Module 13 Challenge Lab - Implementing a Serverless Architecture for the Café

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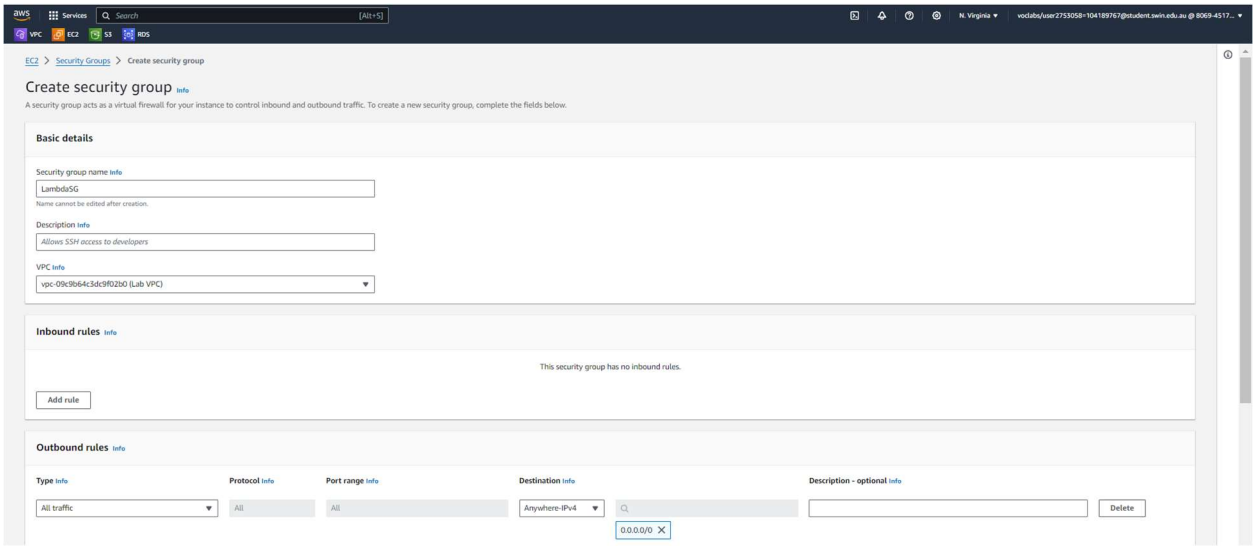
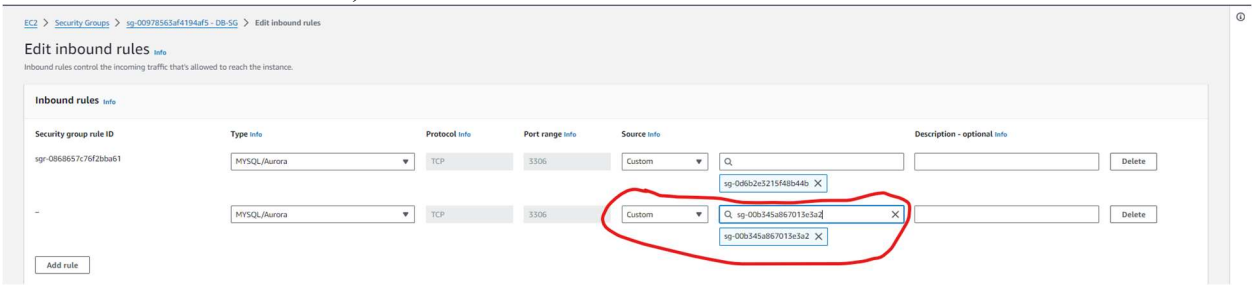
Task 1: Downloading the source code

I did it and I will use it later

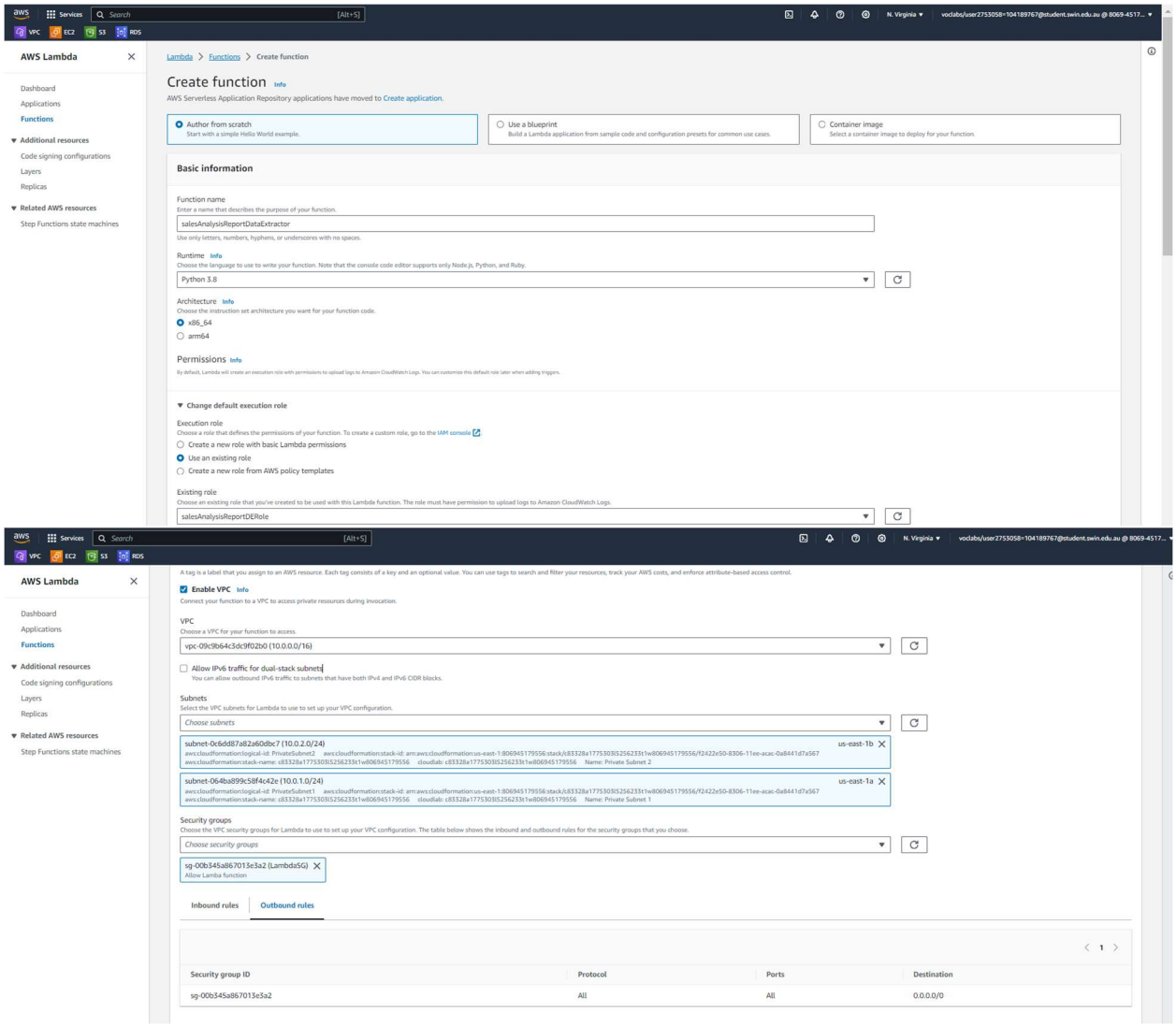
Task 2: Creating the DataExtractor Lambda function in the VPC



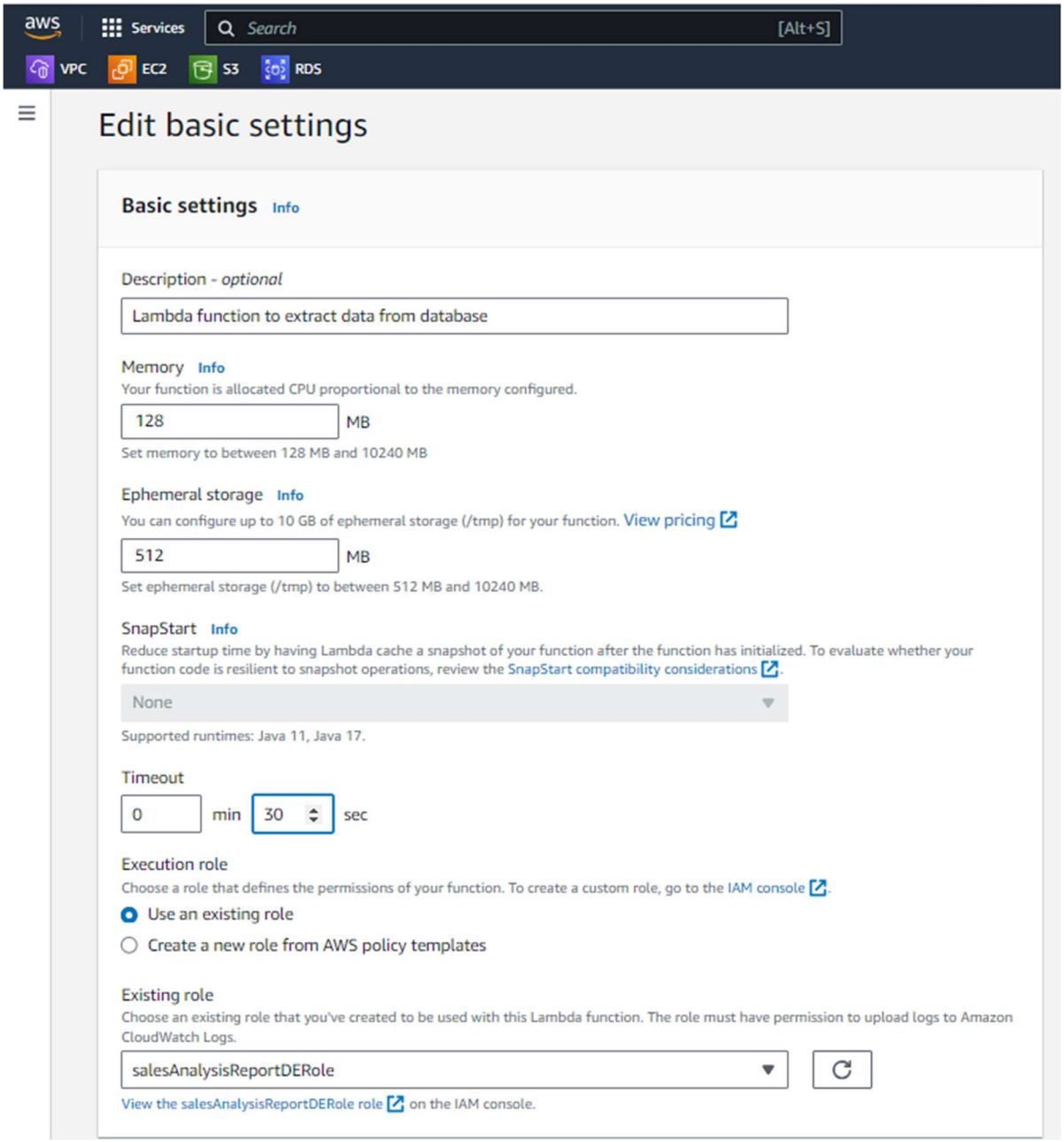
The first step is creating security group for Lambda (name: LambdaSG , VPC : LabVPC, Outbound rules : All traffic)



Then , I add new inbound rule to DatabaseSG with Type: MySQL/Aurora and Source :LamdaSG I created above.

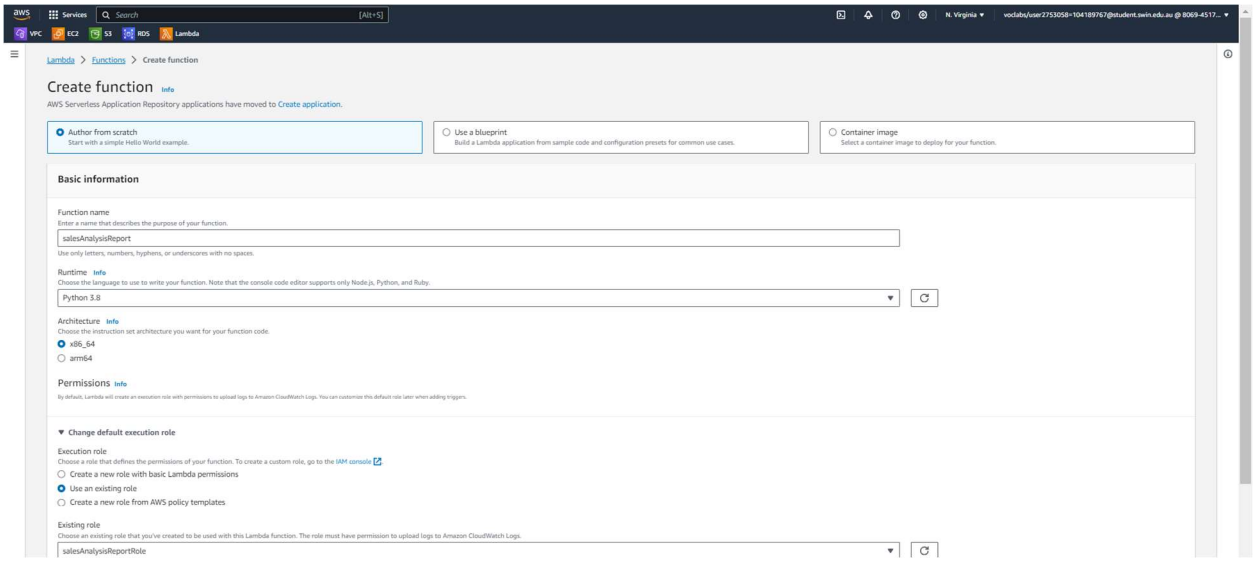


These images are the information of the new Lambda Function I created with name: salesAnalysisReportDataExtractor , Runtime: Python 3.8 , Role : salesAnalysisReportDERole, VPC: Lab VPC, Subnet: Private subnet1 & Private subnet2, SG: LambdaSG.

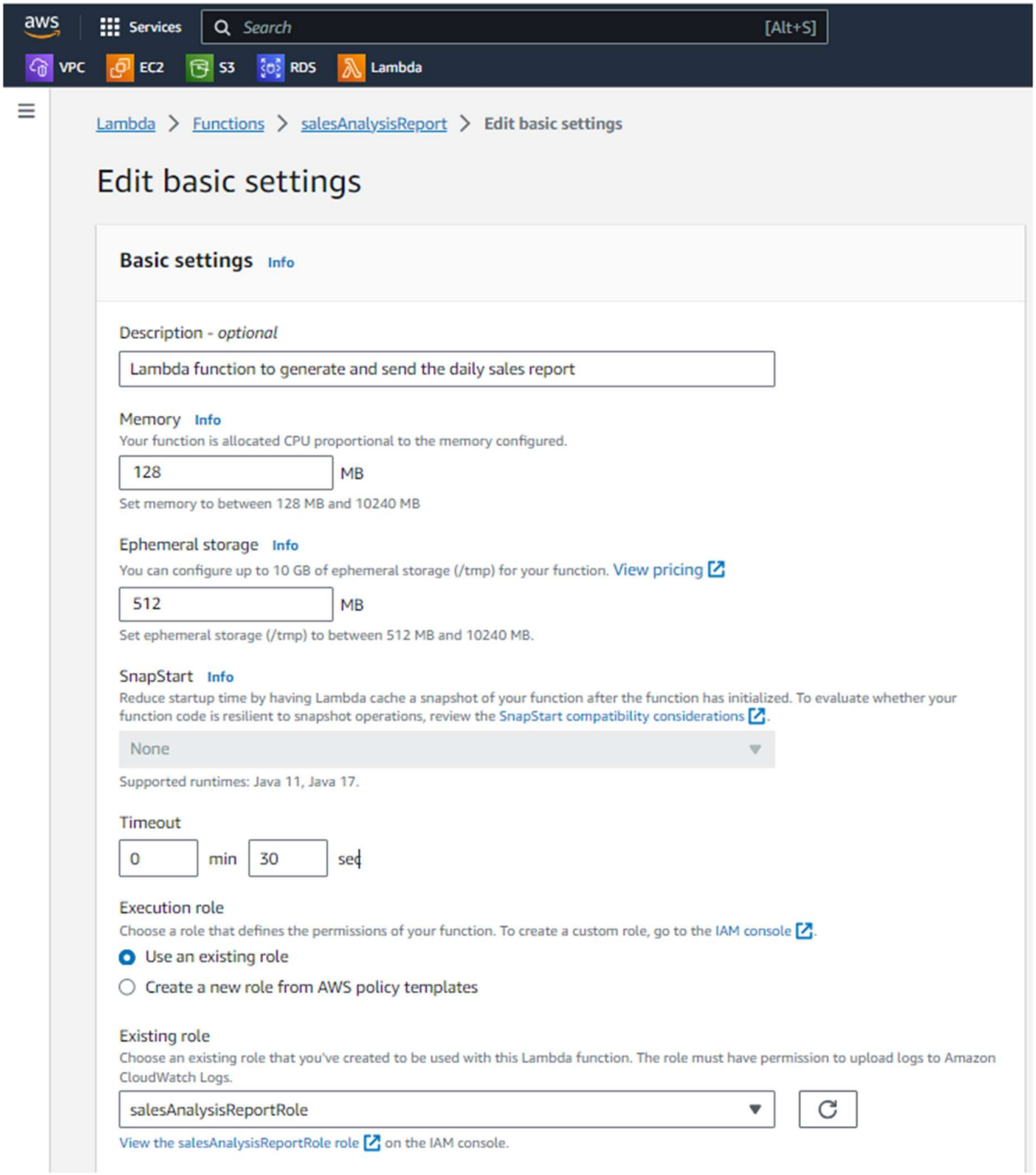


Configure the DataExtractor Lambda

Task 3: Creating the salesAnalysisReport Lambda function

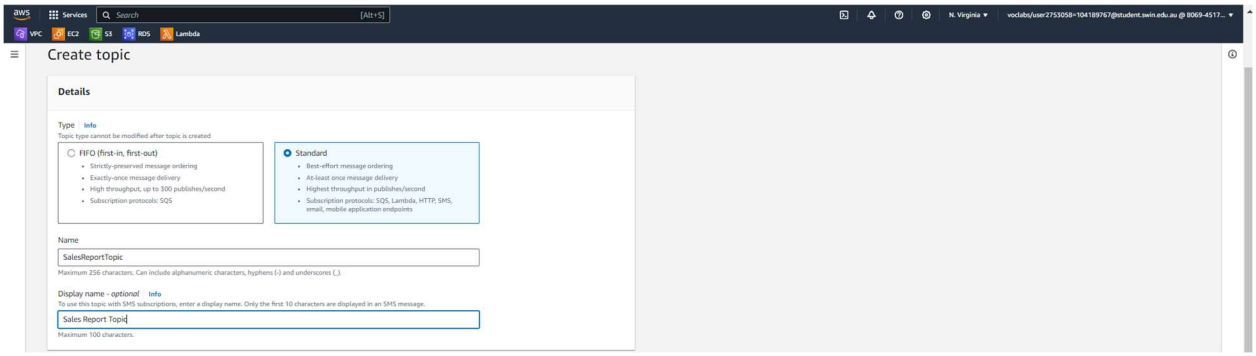


I create new Lambda function with name: saleAnalysisReport , Runtime: Python 3.8 and IAM Role: saleAnalysisReportRole.

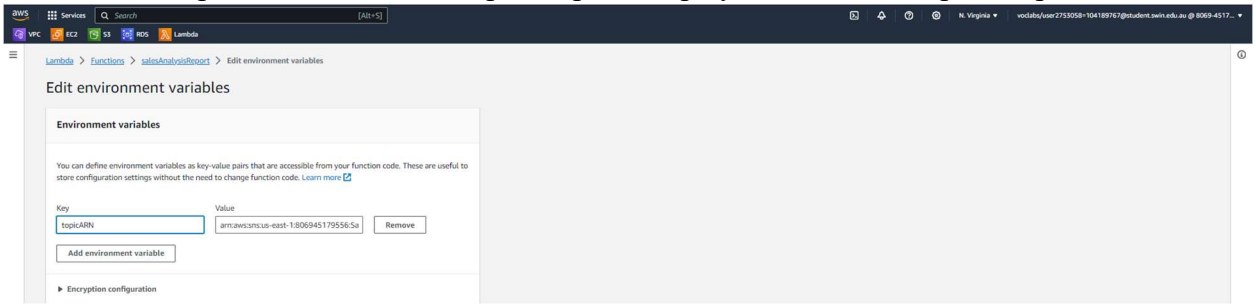

aws
Services
Search
[Alt+S]
VPC
EC2
S3
RDS
Lambda
Lambda > Functions > salesAnalysisReport > Edit basic settings
Edit basic settings
Basic settings Info
Description - optional
Lambda function to generate and send the daily sales report
Memory Info
Your function is allocated CPU proportional to the memory configured.
128
MB
Set memory to between 128 MB and 10240 MB
Ephemeral storage Info
You can configure up to 10 GB of ephemeral storage (/tmp) for your function. View pricing
512
MB
Set ephemeral storage (/tmp) to between 512 MB and 10240 MB.
SnapStart Info
Reduce startup time by having Lambda cache a snapshot of your function after the function has initialized. To evaluate whether your function code is resilient to snapshot operations, review the SnapStart compatibility considerations.
None
Supported runtimes: Java 11, Java 17.
Timeout
0
min
30
sec
Execution role
Choose a role that defines the permissions of your function. To create a custom role, go to the IAM console.
Use an existing role
Create a new role from AWS policy templates
Existing role
Choose an existing role that you've created to be used with this Lambda function. The role must have permission to upload logs to Amazon CloudWatch Logs.
salesAnalysisReportRole
View the salesAnalysisReportRole role on the IAM console.

Configure the Lambda function above.

Task 4: Creating an SNS topic

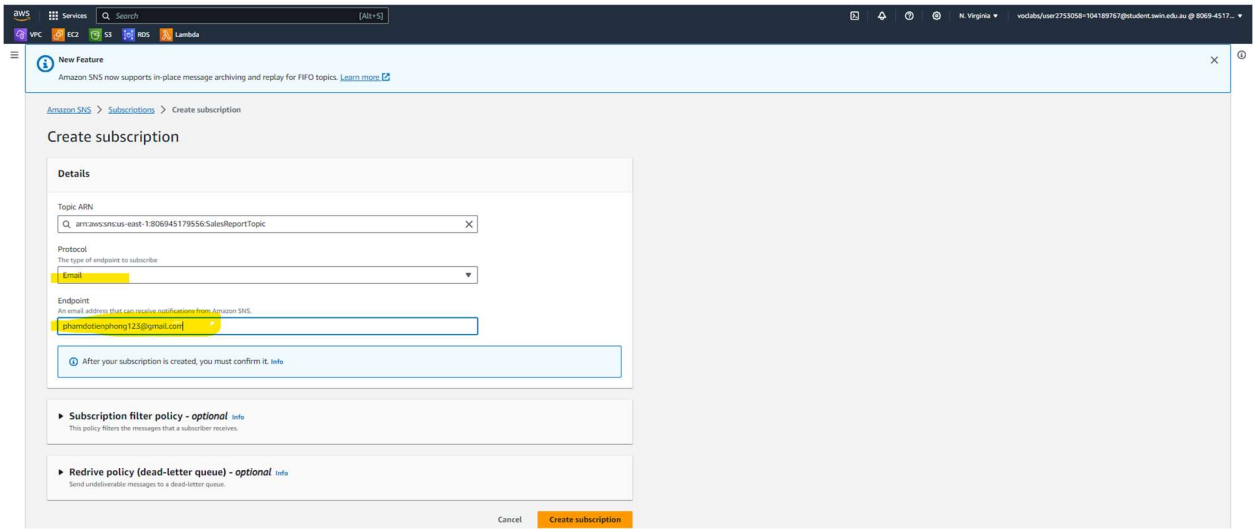


I create SNS topic with name: SaleReportTopic , Display name: Sales Report Topic.

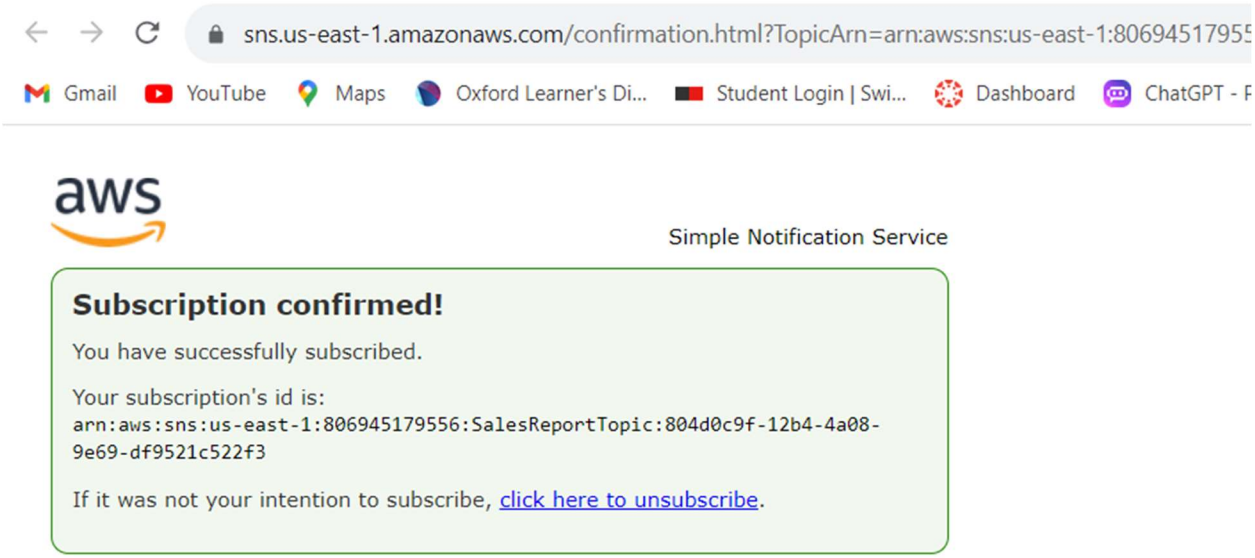


I add new environment variables with key: topicARN and value is the ARN of the topic above.

Task 5: Creating an email subscription to the SNS topic

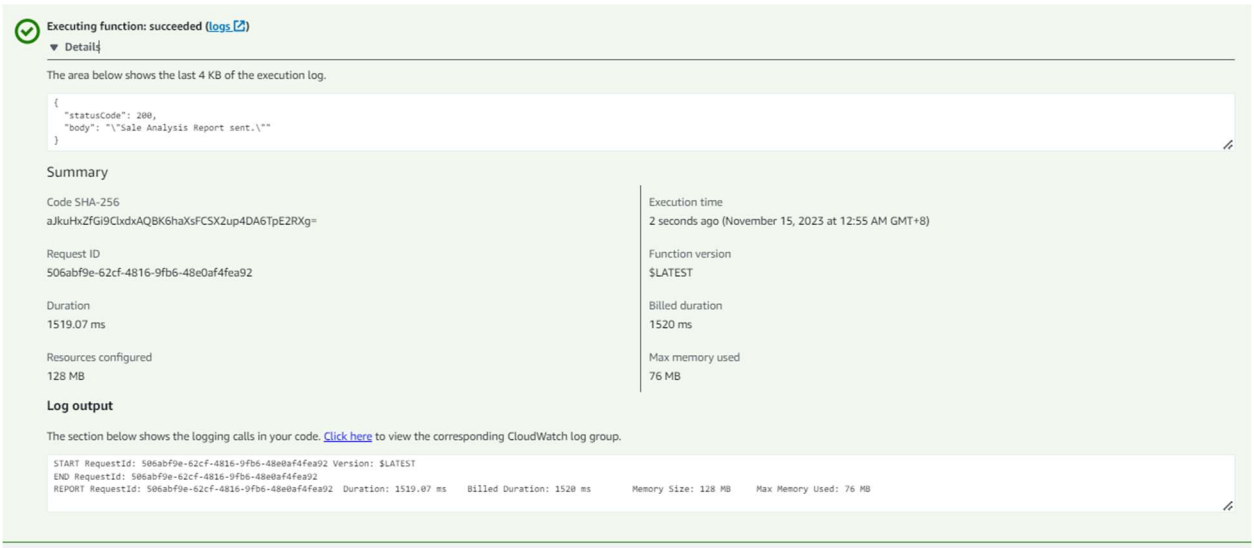


I create subscription of the for SaleReportTopic and the endpoint is my private email.

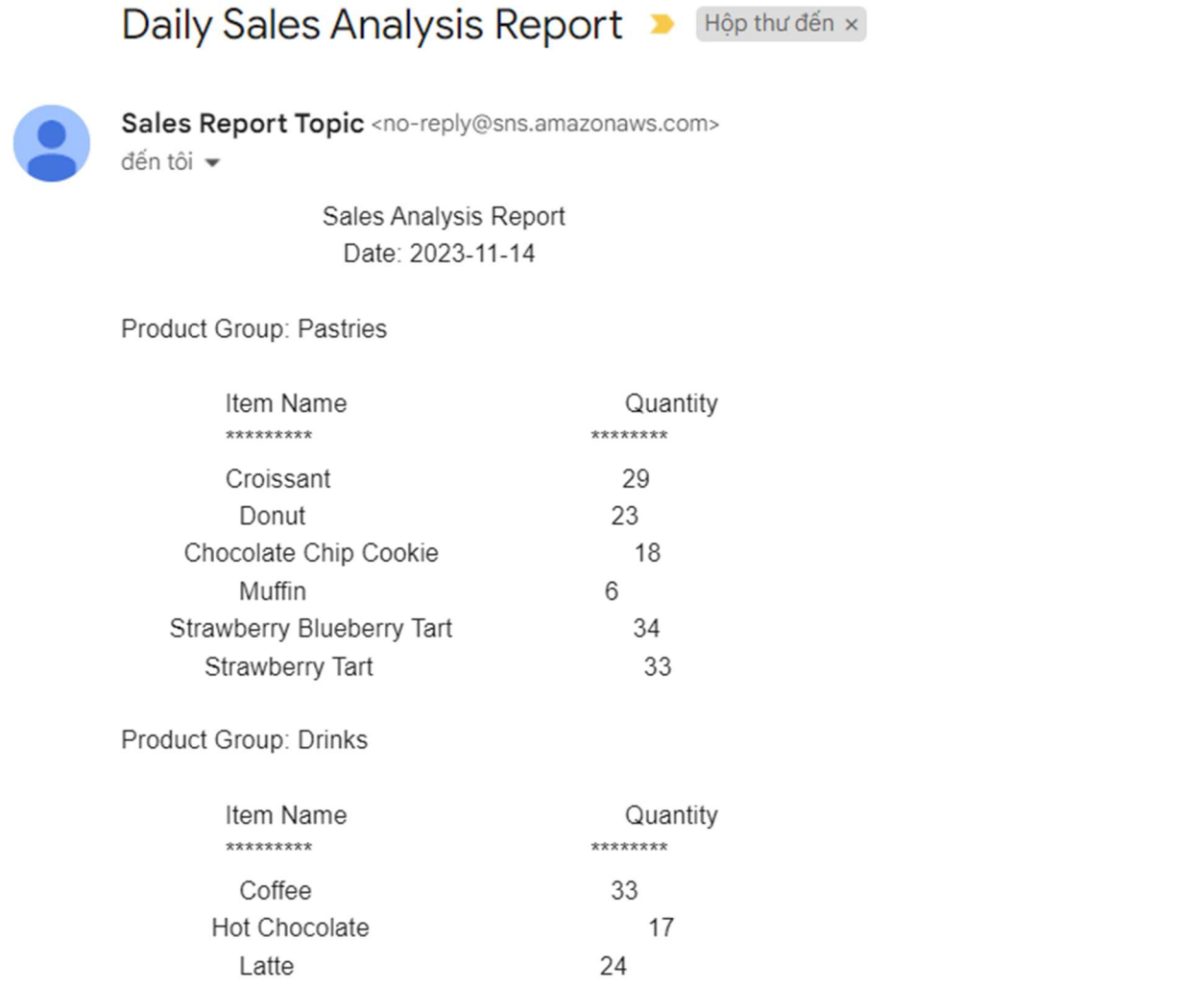


I receive confirmed email.

Task 6: Testing the salesAnalysisReport Lambda function

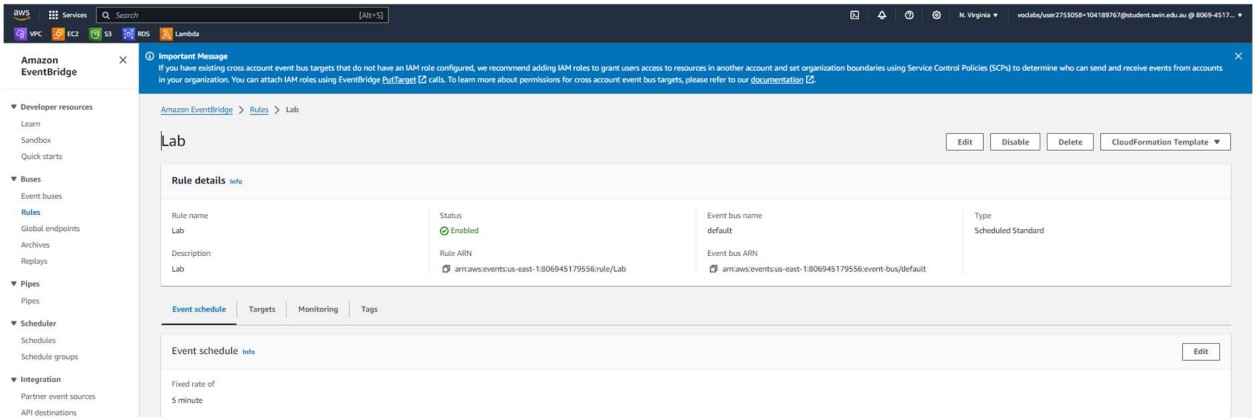


I can test successfully

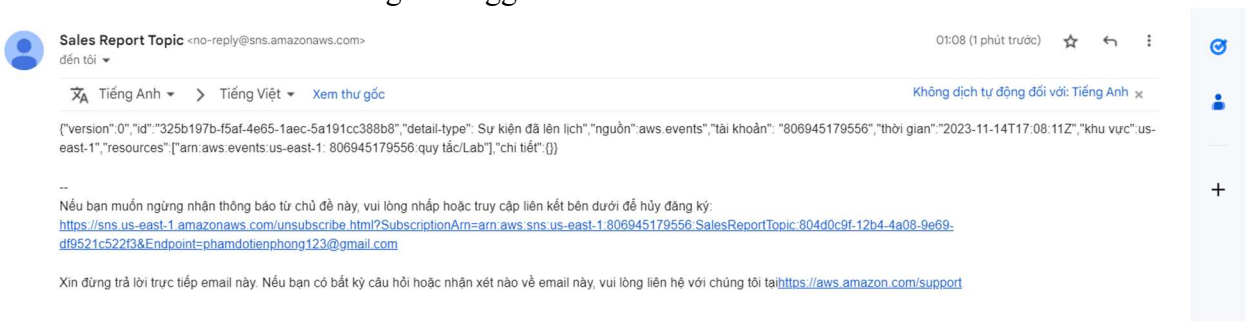


I can receive a new email

Task 7: Setting up an Amazon EventBridge event to trigger the Lambda function each day



I create an Amazon EventBridge to trigger Lambda function



I receive email.