

Experiment # 7

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Aim : Automate Sending Emails at a Specific Time with AWS Lambda, CloudWatch and SES

Procedure :

We are going automate sending email to a person or a group of people. AWS **Cloudwatch** is used to setup a schedule to trigger AWS **Lambda** function and then its going to use AWS **SES (Simple Email Service)** to send out emails to people.

Steps:

1. Go to AWS SES (Simple email service), click on “Create Identity”.
Use email address as a type and type the email address.

Amazon SES > Configuration: Verified identities > Create identity

Create identity

A *verified identity* is a domain, subdomain, or email address you use to send email through Amazon SES. Identity verification at the domain level extends to all email addresses under one verified domain identity.

Identity details [Info](#)

Identity type

☐ Domain
To verify ownership of a domain, you must have access to its DNS settings to add the necessary records.

☒ Email address
To verify ownership of an email address, you must have access to its inbox to open the verification email.

Email address

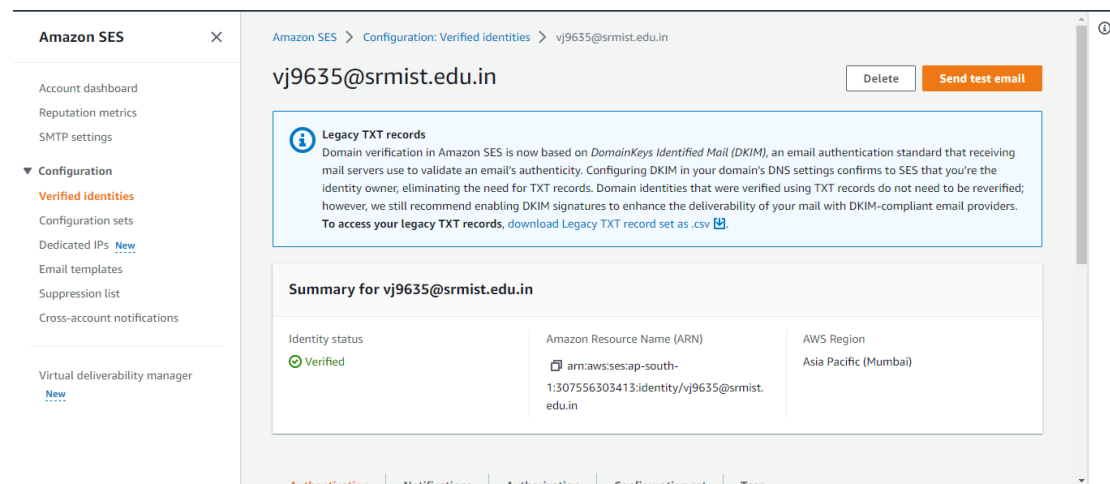
Email address can contain up to 320 characters, including plus signs (+), equals signs (=) and underscores (_).

☐ Assign a default configuration set
Enabling this option ensures that the assigned configuration set is applied to messages sent from this identity by default whenever a configuration set isn't specified at the time of sending.

Feedback Looking for language selection? Find it in the new Unified Settings [\[?\]](#) © 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Cookie preferences

2. Verify the email address that reviewed an email from aws to tell you to verify that.
- 3.

Create two identities (email address).



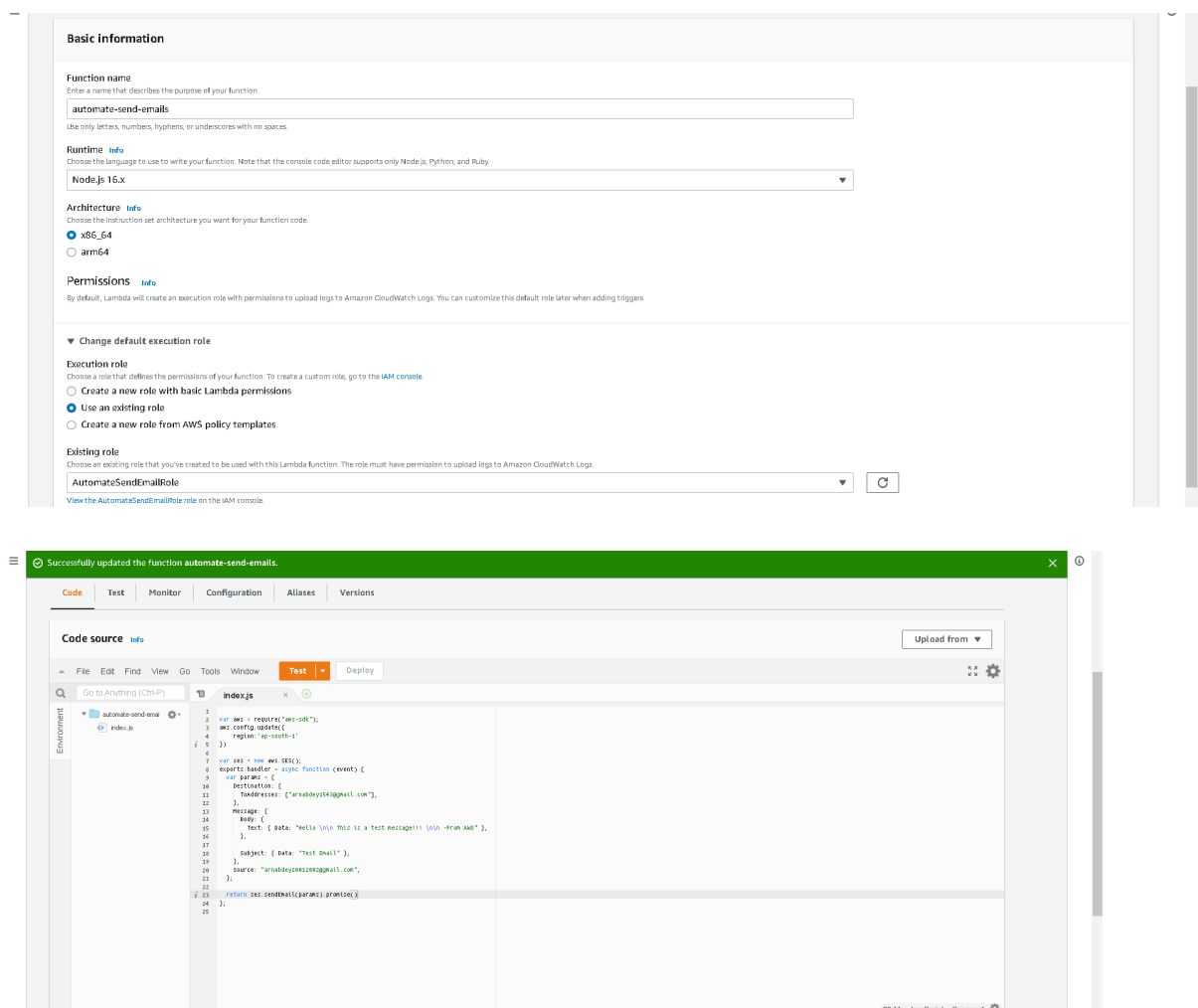
One for sending emails and another for receiving.

4. Create an IAM role.

Give Use case as lambda and give full access to cloudwatch, SES.

5. Go to Lambda Service, create a lambda function.

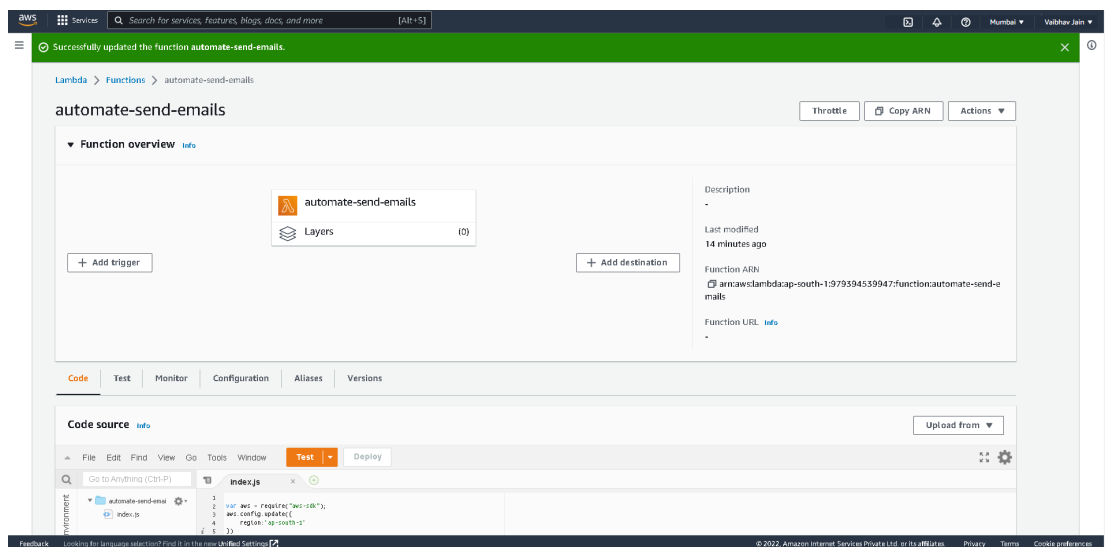
Give name, runtime as NodeJS, execution role as created IAM role previously.

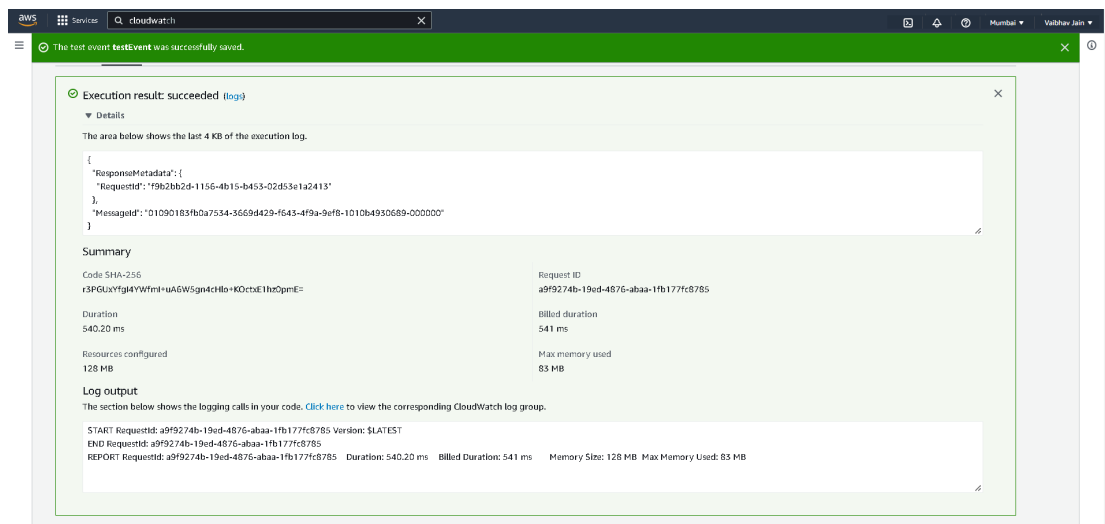


6. Use this template for the code:

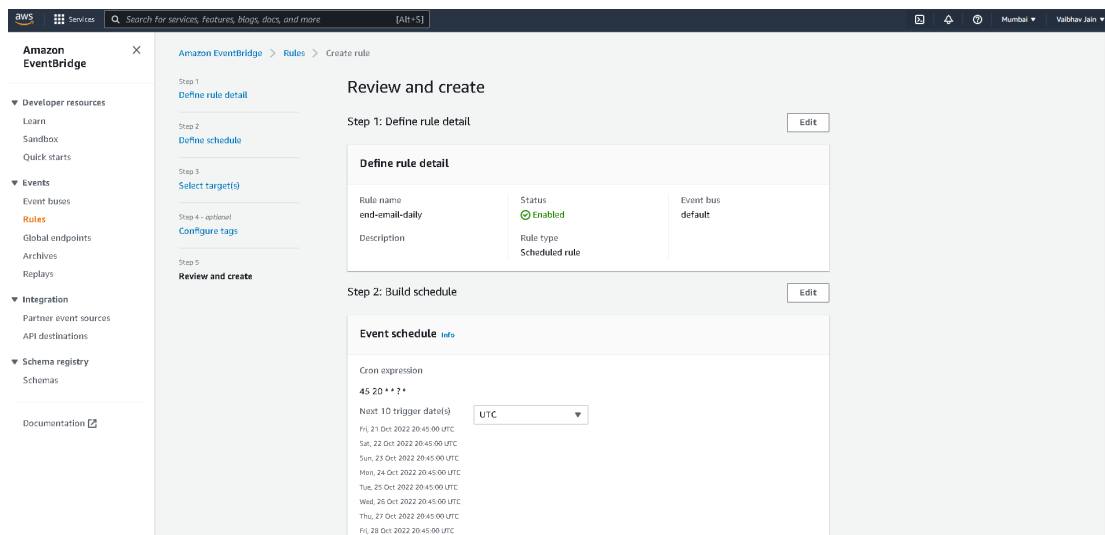
```
1)
2) var aws = require("aws-sdk");
3) var ses = new aws.SES({ region: "us-west-2" });
4) exports.handler = async function (event) {
5)   var params = {
6)     Destination: {
7)       ToAddresses: ["RecipientEmailAddress"],
8)     },
9)     Message: {
10)      Body: {
11)        Text: { Data: "Test" },
12)      },
13)
14)      Subject: { Data: "Test Email" },
15)    },
16)    Source: "SourceEmailAddress",
17)  };
18)
19)  return ses.sendEmail(params).promise()
20) };
```

7. Click on Deploy and then TEST, you will receive the message in your mentioned emails.

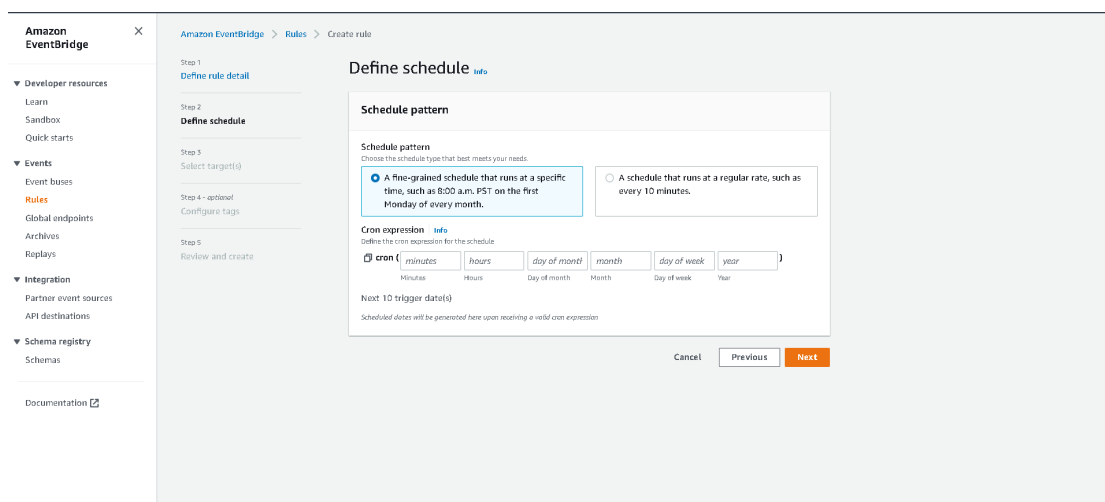




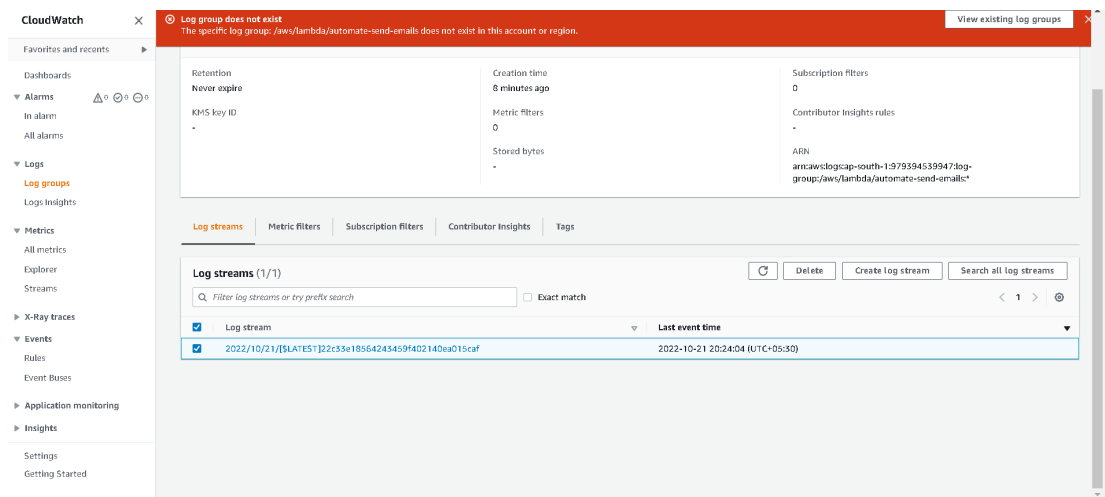
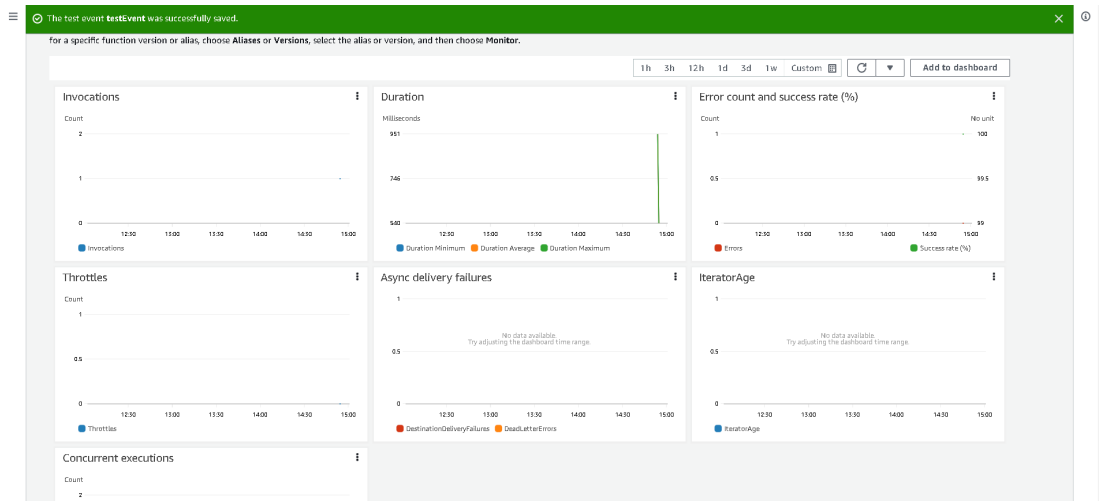
8. For scheduled daily report, go to AWS Cloudwatch , navigate to rule section (now called as eventBridge).



9. Create rule- give name, rule type- schedule, use cron expression for schedule pattern .
For e.g. : 15 19 * * ? *



10. Select Targets as lambda function, and use the above defined function.
11. Go to monitoring in Lambda service, click on View logs in cloudWatch and check your mail inbox .



Result:

Hence, the lambda function is created and also implemented using SES, CloudWatch to schedule daily reports.