

# Creating SNS for S3 Bucket

## User Story:

As a team, we should create a notification service using Amazon SNS, so that we get notified once the data is uploaded by the client inside the bucket.

## Overview:

Our team needs to be notified once the client uploads their data to the S3 bucket. We will use Amazon SNS to create a notification service that sends a notification to our team when the client uploads their data to the S3 bucket.

## Solution:

We will use the following steps to create a notification service using Amazon SNS:

1. Create an Amazon SNS topic for our team to subscribe to.
2. Create an S3 bucket event that triggers the SNS topic when the client uploads their data to the S3 bucket.
3. Subscribe our team to the SNS topic to receive notifications when the S3 bucket event is triggered.

## Flowchart:



## Design:

1. We will create an Amazon SNS topic for our team to subscribe to.
2. When the client uploads their data to the S3 bucket, an S3 bucket event will be triggered that sends a notification to the SNS topic.
3. Our team will be subscribed to the SNS topic to receive notifications when the S3 bucket event is triggered.

## Security:

We will ensure the security of the system by implementing the following measures:

1. Implement secure access controls to restrict access to the S3 bucket and SNS topic and prevent unauthorized access.
2. Use encryption to protect the IAM access key and secret access key.

## Scalability:

The system will be designed to be scalable to meet the client's requirements for uploading their data. We will choose a storage class that meets the client's requirements for durability, availability, and performance, and configure the S3 bucket with lifecycle policies to automatically move data between storage classes based on its age and usage.

## Monitoring:

We will monitor the system using AWS CloudWatch metrics, which provide real-time monitoring of system metrics such as number of requests, latency, and errors. We will also monitor the S3 bucket access logs and SNS topic delivery status logs to ensure that the system is functioning correctly and identify any issues.