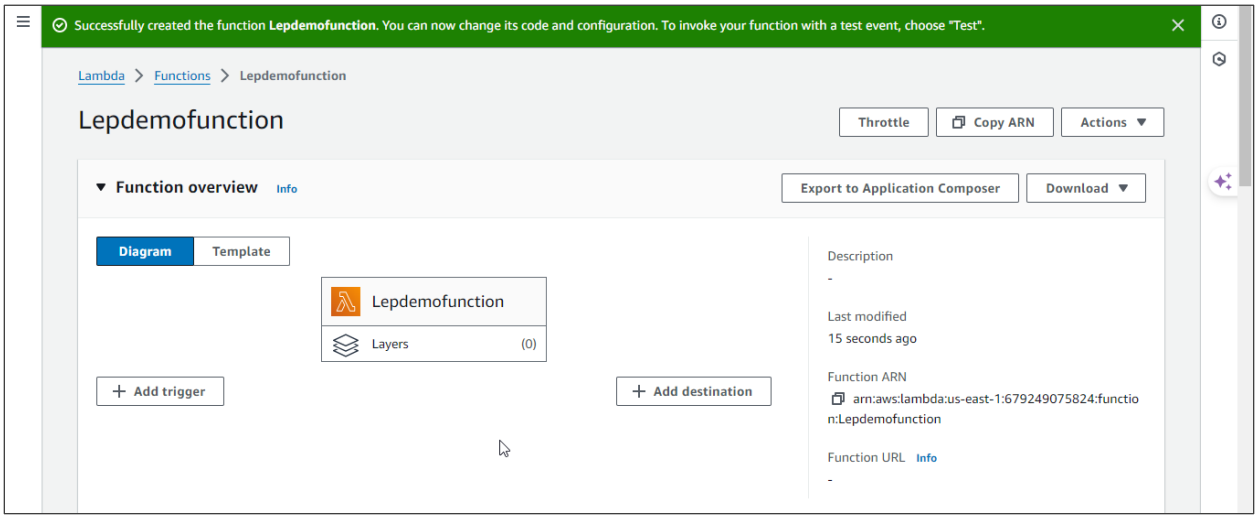


2.3 Provide a desired name for the function and choose **Python 3.12** from the **Runtime** option



2.4 Click on **Create function**

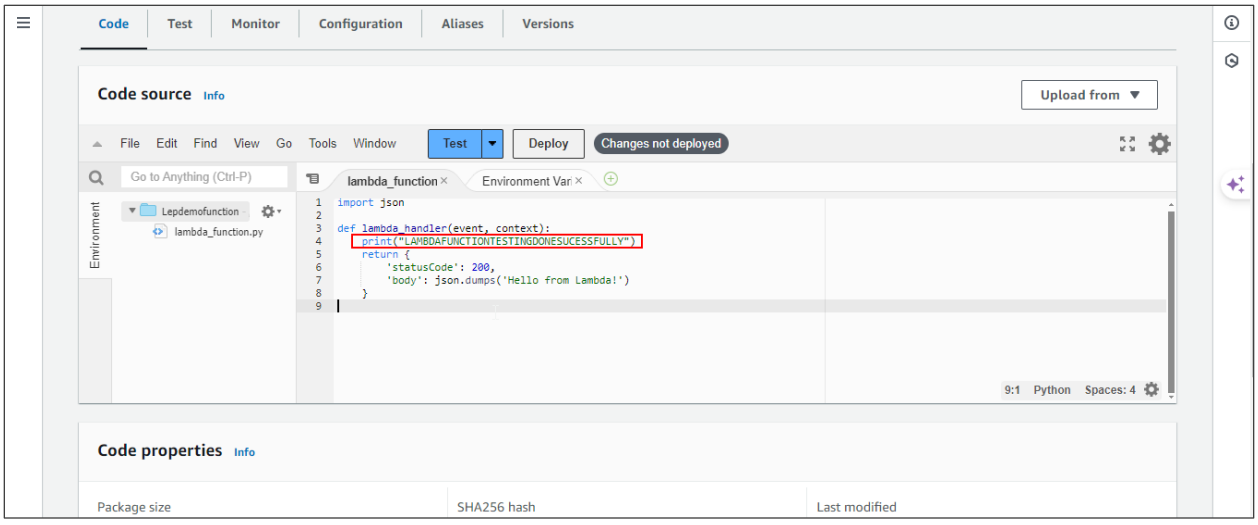




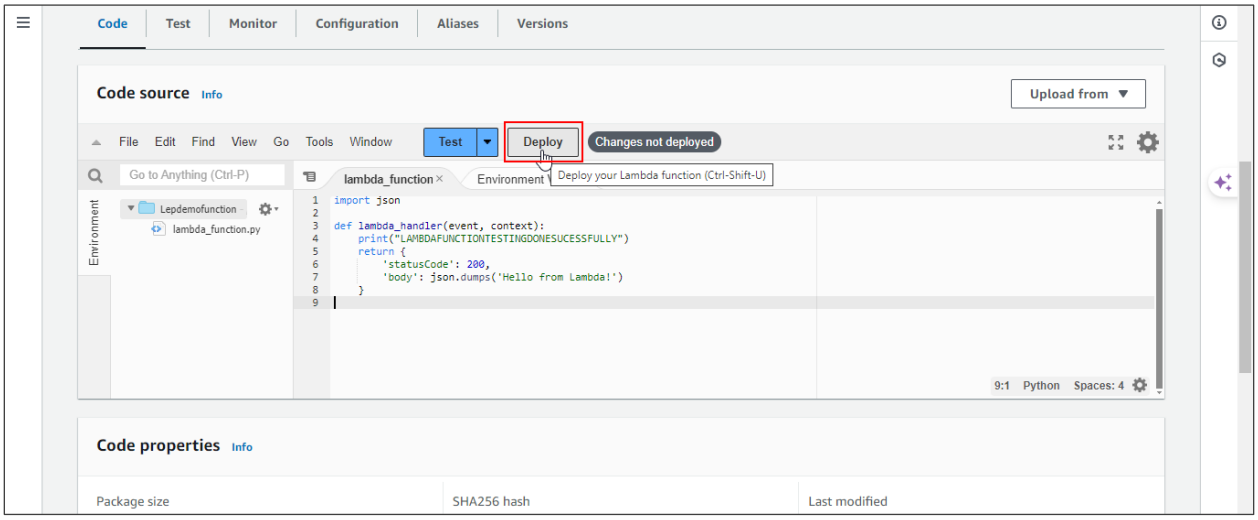
The lambda function has been created successfully.

Step 3: Test the Lambda Function

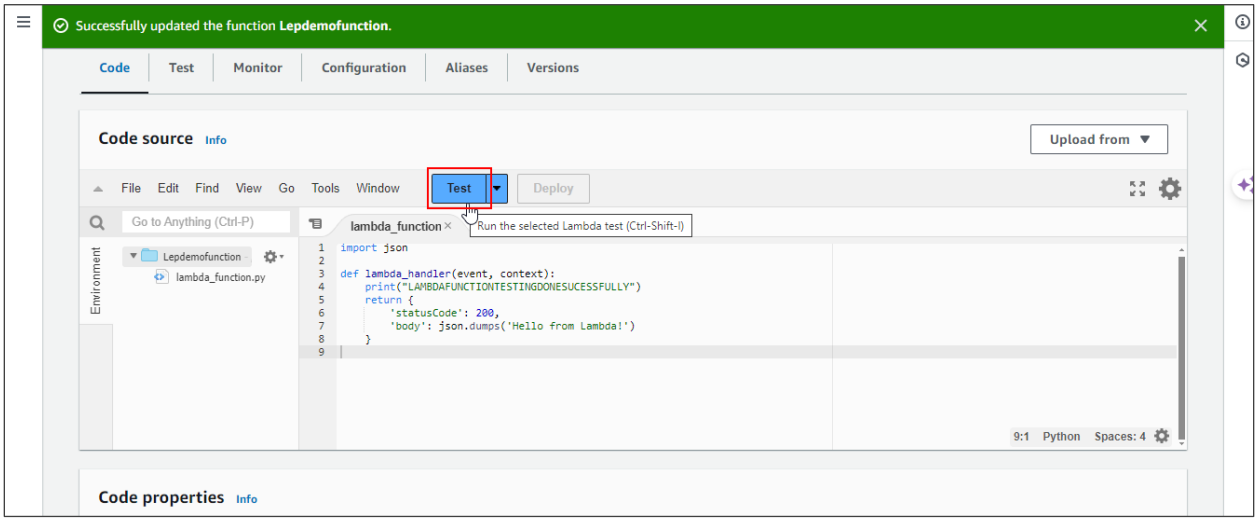
3.1 Add the following print statement to the source code as shown:
print("LAMBDAFUNCTIONTESTINGDONESUCESSFULLY")



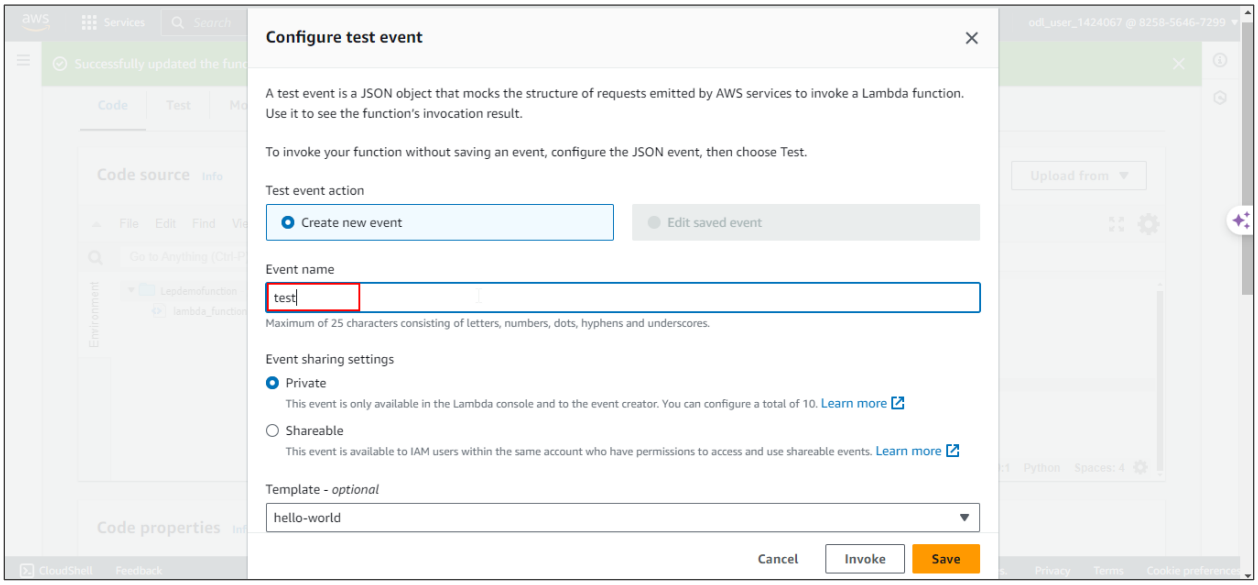
3.2 Click on **Deploy**



3.3 Click on **Test**

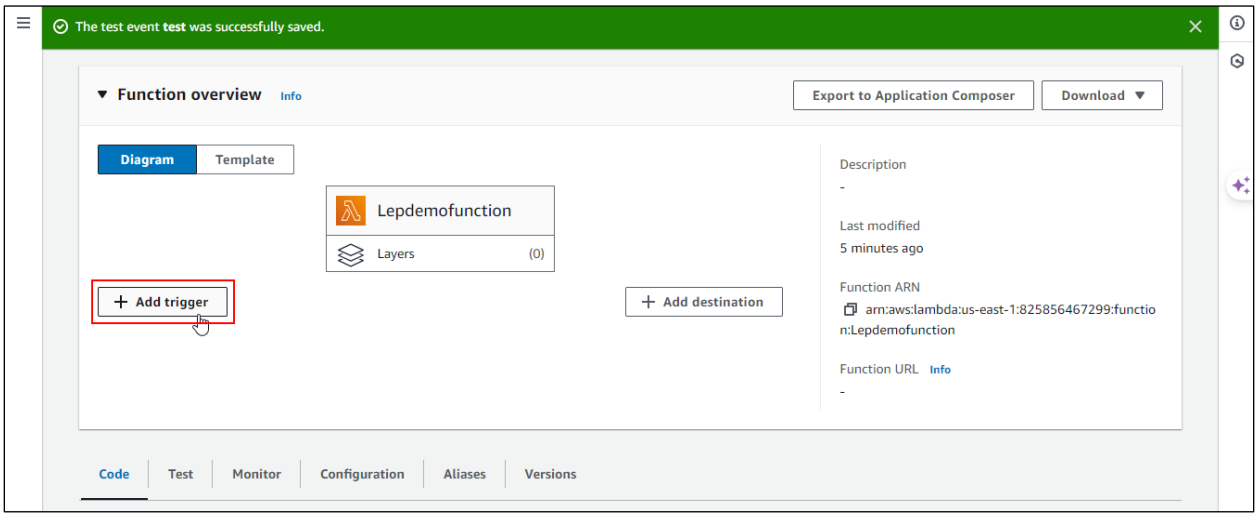


3.4 Add **test** as the **Event name** and click on **Save**

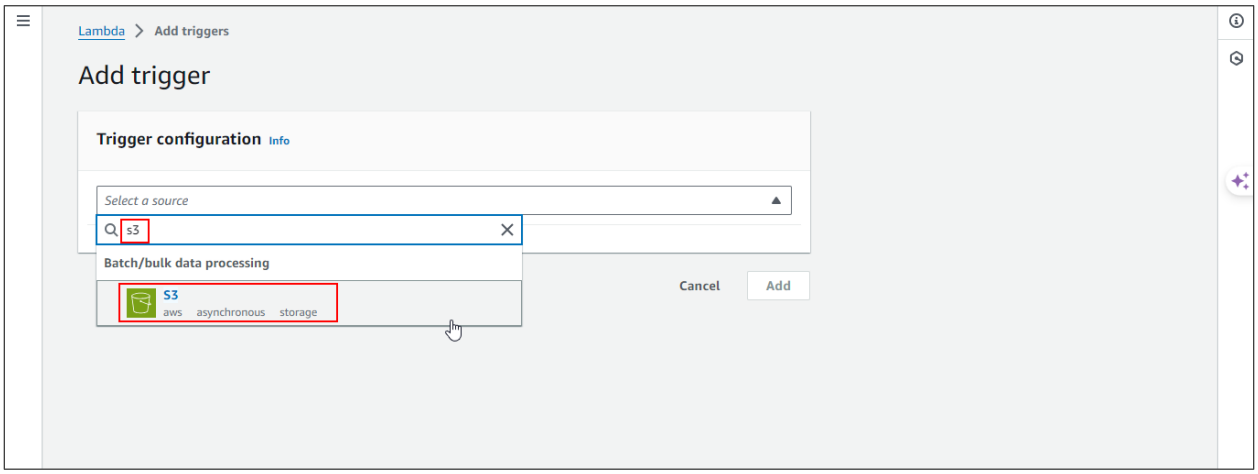


Step 4: Create a Trigger

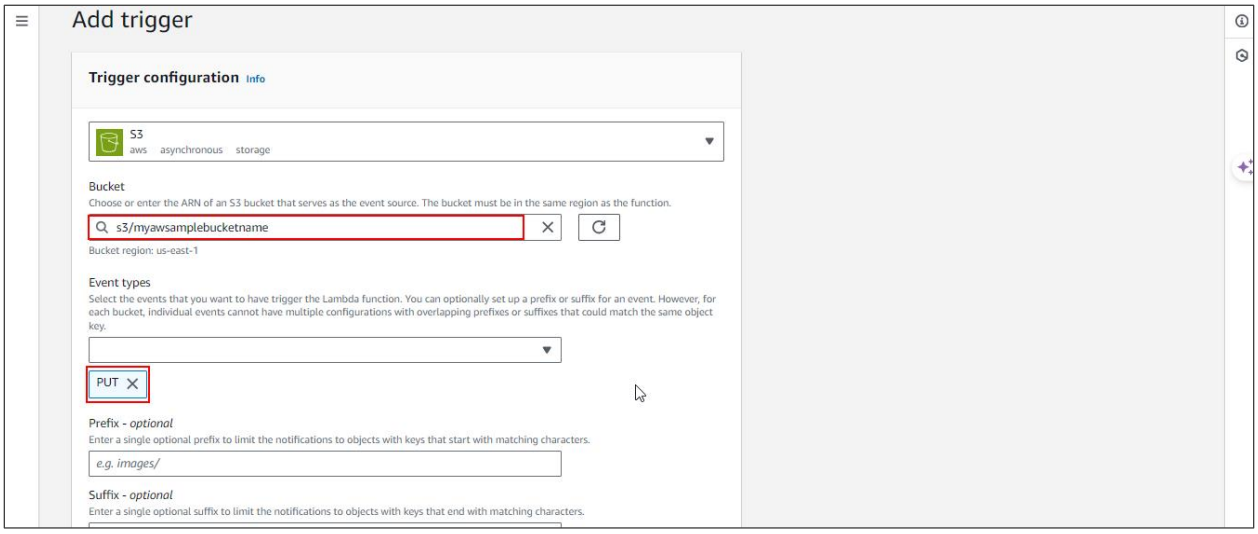
4.1 Click on **+ Add trigger** in the **Lambda functions** dashboard



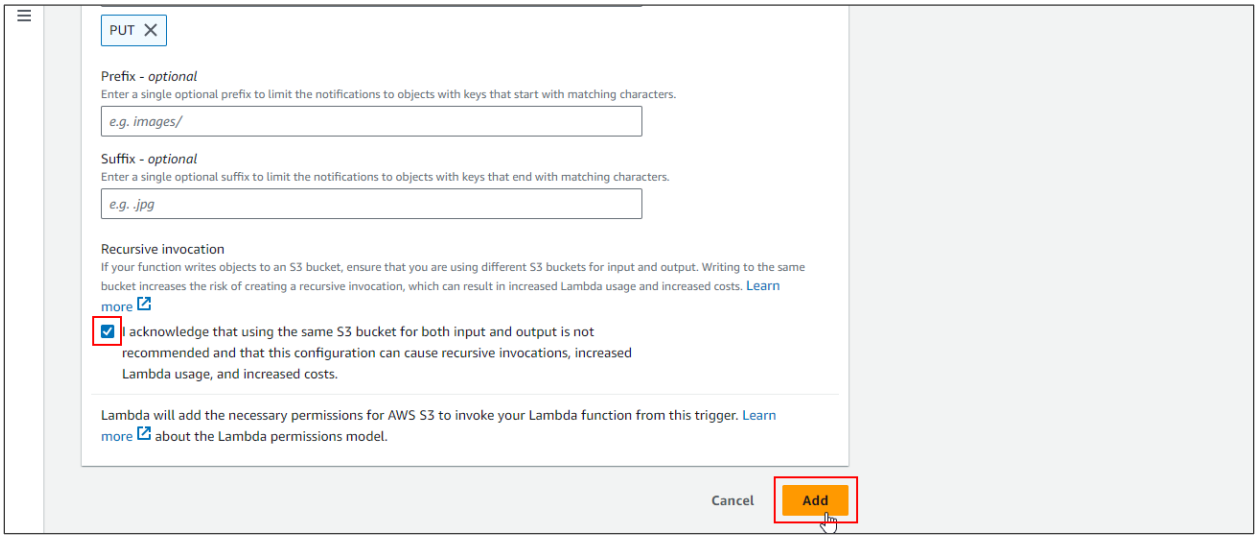
4.2 Search and select the **S3** bucket in the **Trigger configuration**

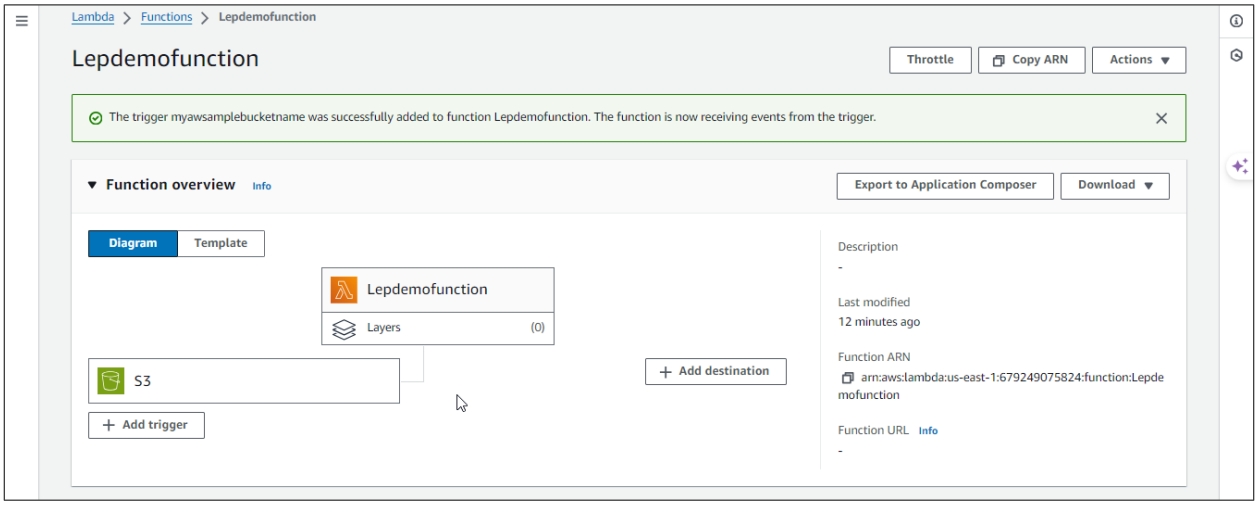


4.3 Choose the created **S3 bucket** from the **Bucket** dropdown and select **PUT** as the **Event types**



4.4 Check the dialog box and click **Add**

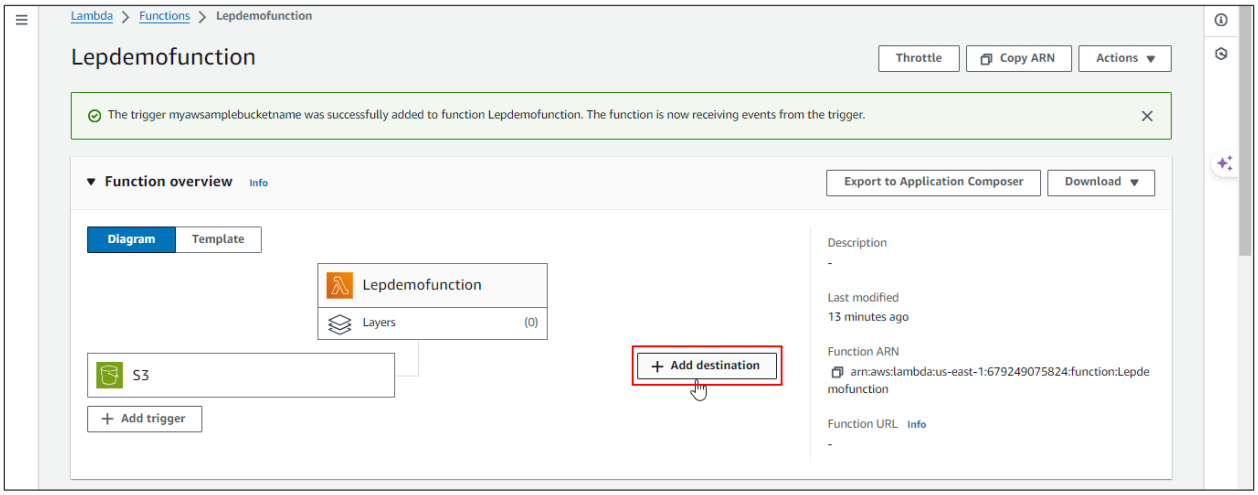




The trigger of the S3 bucket has been successfully added.

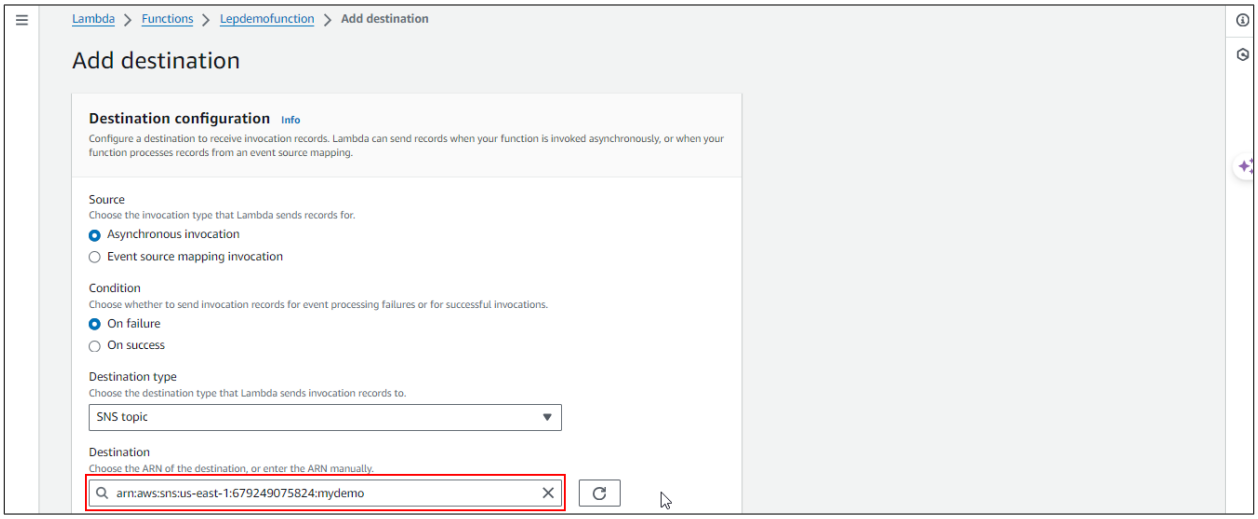
Step 5: Add a destination

5.1 Click on **Add destination**



5.2 Add **Destination** in the following format:

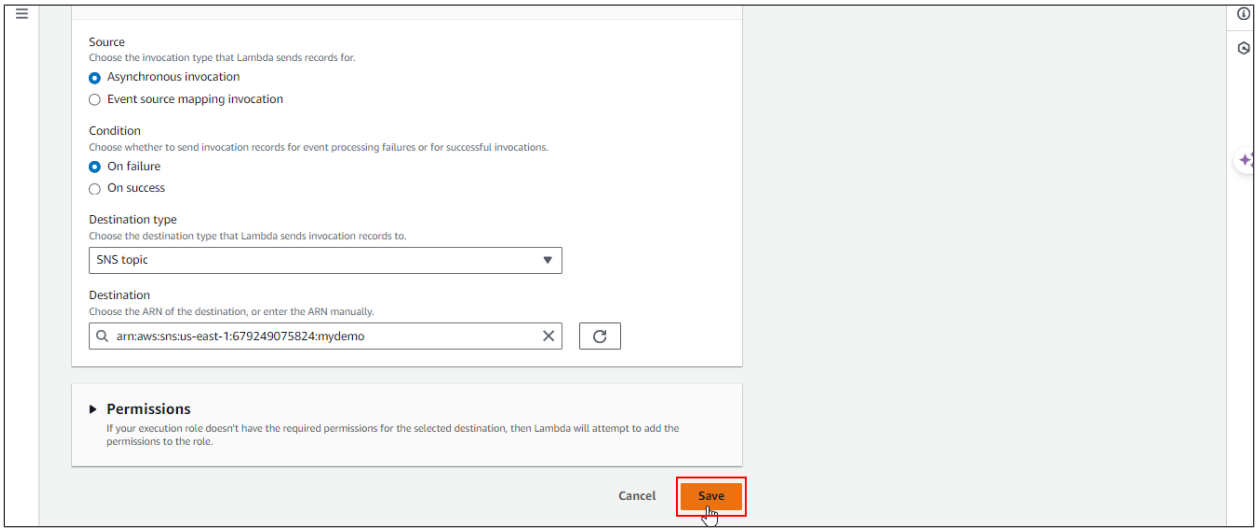
arn:aws:sns:region:account-id:topic-name



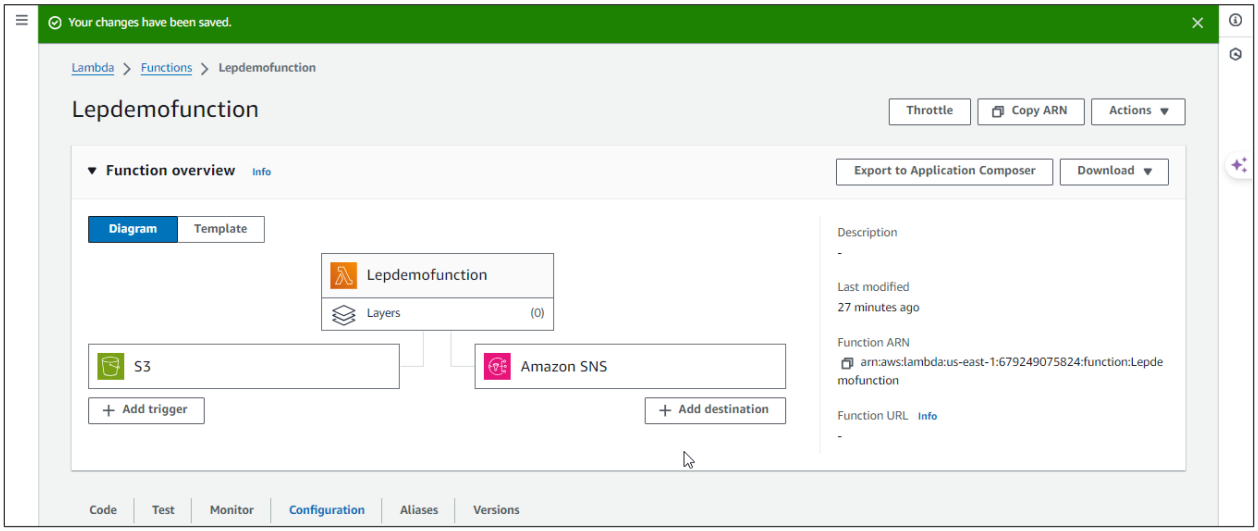
Note: Replace **region, account-id,** and **topic-name** with the appropriate values for your setup

Note: Ensure that you have chosen or created the topic with the targeted subscribers

5.3 Click on the **Save** button



You will see the following interface:



By following these steps, you have successfully created a Lambda function that automates the replication of S3 bucket contents across different AWS regions, ensuring robust data availability.