

AWS Project

Building a Serverless Email Marketing Application

Steps to Implement:-

1. A place to store Email templates and list of contacts in S3.

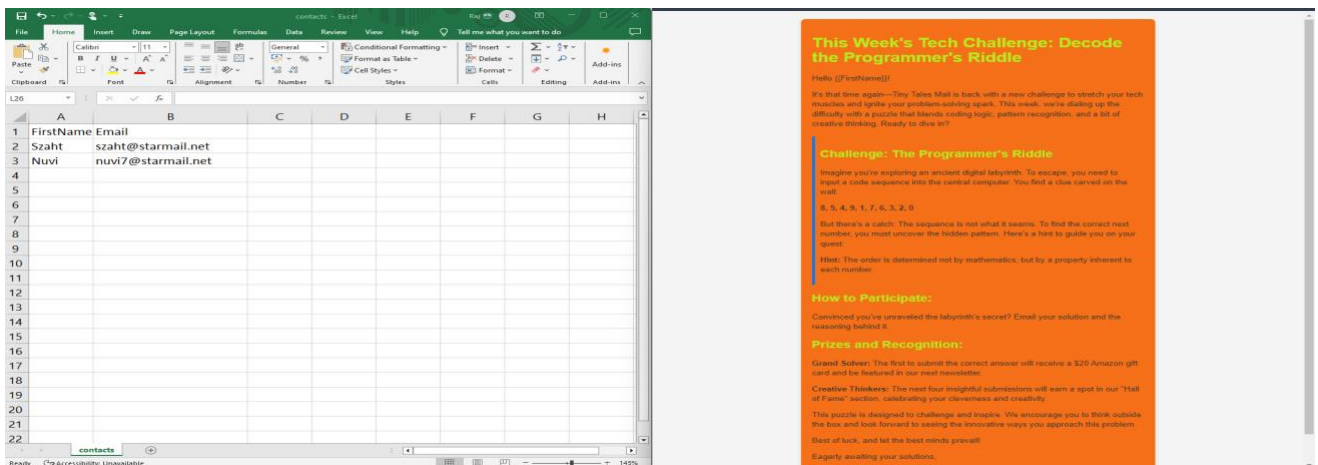
1.1 Creating an S3 bucket to store email templates and contacts

The screenshot displays the AWS Management Console interface. The top navigation bar shows the AWS logo, 'Services', a search bar, and the user's profile 'Raj_IAM_user @ 3814-9199-2466'. The main content area is titled 'Create bucket' and includes a 'General configuration' section with fields for 'AWS Region' (Asia Pacific (Mumbai) ap-south-1) and 'Bucket name' (email-marketing-bucket-sema). Below this is the 'Object Ownership' section, where 'ACLs disabled (recommended)' is selected. A green notification banner at the bottom of the console states 'Successfully created bucket "email-marketing-bucket-sema"'. Below the notification, the 'Buckets' page is shown, featuring a table of buckets. The table has columns for 'Name', 'AWS Region', 'IAM Access Analyzer', and 'Creation date'. The bucket 'email-marketing-bucket-sema' is listed in the table.

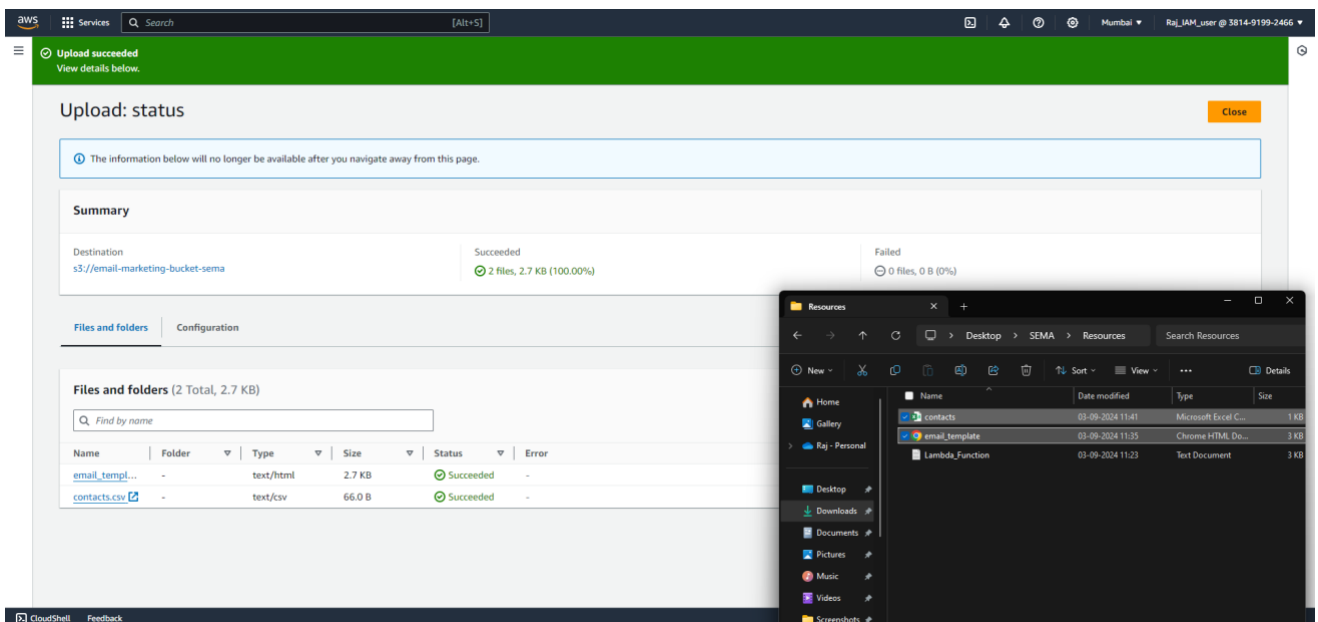
| Name | AWS Region | IAM Access Analyzer | Creation date |
|-----------------------------|----------------------------------|--|---|
| email-marketing-bucket-sema | Asia Pacific (Mumbai) ap-south-1 | View analyzer for ap-south-1 | September 3, 2024, 11:18:07 (UTC+05:30) |

1.2 Contacts and Email Template resources

The HTML email template will be using to send the CSV file with contact information to email.

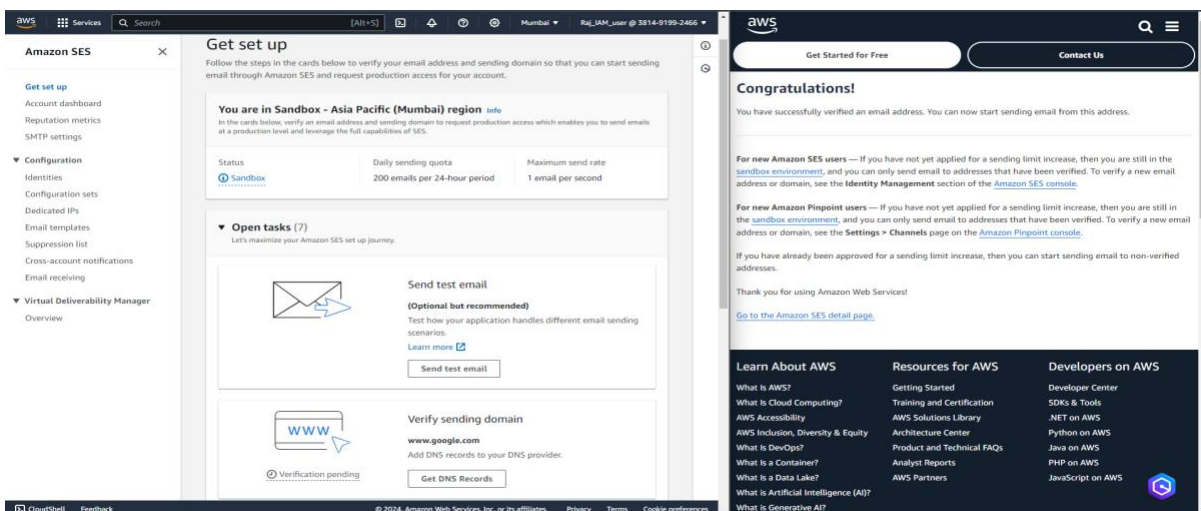


1.3 Uploaded the email template and contact list to S3

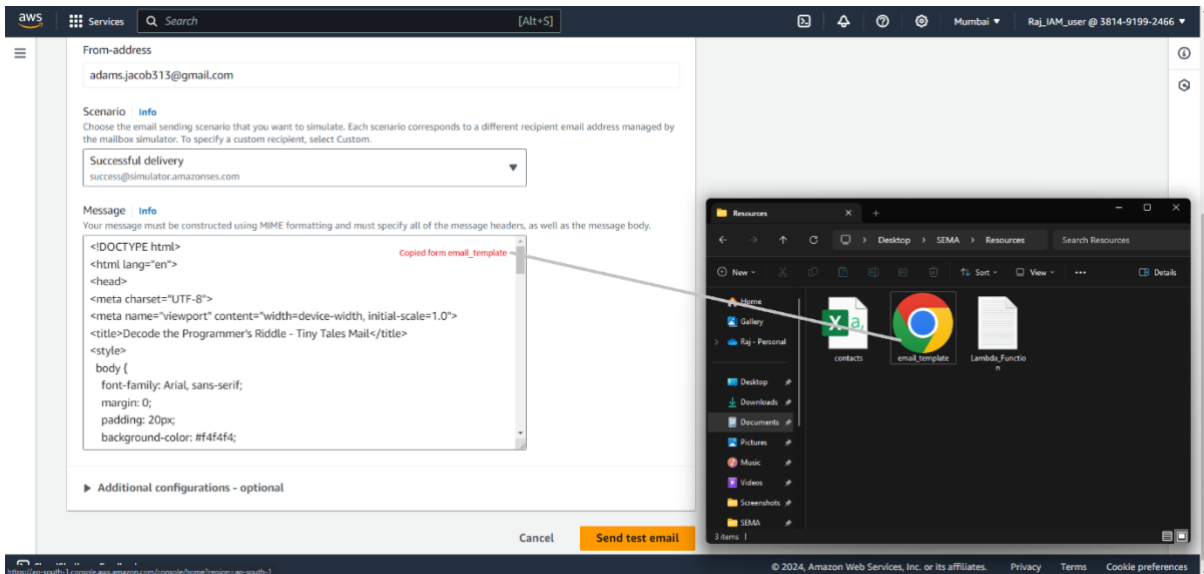


2. A way to send email

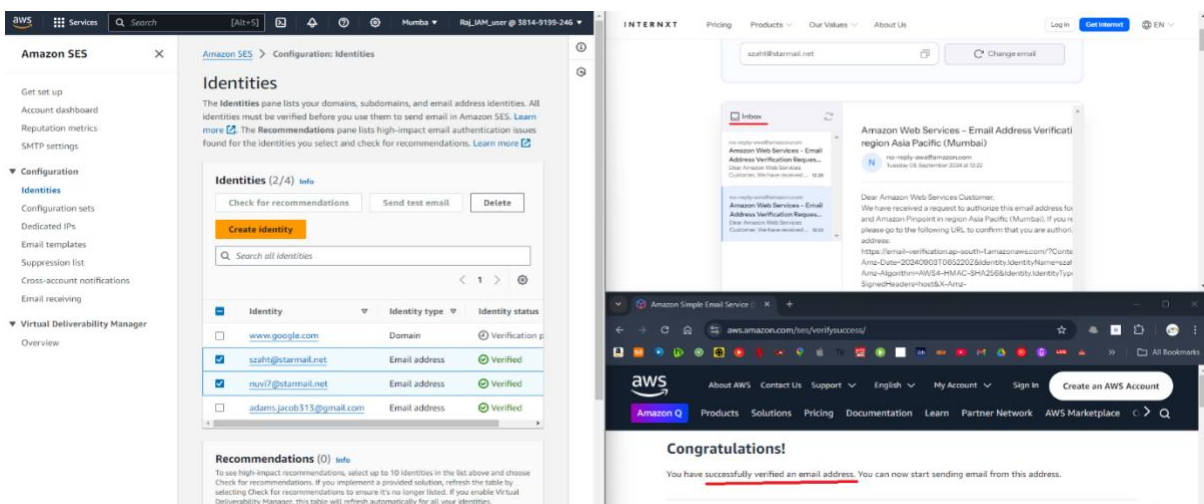
2.1 Setting up Amazon Simple Email Service (SES) with an email address and domain



2.2 Sending a test email using Amazon SES

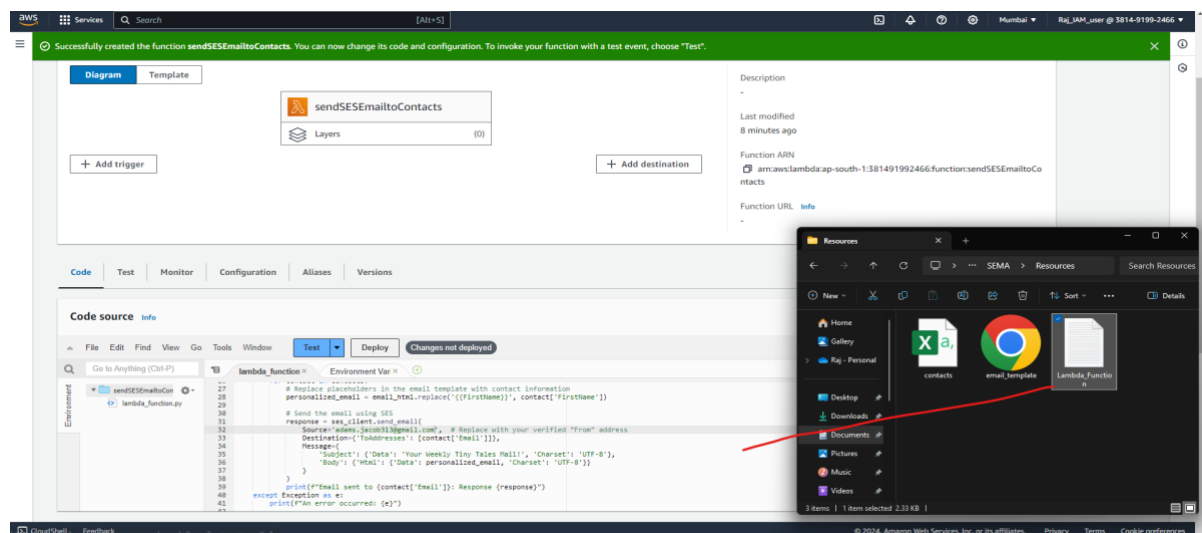


2.3 Valid from and to email address has been added and verified

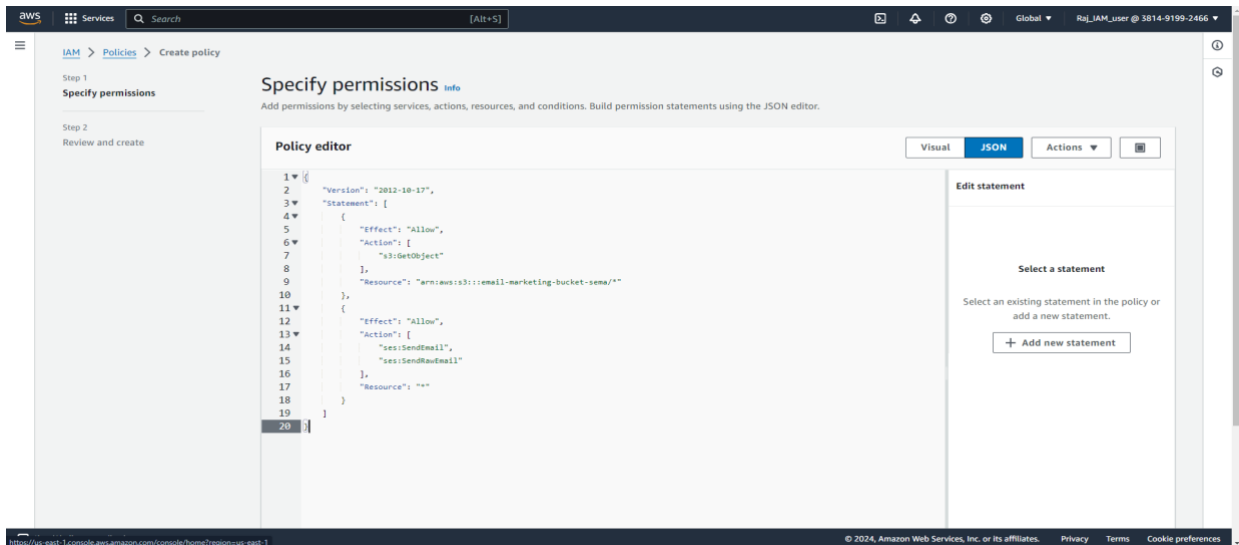


3. A way to merge email template with contacts and send them to email services

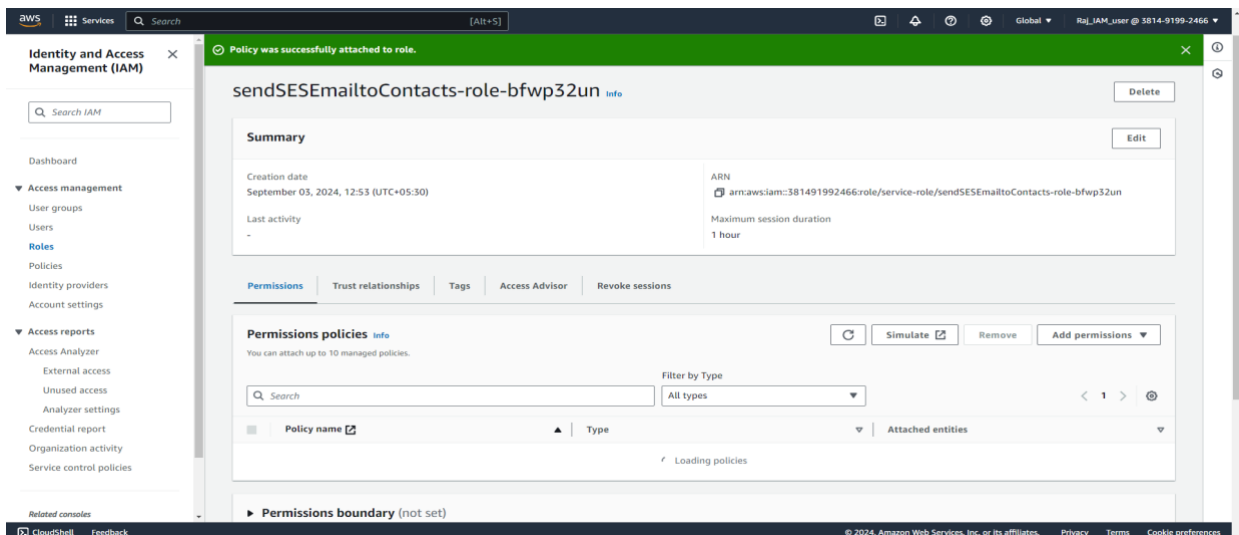
3.1 create lambda fn and copy code form the resources folder



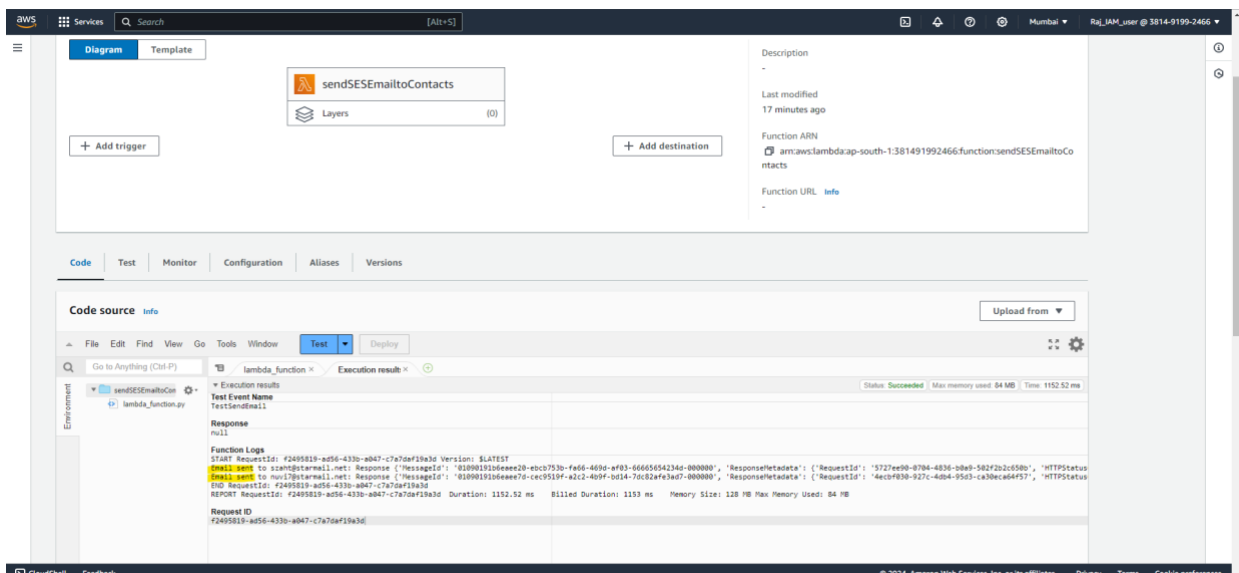
3.2 Creating a new policy with permissions for S3 and SES



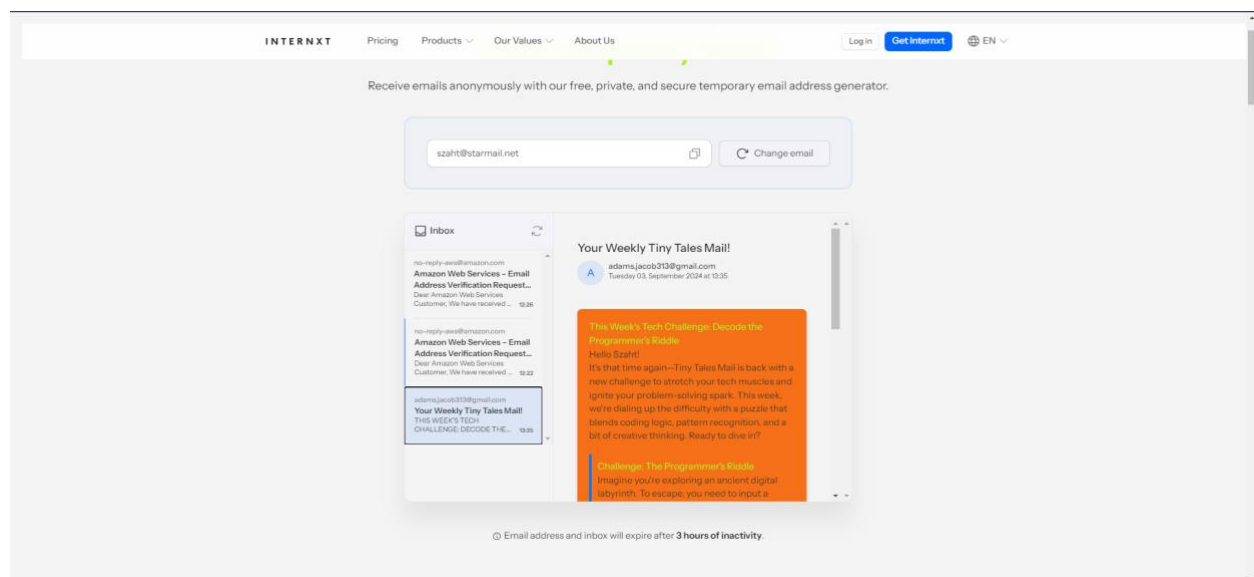
3.3 Attaching the policy to the Lambda execution role



3.4 Testing the Lambda function with updated permissions

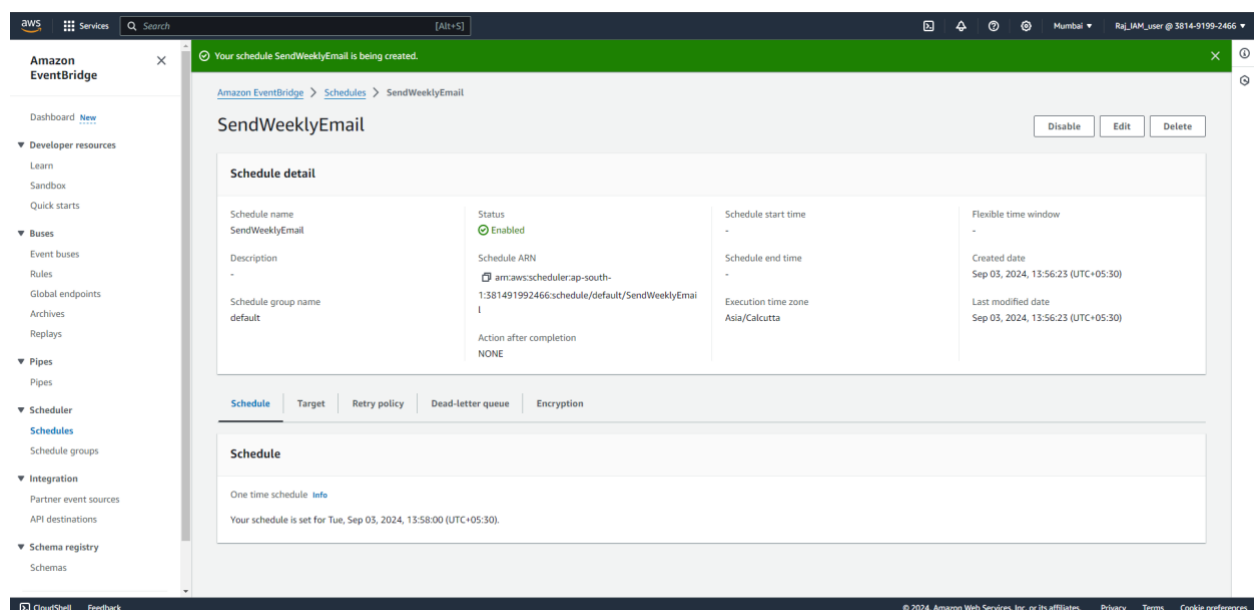


3.5 Email was received successfully

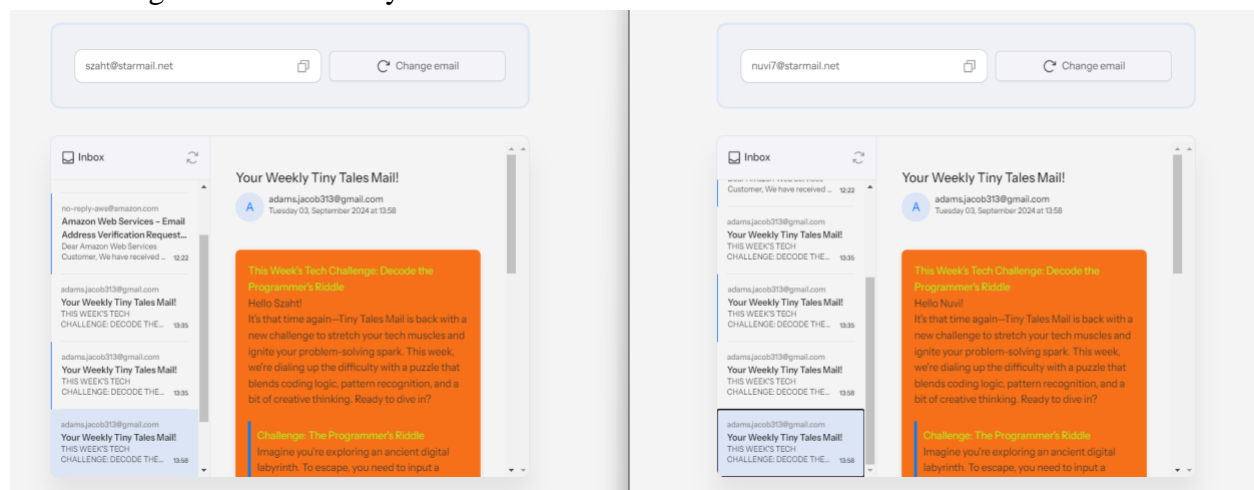


4. Testing the EventBridge schedule for sending emails

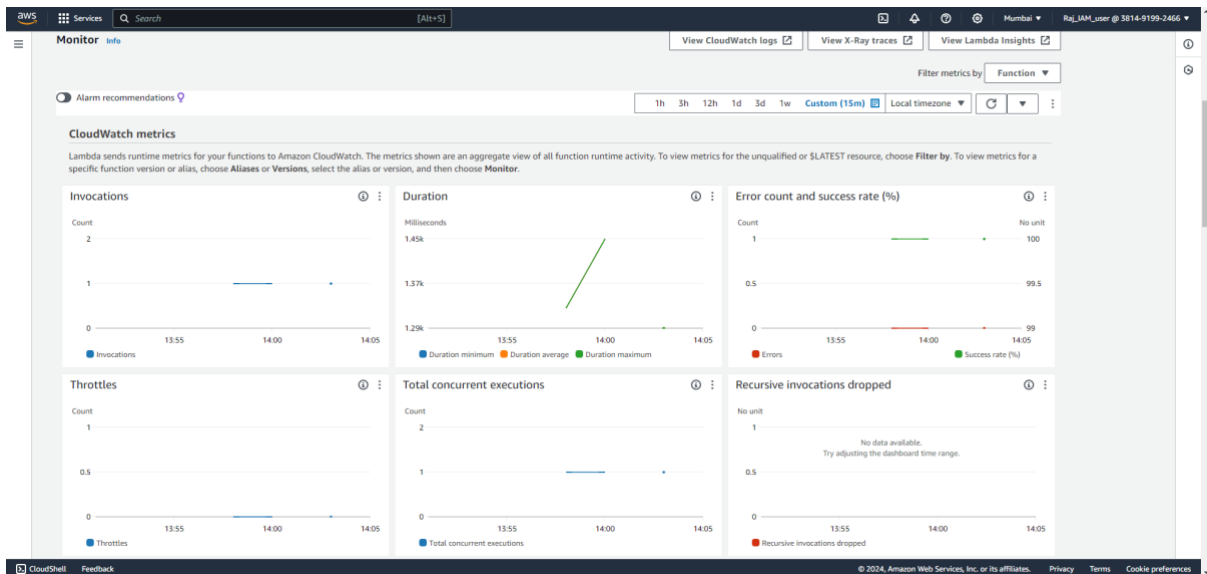
4.1 Event Bridge was created and I have trigged the lambda after few minutes



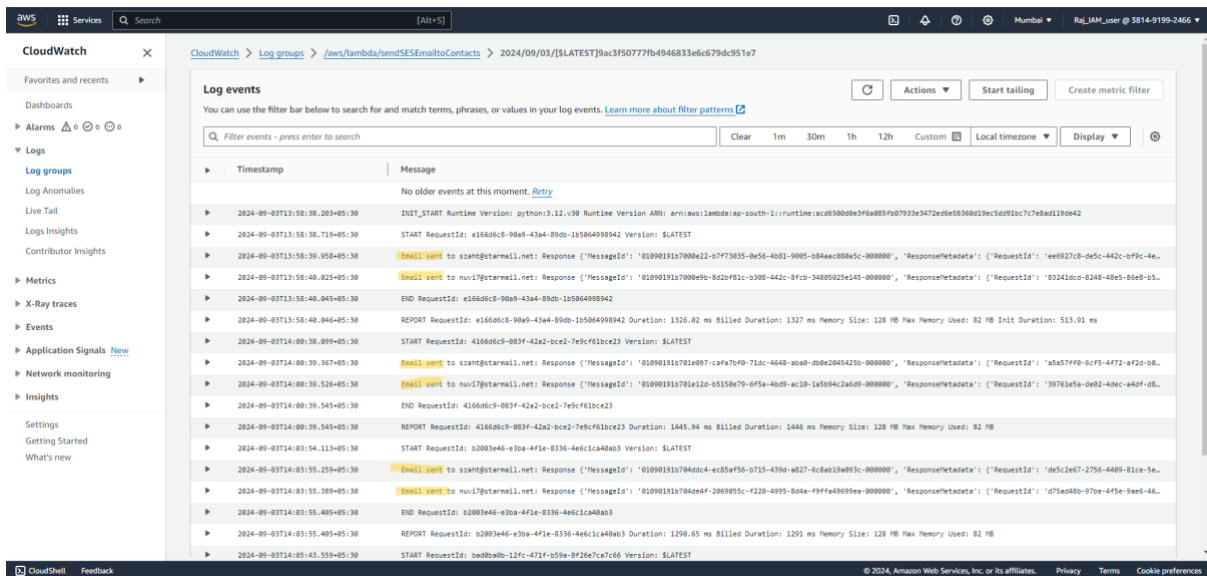
4.2 Event Bridge was successfully invoked lambda function



4.3 Monitoring the lambda Invocation



4.4 CloudWatch log Success Responses



4.5 Serverless Email Marketing Application Architecture:

