

AWS mini PROJEC 2

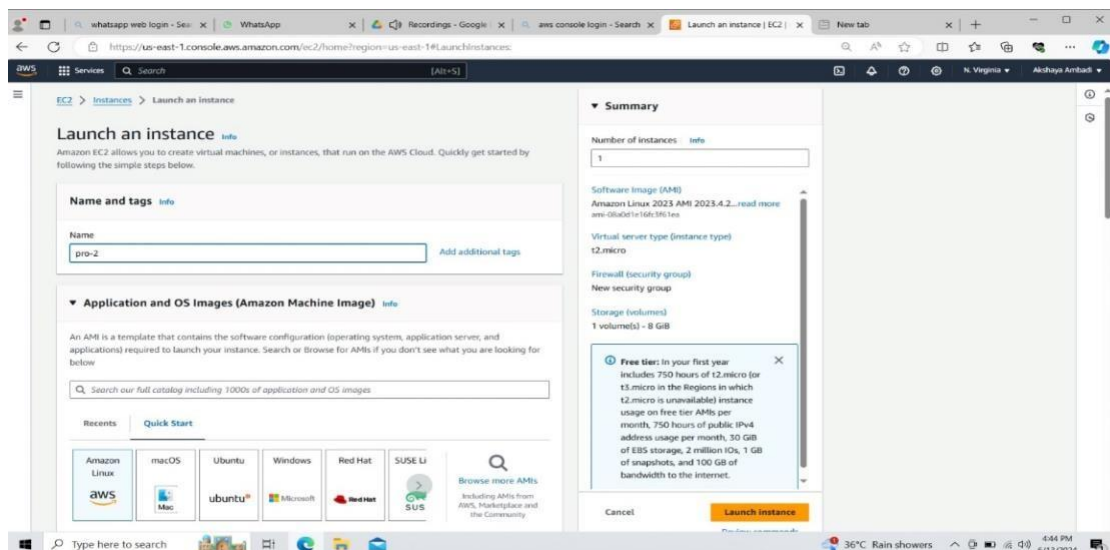
Project title:- AWS EC2 Instance Automation with Lambda and CloudWatch, SNS.

Name:- Ganesh salunke

E-mail:- salunkeganesh788@gmail.com

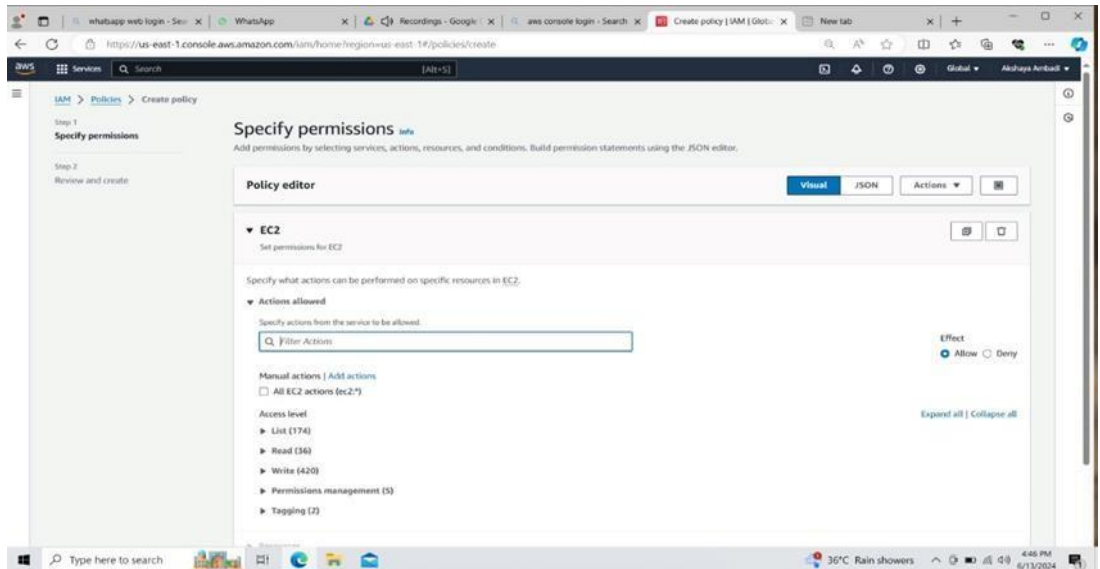
❑ Launch an EC2 Instance

1. Go to EC2 dashboard.
2. Click on Launch Instance
3. Give a name to the Instance, I have given “pro-2”.
4. Give the Quick sort as Amazon linux or ubuntu here ,I have givenas Amazon Linux
5. Select instance type as “t2-micro”,for cost optimization.
6. Give a Key-pair which you have already created.
7. In the Network Settings, Give the default VPC and Enable the auto assign ip address.
8. Select the security groups.
9. Click on Launch Instance at the bottom.

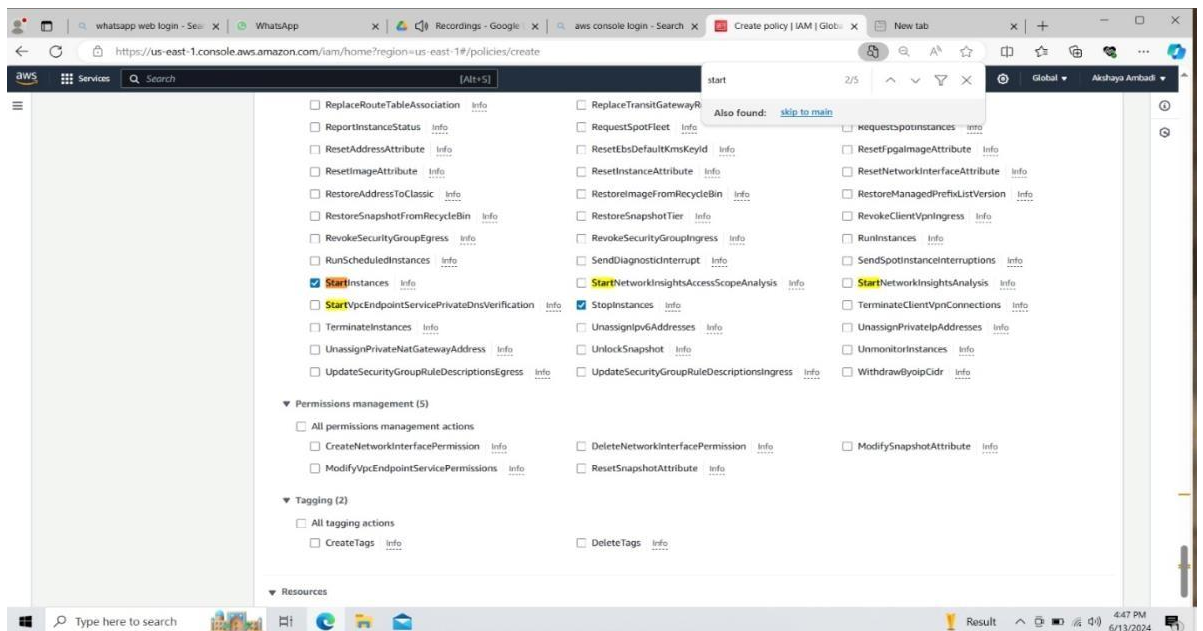


❑ Create an IAM policy

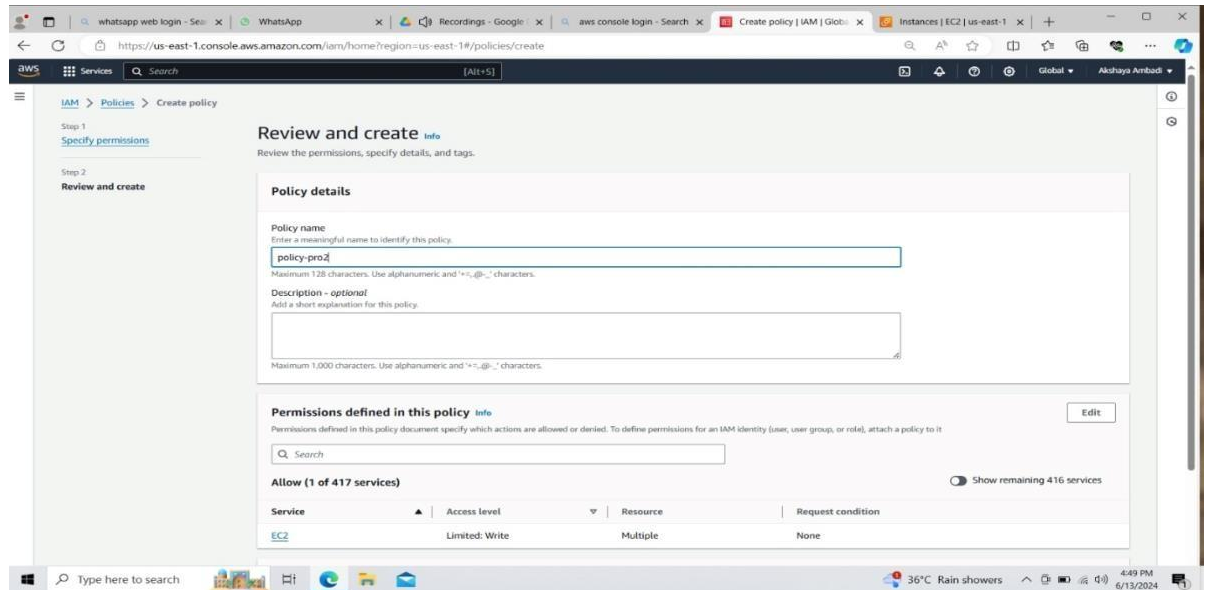
1. Search IAM.
2. Select ‘policies’ from the dashboard and then click on it.
Create the policy.



3. Search 'EC2' in the service box and then select it as a service.
4. Give 'Start instances' and 'Stop instances' as actions.
5. For Resource region give any region.
6. Copy the instance ID and paste it in the resource instance from the instance
7. Click on 'Add ARNs'
8. Click on 'Next' button.

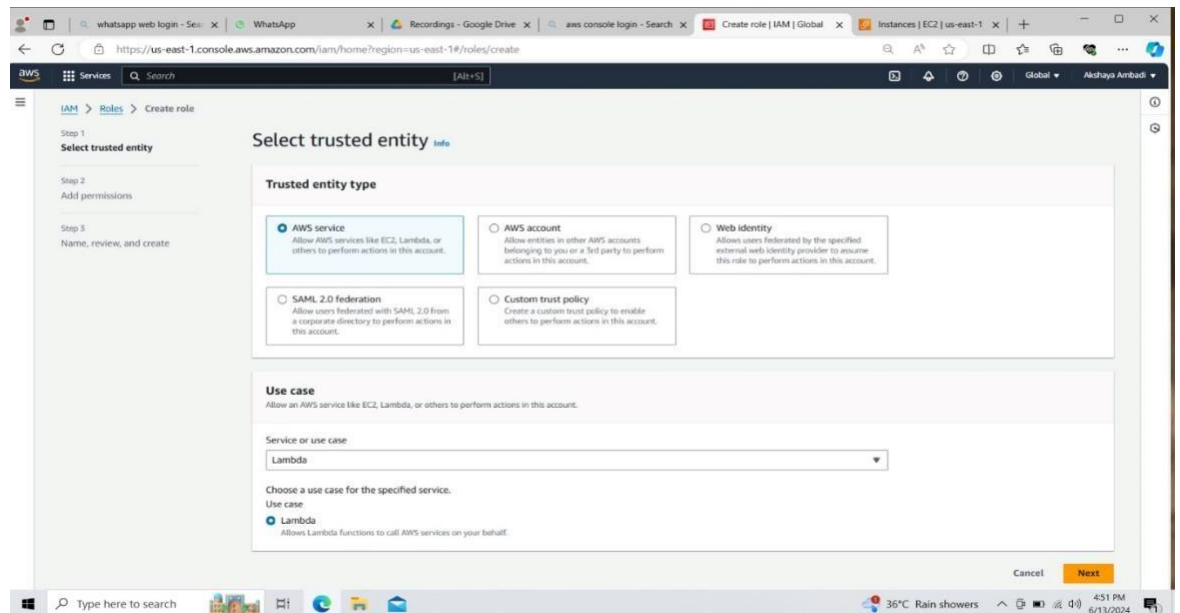


9. Give a policy name and click on create policy.

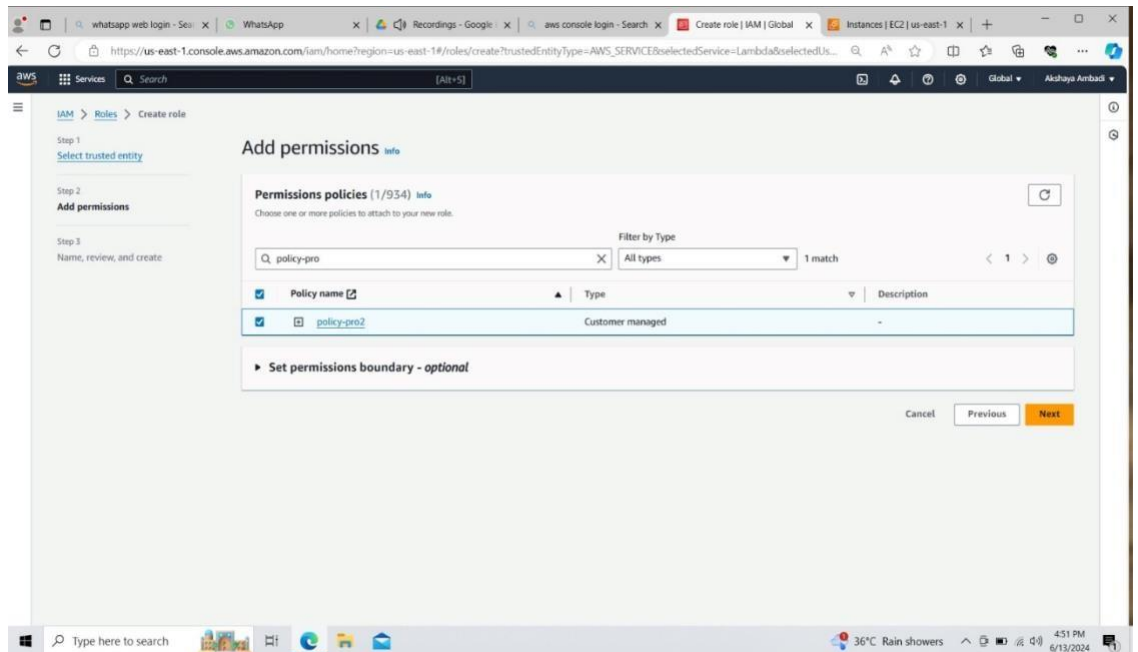


□ Create an IAM Role

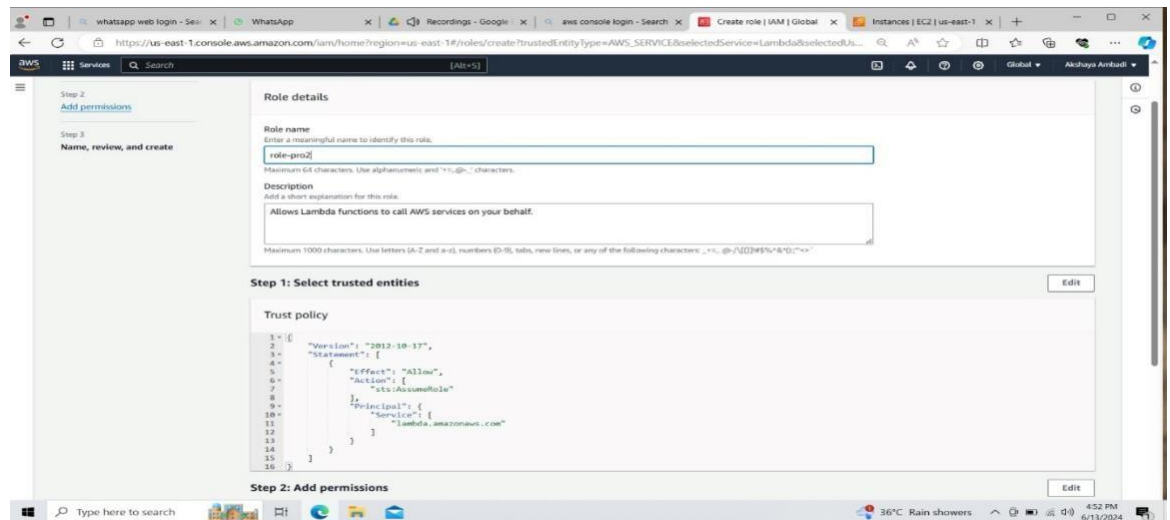
1. Go to Roles.
2. Select AWS Service as trusted entity
3. Select use case as Lambda.
4. Click on next.



5. In Add Permissions, give the policy name you have created.

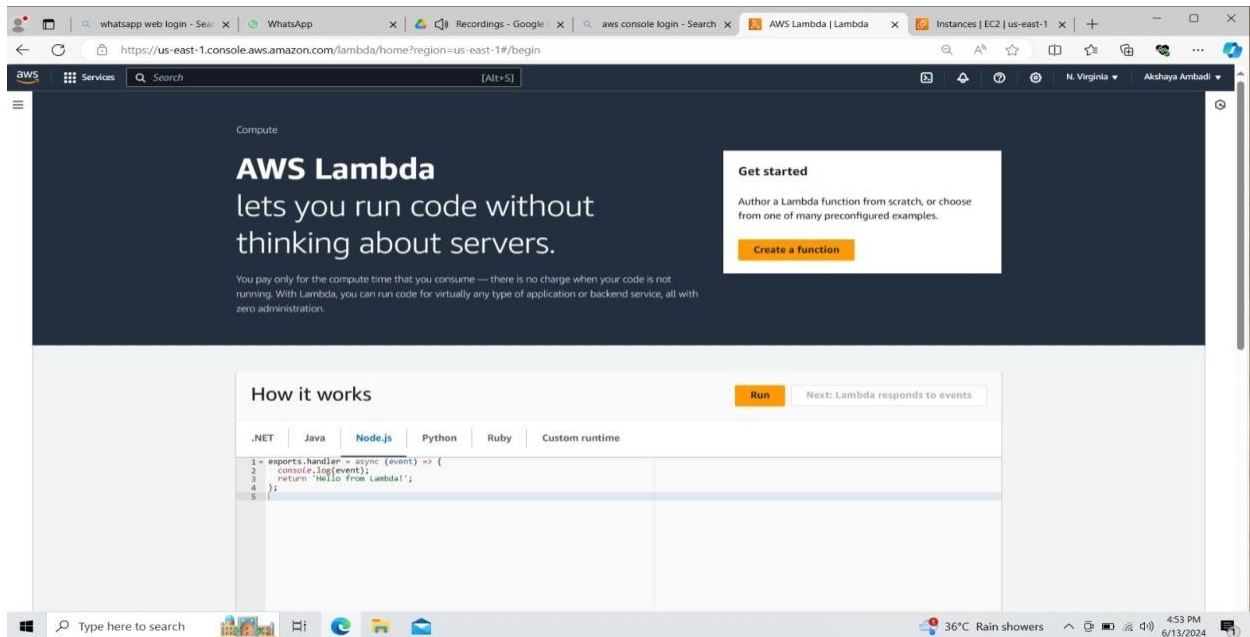


6. Give a name and create the role.



❑ Create 2 Lambda functions to start and stop instance

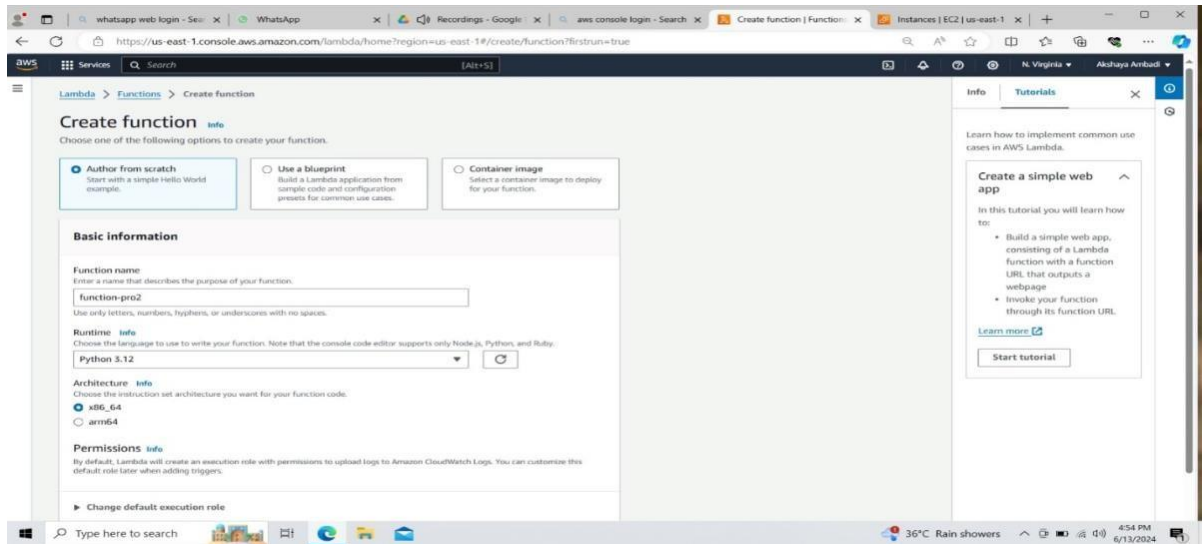
1. Navigate to AWS Lambda and click on createFunction.



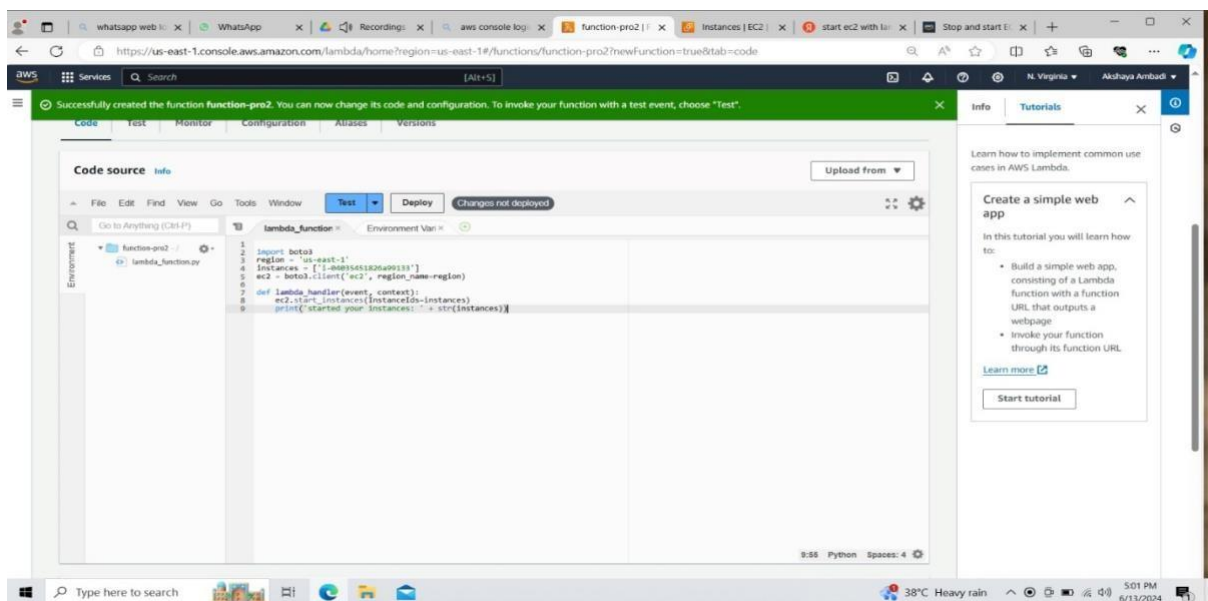
2. Give the basic information such as name and give runtime as 'Python'.

3. Click on 'change default execution' role and select the existing role.

4. Click on create Function.

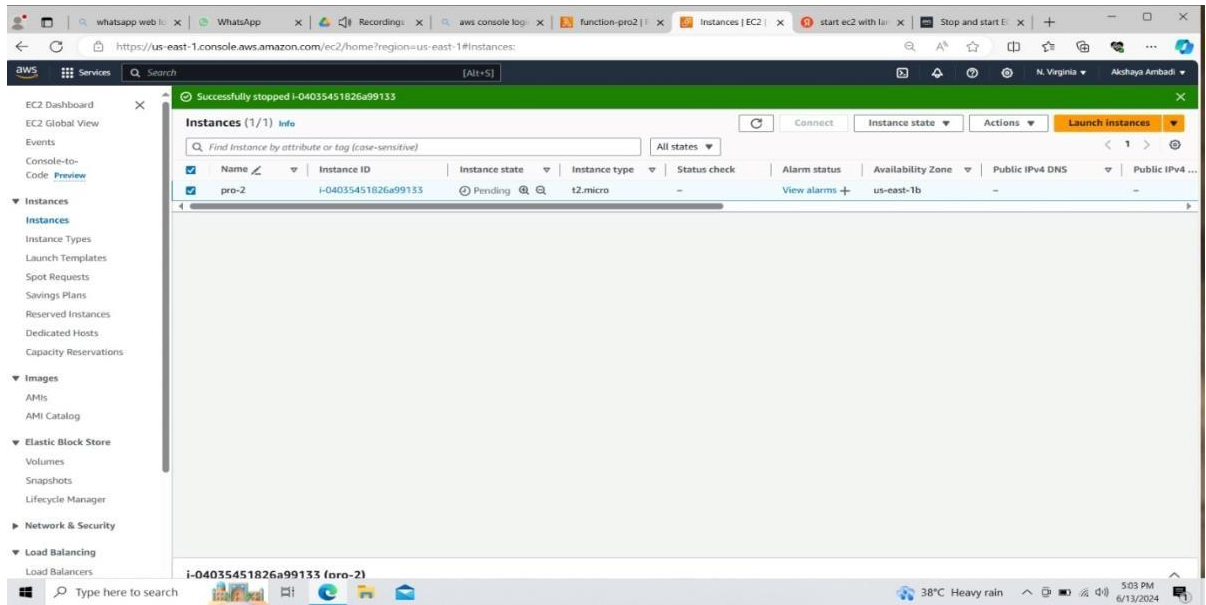


5. Give the python code for start instance and changeregion and instance ID.

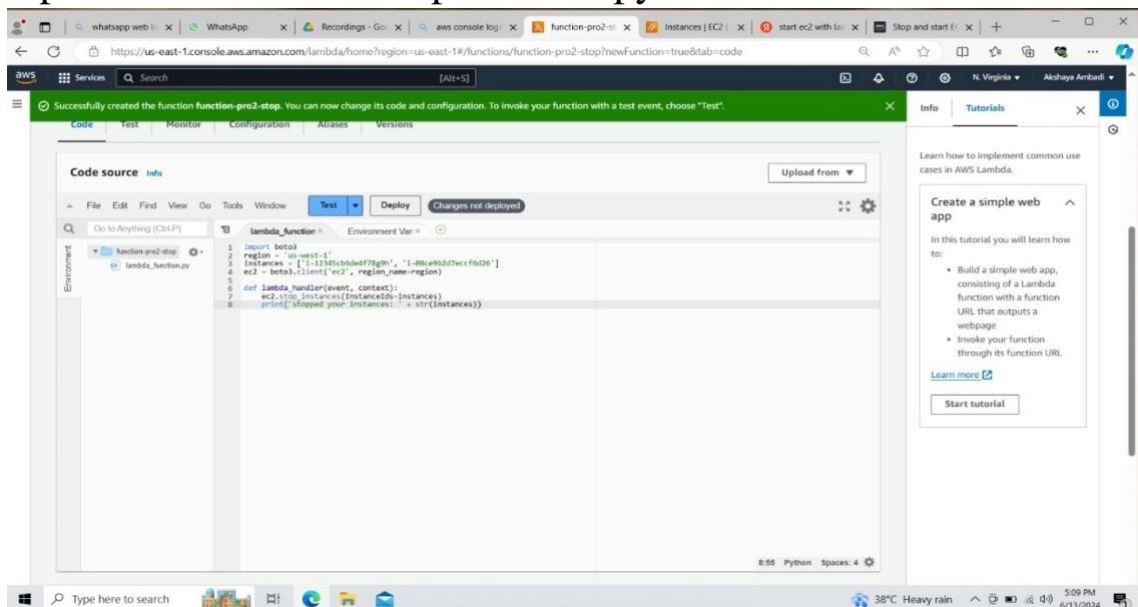


6. For sample testing, stop the instance and deploy the code.

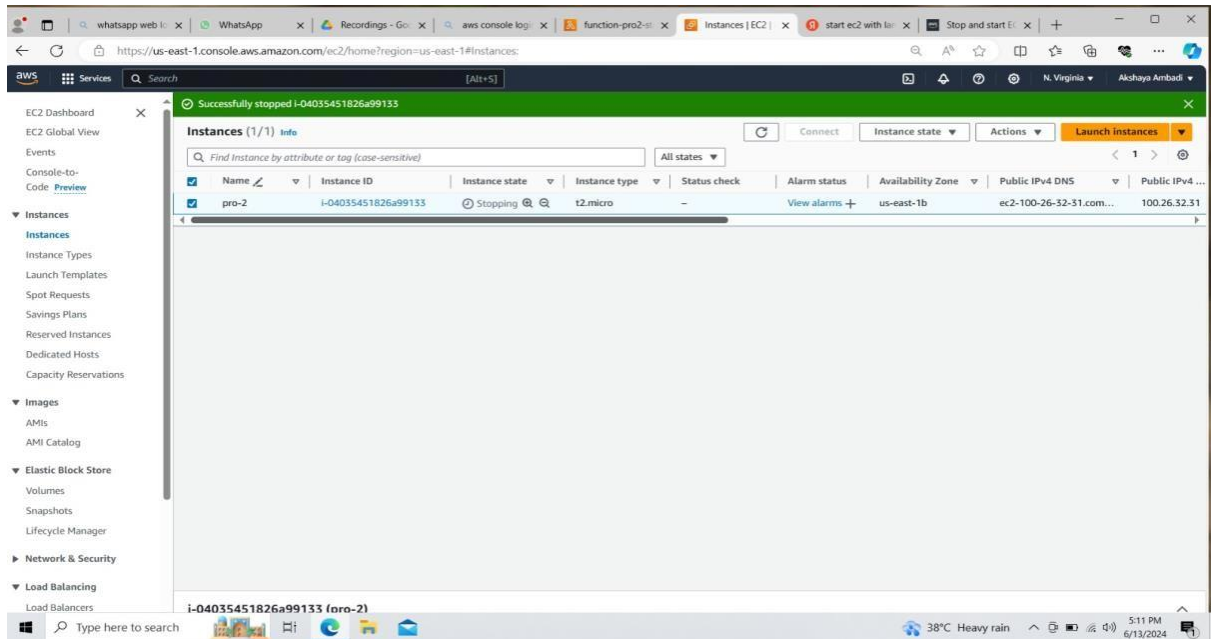
7. Click on test and the instance should be running.



8. For stop instance create another lambda function and follow the same steps which were used in creating start instance and replace the code with stop instance python code.

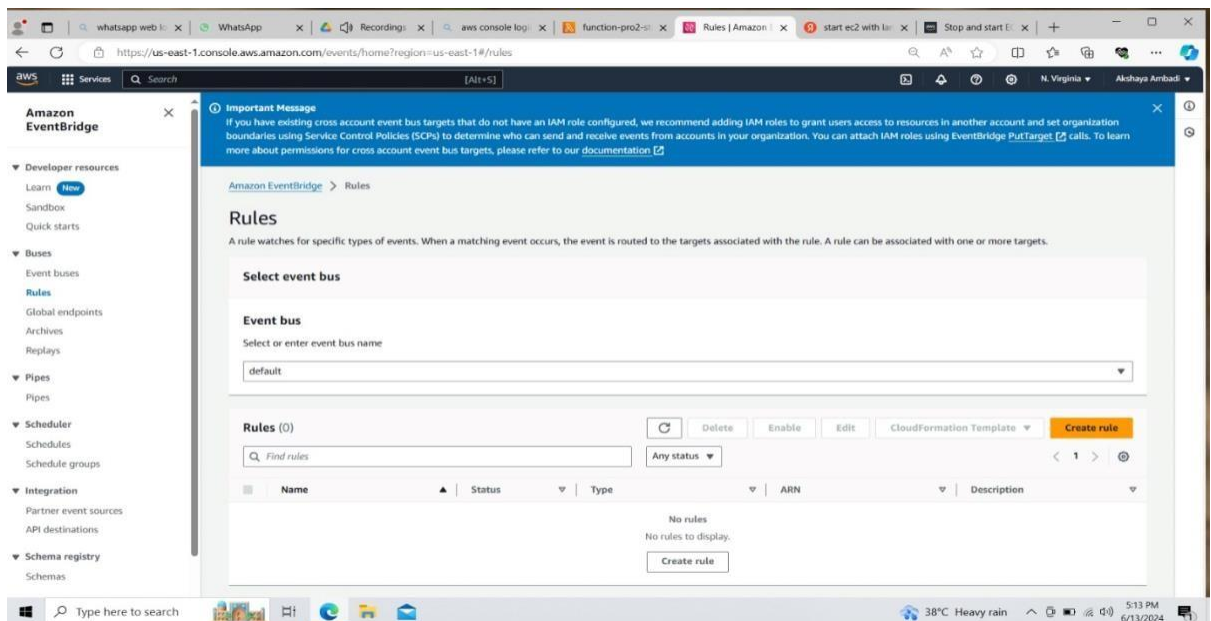


9. Here, after testing the code the instance needs to be stopped.

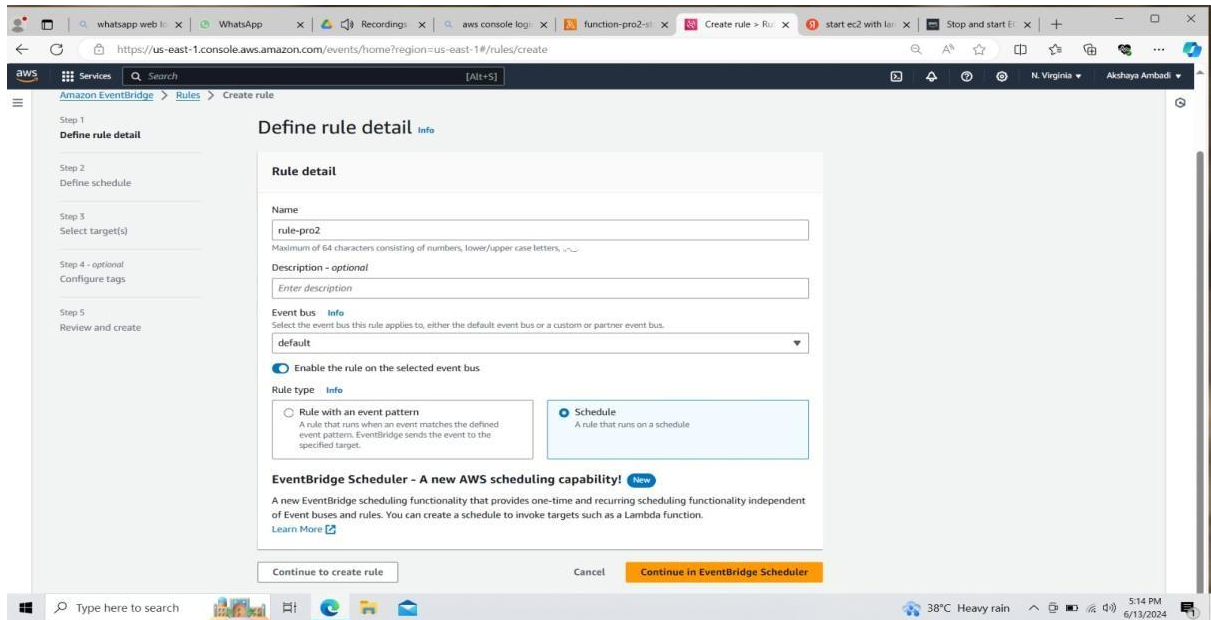


□ Create schedules in cloudwatch

1. Go to cloudwatch and create role.

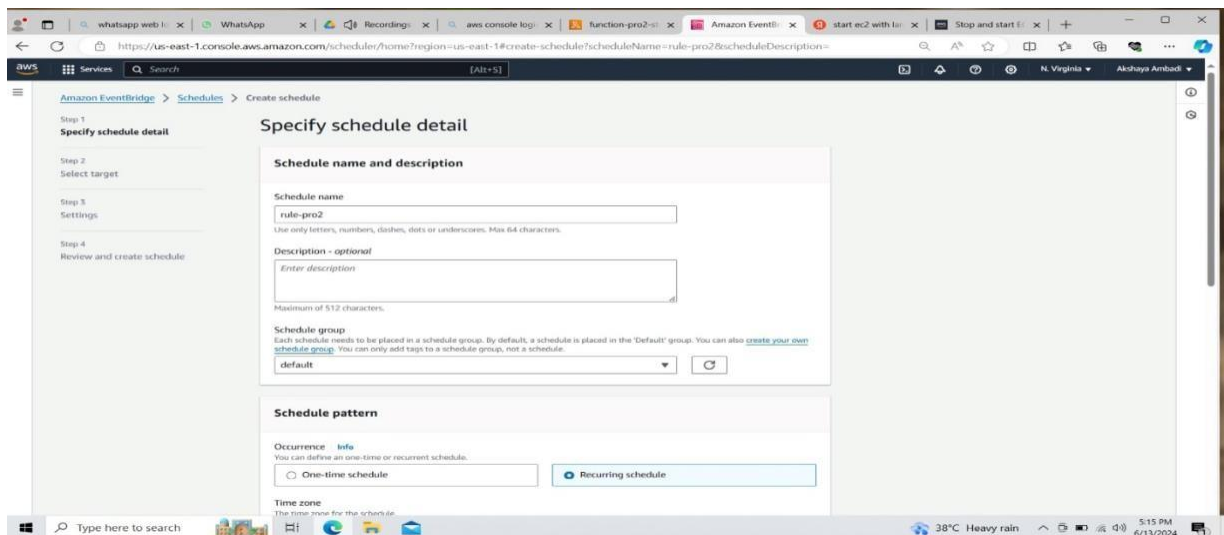


2. Give the basic information and click on ‘Continue in EventBridge Scheduler’.



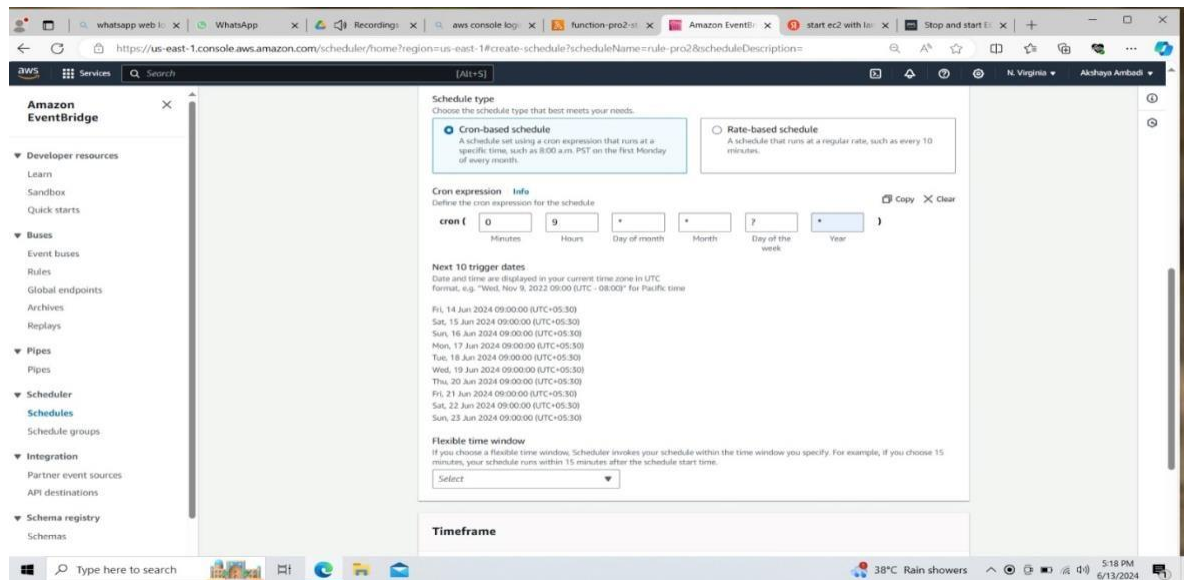
3. Specify schedule details like name and description.

4. Select Recurring Schedule and use cron-based schedule model.

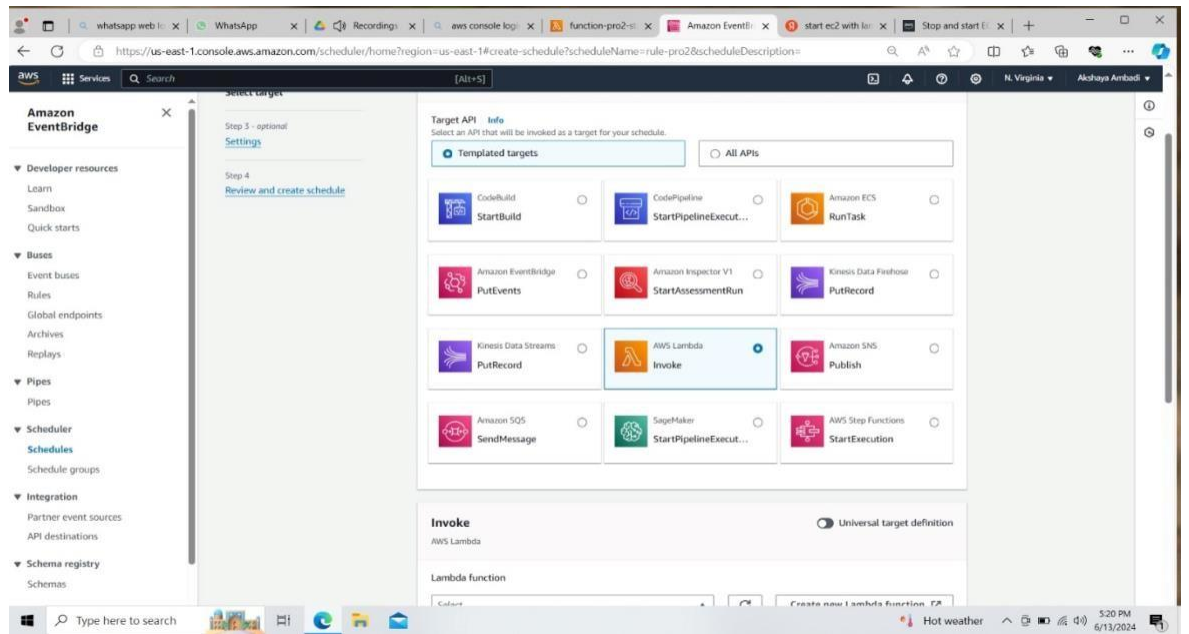


5. As per the project, the instance needs to getstart at 9am and stop at 6pm automatically.

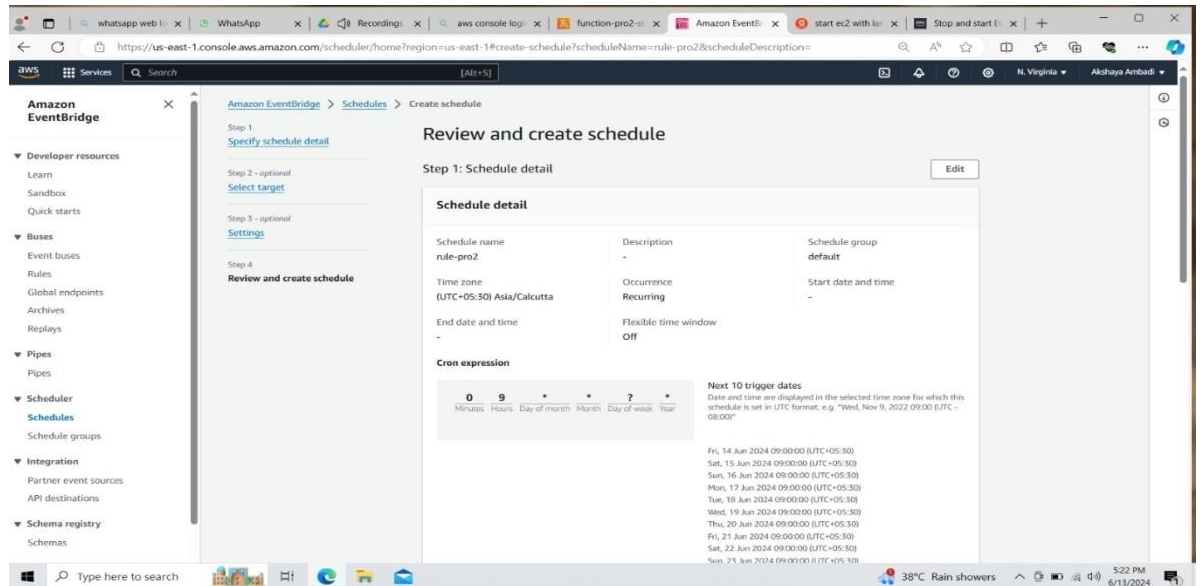
6. So give the scheduling for start instance and click on next.



7. Give Target API as 'AWS Lambda'.

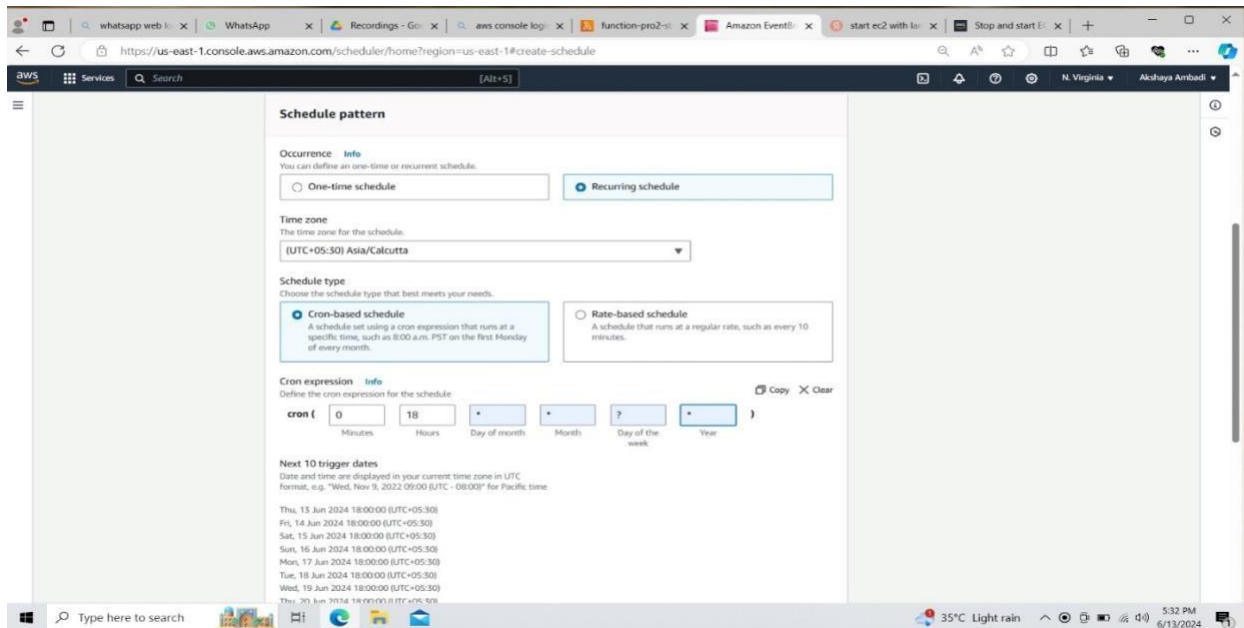


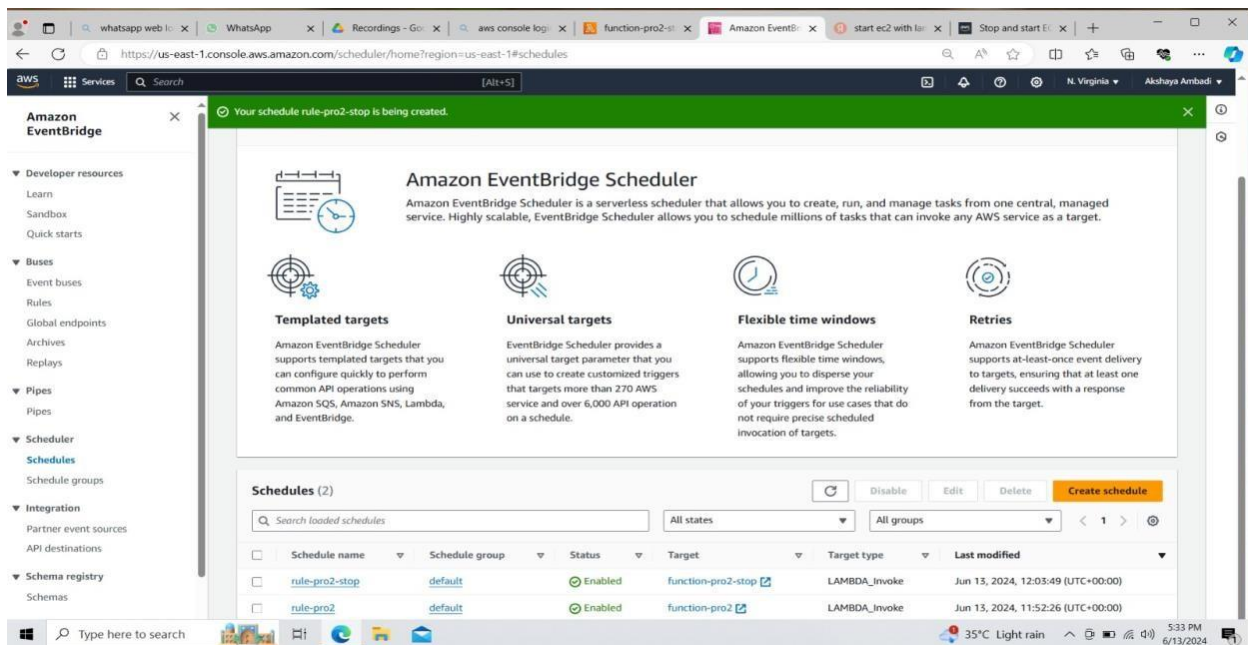
8. Review and create schedule.



9. Now create another Schedule in the same way for stop instance.

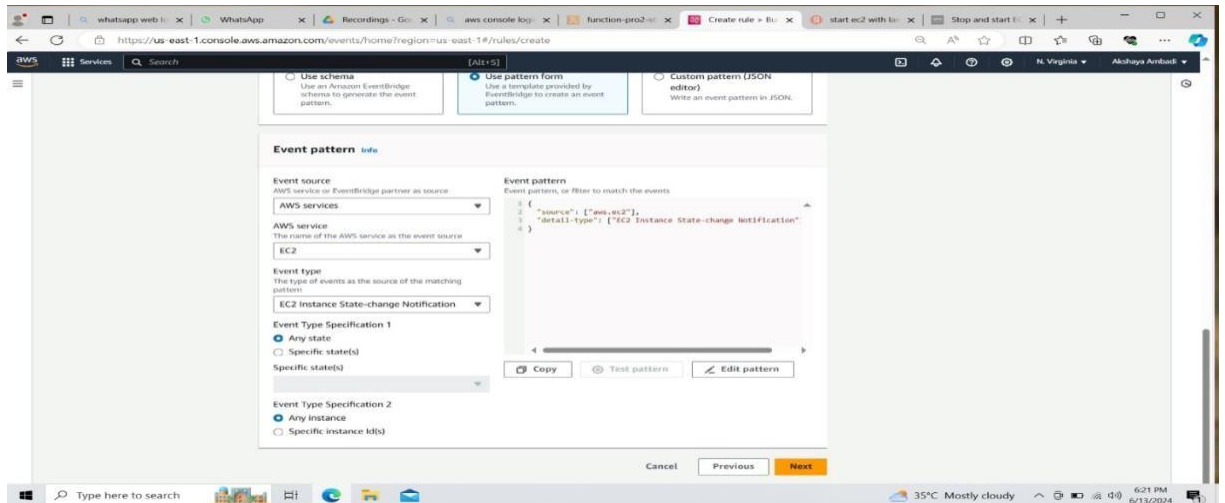
10. Change the schedule time for stop instance.



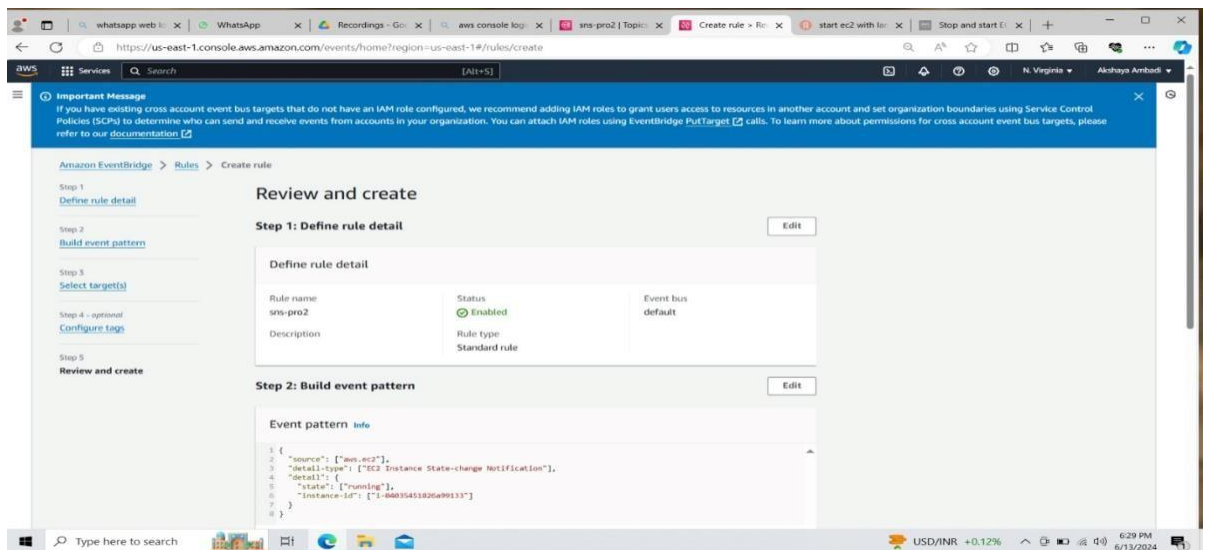


☐ Create a Rule in cloudWatch and attach SNS

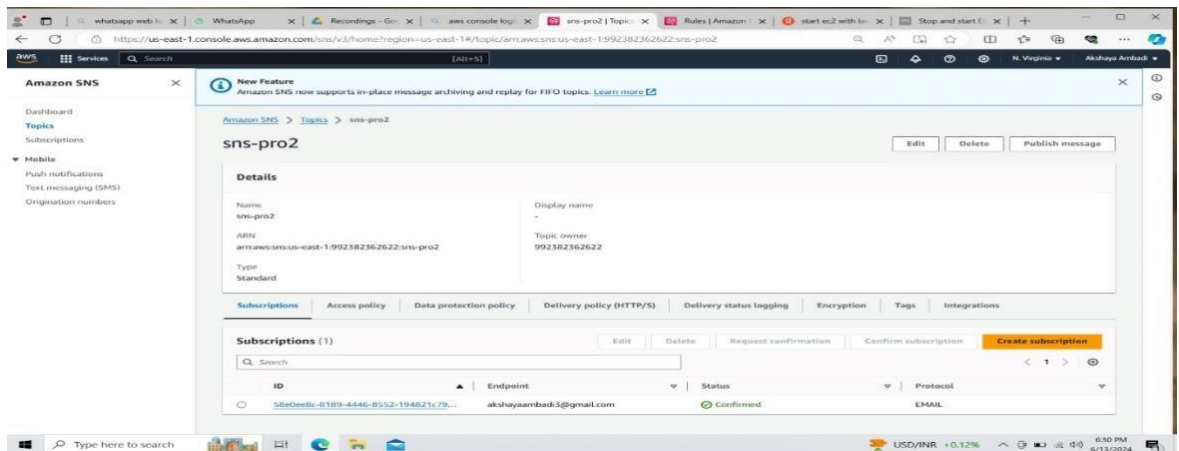
1. Click on create role and give the basic information.
2. Select 'Rule with an event pattern' and click on create rule.
3. In the event pattern, choose 'EC2' as the service, and then select 'EC2 Instance State change Notification' as event type.



4. Review and create role.



5. Now create SNS and attach it to the role.



Amazon EventBridge

Developer resources

Learn How

Sandbox

Quick starts

Buses

Event buses

Rules

Global endpoints

Archives

Replays

Pipes

Pipes

Scheduler

Schedules

Schedule groups

Integration

Partner event sources

API destinations

Schema registry

Schemas

Important Message

If you have existing cross account event bus targets that do not have an IAM role configured, we recommend adding IAM roles to grant users access to resources in another account and set organization boundaries using Service Control Policies (SCPs) to determine who can send and receive events from accounts in your organization. You can attach IAM roles using EventBridge PutTarget calls. To learn more about permissions for cross account event bus targets, please refer to our documentation.

You have been redirected

CloudWatch Events console is now deprecated. Use EventBridge console to create and manage event buses and rules.

Amazon EventBridge > Rules

Rules

A rule watches for specific types of events. When a matching event occurs, the event is routed to the targets associated with the rule. A rule can be associated with one or more targets.

Select event bus

Event bus

Select or enter event bus name:

default

Rules (1)

Find rules

Any status

< 1 >

Name	Status	Type	ARN	Description
sns-pro2	Enabled	Standard	arn:aws:events:us-east-1:992382362622:rule/sns-pro2	

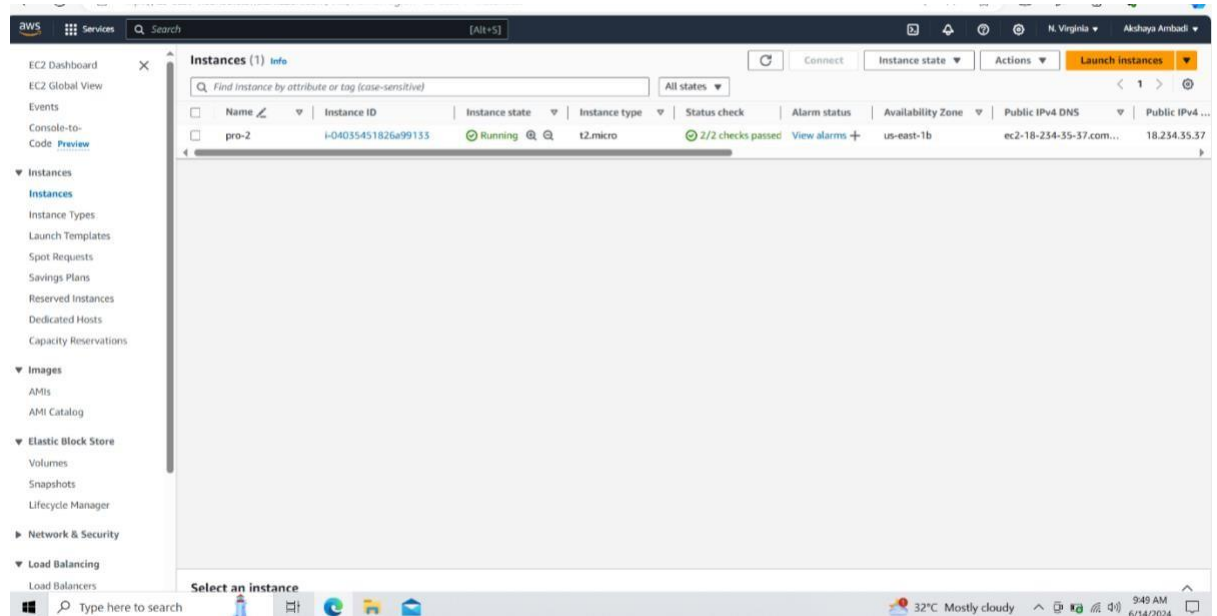
Type here to search

Breaking news

6:39 PM 6/13/2024

Now if we change the Instance state then we will get a notification mail.

As per the given time, the instance started automatically at 9 am.



And it got stopped at 6 pm.

