

The background features a large white circle in the center, partially overlapping a light blue rectangle on the left and a light pink rectangle on the right. A dark blue shape, resembling a stylized arch or a large letter 'U', is positioned at the bottom, framing the white circle.

PROJECT

AGENDA

Project Description

Images of Steps

Explanation of processes

PRACTICAL DESCRIPTION

- I was tasked to create S3 event notifications using an SNS Topic on the AWS Management console. In this practical, I learnt how to create S3 buckets and also learnt how to create topics and event notifications.

IMAGES OF THE PROCESS

Creating Event Notifications in S3

OBJECTIVE OF THE PROJECT

- To configure **Amazon S3** to automatically send notifications to an **SNS Topic** whenever certain events (like file uploads or deletions) occur in an S3 bucket. This enables **real-time alerting or triggering of downstream actions** in a scalable, decoupled, and serverless manner.

SERVICES INTEGRATED

S3

SQS

SNS



S3 FUNCTIONALITY

Amazon S3 (Simple Storage Service) provides **scalable object storage** for any type of data. In this project, its functionality includes:

- 1) **Storage**: Securely stores files such as documents, images, videos, backups, etc.
- 2) **Event Notification**: Detects specific actions (e.g., file uploads, deletions) and **generates events**.

SQS FUNCTIONALITY

Amazon SQS (Simple Queue Service) is a **fully managed message queuing service** that enables decoupling and buffering of communication between different parts of a system.

1) **Message Queueing**: Receives and stores messages sent by other services (like S3 or SNS) until they are processed.

SNS FUNCTIONALITY

Message Distributor

Acts as a **central hub** that receives messages from sources like **S3** and **distributes** them to multiple destinations (subscribers).

2) Supports Multiple Subscribers

SNS can send messages to:

- Email addresses (email notifications)
- SMS (text messages)
- AWS Lambda functions
- Amazon SQS queues
- HTTP/S endpoints

STEP 1: CREATE A TOPIC

Topics (2)

EditDeletePublish messageCreate topic

Search

< 1 > ⚙

	Name	Type	ARN
<input type="radio"/>	defaulttopic1	Standard	arn:aws:sns:us-east-1:542350912362:defaulttopic1
<input type="radio"/>	myawstopic1	Standard	arn:aws:sns:us-east-1:542350912362:myawstopic1

EXPLANATION ON HOW TO CREATE A TOPIC

Step 1: Navigate to the SNS Service in the AWS Management Console

Step 2: Click on topic, and then create a topic

Step 3: Choose a topic type and give it a name and create it

STEP 2: CREATE A SUBSCRIPTION

defaulttopic1

EditDeletePublish message

Details

Name defaulttopic1	Display name -
ARN arn:aws:sns:us-east-1:542350912362:defaulttopic1	Topic owner 542350912362
Type Standard	

<SubscriptionsAccess policyData protection policyDelivery policy (HTTP/S)Delivery status loggingEncryptionTags>

Subscriptions (1)

EditDeleteRequest confirmationConfirm subscriptionCreate subscription

ID	Endpoint	Status	Protocol
<input type="radio"/> 31c1c31b-cdec-48bd-be18-646a36...	rambakshi885@gmail.com	Confirmed	EMAIL

STEP 3: CONFIRM SUBSCRIPTION

AWS Notification - Subscription Confirmation Inbox x



AWS Notifications <no-reply@sns.amazonaws.com>

to me ▼

You have chosen to subscribe to the topic:

arn:aws:sns:us-east-1:542350912362:defaulttopic1

To confirm this subscription, click or visit the link below (If this was in error no action is necessary):

[Confirm subscription](#)

STEPS TO CREATE A SUBSCRIPTION

- Step 1: Create a subscription
- Step 2: Select email for protocol
- Step 3: Enter an email address for the endpoint
- Step 4: Create a subscription
- Step 5: Go to your inbox and confirm the subscription + refresh the page so that the status shows “confirmed”
- Step 6: Navigate back to the topic, click on edit and edit the access policy to replace the default policy with that in the guide and make the necessary changes to the ARN components

STEP 4: CREATE AN S3 BUCKET

General purpose buckets (1) [Info](#)

All AWS Regions

Copy ARN

Empty

Delete

Create bucket

Buckets are containers for data stored in S3.

Find buckets by name

< 1 >

Name	AWS Region	IAM Access Analyzer	Creation date
mybucketdefault1	US East (N. Virginia) us-east-1	View analyzer for us-east-1	June 23, 2025, 13:11:40 (UTC+08:00)

CONTINUED: S3 NOTIFICATIONS

- Step 1: Go to the events notification section of the S3 Bucket
- Create an event notification
- Give the event a name and then select all object create events
- Select SNS Topic for the destination and then select the pre existing SNS Topic
- When you upload something in the bucket, you should receive an email notification from AWS.

