# AWS - Cloud Watch Practical

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## Practical:1

Monitor the CPU utilization of instance, set the threshed Grater then and equal to 50% & send alert via SSN

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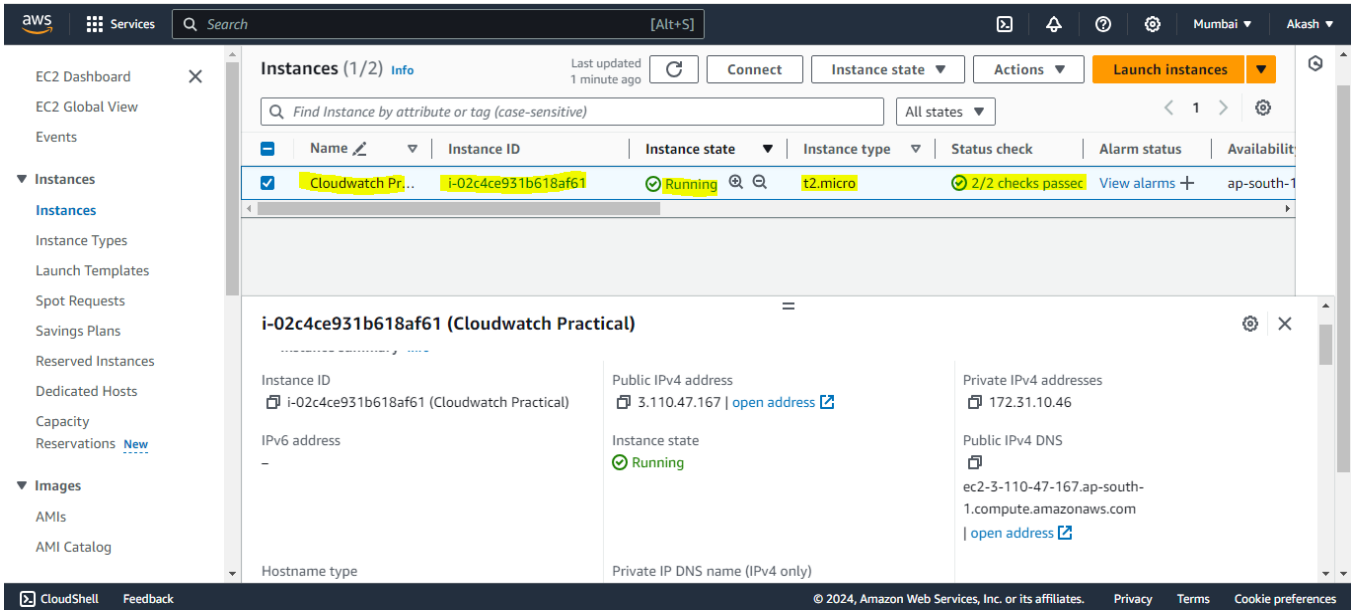
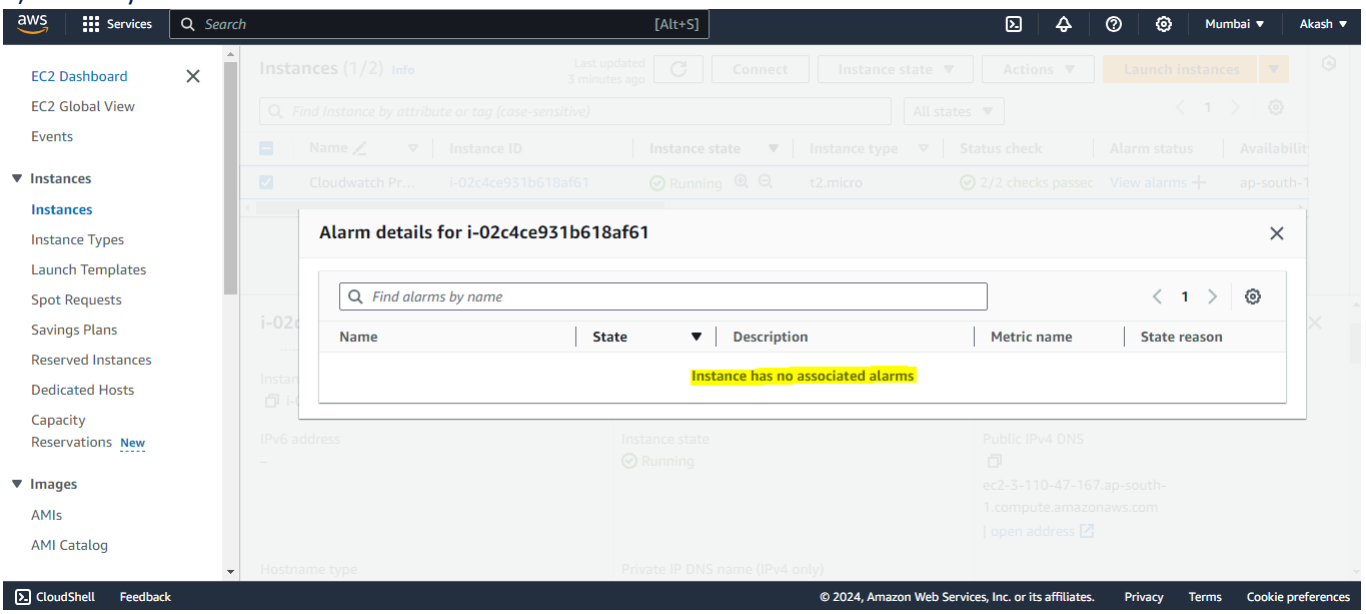
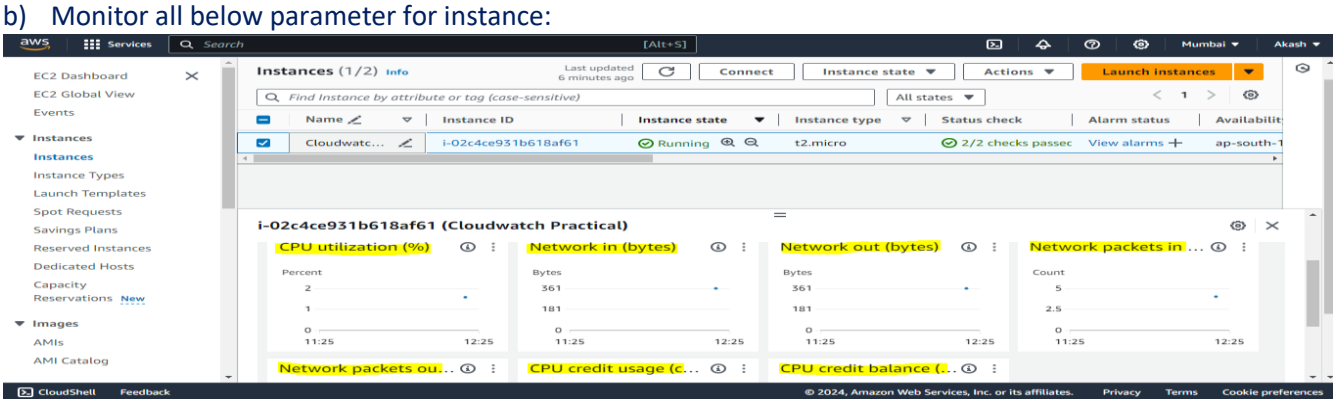
1) Create new instance



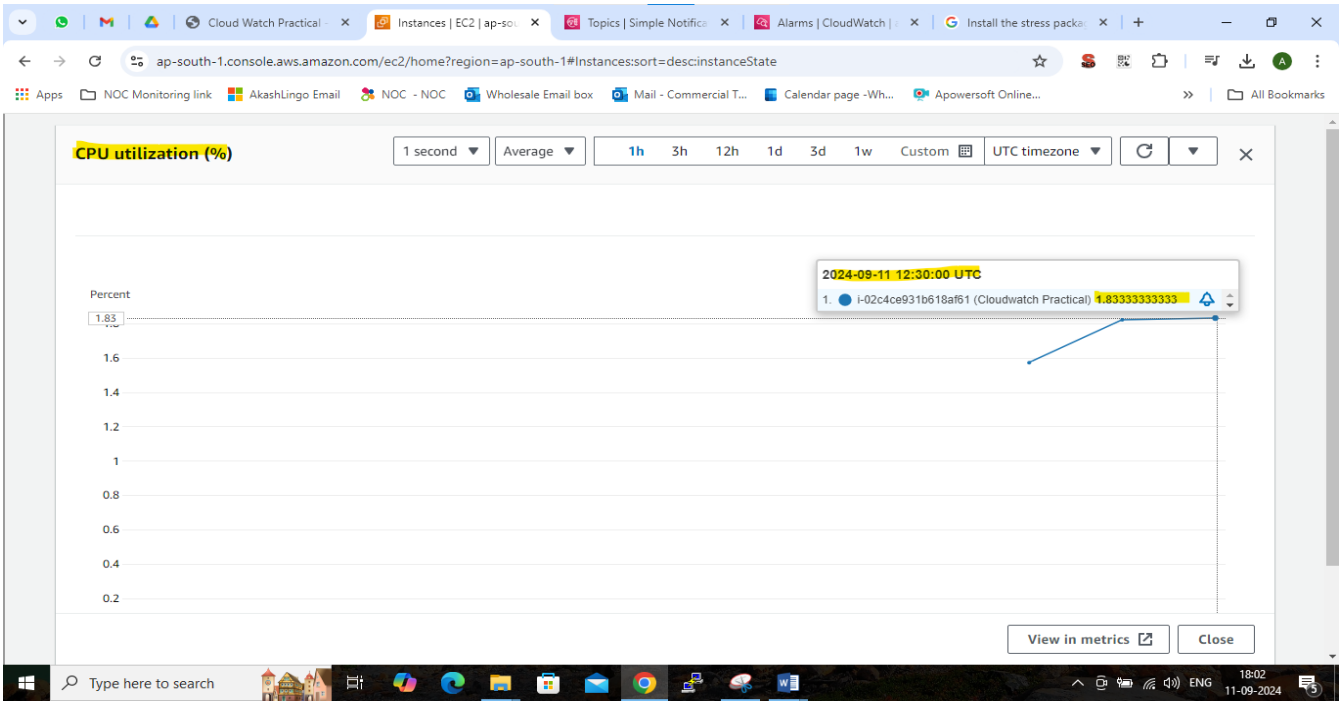

a) Initially no alarm for new instance:




b) Monitor all below parameter for instance:

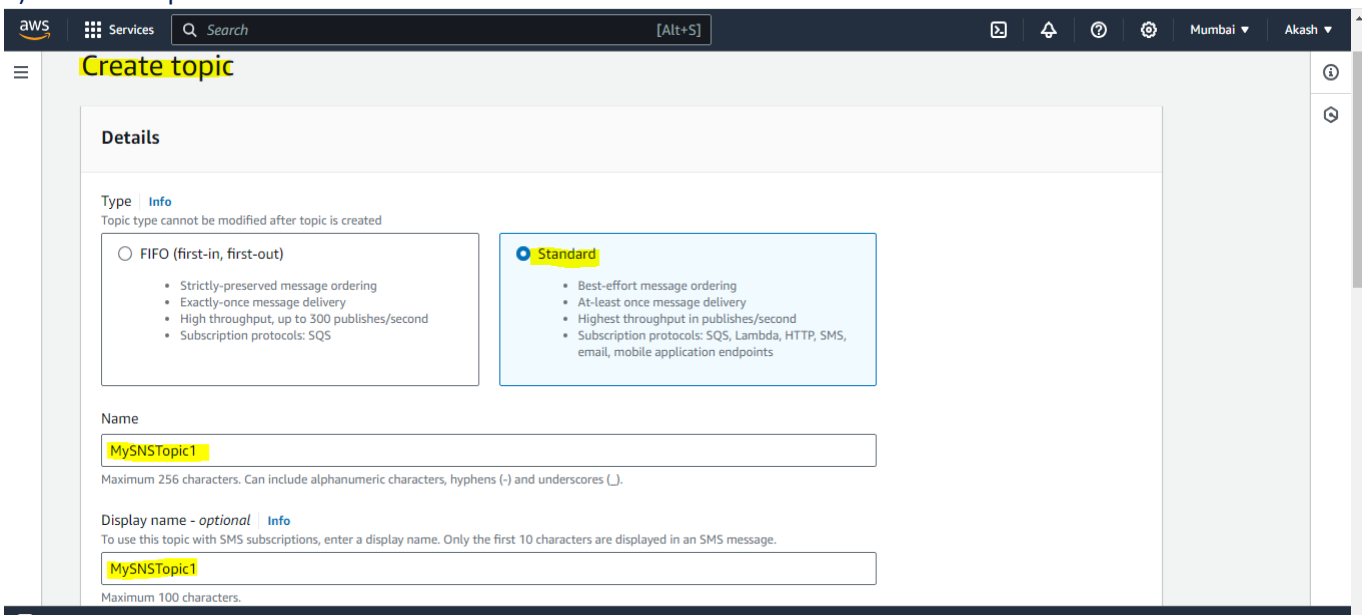


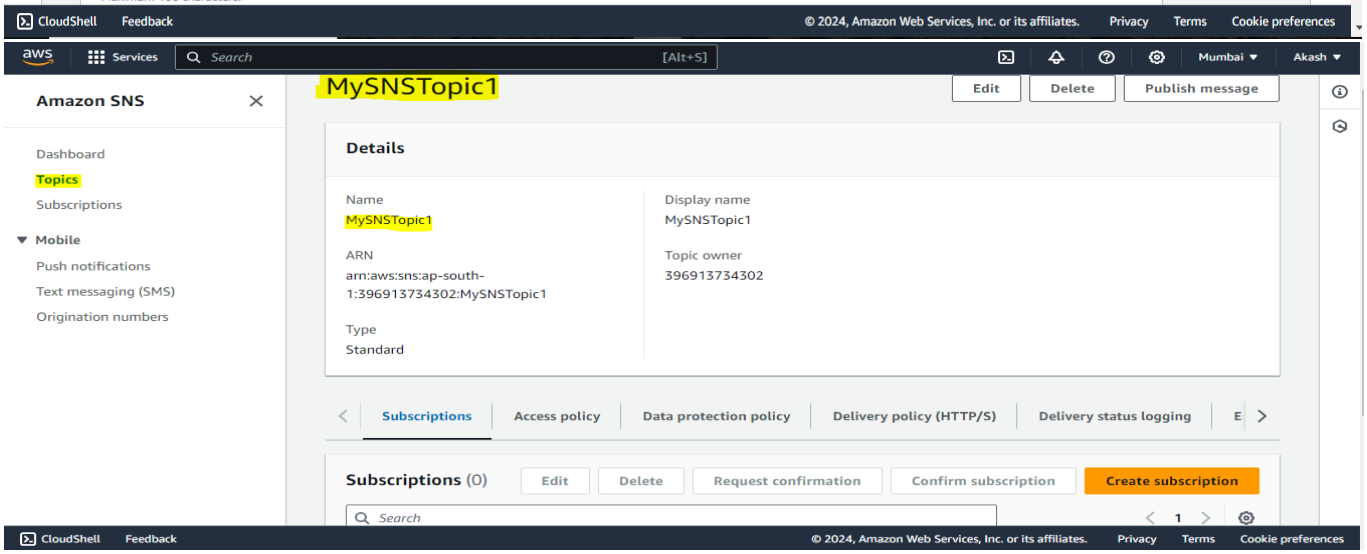
c) Current CPU Utilization | By default, basic monitoring is unable for 5 min frequency



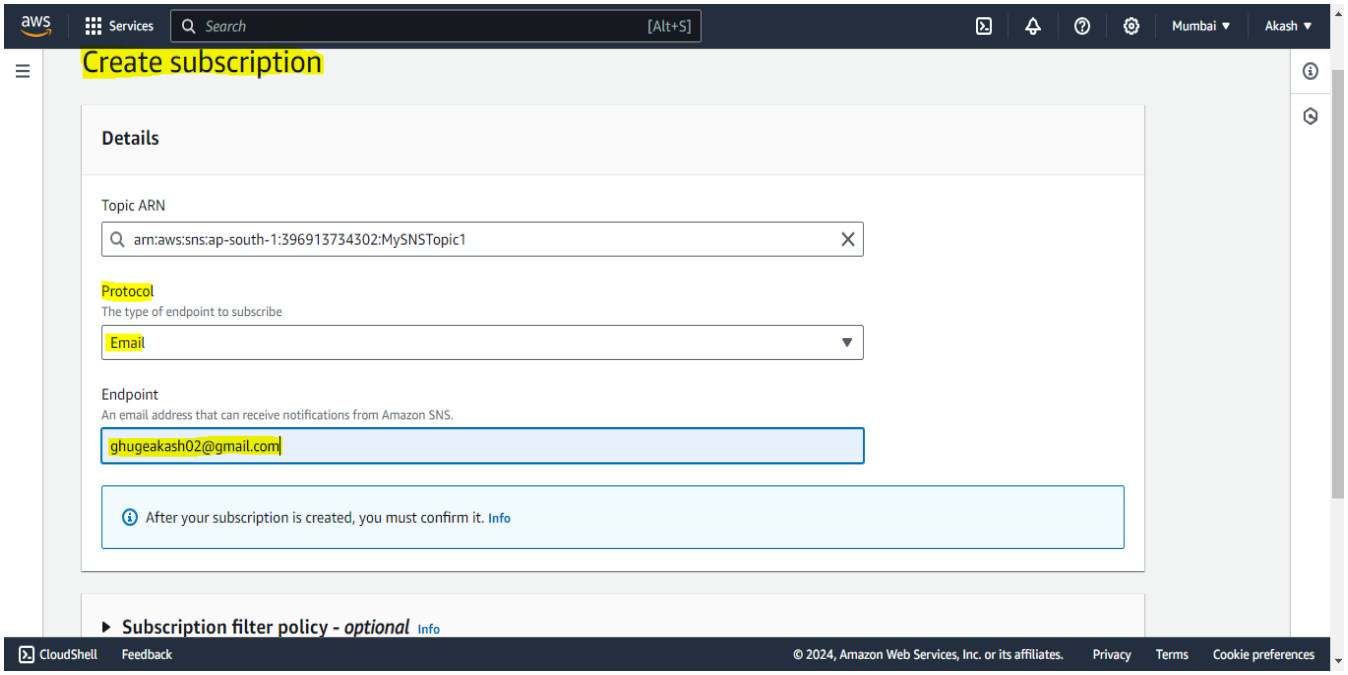

2) Create a topic by using SNS (Simple Notification Service)

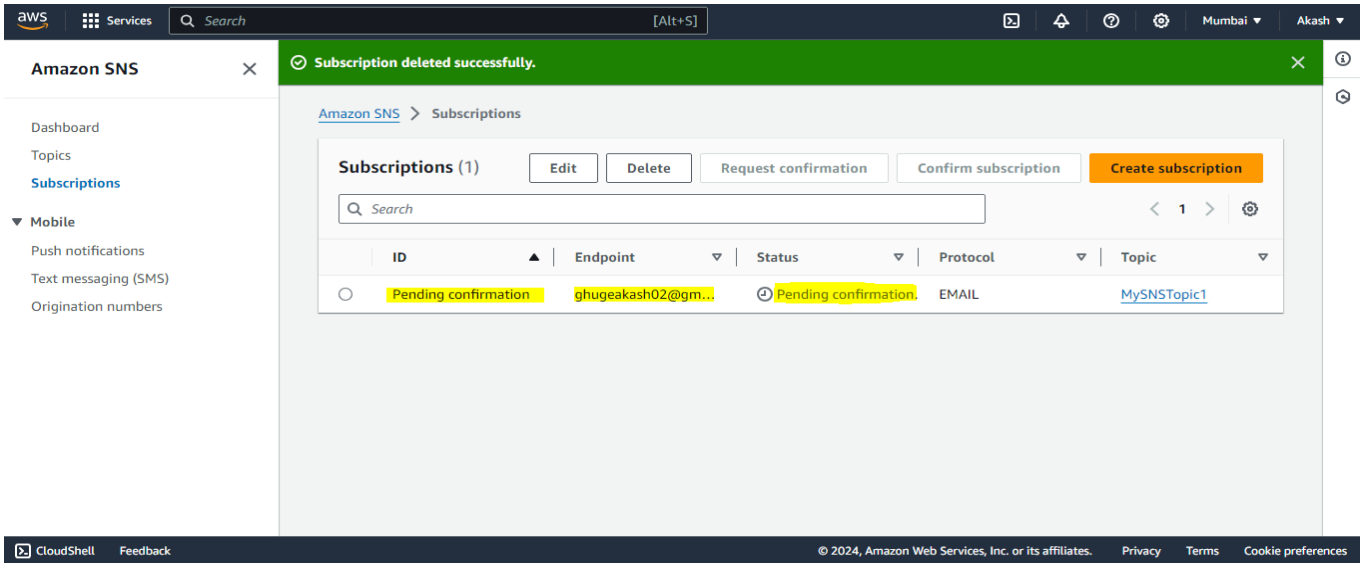
a) Create Topic



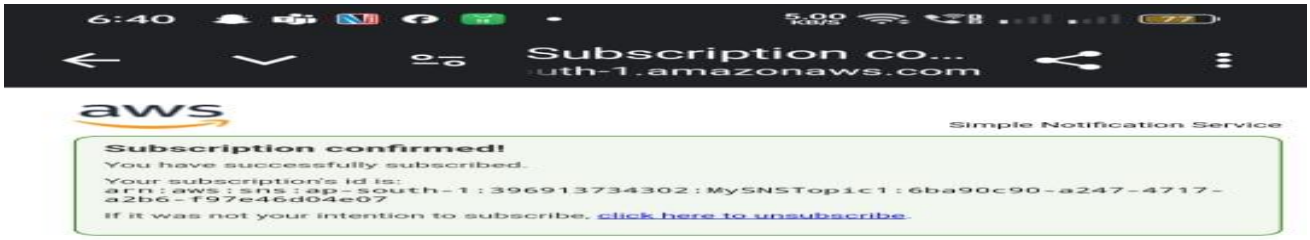



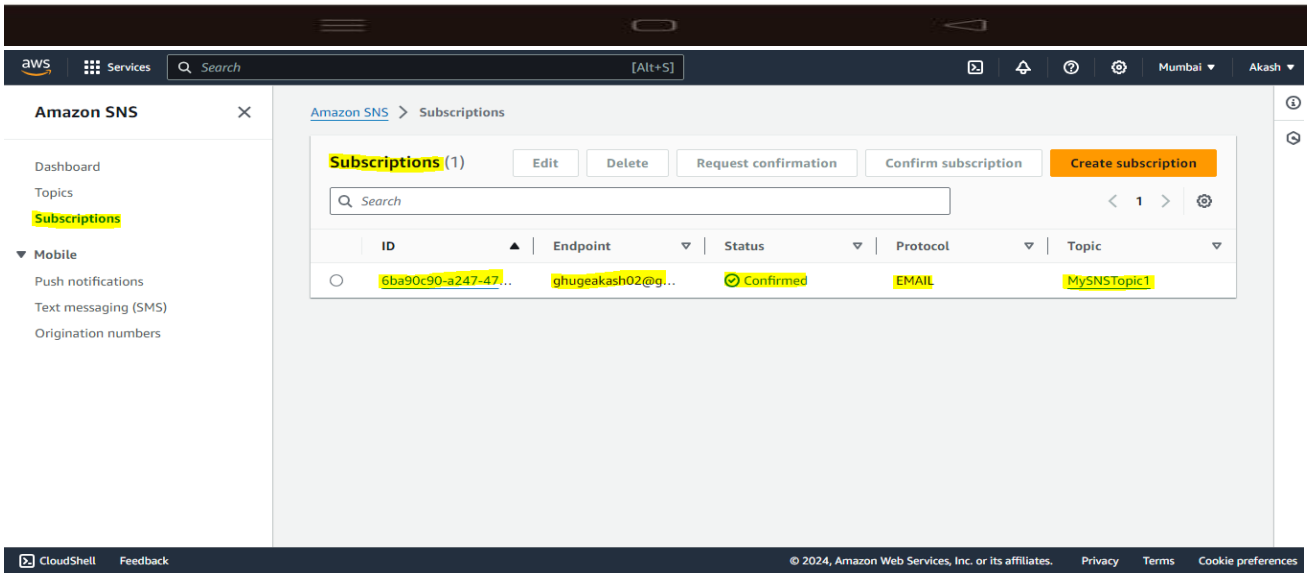
## b) Create subscription



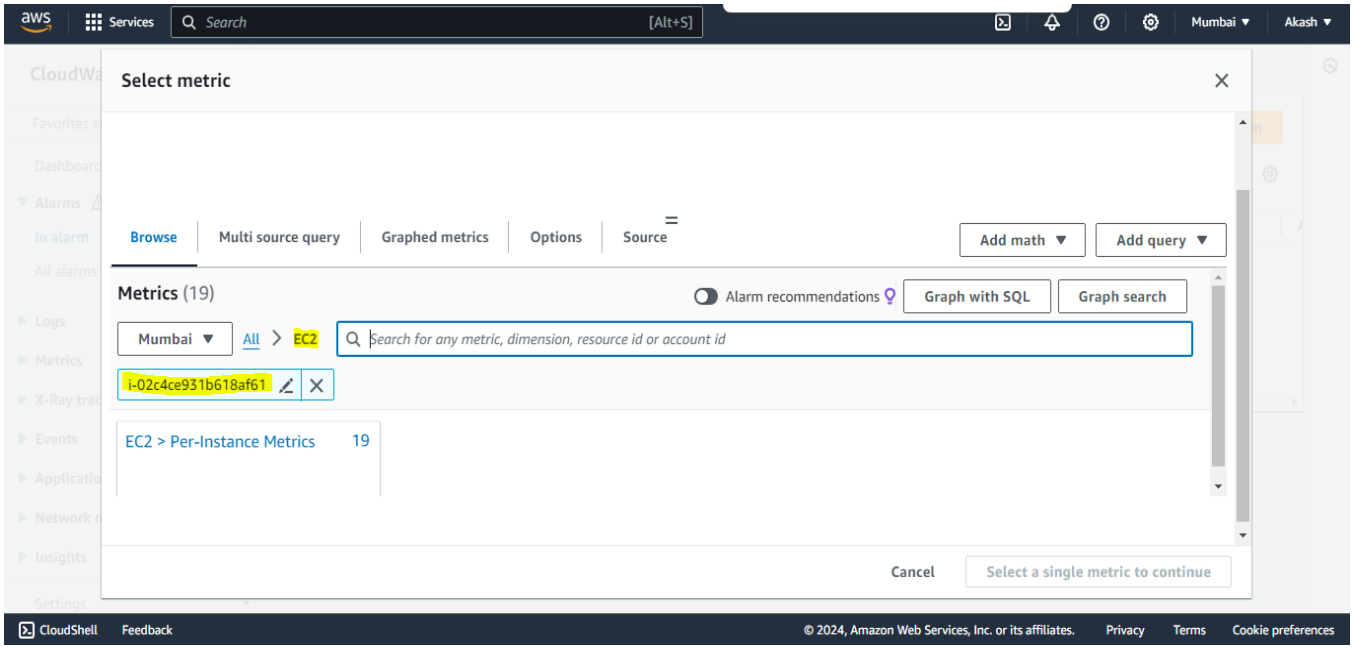

## C) Conformed the subscription through Email ID



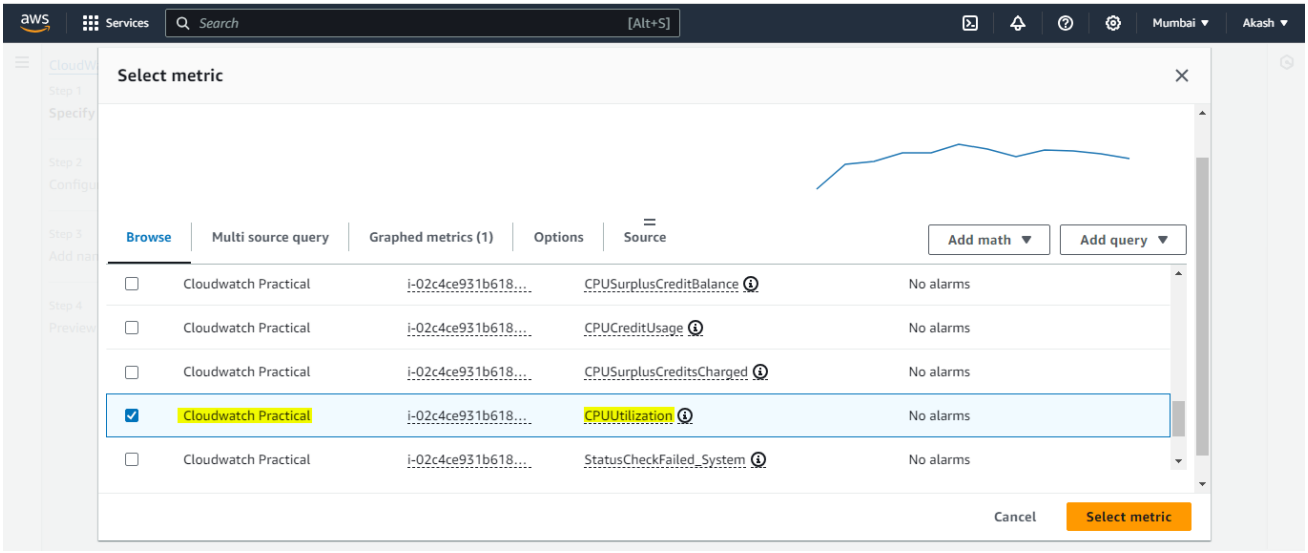




3) Create alarm by using cloud watch service – For CPU Utilization

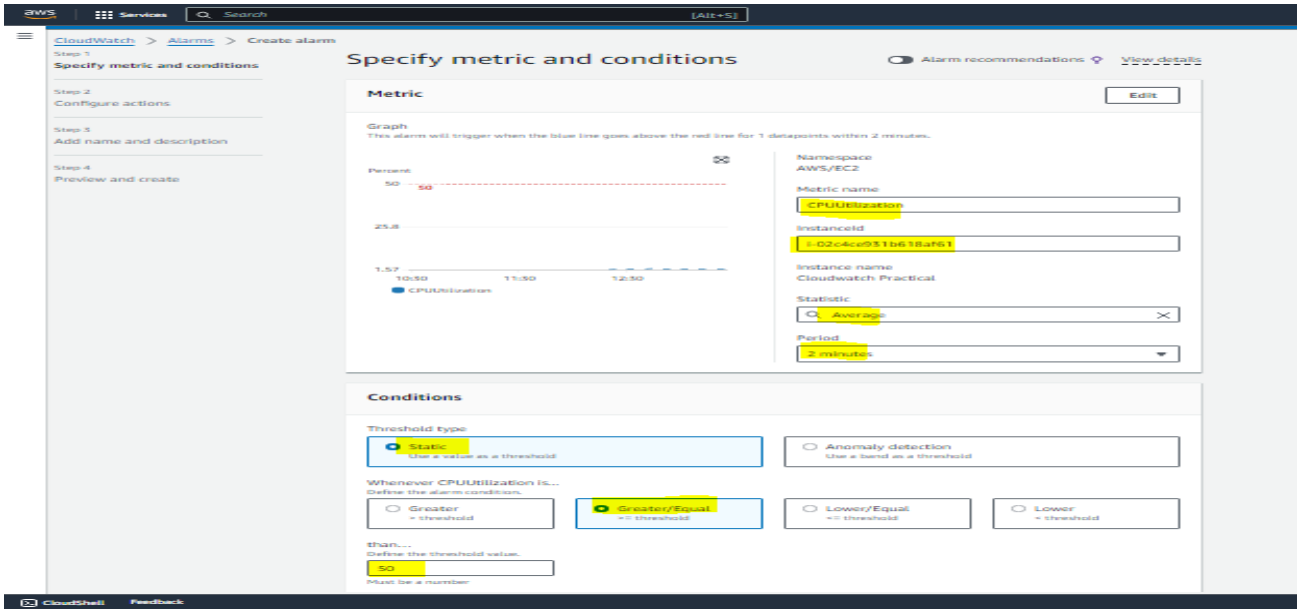
a) Add instance ID to the EC2 Instance



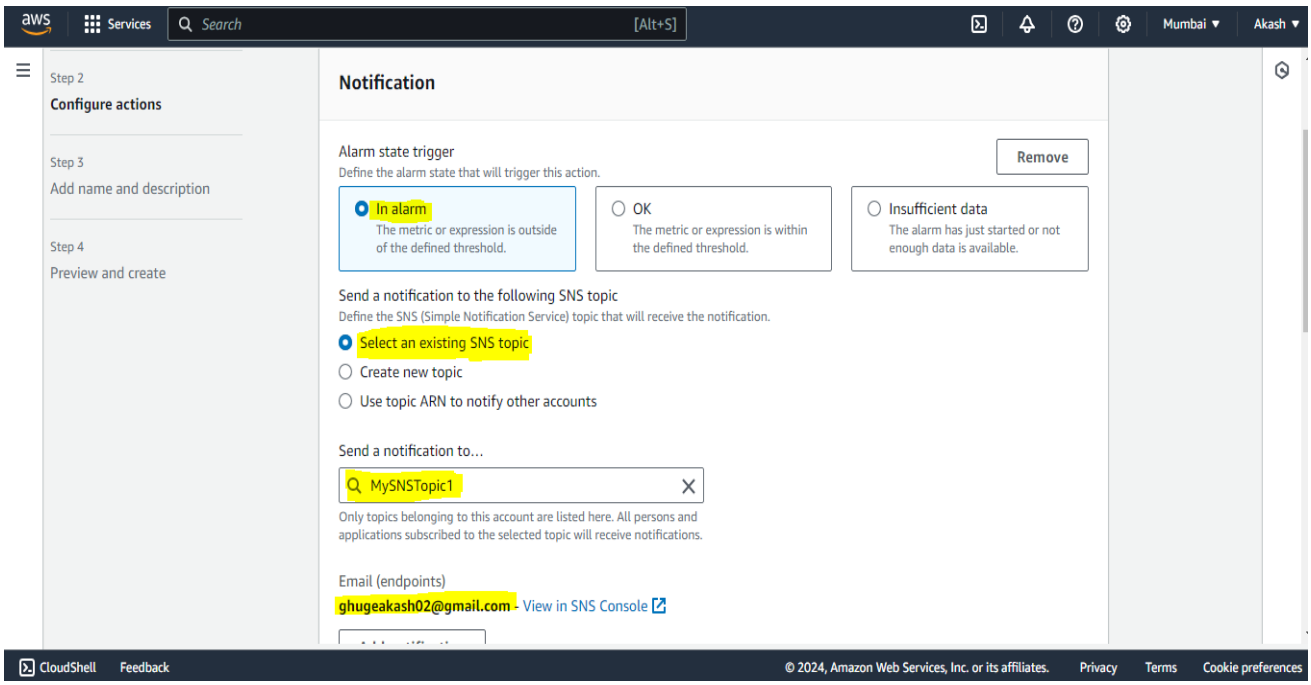
b) Select Metric - CPU Utilization



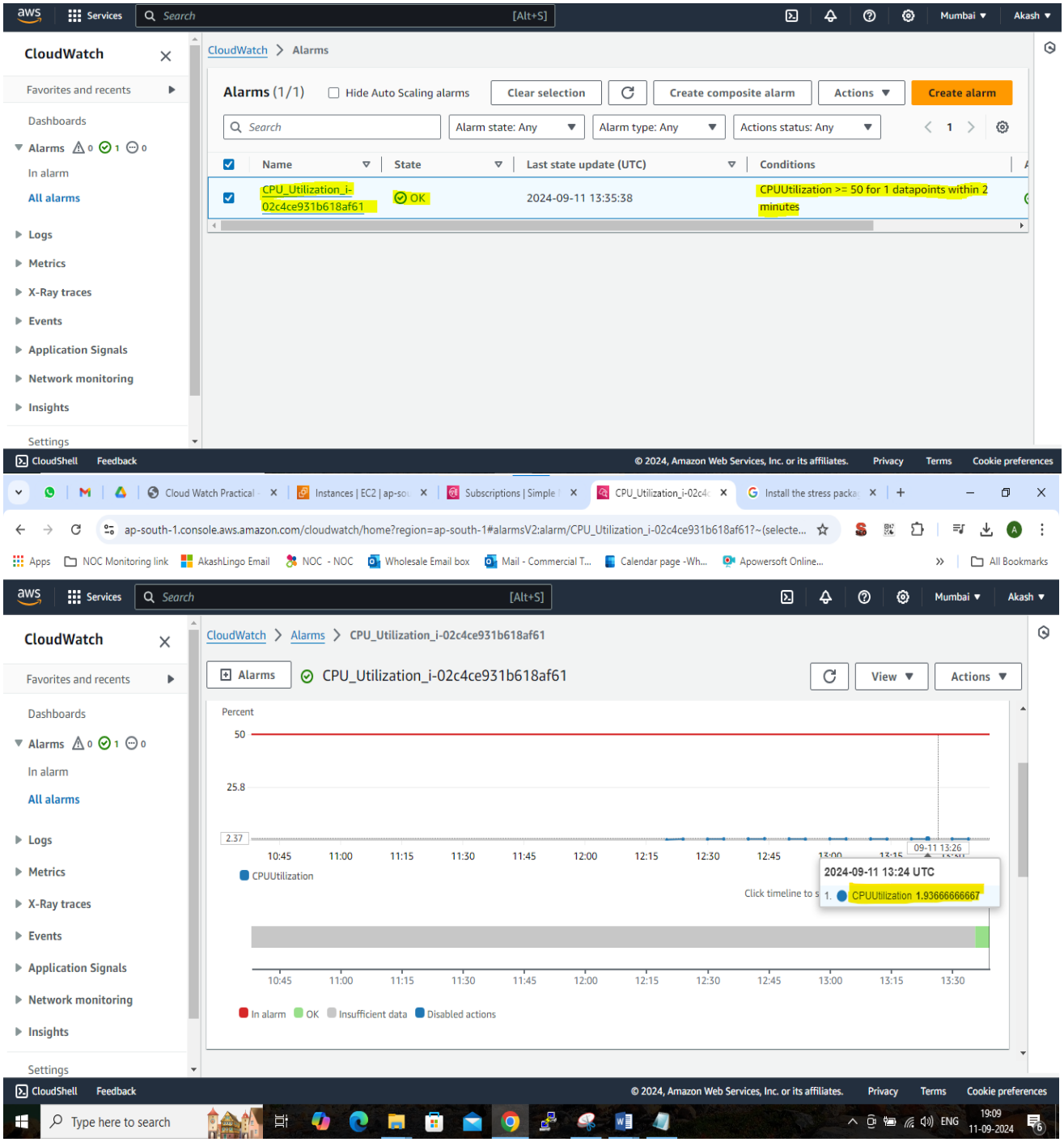

c) Create rule




d) Add Notification ID

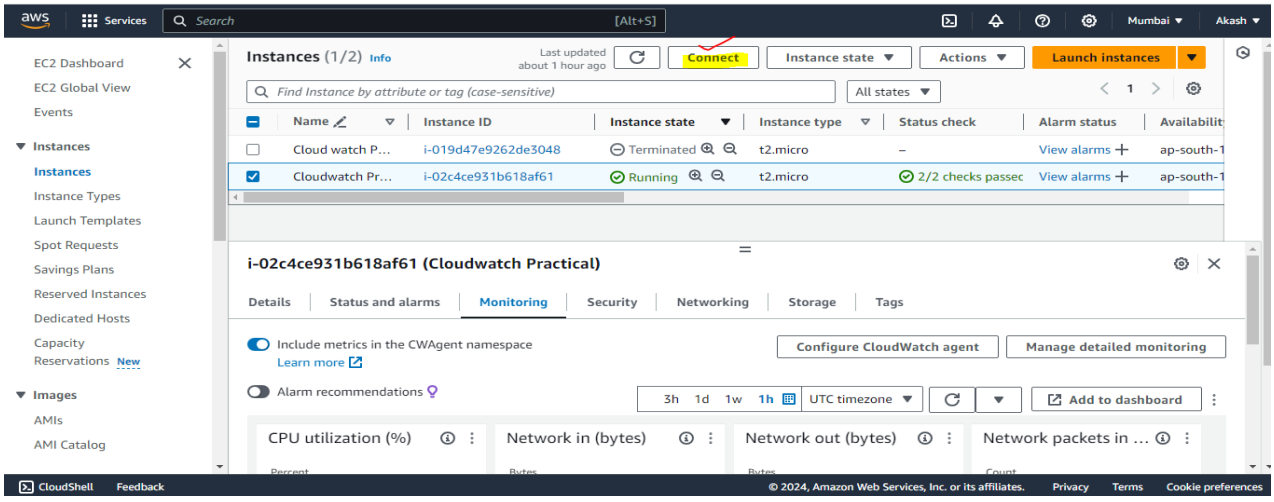


e) Alarm condition: CPUUtilization >= 50 for 1 datapoints within 2 minutes




4) Connected with Instance to increase the CPU Utilization

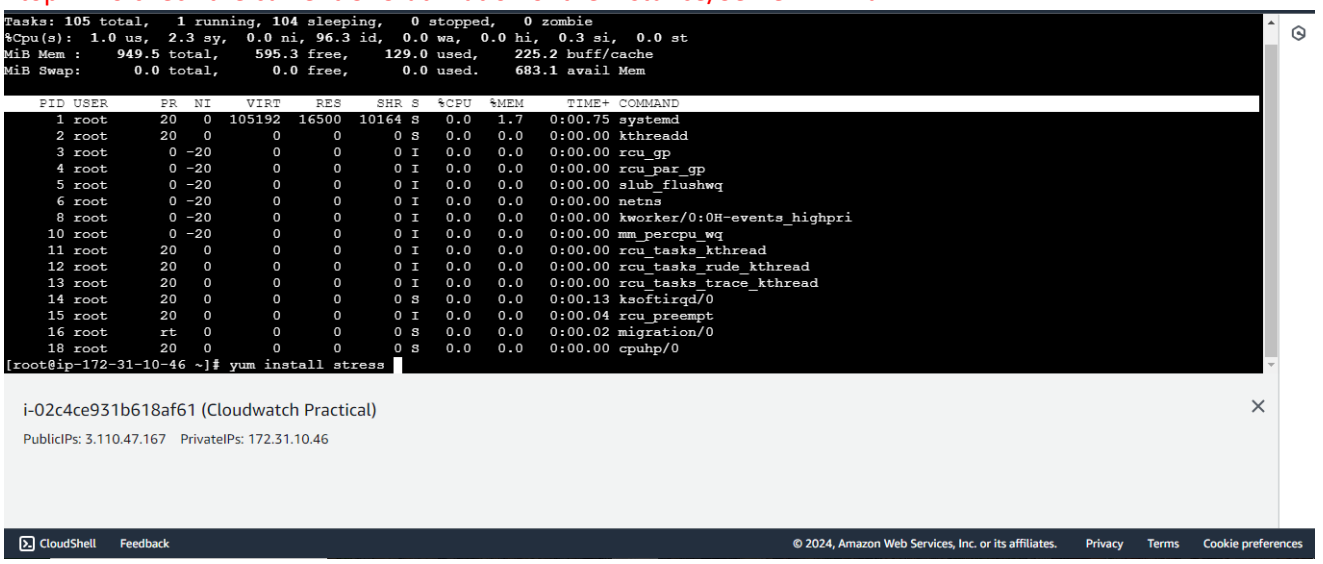
a) Connect with Instance



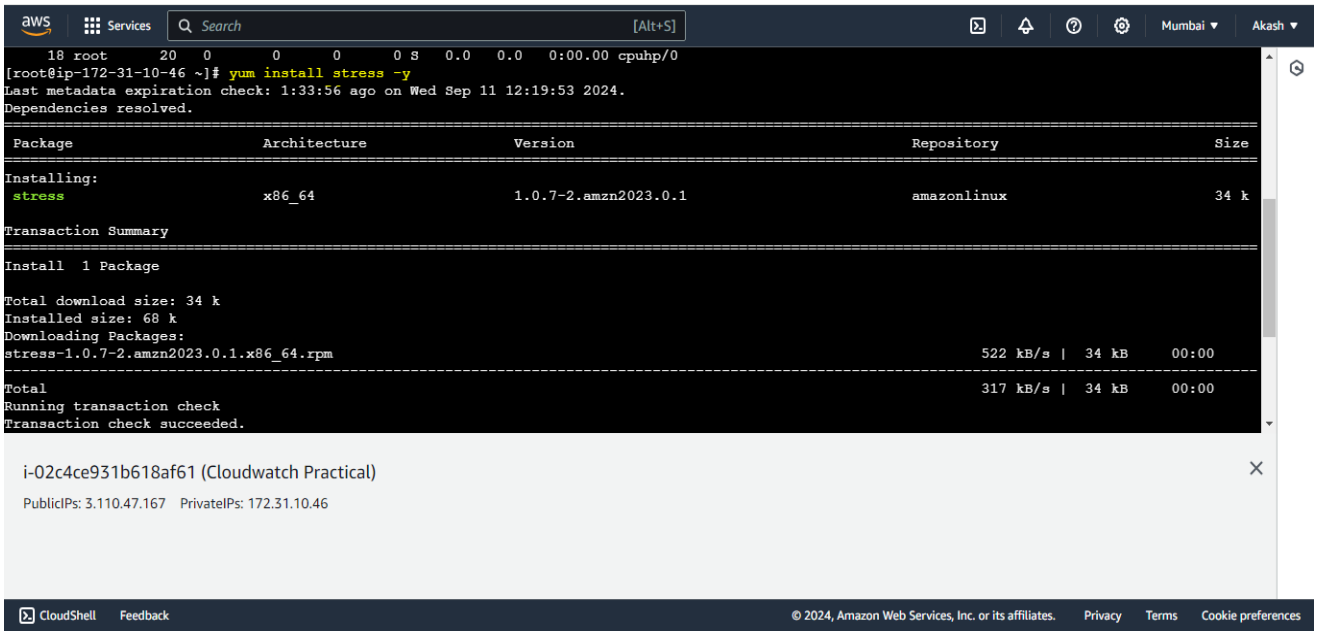
b) #Top command is used to check the current CPU utilization of the instance/Server in Linux

#sudo su - -> Interring root user

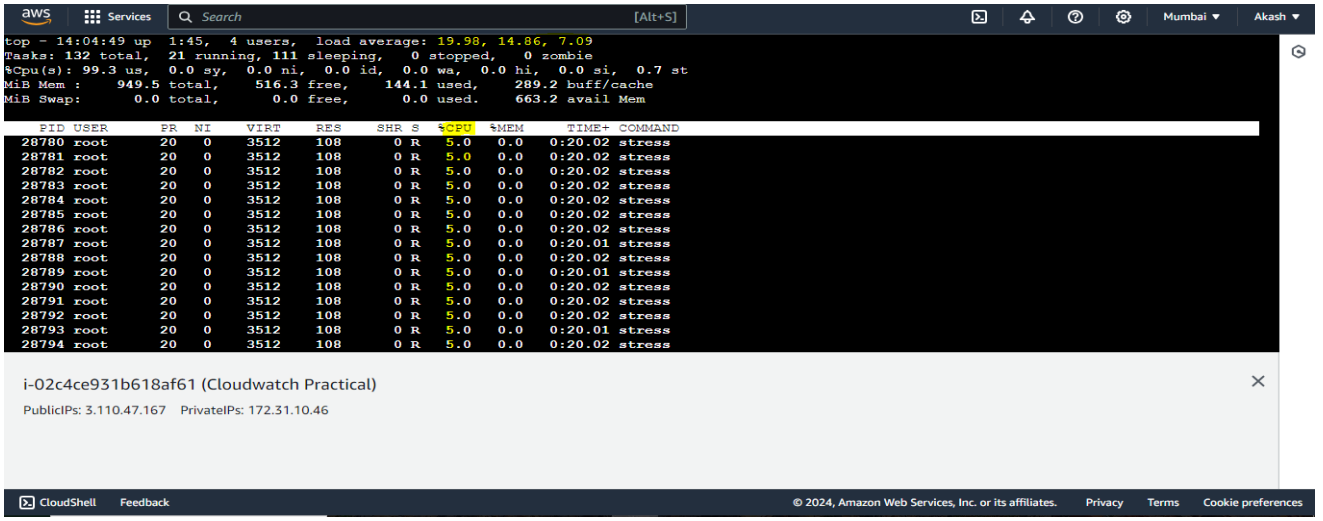
#top -> To check the current CPU utilization of the instance/Server in Linux



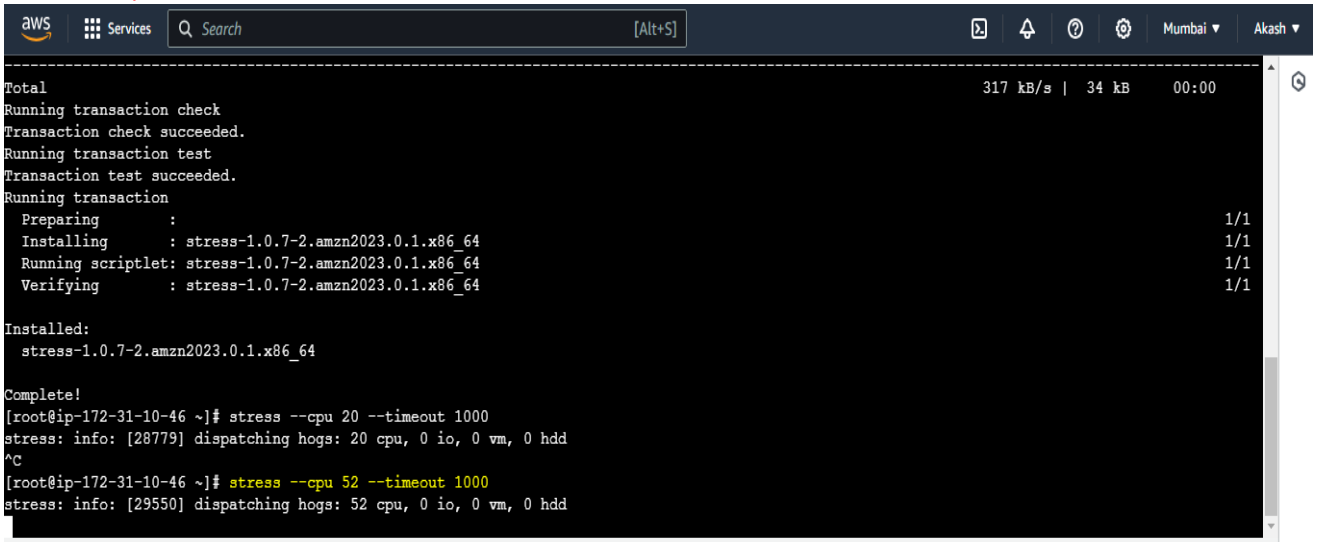

c) #yum install stress –y :-> To Increase the server utilization

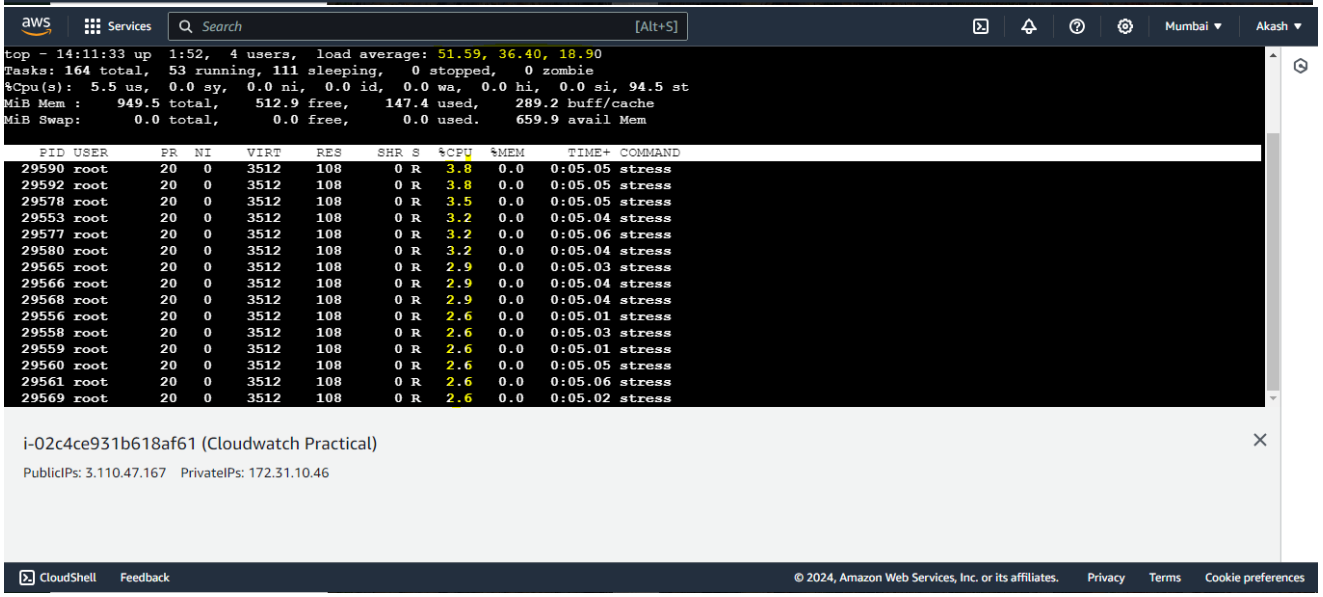


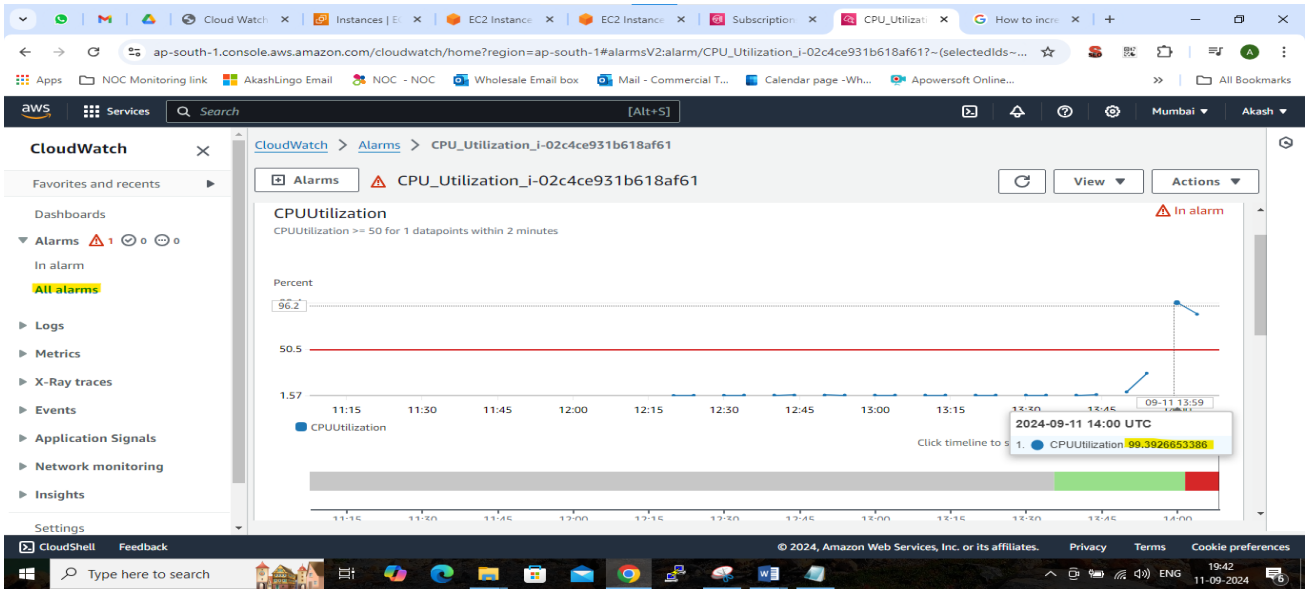

#stress - -cpu 20 - -timeout 1000




#stress - -cpu 52 - -timeout 1000

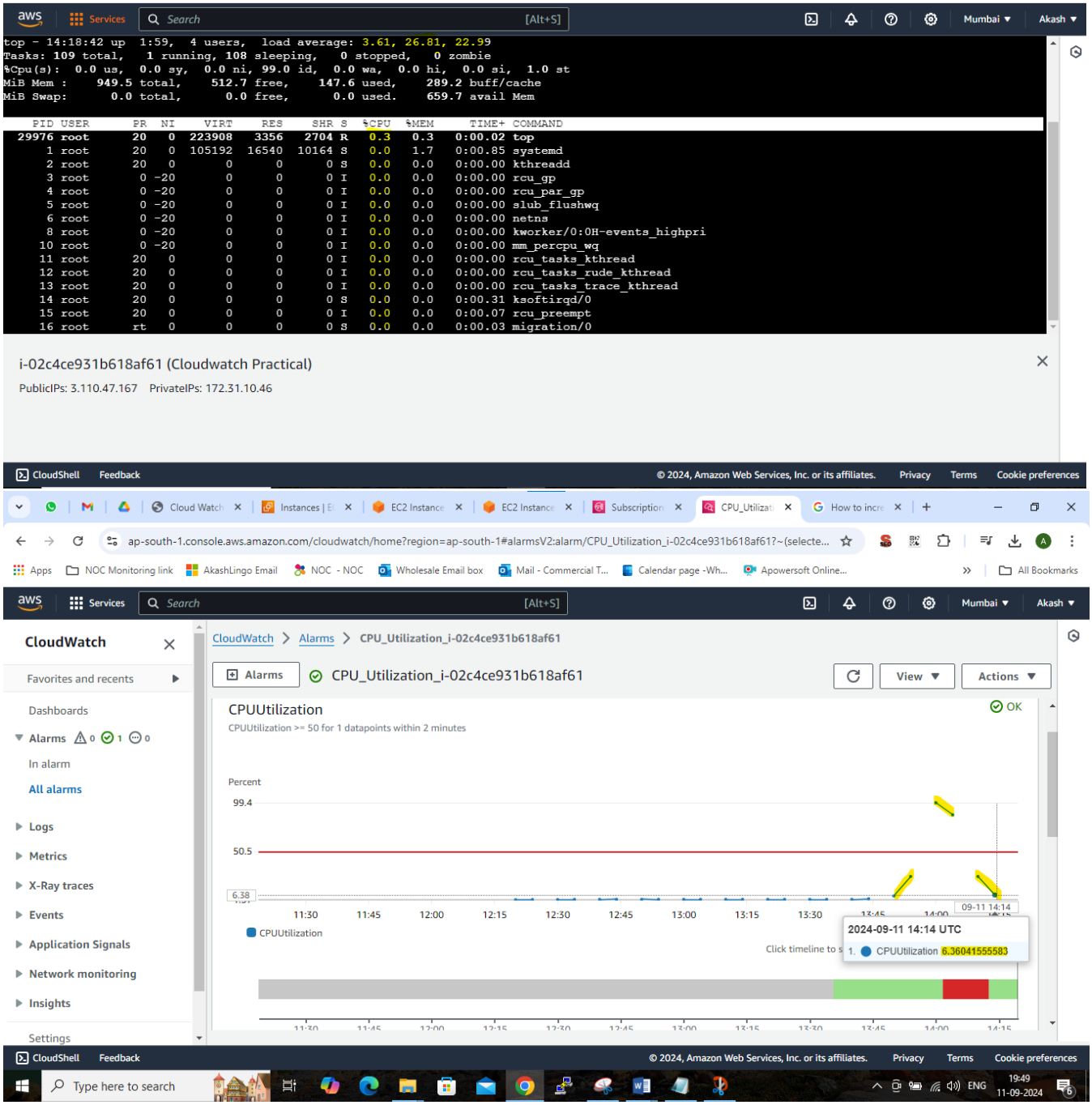


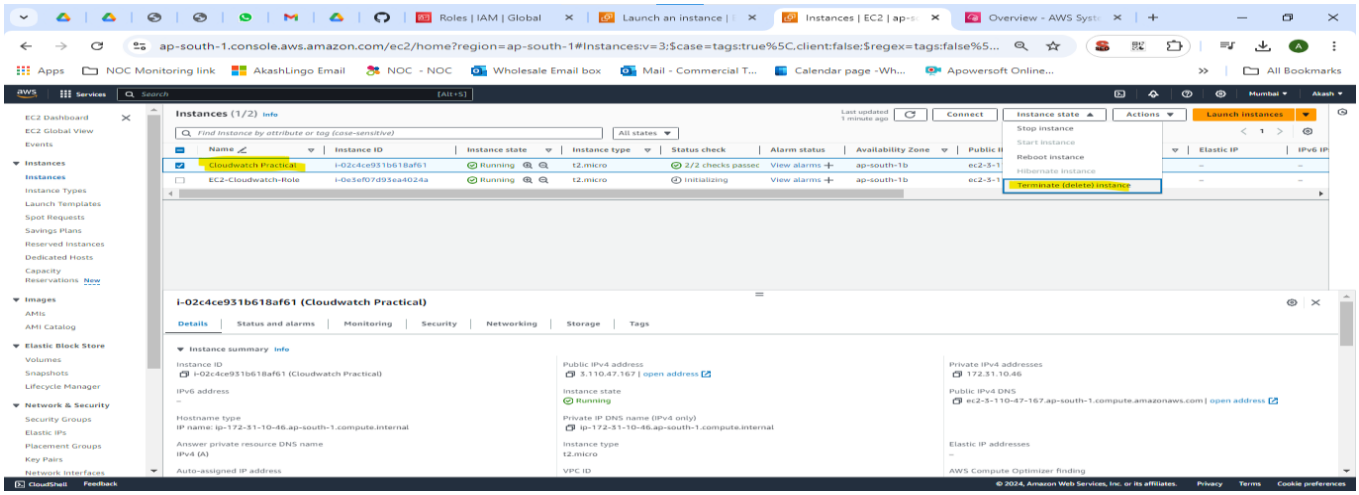


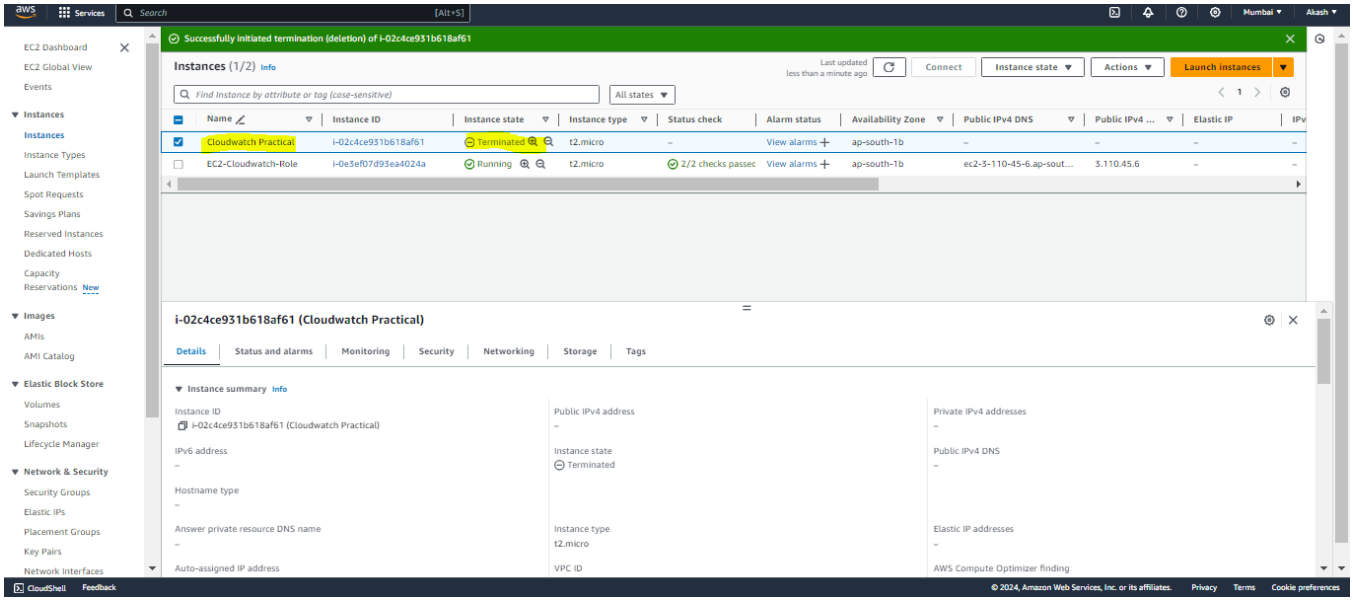

5) We received the alarm on given email ID


6) Control C – we canceled the load -> Reduces the CPU utilization




## Terminate the Instance:




Successfully initiated termination (deletion) of i-02c4ce931b618af61
Instances (1/2) Info
Cloudwatch Practical
i-02c4ce931b618af61
Terminated
t2.micro
ap-south-1b
EC2-Cloudwatch-Role
i-0e3ef07d93ea4024a
Running
t2.micro
2/2 checks passed
ap-south-1b
ec2-3-110-45-6.ap-sout...
3.110.45.6
i-02c4ce931b618af61 (Cloudwatch Practical)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary Info
Instance ID
i-02c4ce931b618af61 (Cloudwatch Practical)
Public IPv4 address
Private IPv4 addresses
IPv6 address
Instance state
Terminated
Public IPv4 DNS
Hostname type
Answer private resource DNS name
Instance type
t2.micro
Elastic IP addresses
Auto-assigned IP address
VPC ID
AWS Compute Optimizer finding

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# Practical:2

We have going to monitor the Disk, CPU, Memory utilization of the server

1. Create EC2 IAM Role (Cloud watch full access & SSM Full Access)
2. Create Instance and attached the role
3. Bootstrapping – Cloud watch agent

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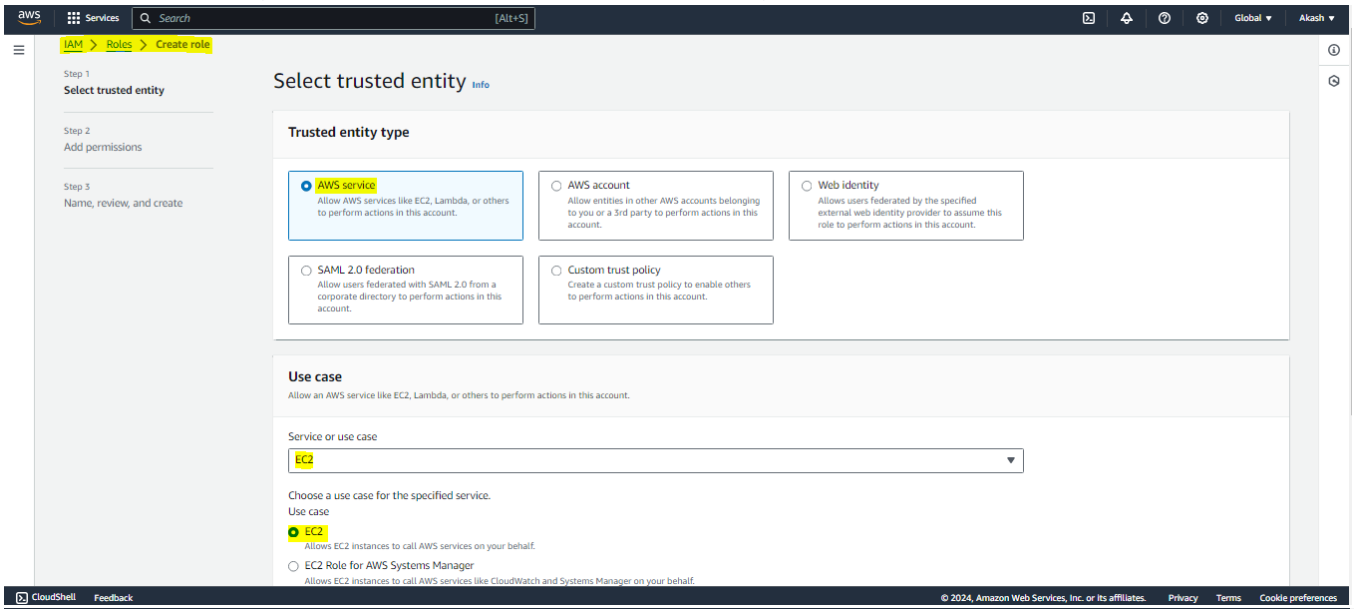
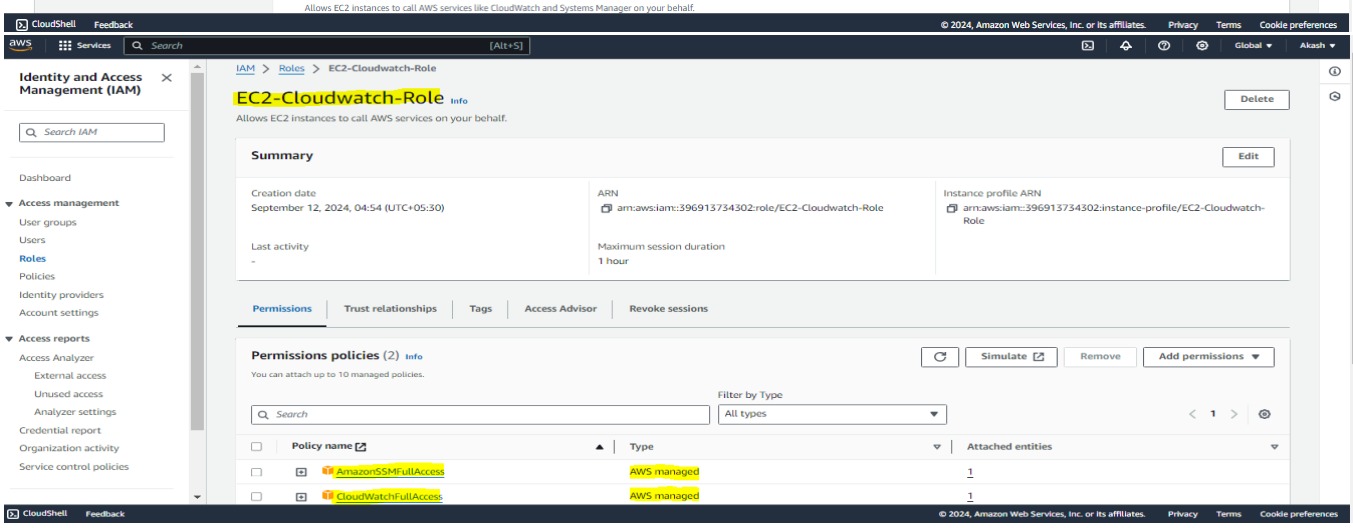
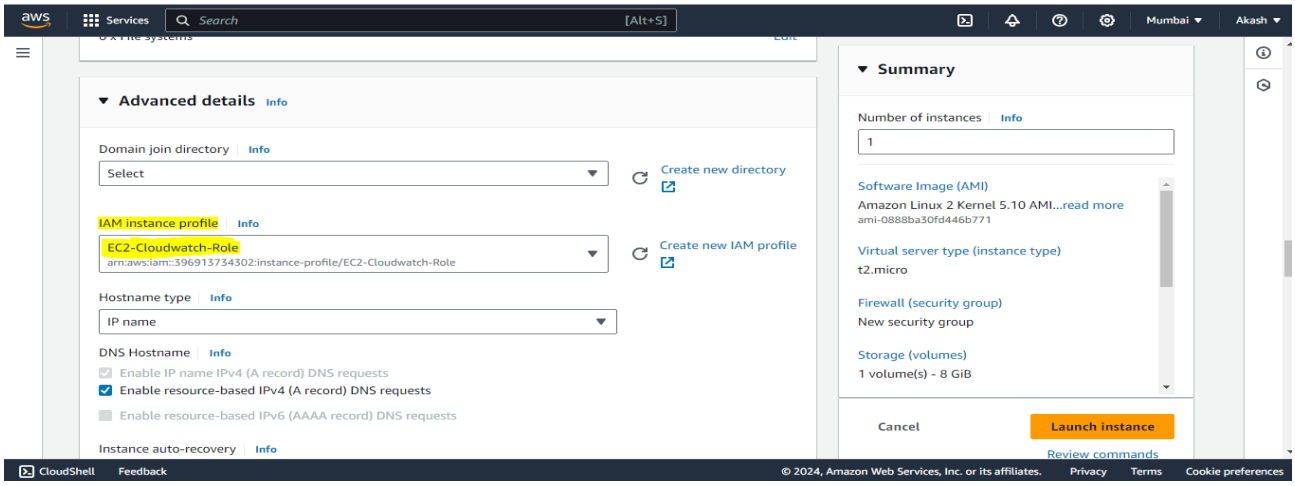
## 1) Create EC2 IAM Role (Cloud watch full access & SSM Full Access) - EC2-Cloudwatch-Role



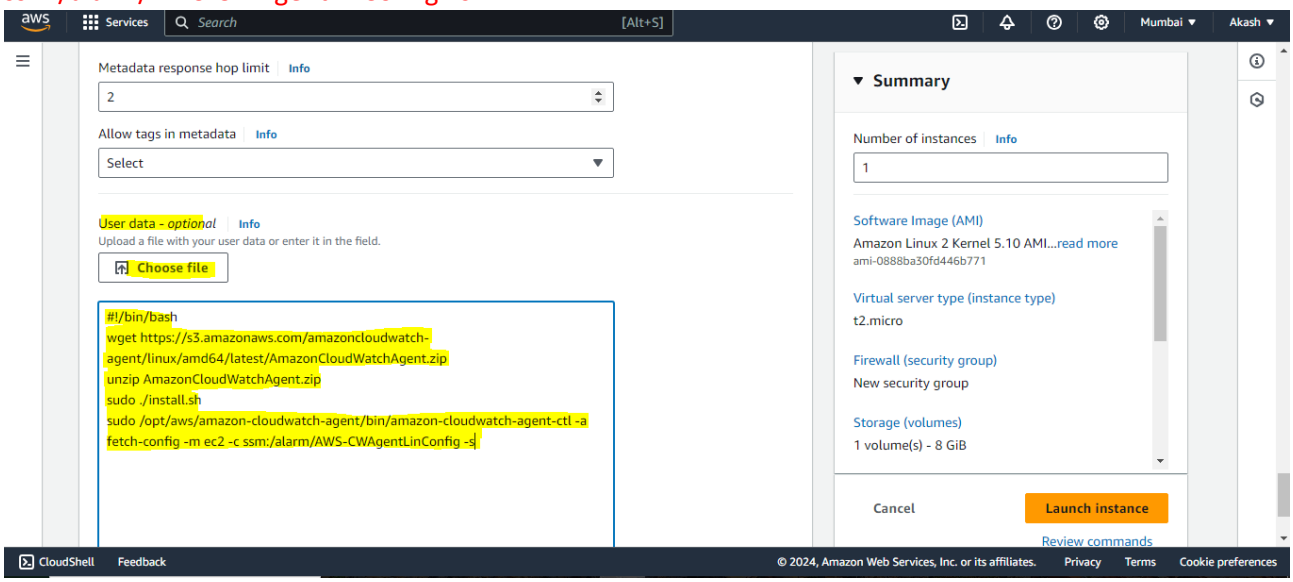

## 2) Create Instance and attached the role

### a) To push the IAM Role - EC2-Cloudwatch-Role



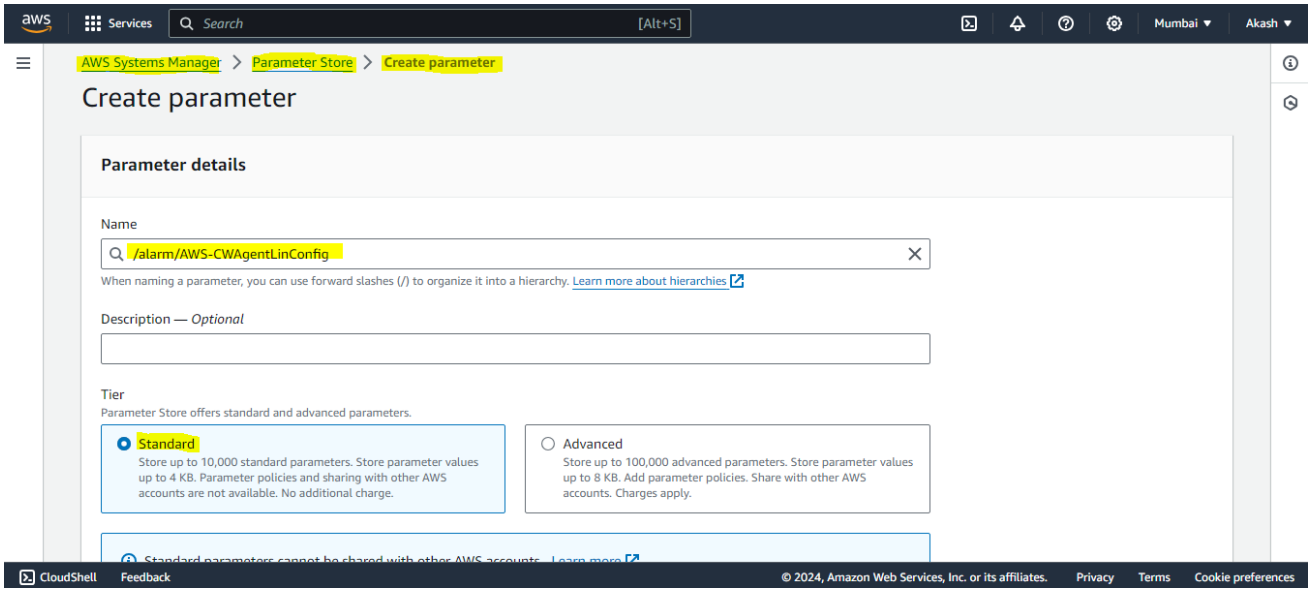
b) Bootstraps creep command

```
#!/bin/bash
wget https://s3.amazonaws.com/amazoncloudwatch-agent/linux/amd64/latest/AmazonCloudWatchAgent.zip
unzip AmazonCloudWatchAgent.zip
sudo ./install.sh
sudo /opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-ctl -a fetch-config -m ec2 -c ssm:/alarm/AWS-CWAgentLinConfig –s
```




c) Create **SSM (AWS Systems Manager)** Config Parameter

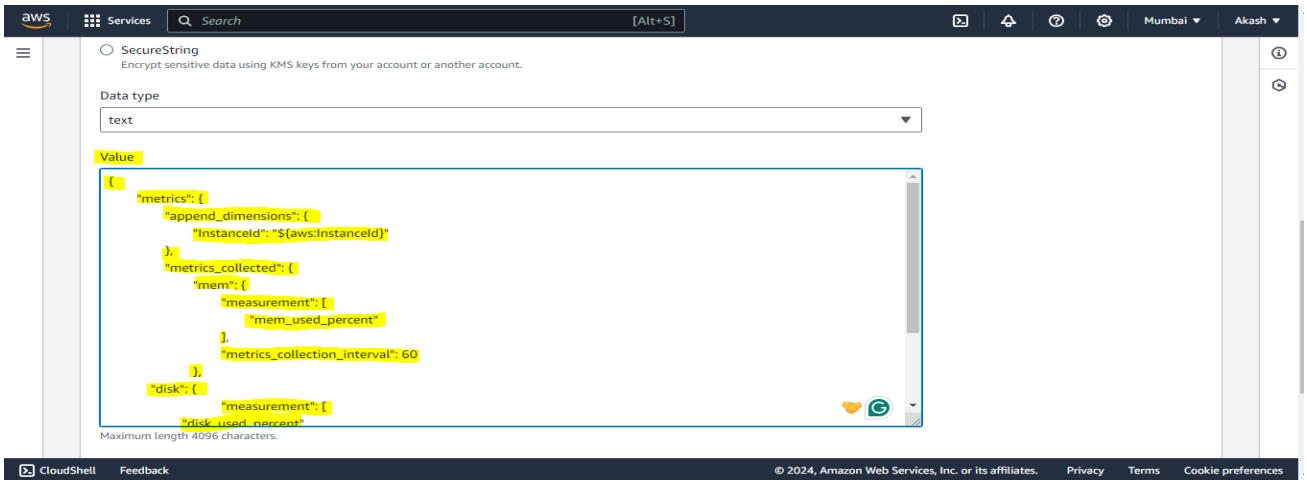
Value for the SSM Parameter (/alarm/AWS-CWAgentLinConfig):



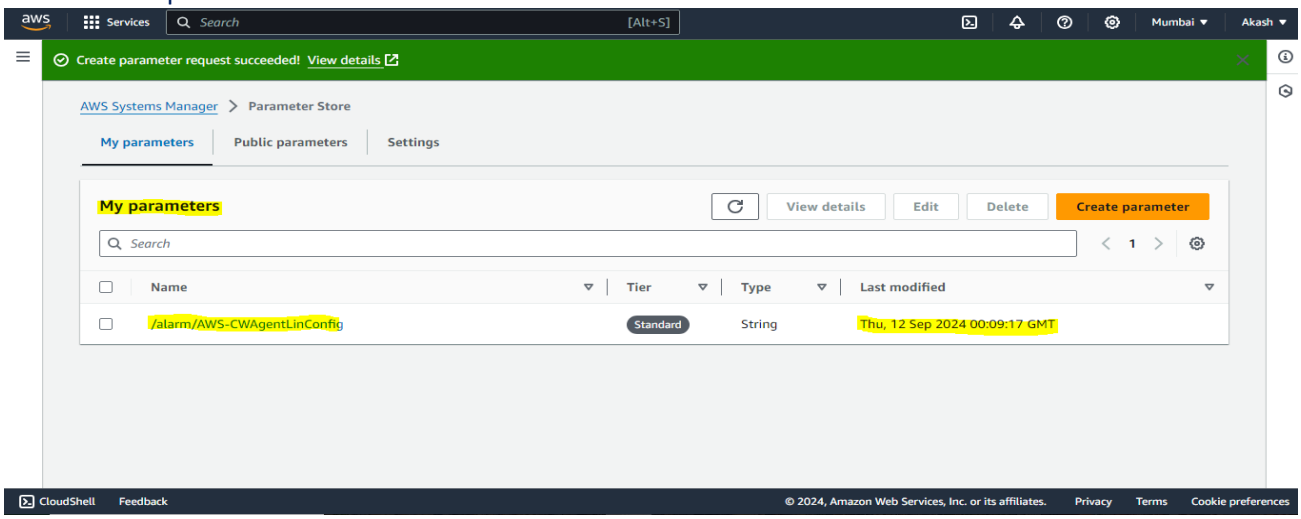

d) Valu

```
{
    "metrics": {
            "append_dimensions": {
                    "InstanceId": "${aws:InstanceId}"
            },
            "metrics_collected": {
                    "mem": {
                            "measurement": [
                                    "mem_used_percent"
                            ],
```

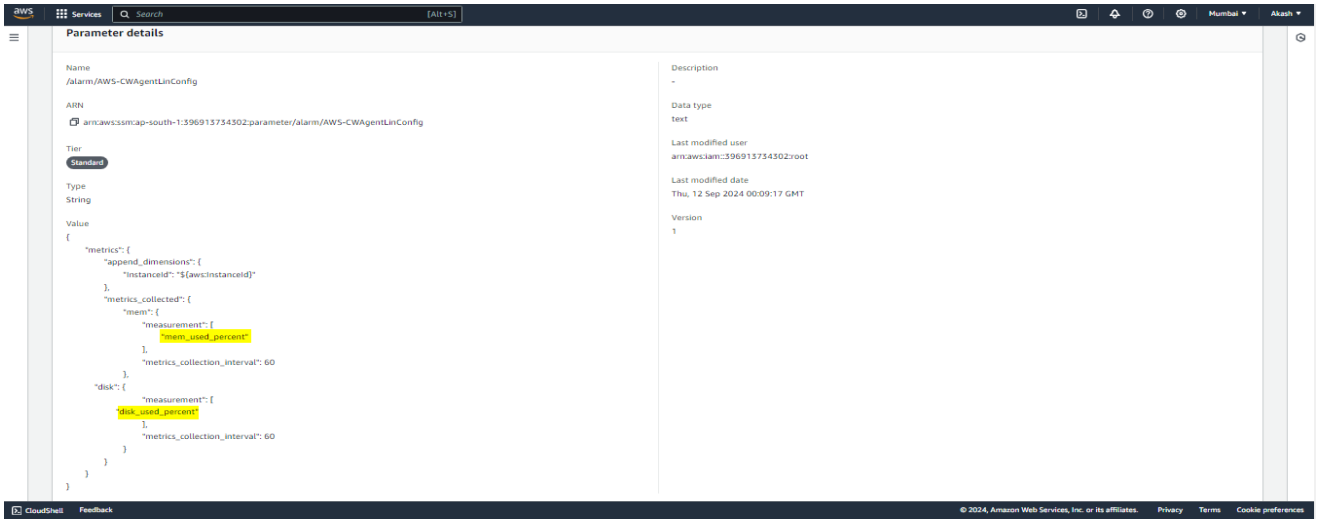
```
                "metrics_collection_interval": 60
            },
        "disk": {
                "measurement": [
            "disk_used_percent"
                ],
                "metrics_collection_interval": 60
            }
        }
    }
}
```



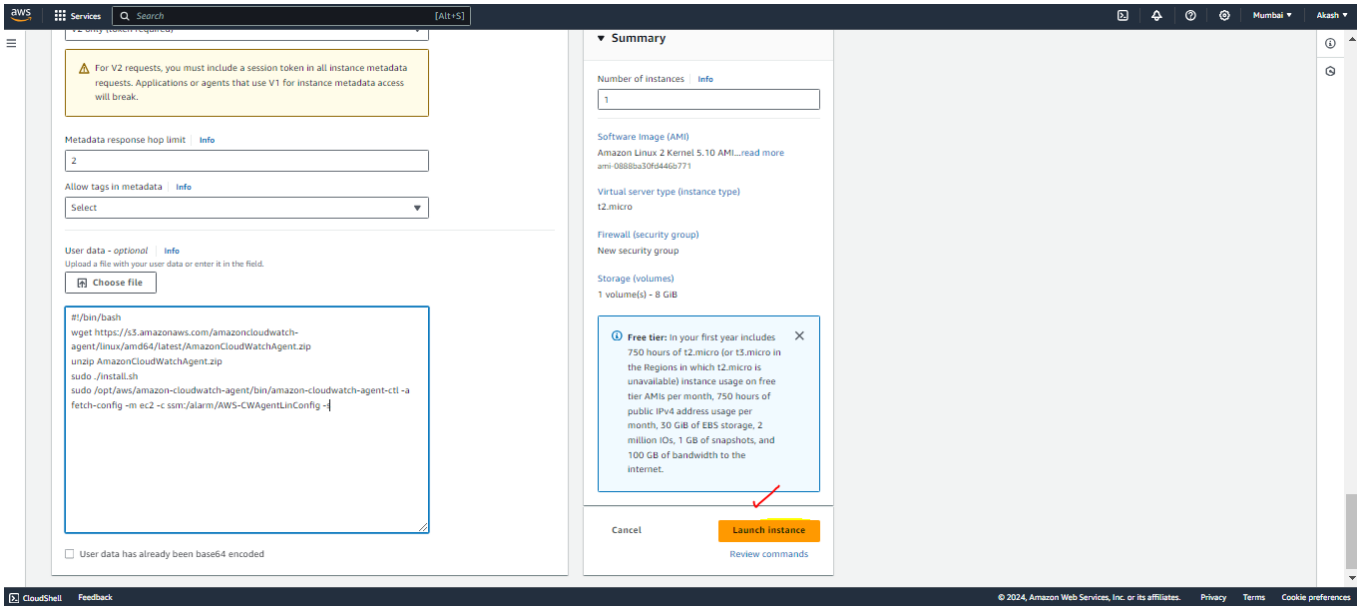

e) New Created parameter Details




Memory & Disk Monitor

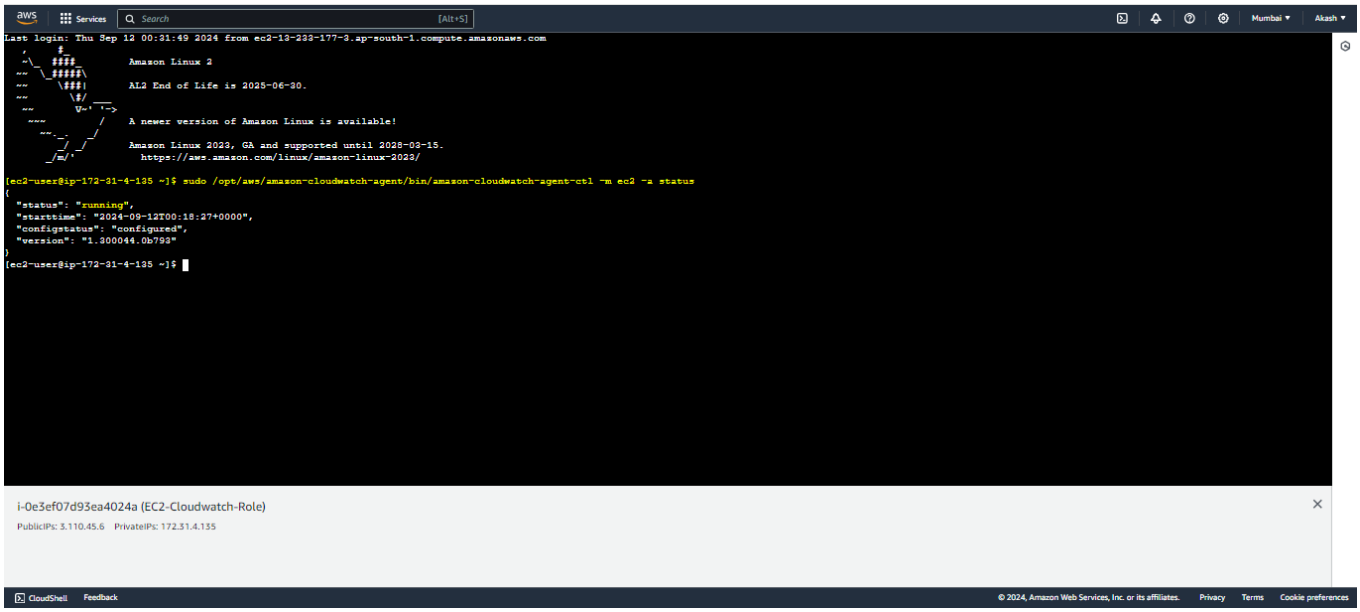


3) Launch the bootstrap script



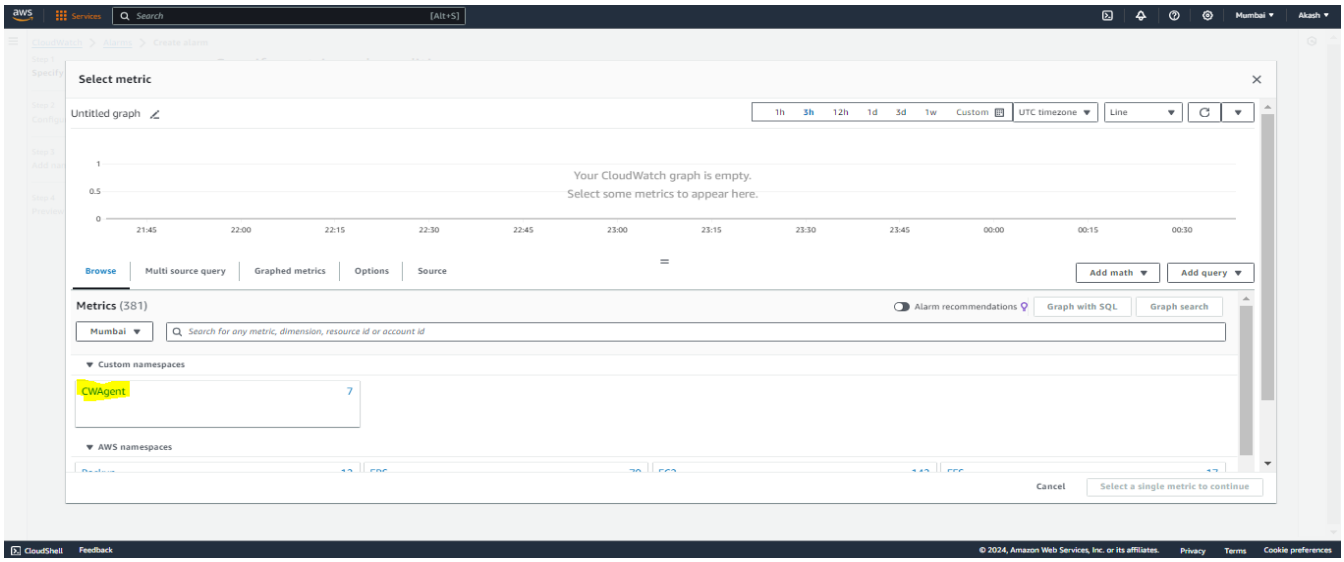

4) Check if EC2 Instance has CWAgent Installed or not: via Instance Connect

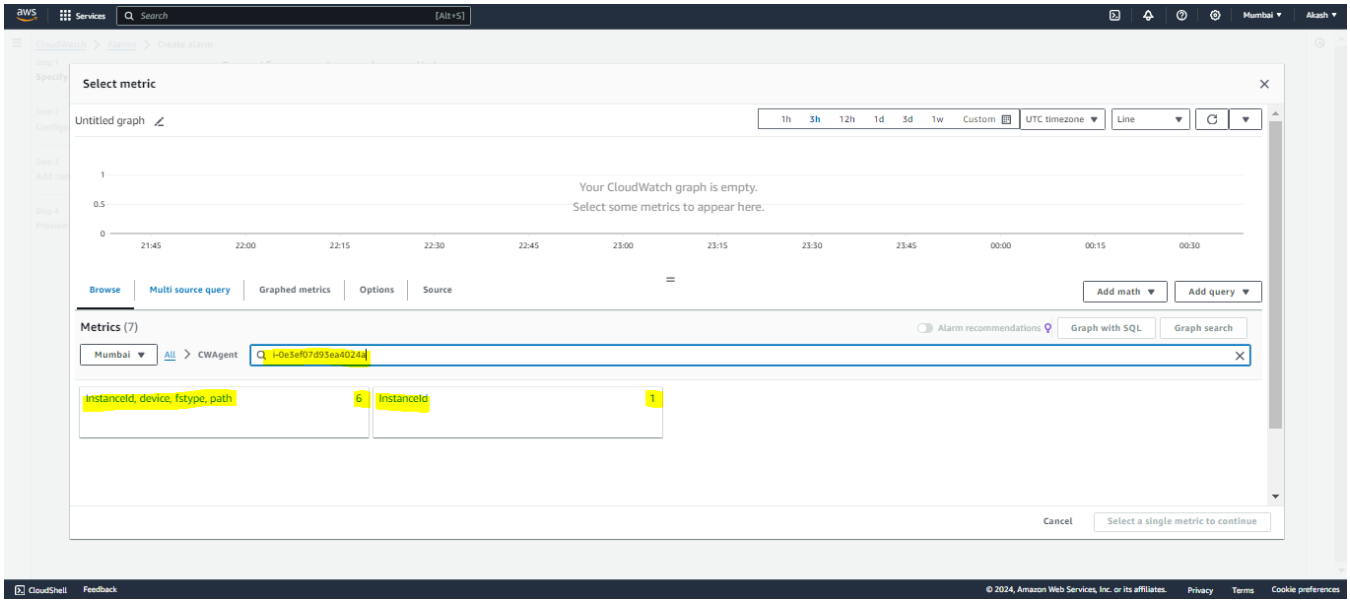
#sudo /opt/aws/amazon-cloudwatch-agent/bin/amazon-cloudwatch-agent-ctl -m ec2 -a status



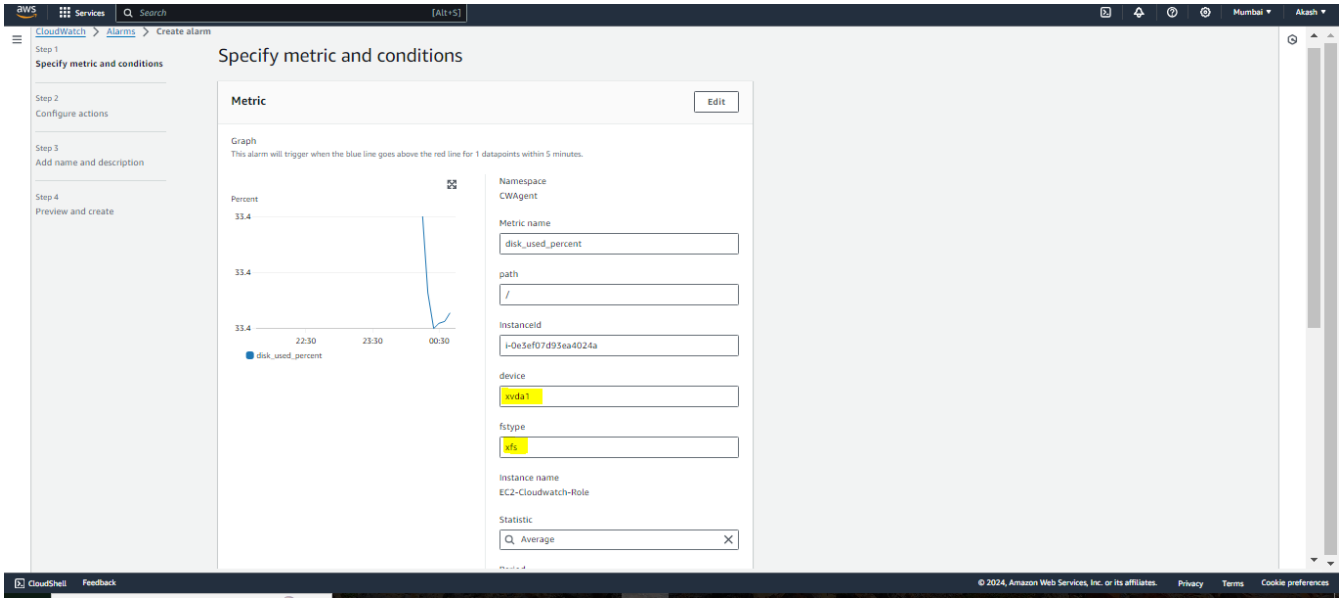

5) Take instance ID - i-0e3ef07d93ea4024a

Go to Cloudwatch -> All alarm -> matric

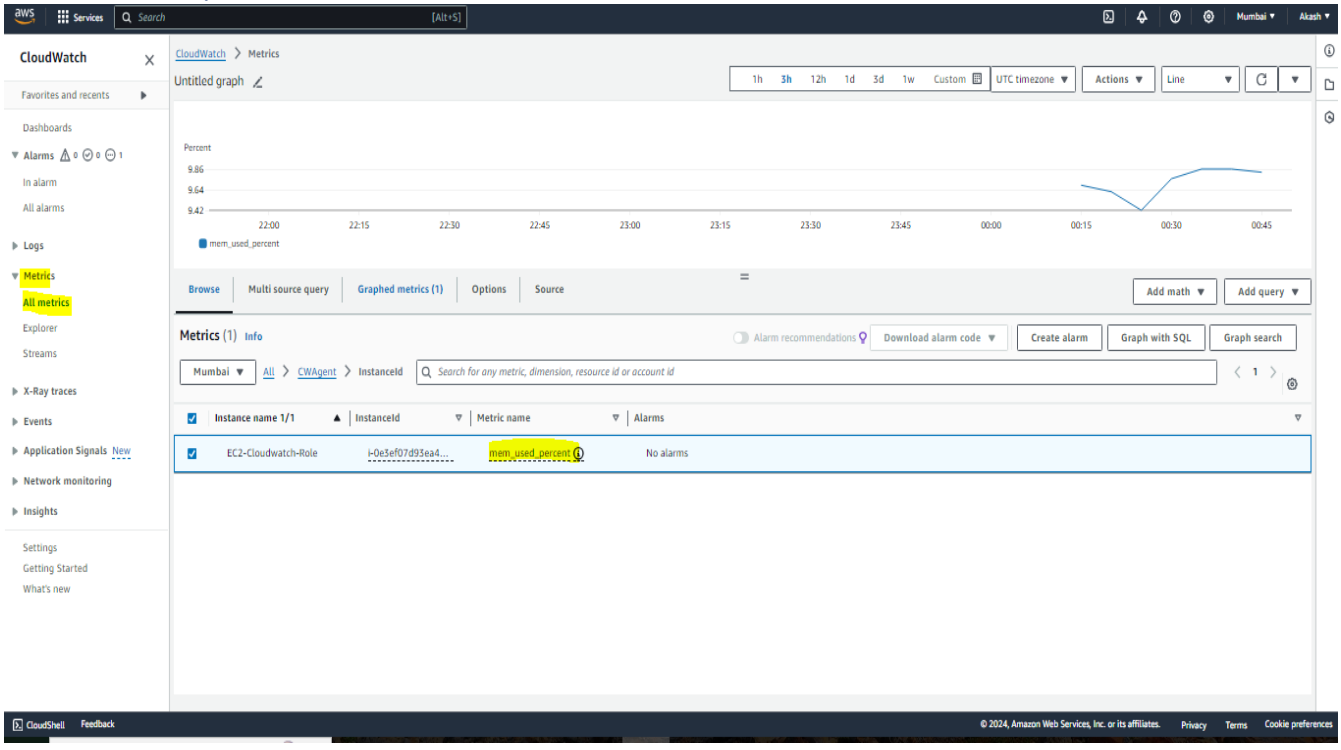




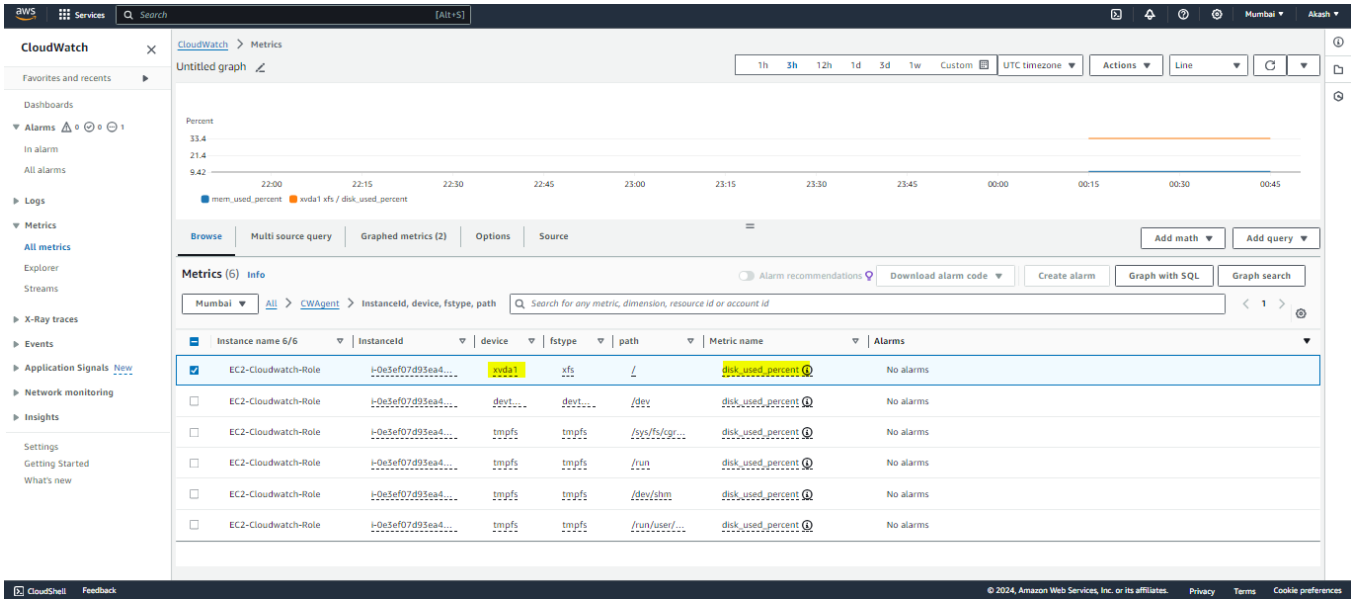

## Selected volume



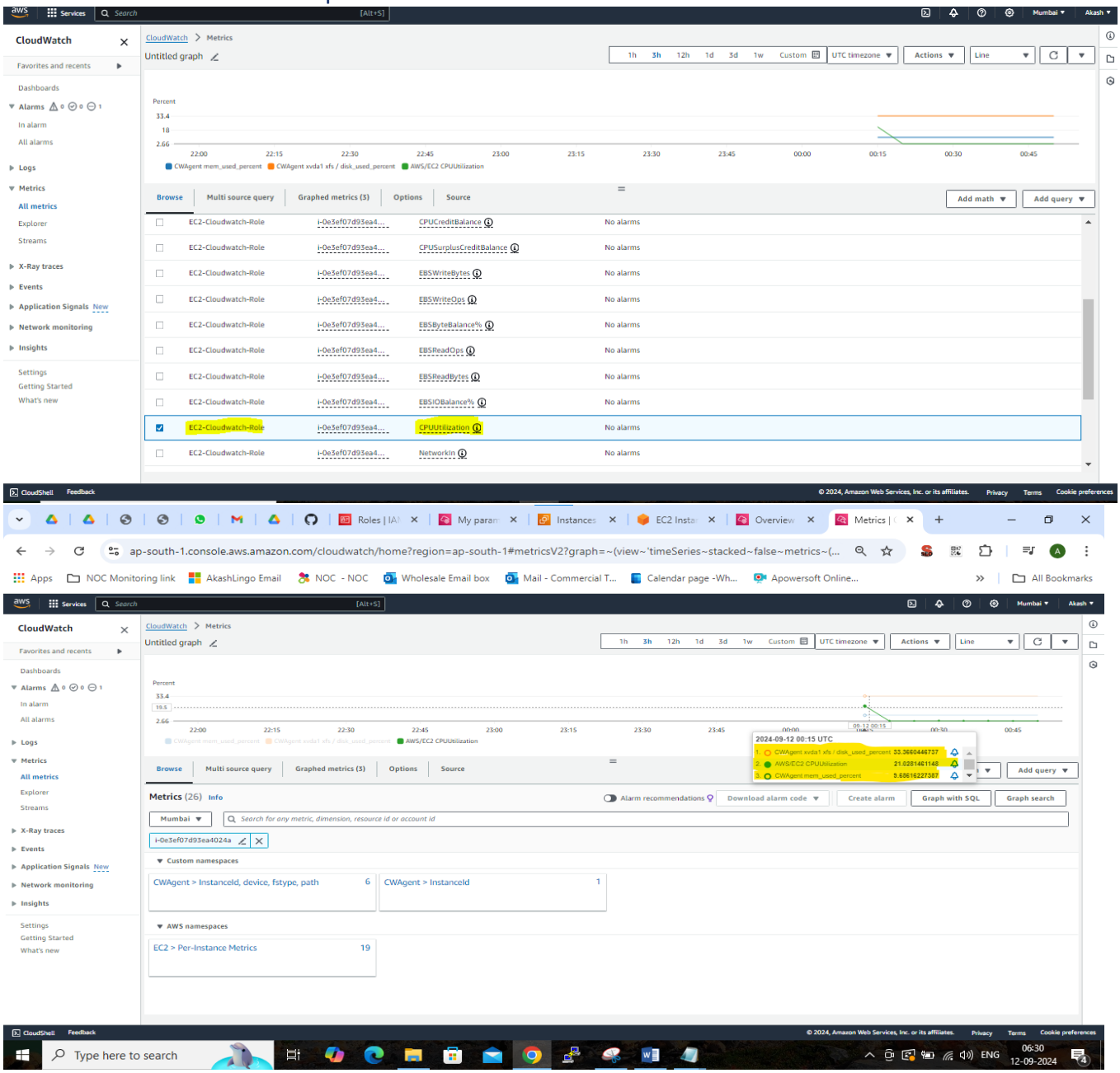

## Selected Memory



## Selected Disk used parameter




## Take CPU Utilization with the help of instance ID - i-0e3ef07d93ea4024a



## 6) Create Dashboard