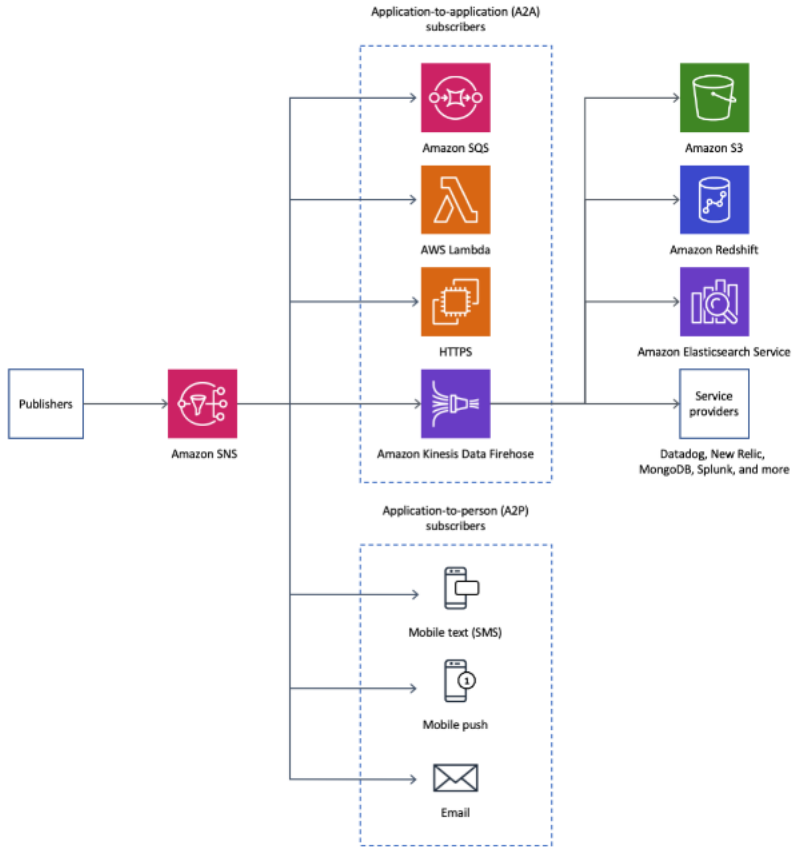
SNS SERVICE FOR AWS BY TRIGGERING THE LAMBDA FUNCTION

What is SNS?

Sending push notifications to IOS, Android, Fire OS, Windows, and Baidu-based devices is simple with the help of the mobile notification service. The sender can deliver messages, updates, promotions, or news to a single user, a group of users, or all of your users with a single message. Additionally, communications can be sent to MacOS desktop computers, iOS VoIP apps, emails, and SMS messaging.



Types of SNS Topics

There are 2 types of SNS Topics:

- Standard Topic
- FIFO Topic

A simple Python app to receive SNS notifications and act on them.

Services used

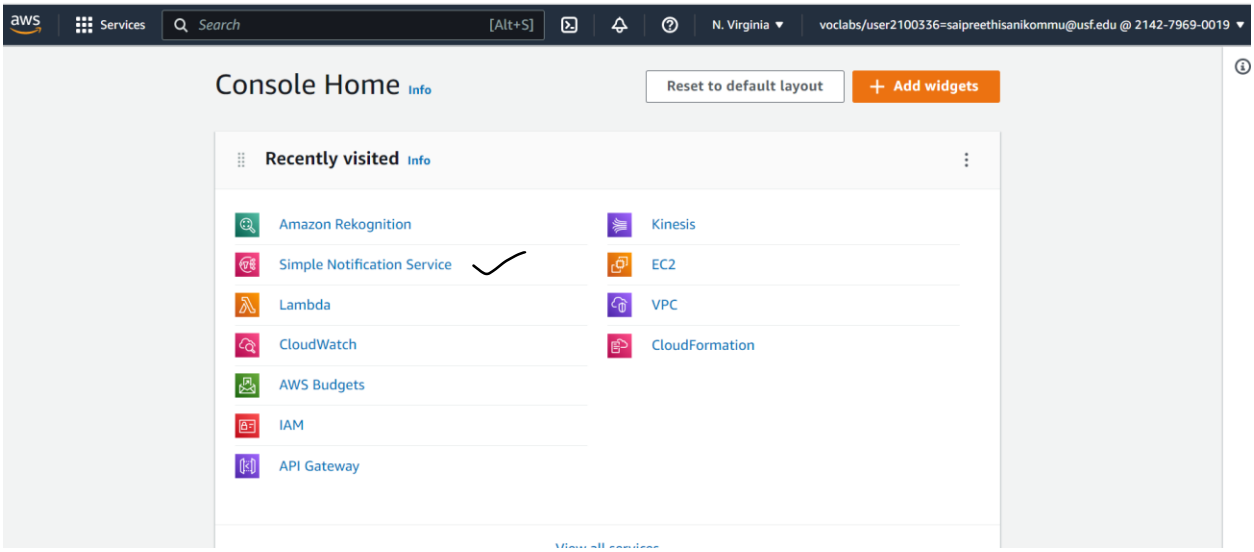
SNS

LAMBDA

CLOUD WATCH

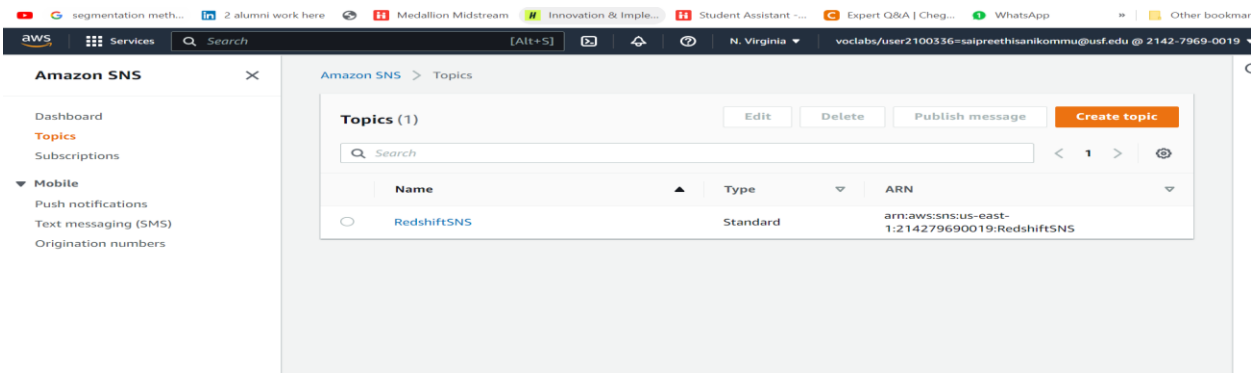
Procedure : step1

- 1.Go to AWS console Home
- 2. Search for SNS OR SIMPLE NOTIFICATION
- 3. CLICK ON THAT



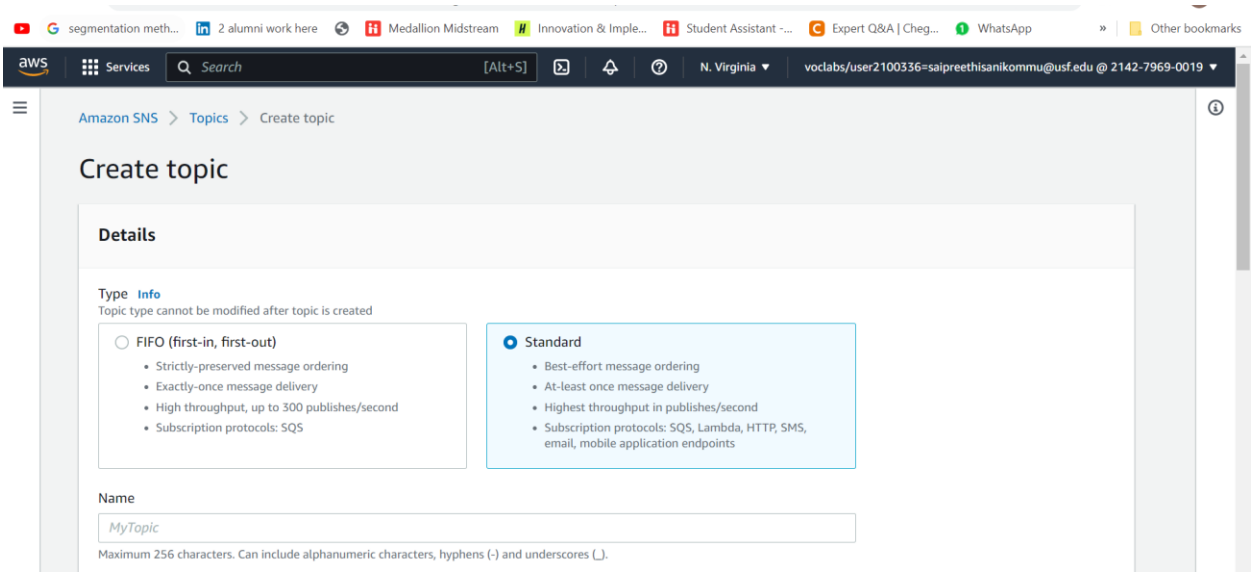
STEP2

The Go to Topics and click on the create topic

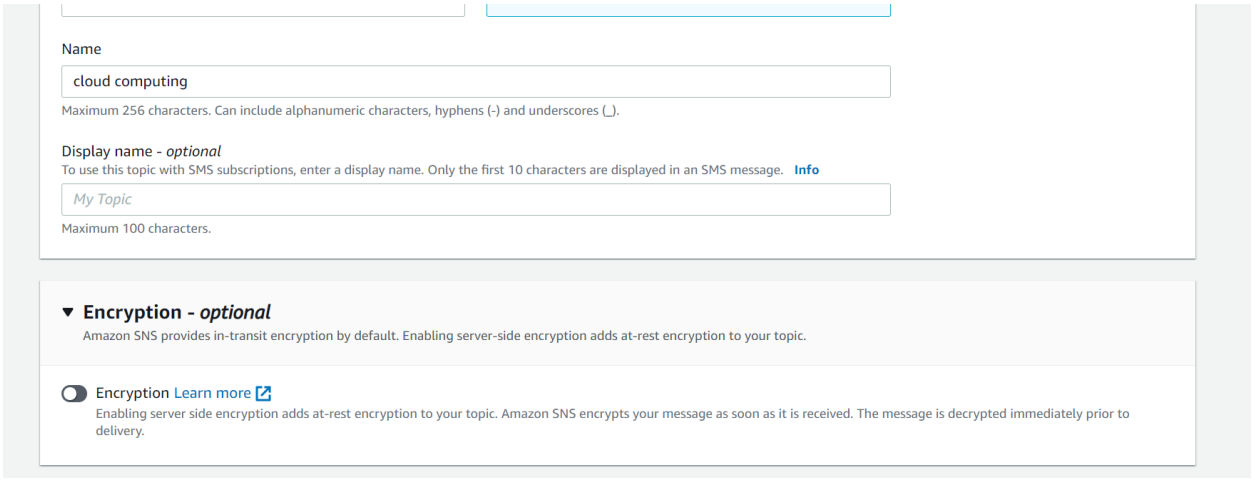


STEP 3

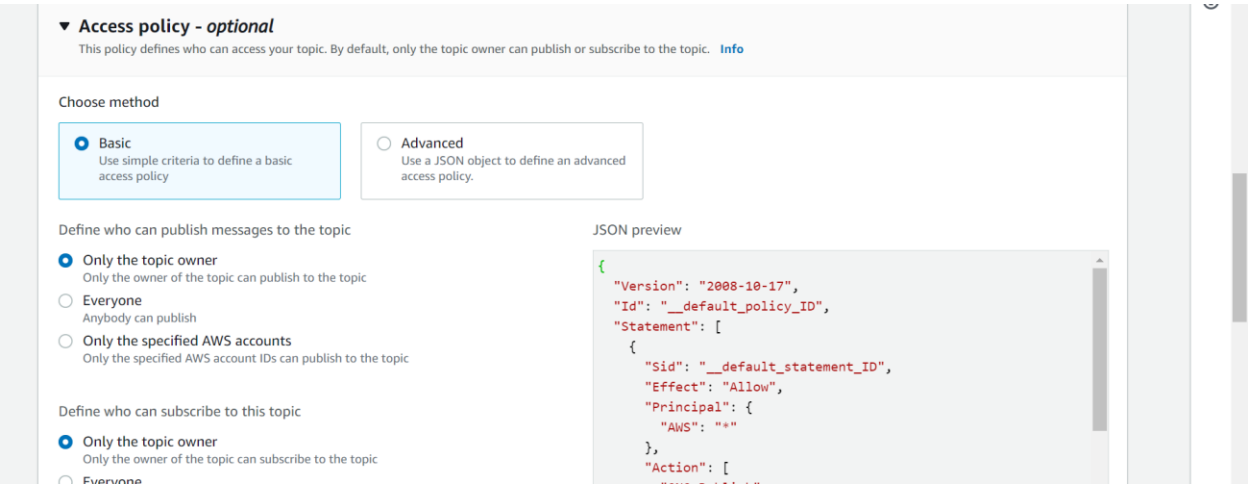
Here we are choosing the standard instead of FIFO , you could see the usages of them below when you select the particular type that you want



Creating a project name cloud computing



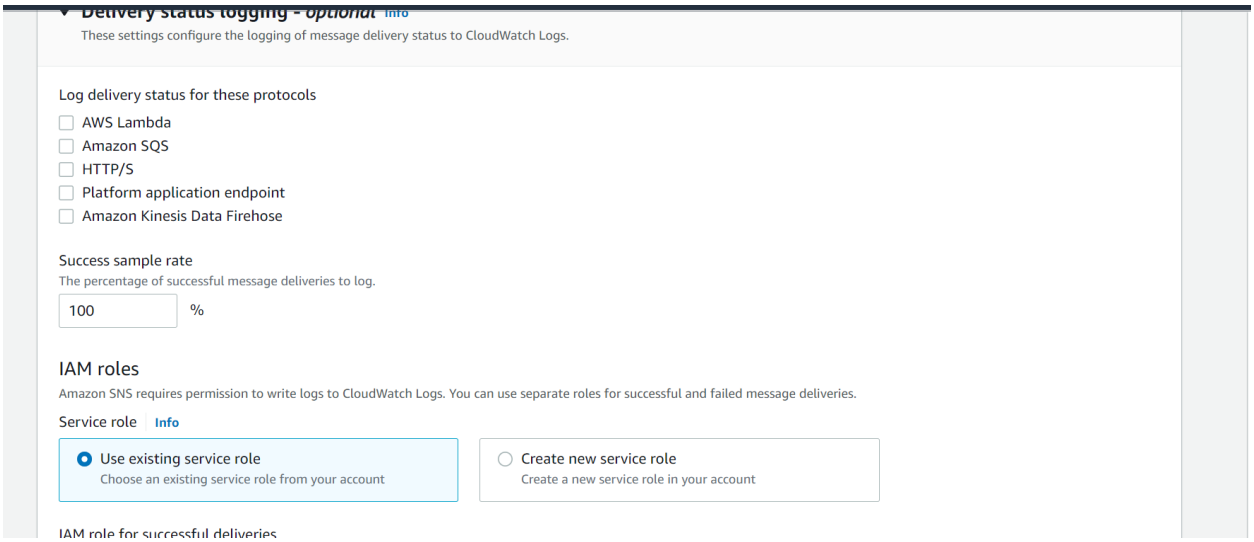
encryption address just means that when the sns service receives your message when you try to publish a message to the topic as they need to save in the database



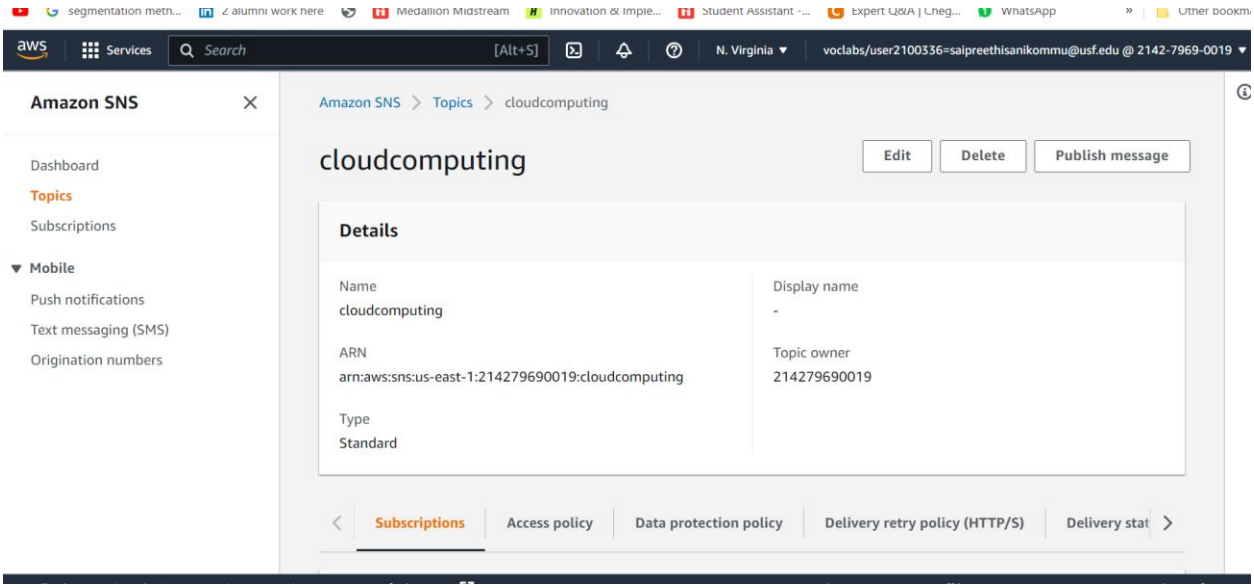
Choosing the Access policy as basic and clicking on the only topic owner as the we are choosing the encryption of the message type

acces rules They do have some default settings here that you can pick from or just suggested options, but access policy basically informs sns who can subscribe to the subject, who can receive messages from the topic, and who can submit messages to the topic.

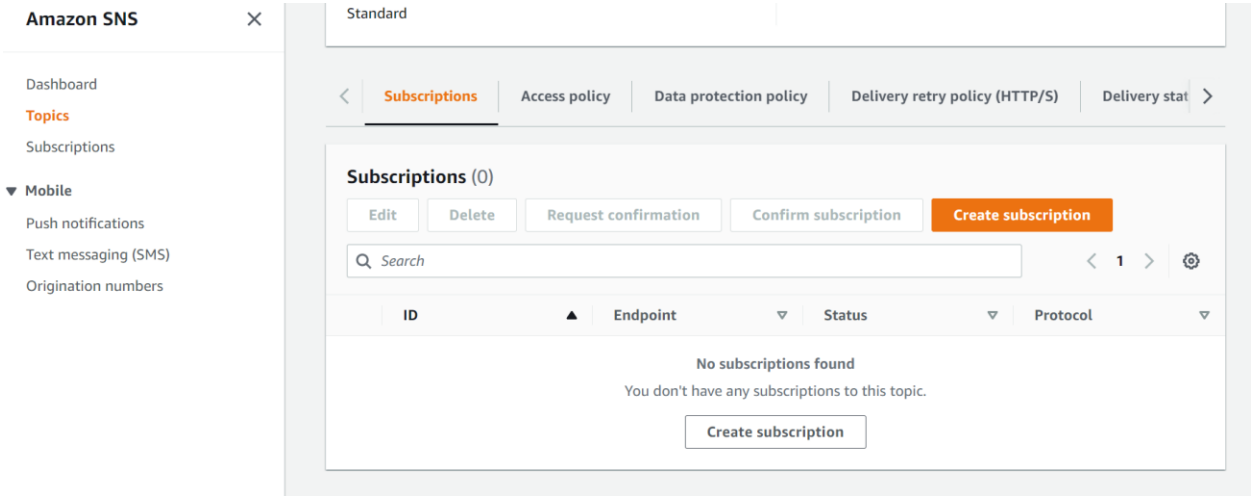
Rather of being extremely basic or sophisticated, basic only permits you to choose from these various pre-selected options here. With advanced, you can alter the policy template as you can see above.



Click on the create topic on the down

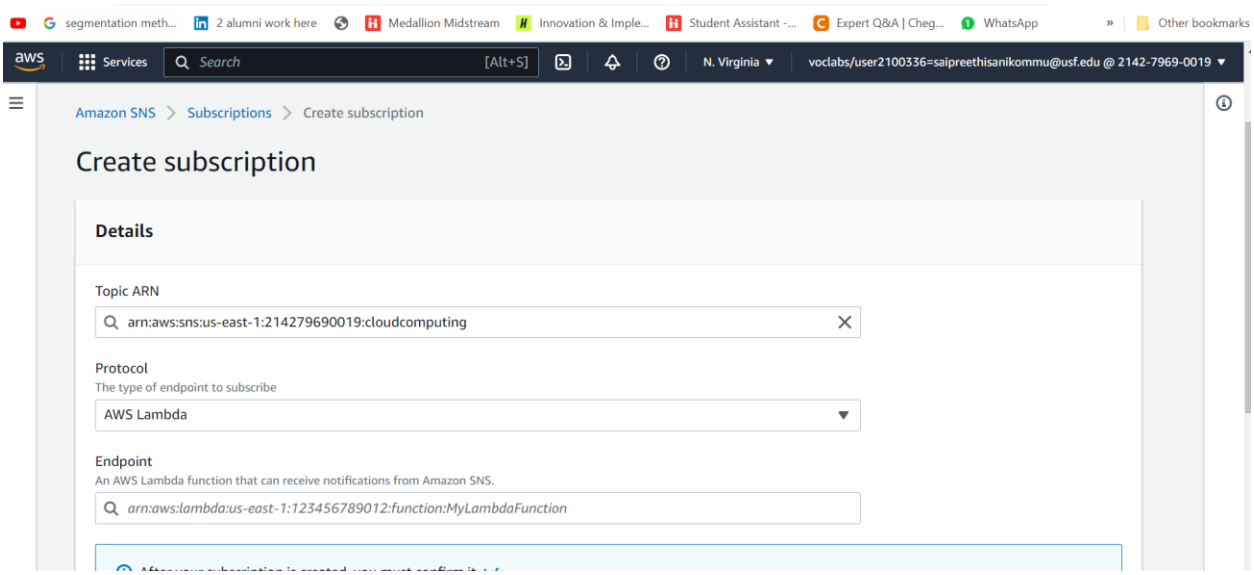


And the project is created , now go to the subscriptions in the bottom

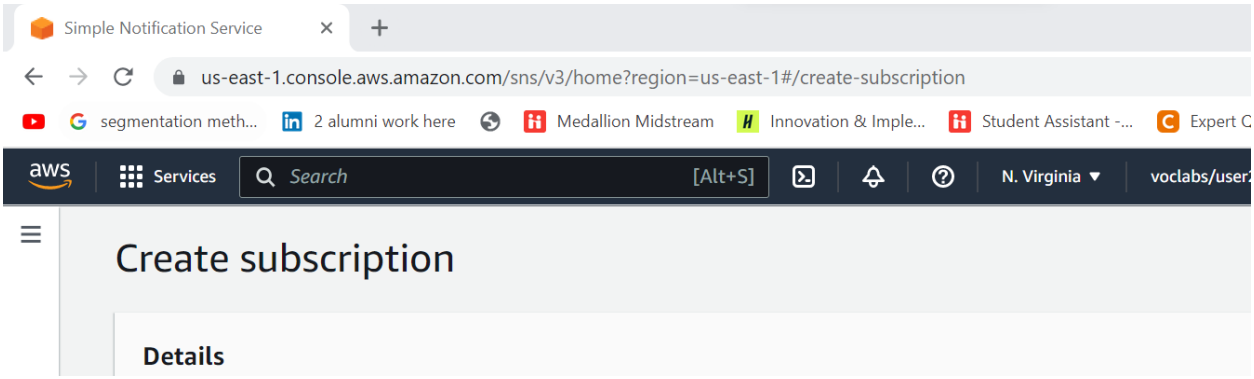


We could see there are no subscriptions been created but you could the access policy , data protection policy all these were created based on the data that we have give while creating the topic. We need to click on the create subscription.

We create a subscription in order to set the protocol to be a lambda function

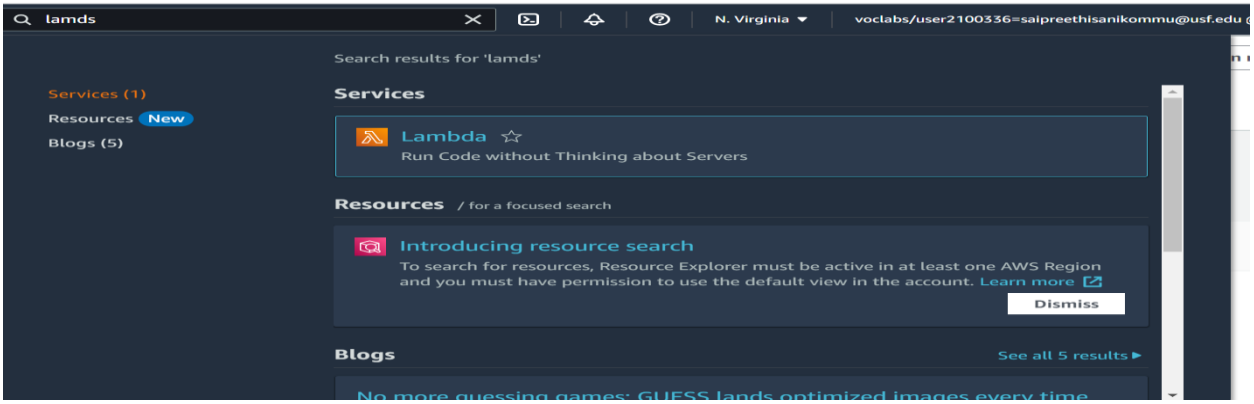


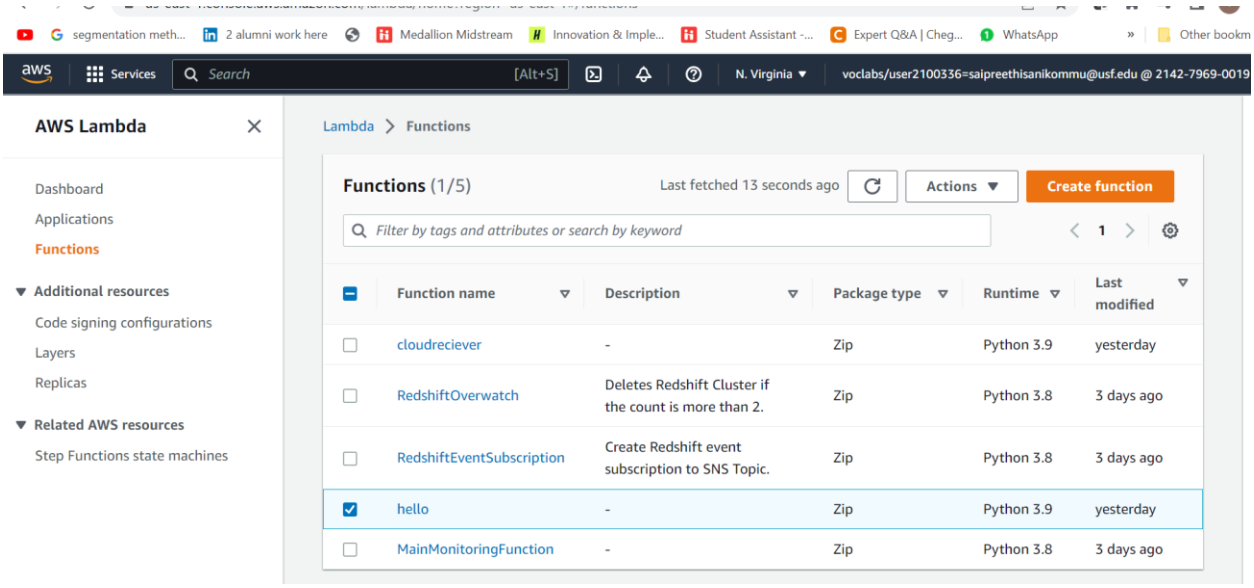
You could see that there is no endpoint , because we have not created the lamda function yet now duplicate the existing tab as we have see below



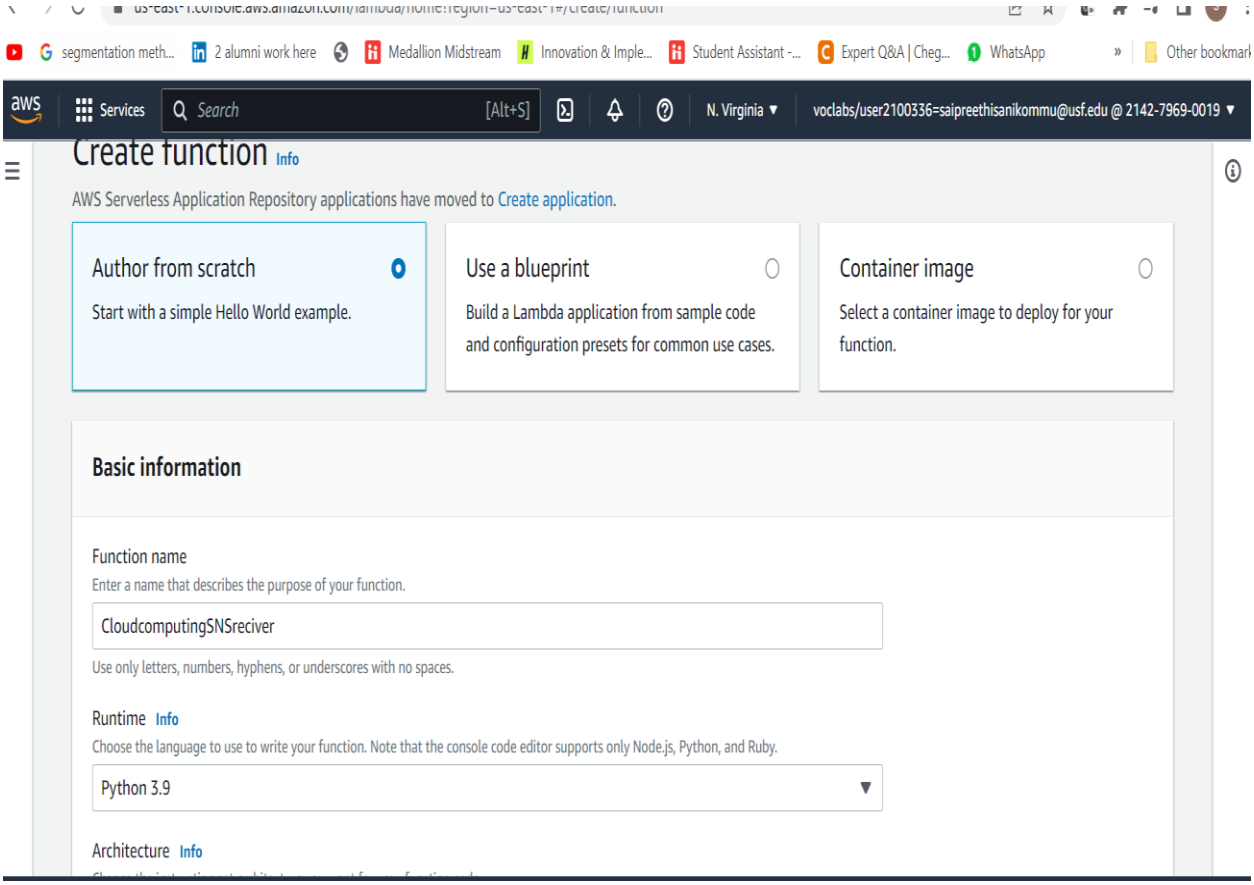
Now a new tab will be open below showing the console

Search for the Lambda in the console, it will open as show in the below

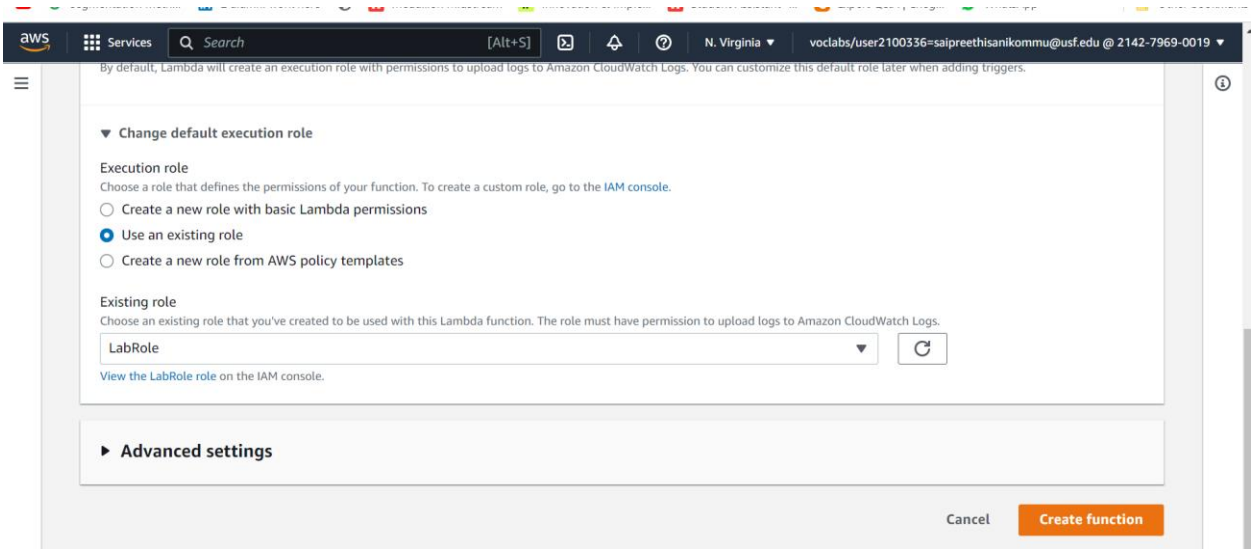




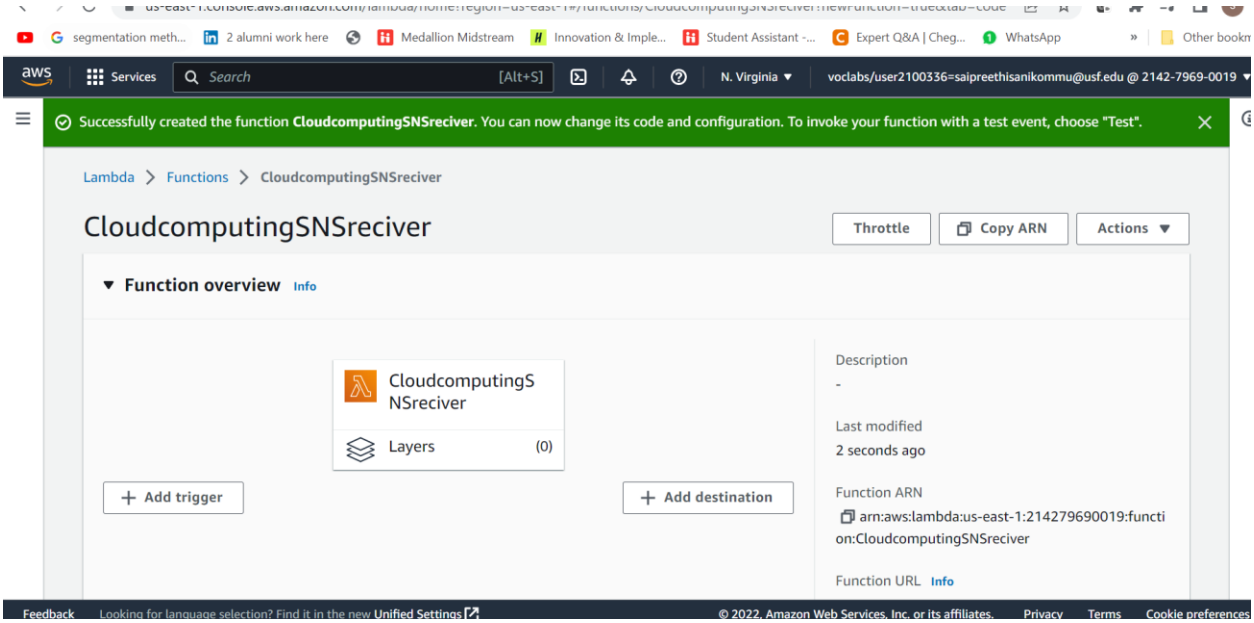
Now we need to go to functions and create a function I have named this as CloudcomputingSNSreciver and I chose the python 3.9 , use can actually choose whatever the language you wanted as we have nodejs, html, .net etc..



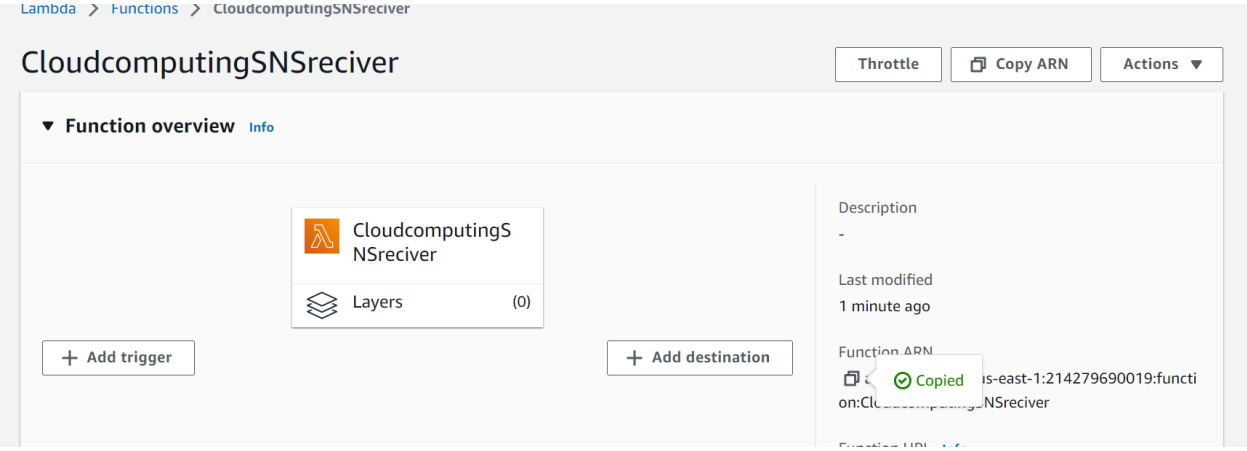
I have chose the Labrole as I donot have permission to any other one’s



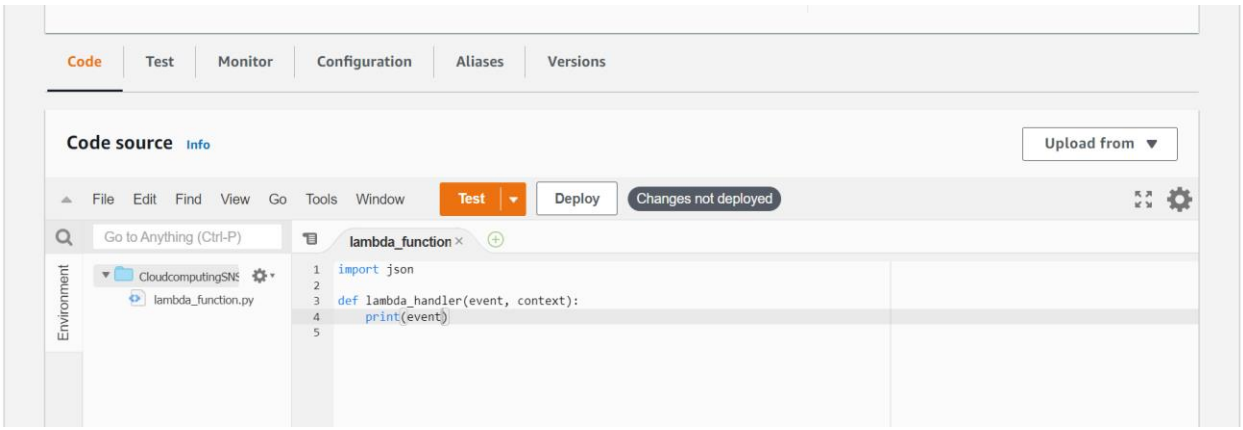
Go ahead and create the function



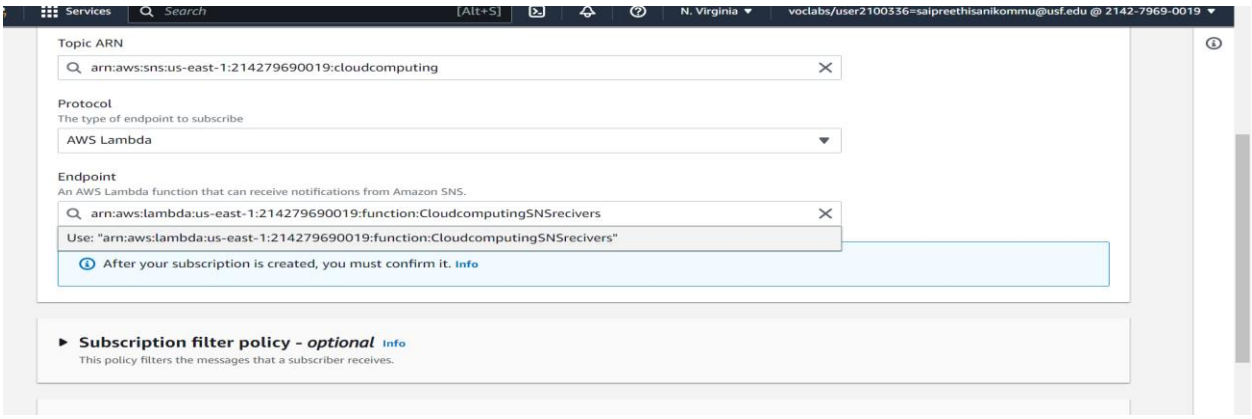
Above image show the function that is created successfully and ARN has been generated which is the FUNCTION ARN

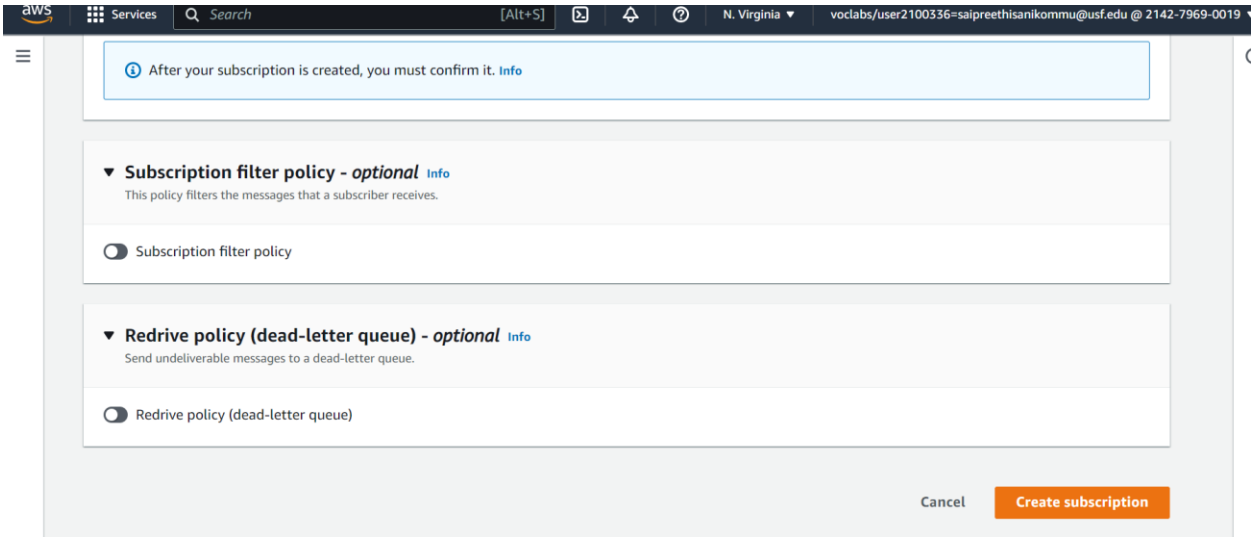


Go and copy the Functio ARN and go to the code wanted to check I have given the code as event as I wanted to check ho exactly the information looks like and click on delpoy

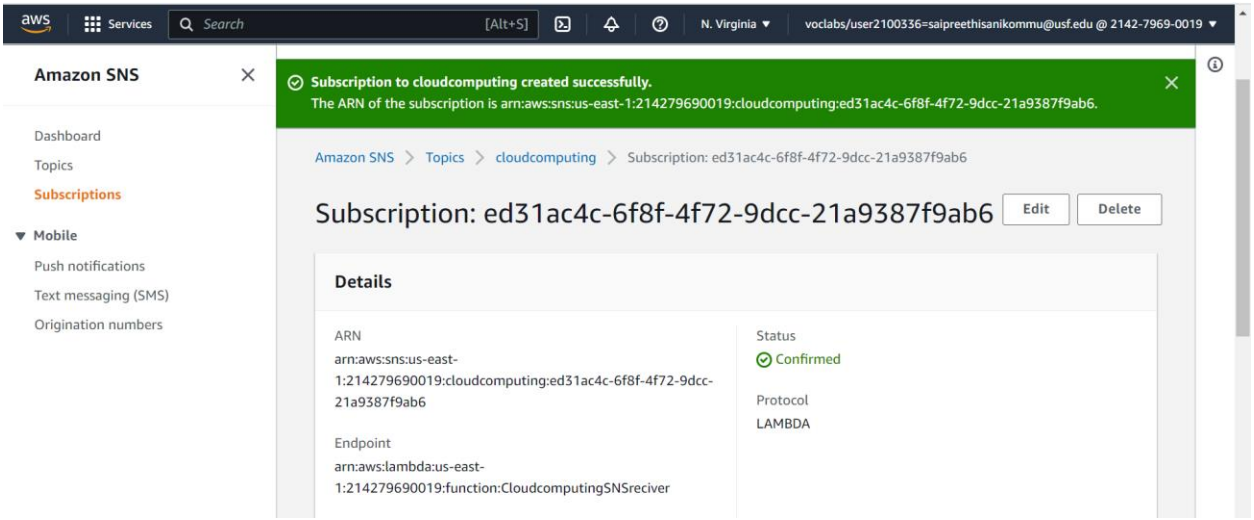


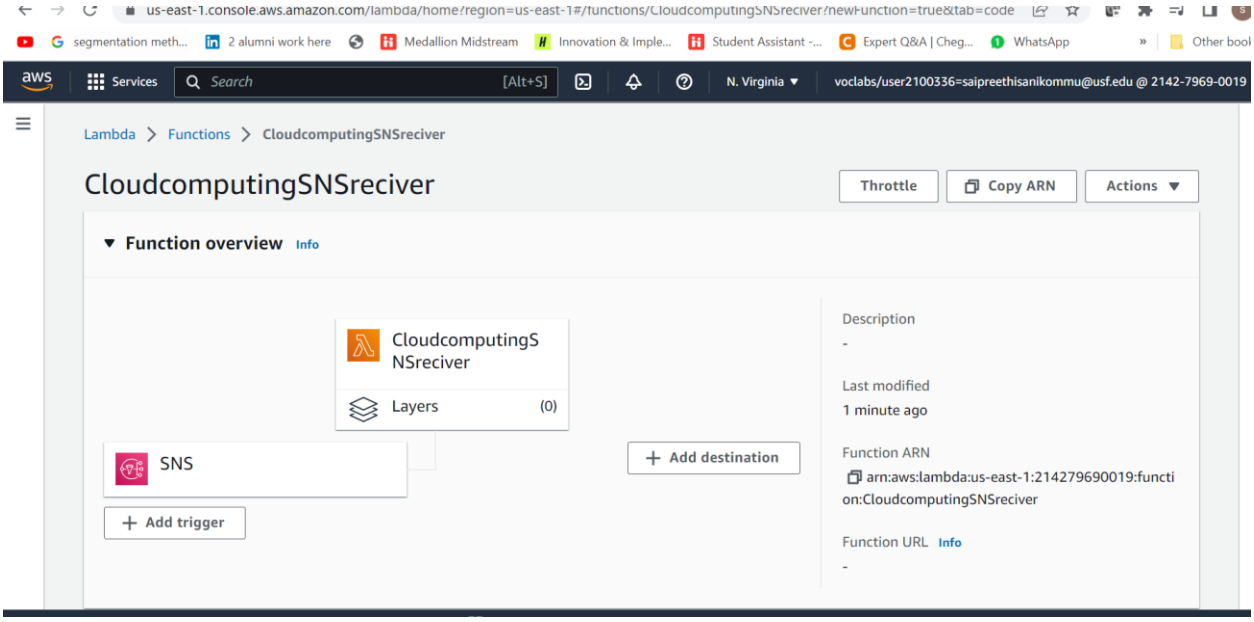
Now to go to the create function tab and give the Function ARN that we have copied in the endpoint



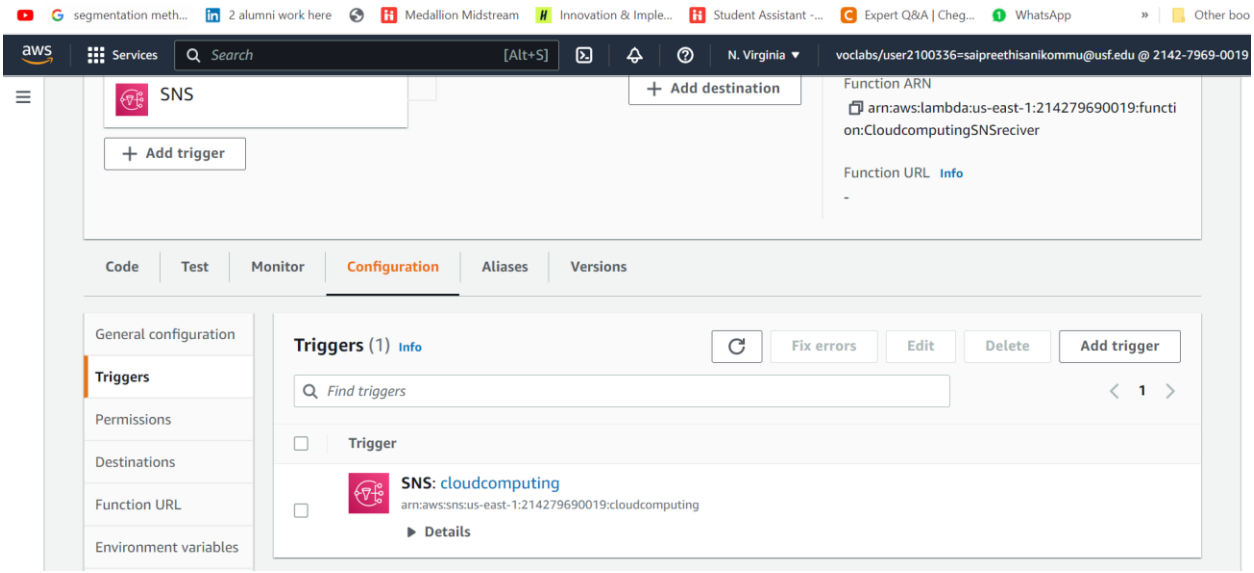


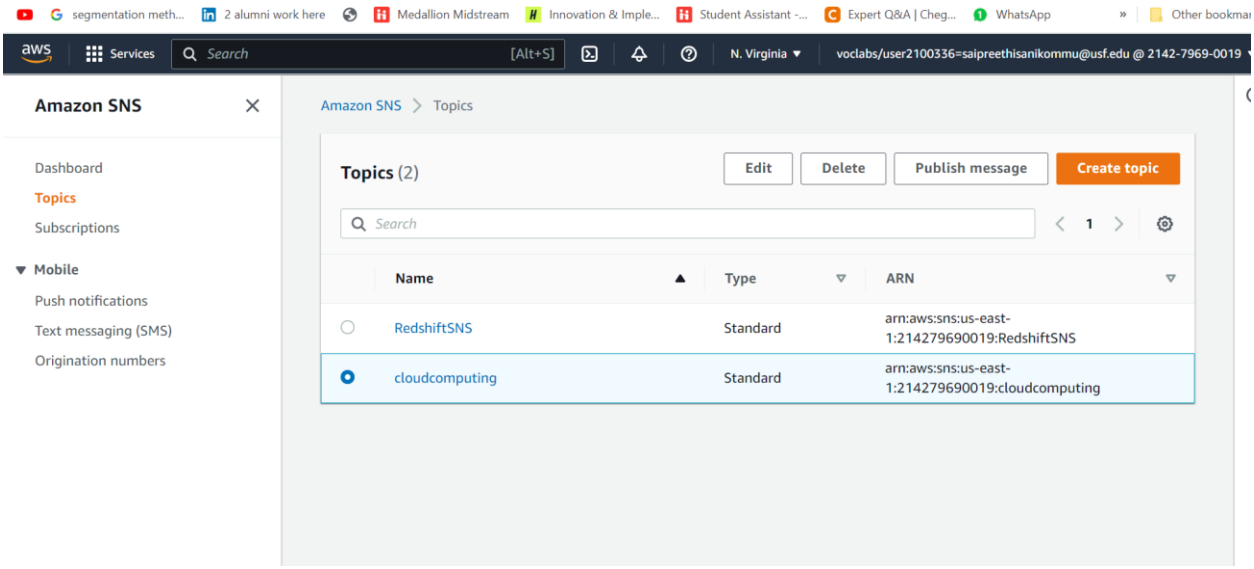
Click on create subscription and subscription is successfully completed to cloudcomputing topic



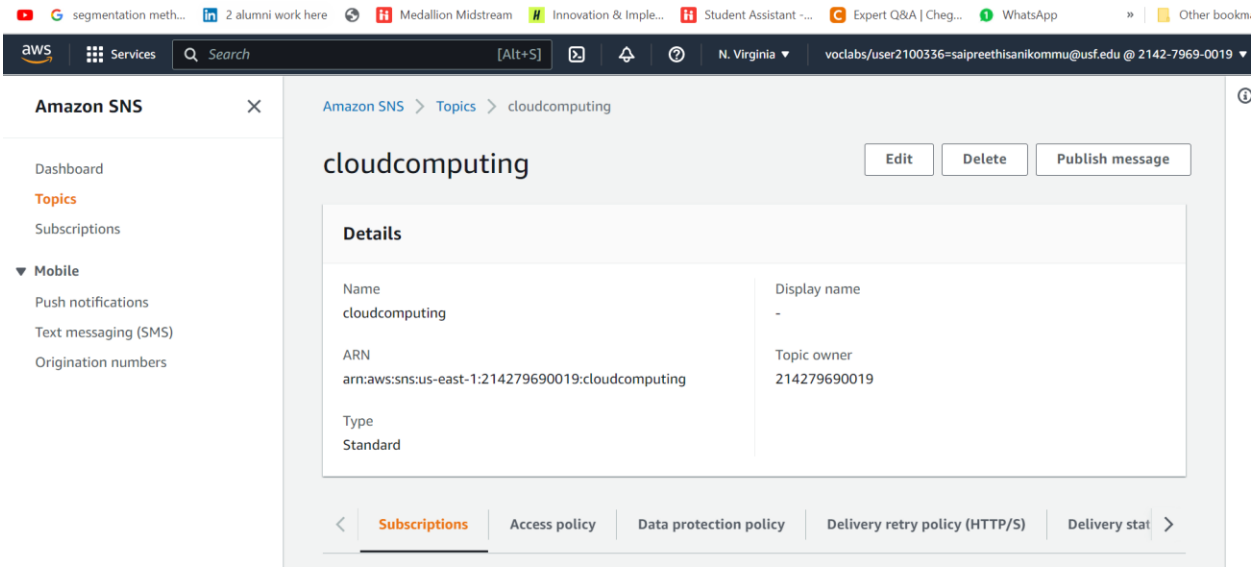


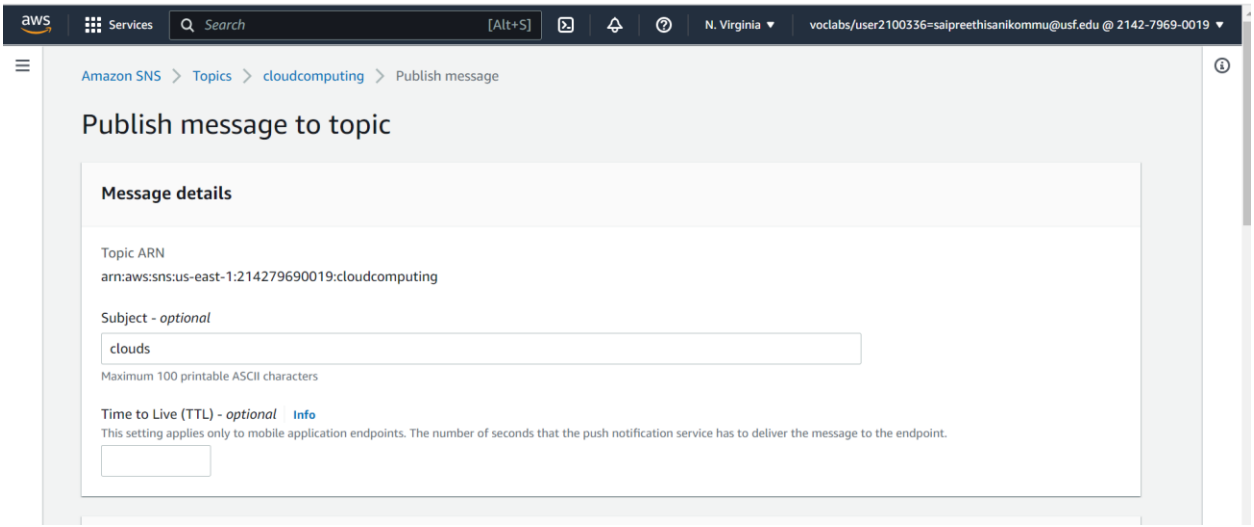
Now to go the Lambda functions tab there is you refresh the tab SNS will be created and you could see the same in the configuration tab



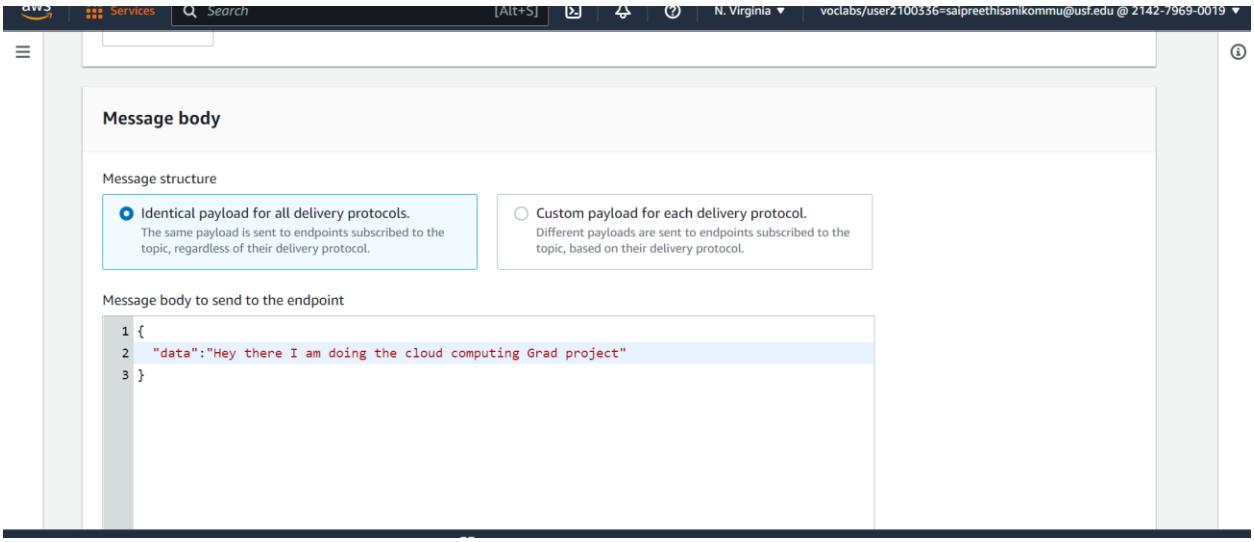


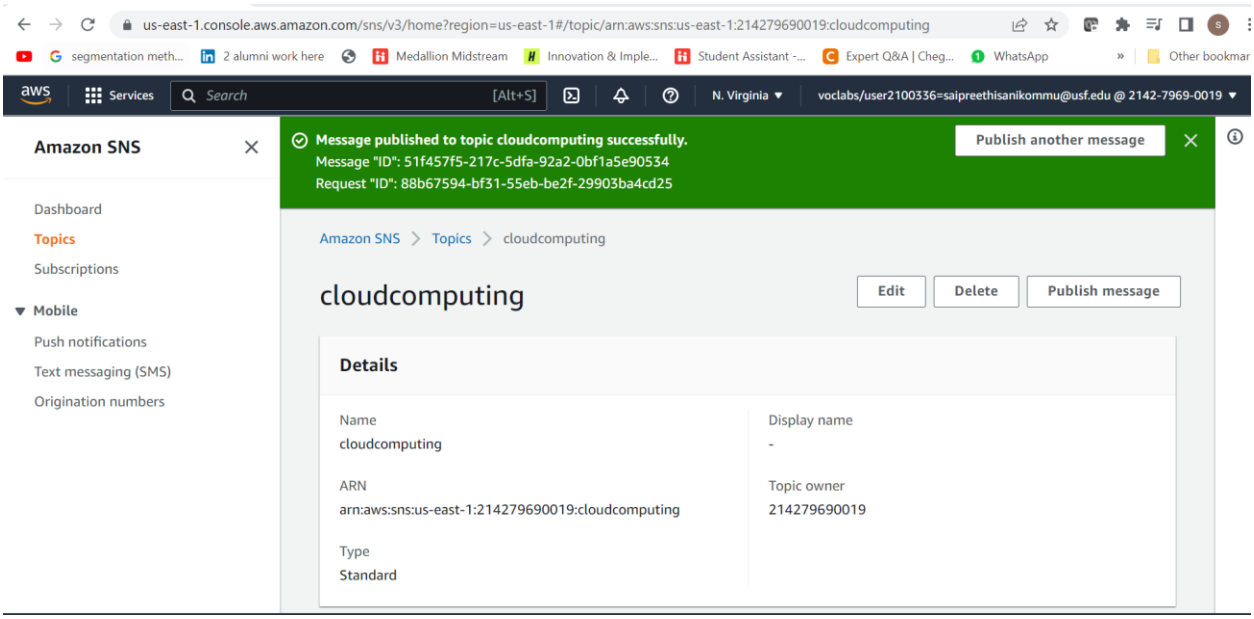
Now go to the SNS and go to the topic that we have created and click on the publish message



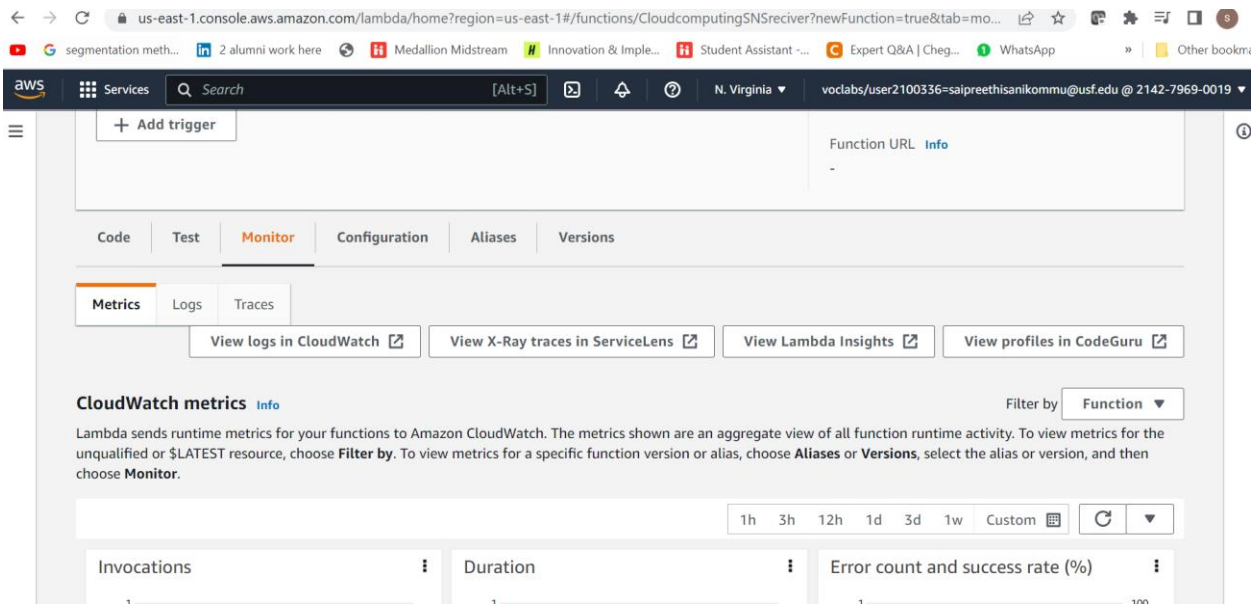


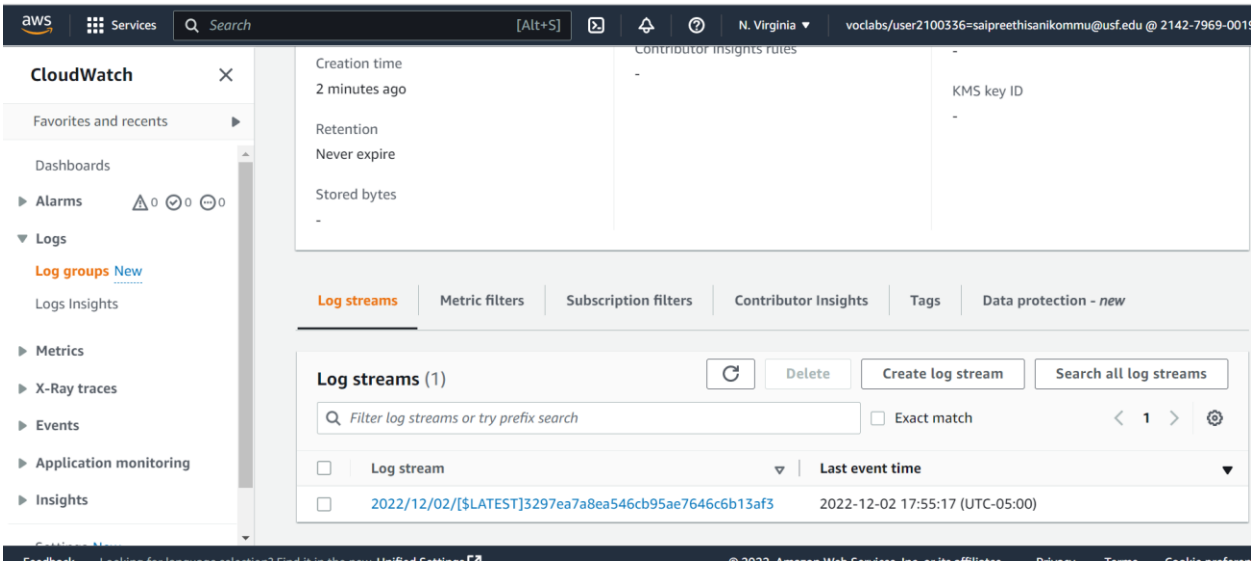
Now a give the subject as some random name and give the message that you want to send to the endpoint and click on publish message on the bottom right corner



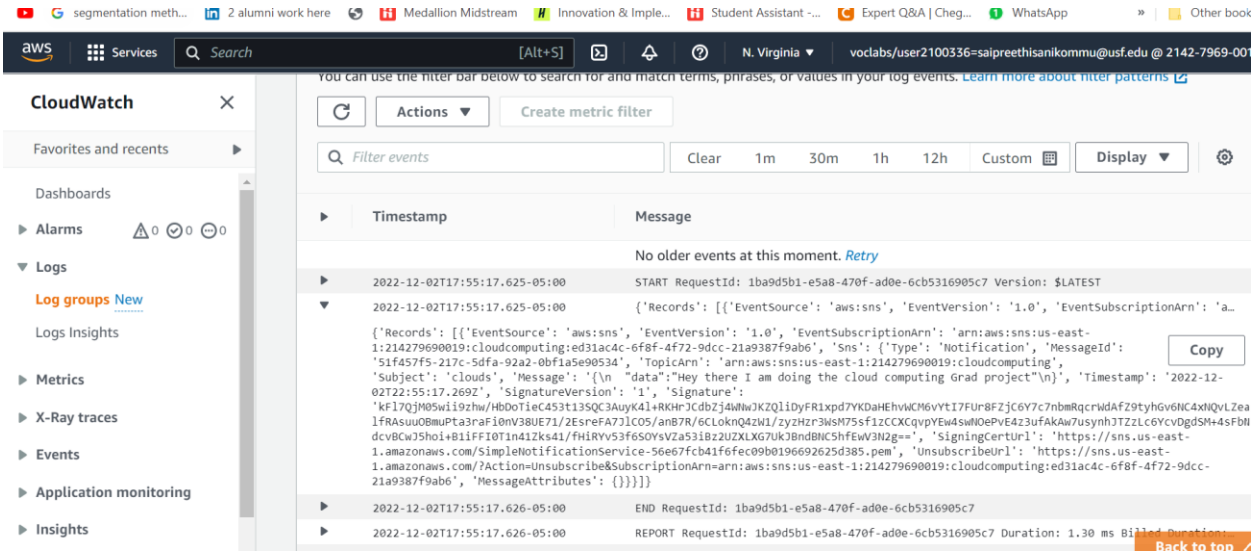


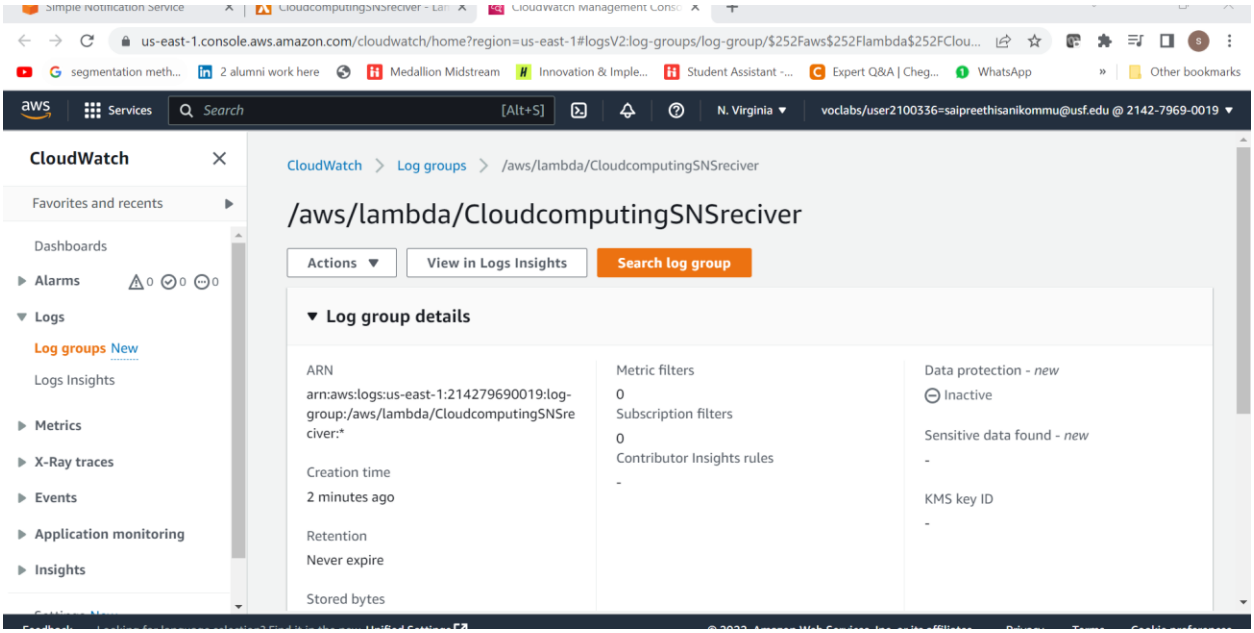
You could see the message got published successfully and go to the lamda service and go to the monitor you could see the message that is been generated in the cloudwatch metrics and now click on the view logs in the cloudwatch



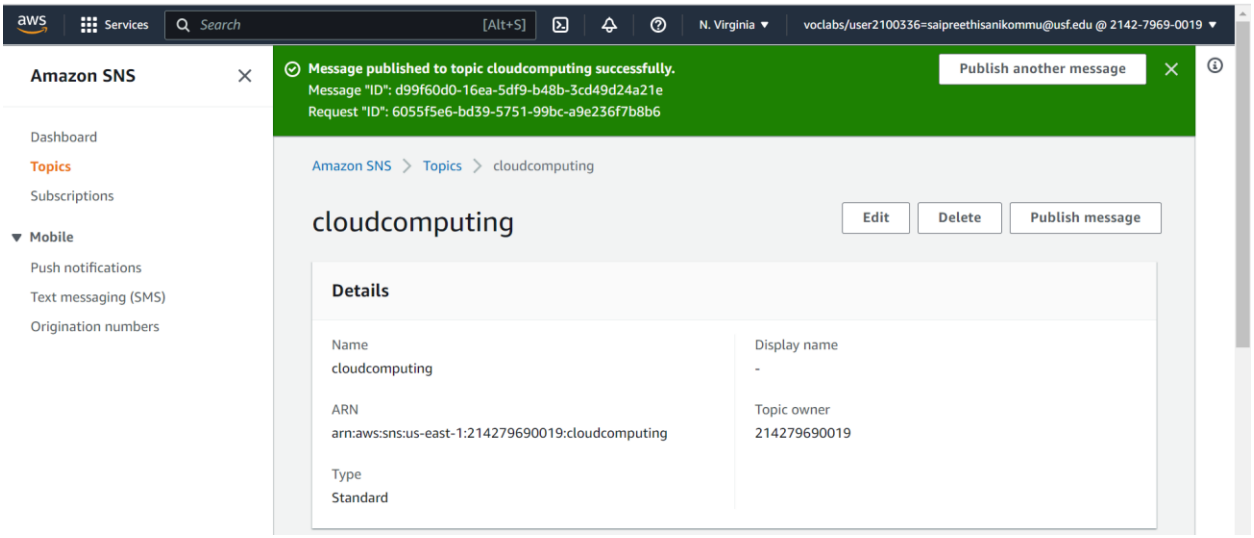


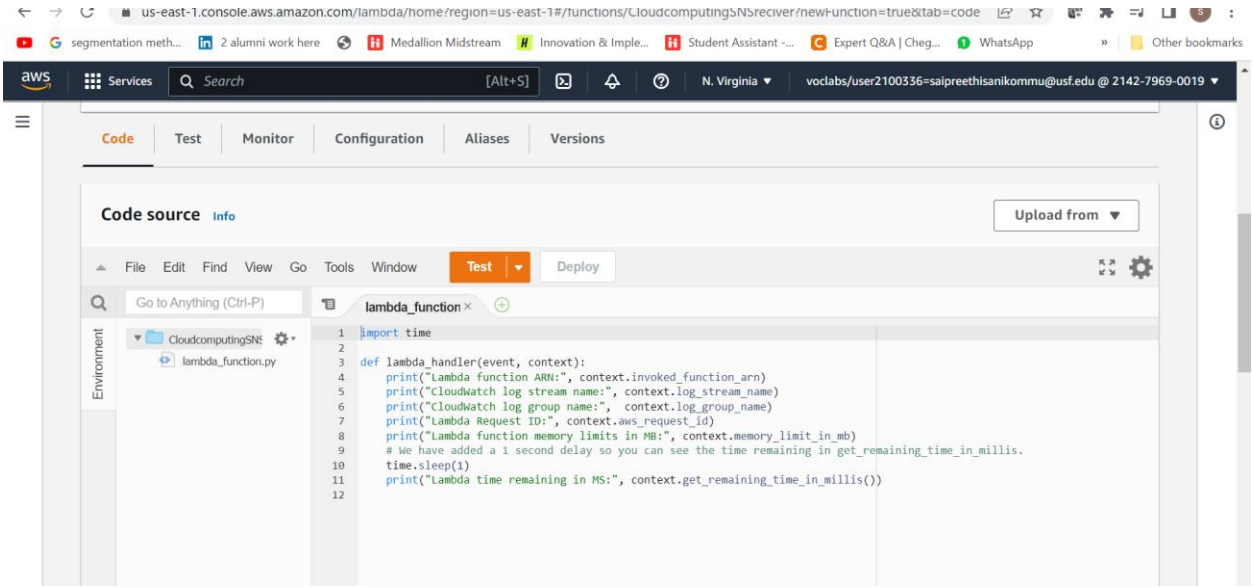
Now the cloud watch is opened and go to the loggroups and click on the logstreams , you could see the message that you have published as below in the records





This is the another message that I have deployed




us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/CloudcomputingSNSreciver?newFunction=true&tab=code
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Medallion Midstream
Innovation & Imple...
Student Assistant -...
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WhatsApp
Other bookmarks
Services
Search
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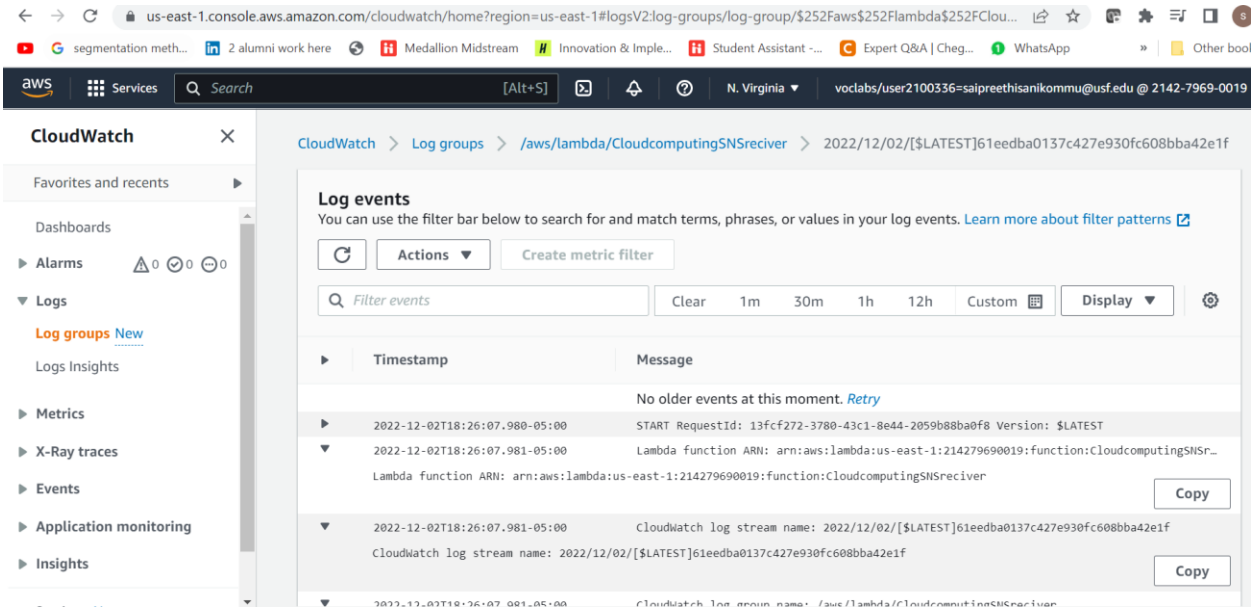
Code
Test
Monitor
Configuration
Aliases
Versions
Code source Info
Upload from
File Edit Find View Go Tools Window
Test
Deploy
Go to Anything (Ctrl-P)
lambda_function
Environment
CloudcomputingSNS
lambda_function.py
import time
def lambda_handler(event, context):
print("Lambda function ARN:", context.invoked_function_arn)
print("CloudWatch log stream name:", context.log_stream_name)
print("CloudWatch log group name:", context.log_group_name)
print("Lambda Request ID:", context.aws_request_id)
print("Lambda function memory limits in MB:", context.memory_limit_in_mb)
# We have added a 1 second delay so you can see the time remaining in get_remaining_time_in_millis.
time.sleep(1)
print("Lambda time remaining in MS:", context.get_remaining_time_in_millis())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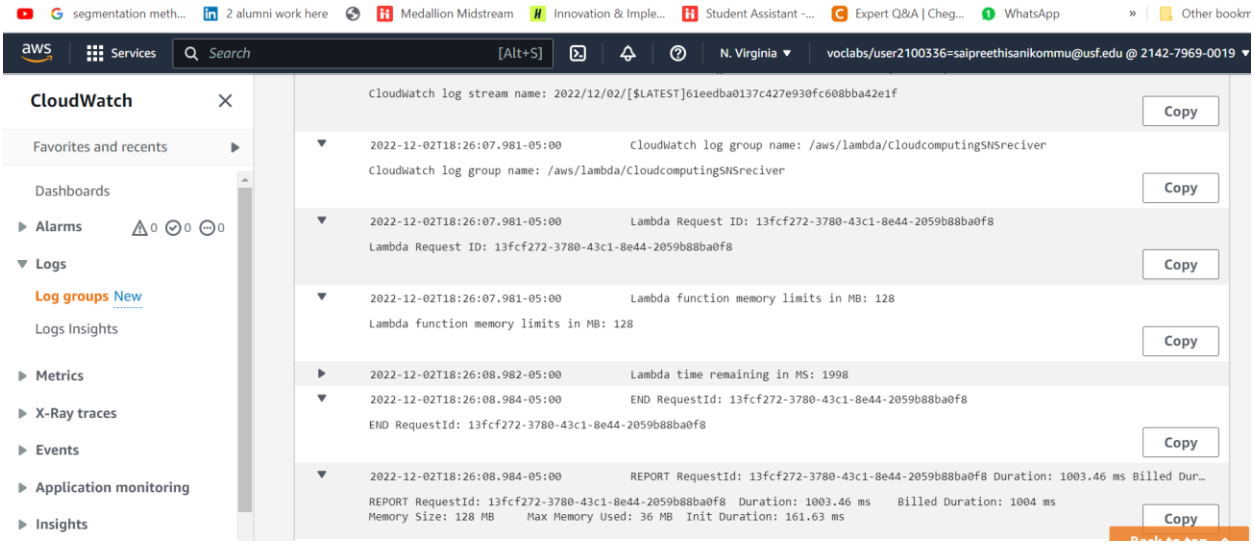
CloudWatch
Favorites and recents
Dashboards
Alarms
Logs
Log groups New
Logs Insights
Metrics
X-Ray traces
Events
Application monitoring
Insights
CloudWatch > Log groups > /aws/lambda/CloudcomputingSNSreciver > 2022/12/02/[$LATEST]61eedba0137c427e930fc608bba42e1f
Log events
You can use the filter bar below to search for and match terms, phrases, or values in your log events. Learn more about filter patterns
Actions
Create metric filter
Filter events
Clear
1m
30m
1h
12h
Custom
Display
Timestamp
Message
No older events at this moment. Retry
2022-12-02T18:26:07.980-05:00 START RequestId: 13fcf272-3780-43c1-8e44-2059b88ba0f8 Version: $LATEST
2022-12-02T18:26:07.981-05:00 Lambda function ARN: arn:aws:lambda:us-east-1:214279690019:function:CloudcomputingSNSr...
Lambda function ARN: arn:aws:lambda:us-east-1:214279690019:function:CloudcomputingSNSreciver
Copy
2022-12-02T18:26:07.981-05:00 CloudWatch log stream name: 2022/12/02/[$LATEST]61eedba0137c427e930fc608bba42e1f
CloudWatch log stream name: 2022/12/02/[$LATEST]61eedba0137c427e930fc608bba42e1f
Copy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2 alumni work here
Medallion Midstream
Innovation & Imple...
Student Assistant -...
Expert Q&A | Cheg...
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Other bookm
aws
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CloudWatch
Favorites and recents
Dashboards
Alarms
Logs
Log groups New
Logs Insights
Metrics
X-Ray traces
Events
Application monitoring
Insights
CloudWatch log stream name: 2022/12/02/[$LATEST]61eedba0137c427e930fc608bba42e1f
Copy
2022-12-02T18:26:07.981-05:00 CloudWatch log group name: /aws/lambda/CloudcomputingSNSreciver
CloudWatch log group name: /aws/lambda/CloudcomputingSNSreciver
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2022-12-02T18:26:07.981-05:00 Lambda Request ID: 13fcf272-3780-43c1-8e44-2059b88ba0f8
Lambda Request ID: 13fcf272-3780-43c1-8e44-2059b88ba0f8
Copy
2022-12-02T18:26:07.981-05:00 Lambda function memory limits in MB: 128
Lambda function memory limits in MB: 128
Copy
2022-12-02T18:26:08.982-05:00 Lambda time remaining in MS: 1998
2022-12-02T18:26:08.984-05:00 END RequestId: 13fcf272-3780-43c1-8e44-2059b88ba0f8
END RequestId: 13fcf272-3780-43c1-8e44-2059b88ba0f8
Copy
2022-12-02T18:26:08.984-05:00 REPORT RequestId: 13fcf272-3780-43c1-8e44-2059b88ba0f8 Duration: 1003.46 ms Billed Dur…
REPORT RequestId: 13fcf272-3780-43c1-8e44-2059b88ba0f8 Duration: 1003.46 ms Billed Duration: 1004 ms
Memory Size: 128 MB Max Memory Used: 36 MB Init Duration: 161.63 ms
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