Project Name: Automated EC2 Health Check with AWS Lambda

Objective:

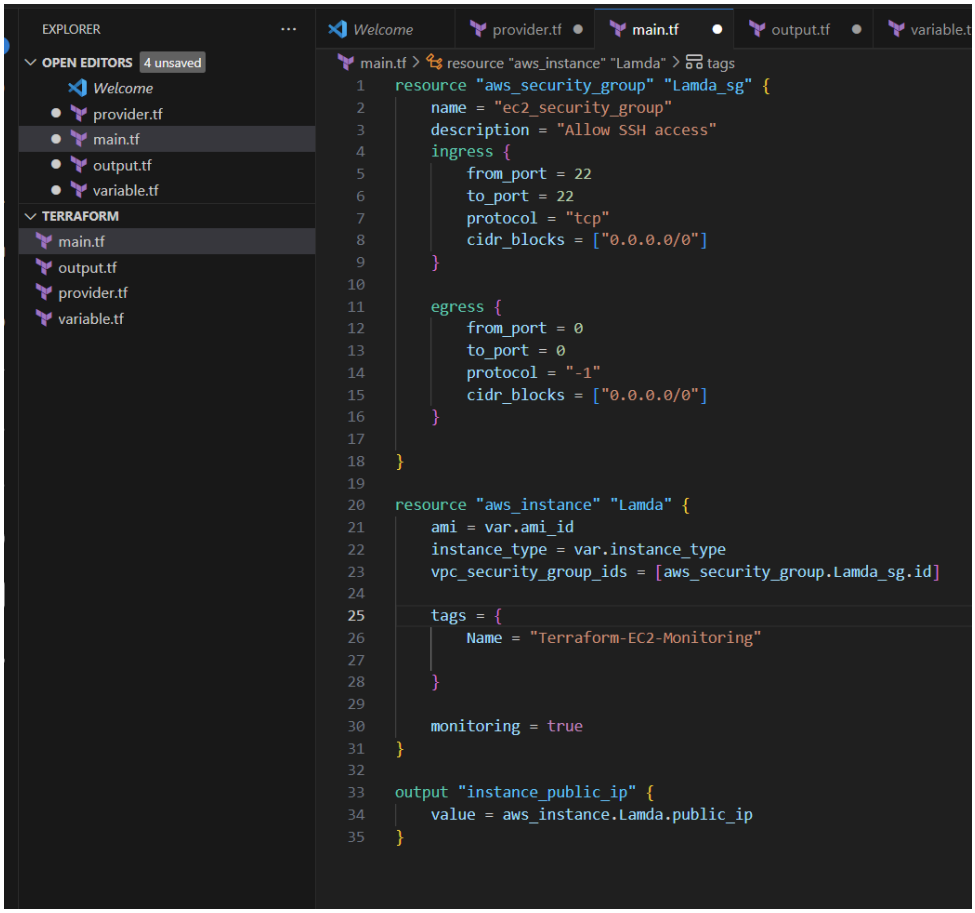
Build a serverless solution using AWS Lambda to automatically monitor the health of EC2 instances and notify the team in case of issues via Amazon SNS (Simple Notification Service).

Step1 (Create using Terraform)

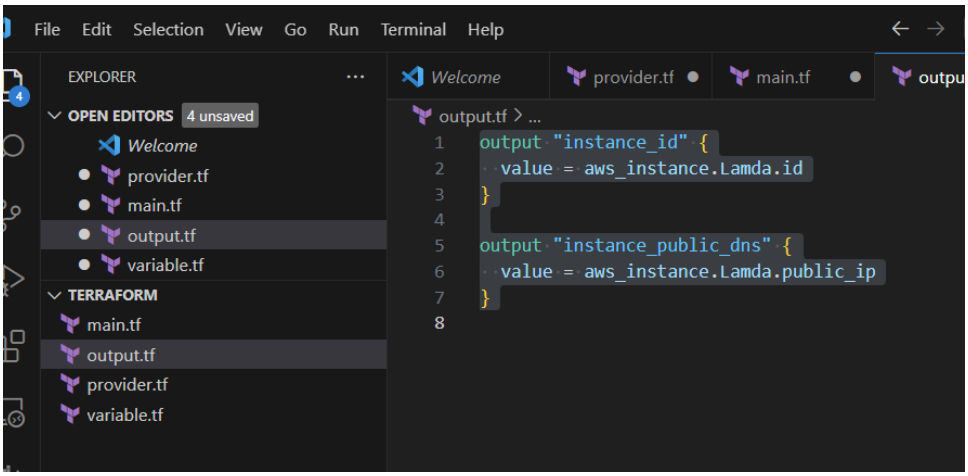
- Launch one or more EC2 instances
- Ensure you have basic monitoring enabled (CloudWatch metrics)

Terraform Code

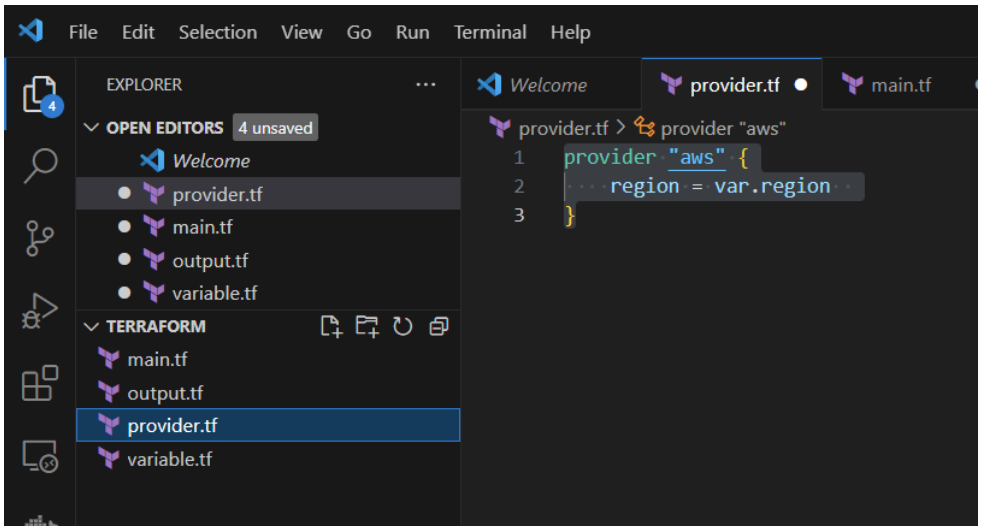
- Main. tf



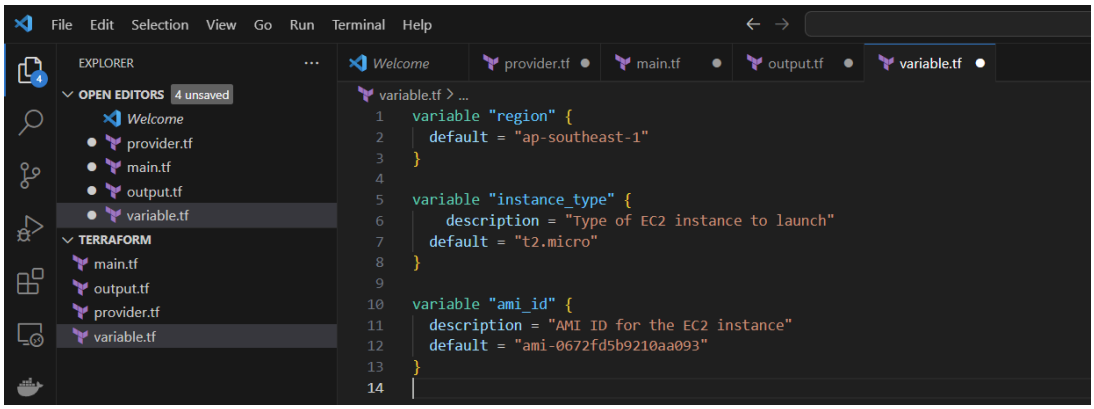
- Output.tf



- Provider.tf

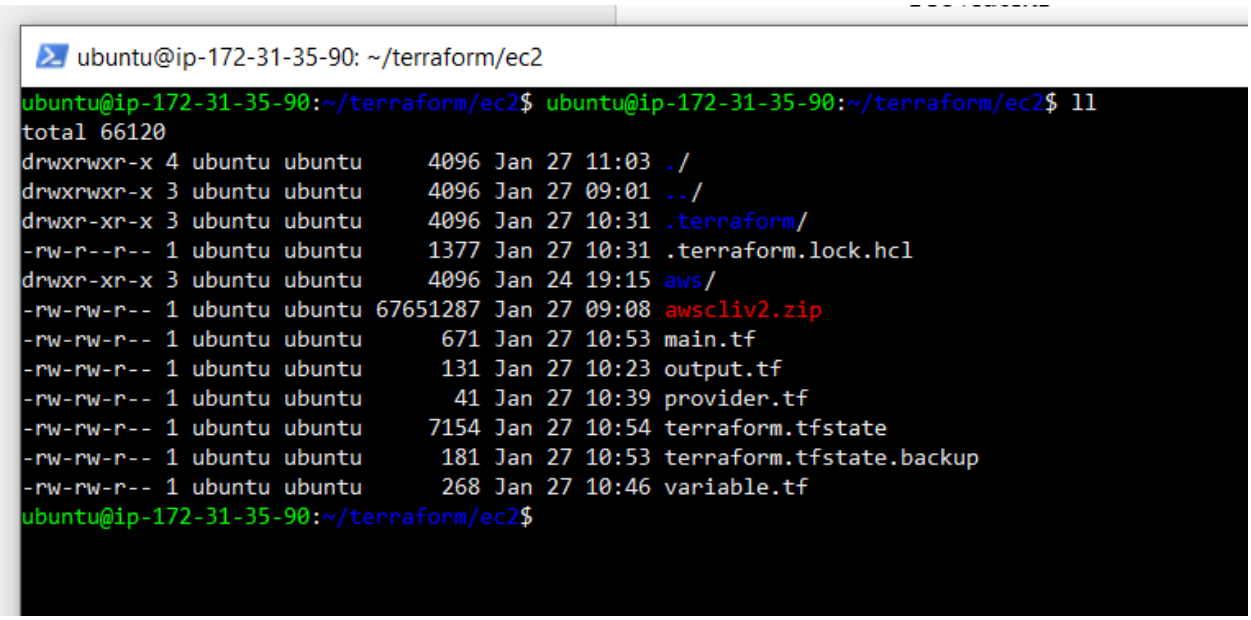


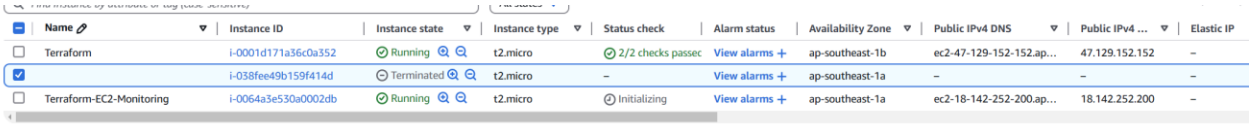
- Variable.tf



Terraform command

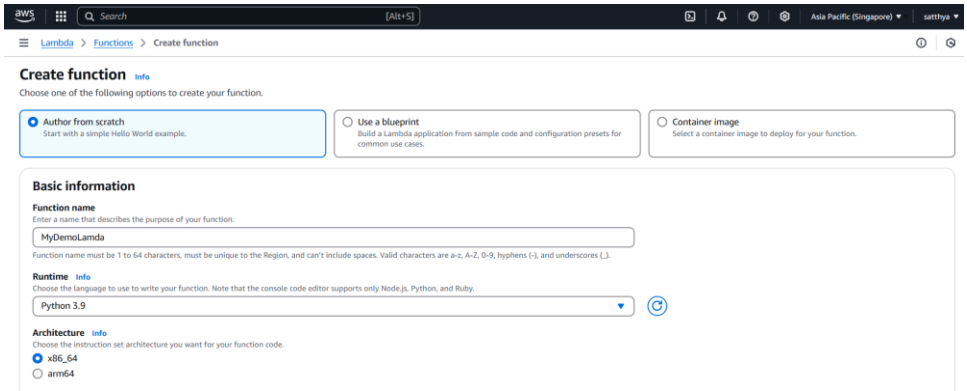
- aws configure
- terraform init
- terraform fmt
- terraform plan
- terraform apply

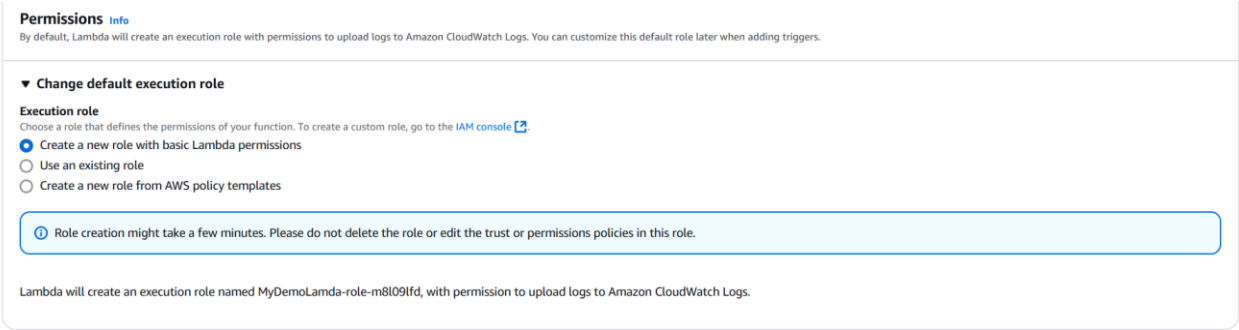




Step2 (Create AWS Lamda Function)

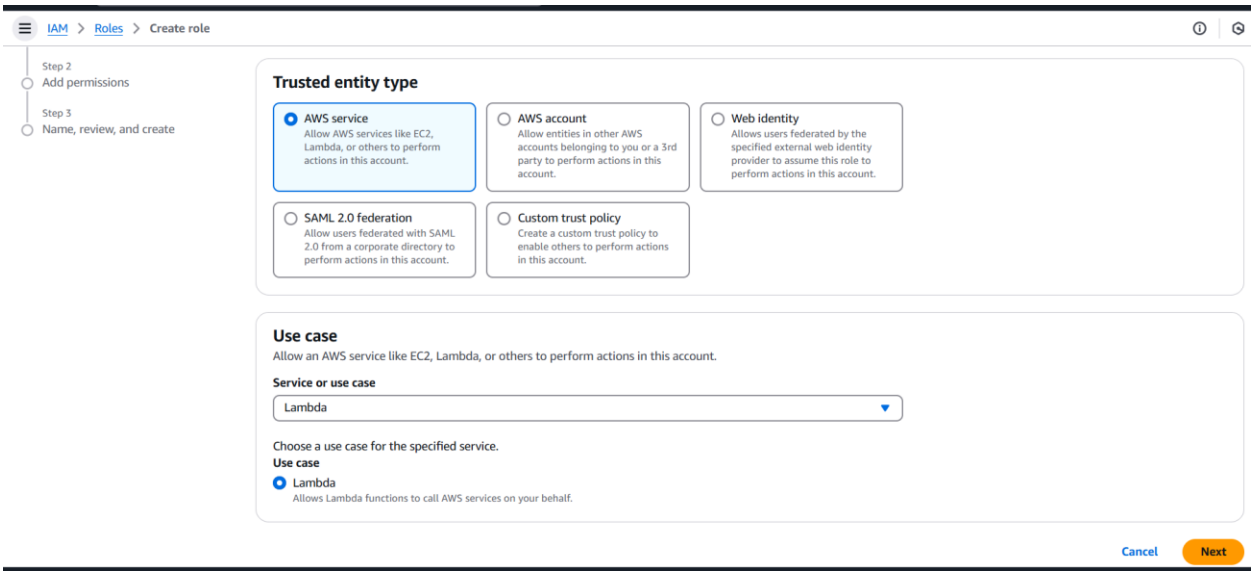
- Create AWS Lamda Function

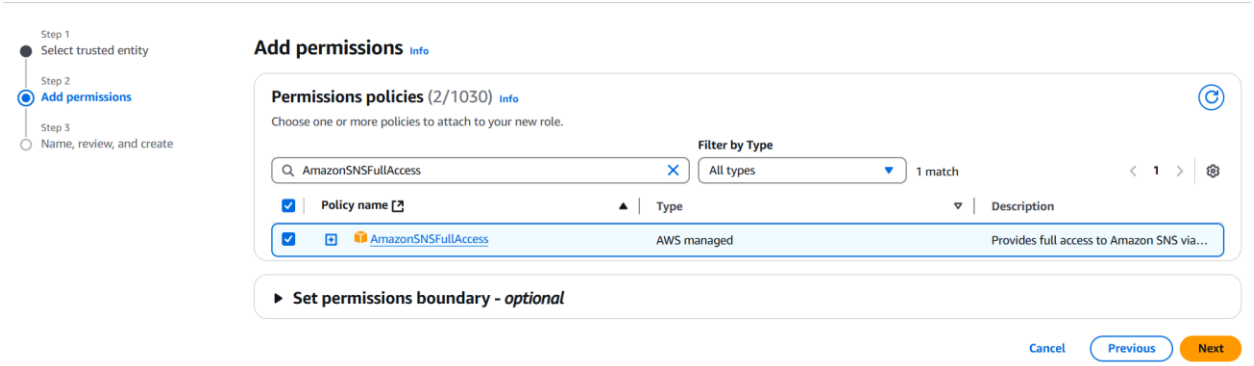


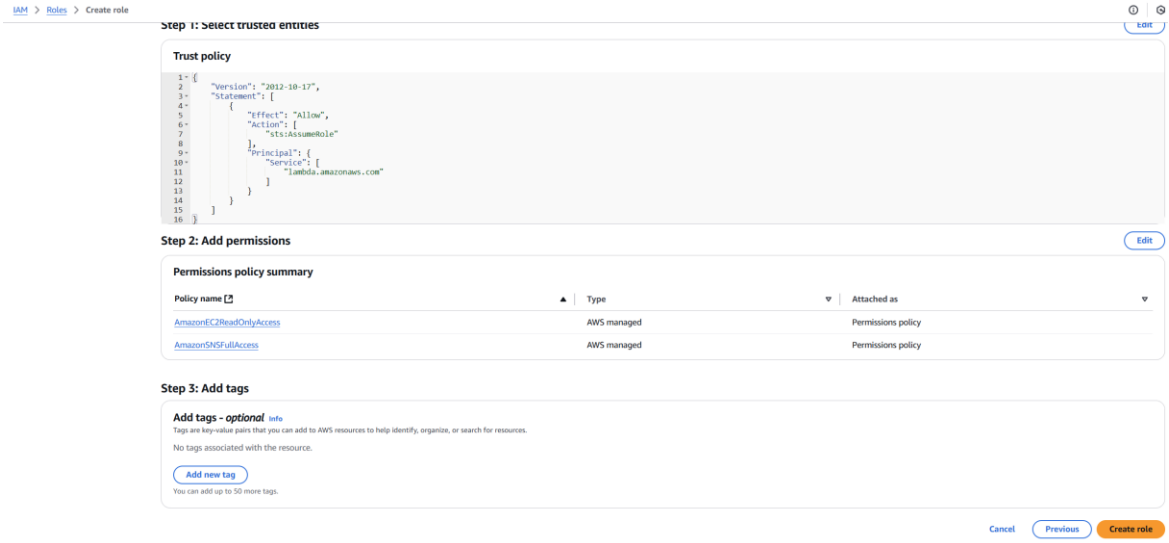


Step3 (Create IAM Role for Lamda)

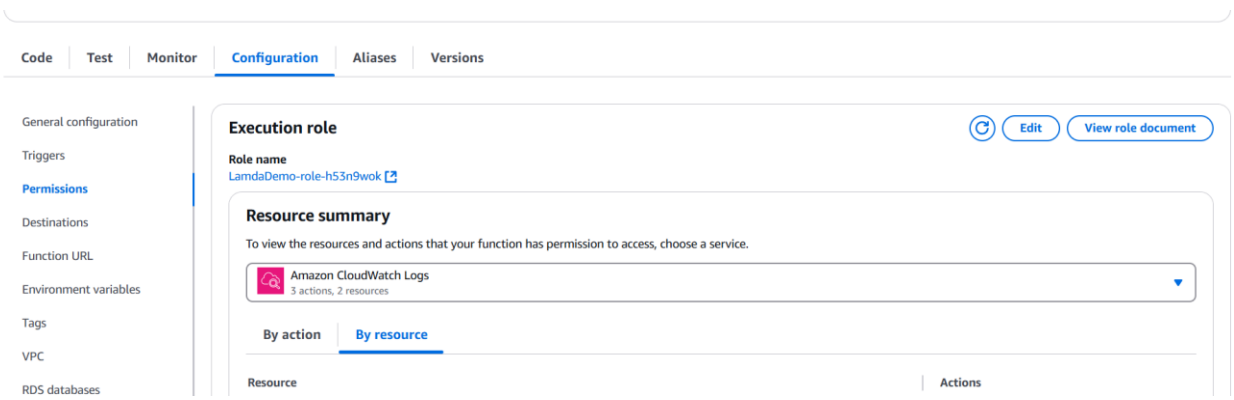
- AmazonEC2ReadOnlyAccess (to get EC2 instance statuses).
- AmazonSNSFullAccess (to publish notifications to SNS).

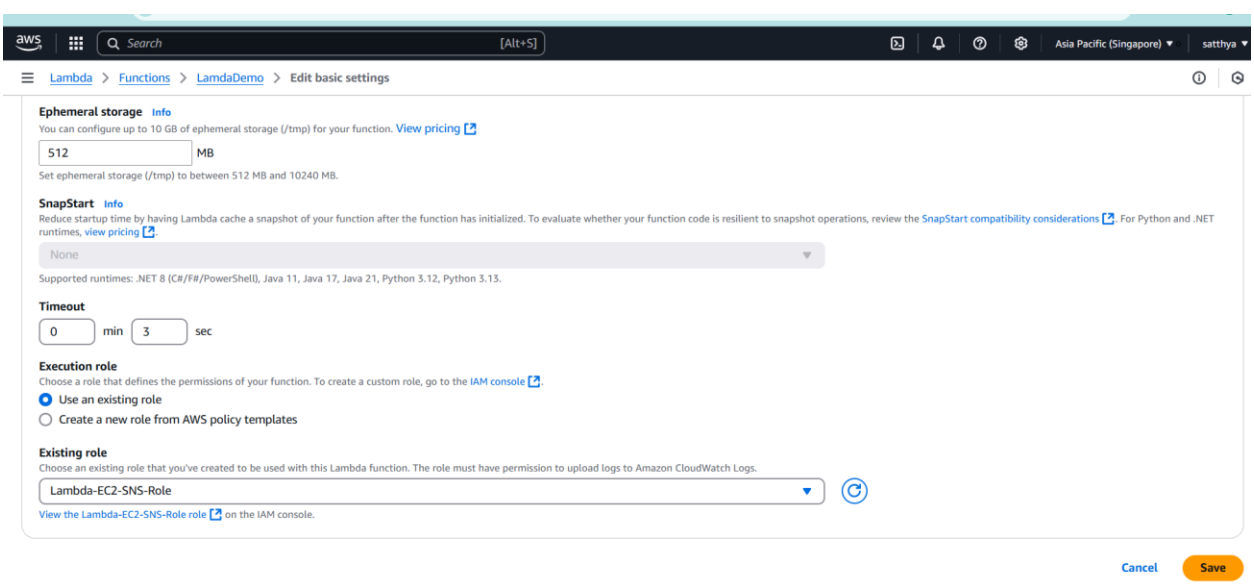




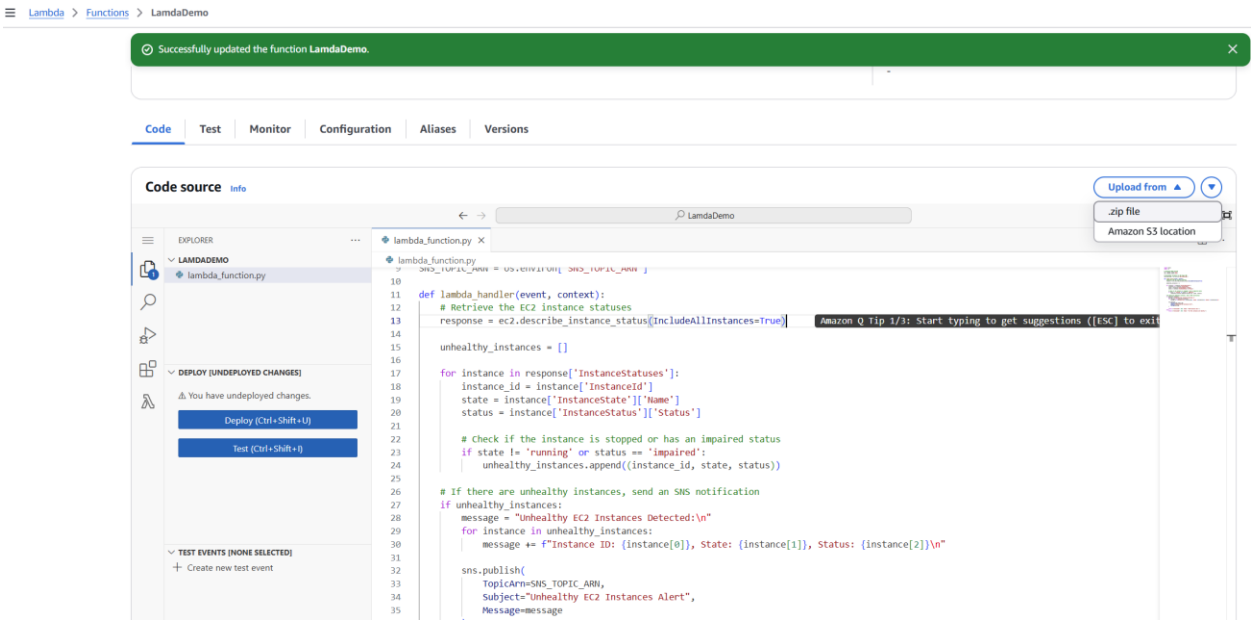


Step4 (Attached the Role to Lamda Function)

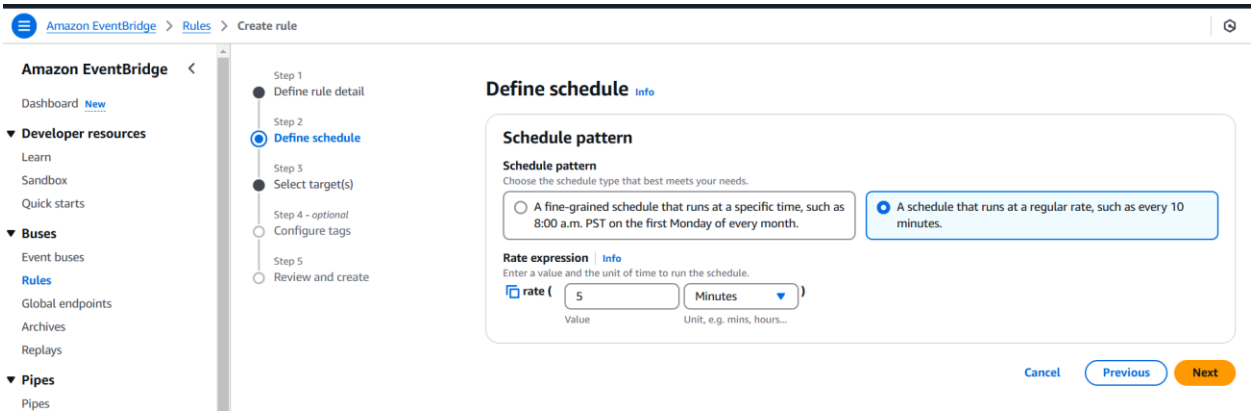


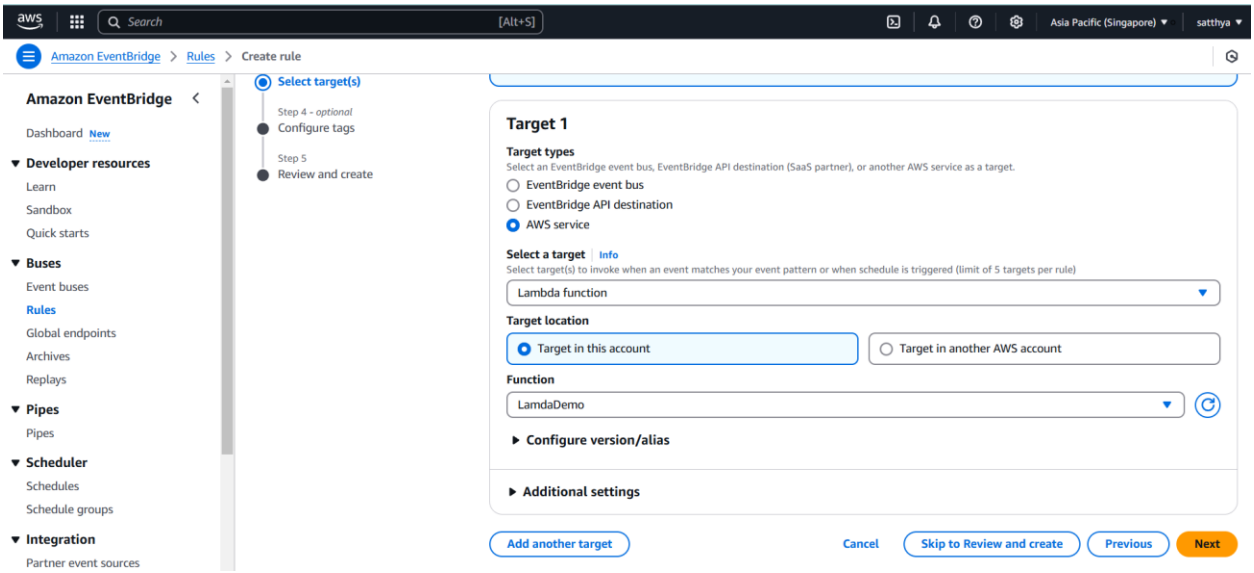


Step5 (Write the Lamda Function Code)



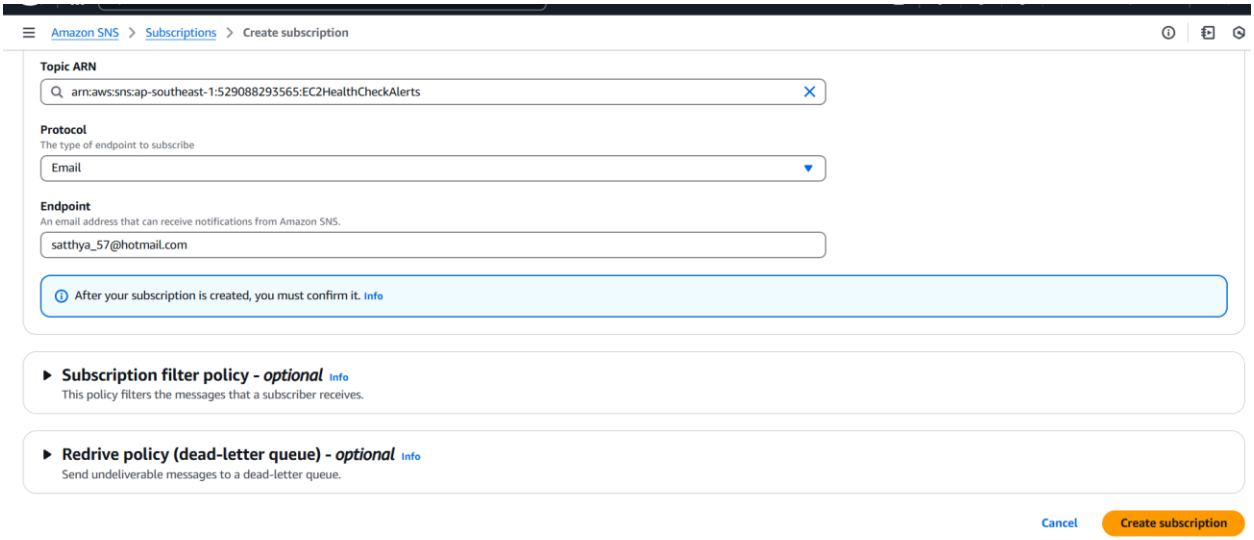
Step6 (Create CloudWatch Events to Trigger the Lamda)



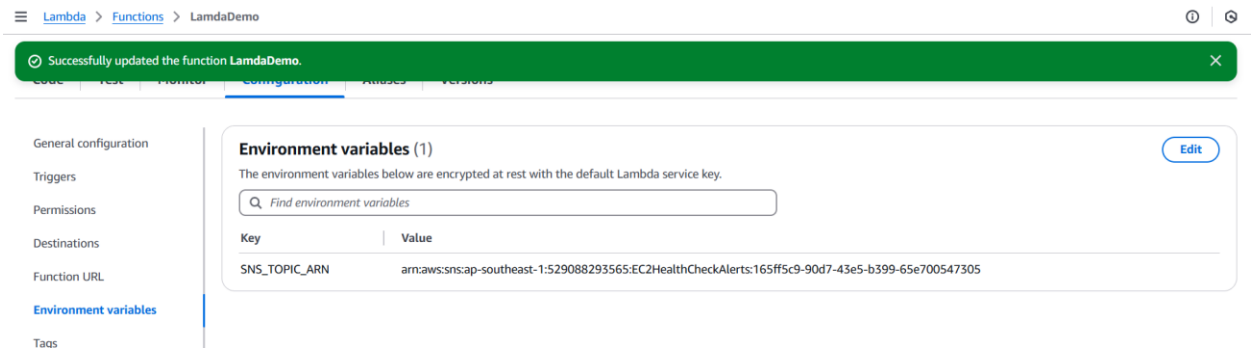


Step7 (Set Up SNS for Notifications)

- Create topic
- Create subscription



Step8 (Add the SNS topic ARN in the Lambda function's environment variables)



Step9 (Varify)