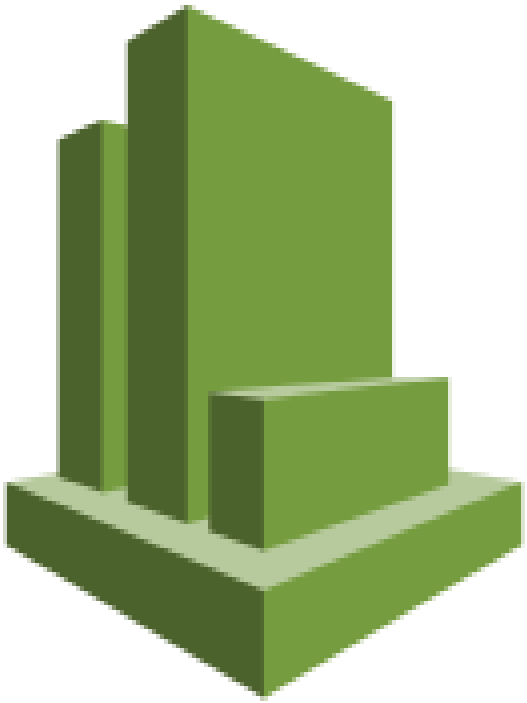


Amazon Cloudwatch

Topics to be covered--Cloudwatch

1) Monitoring and managing tool introduction

2) Configure Cloudwatch alert to get notification for each and every activity of EC2 console.

3) Configure Cloudwatch alarm to stop the instance in case cpu utilization cross 80% of the usage

4) Create a metric graph to monitor CPU utilisation of webserver instance.

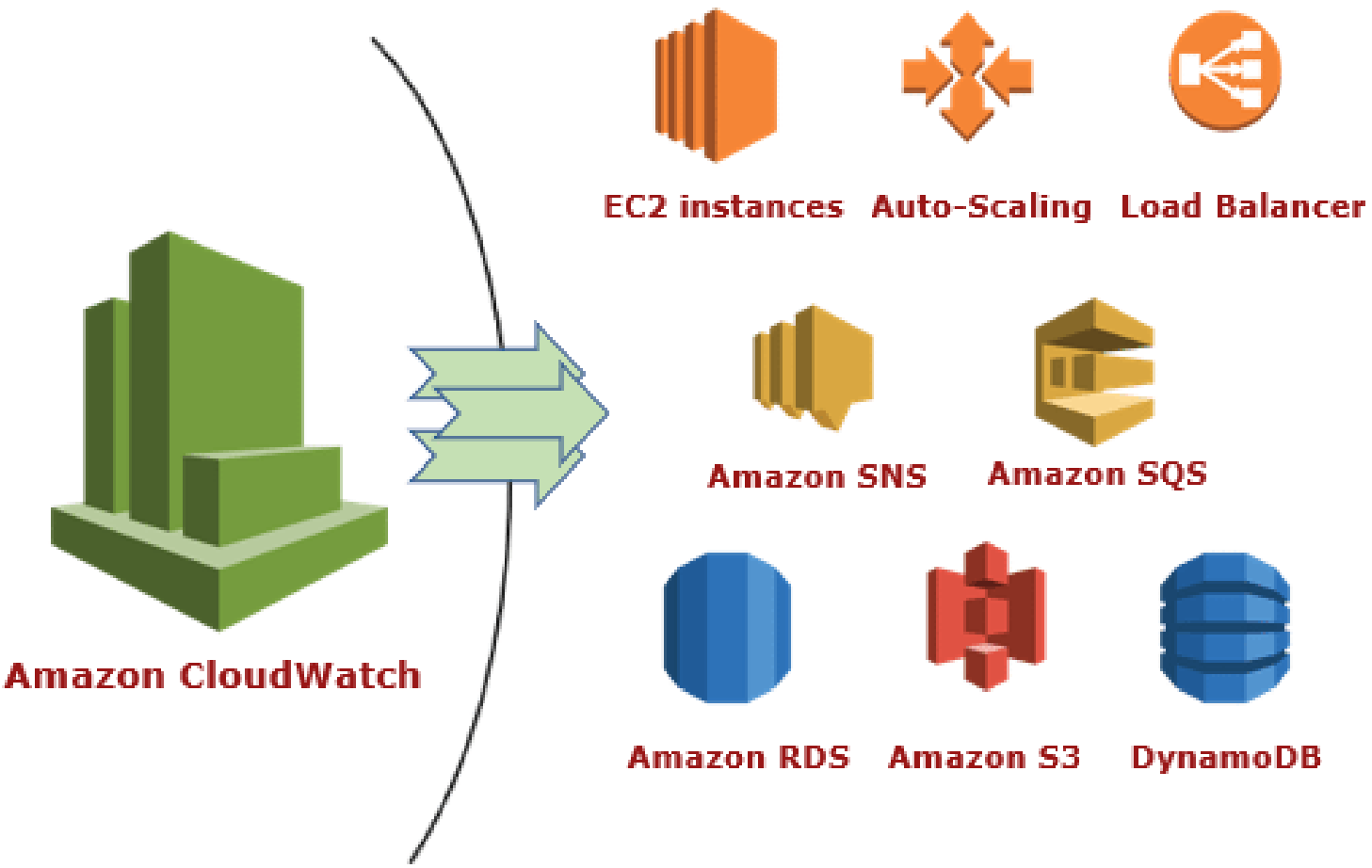
5) Create a metric graph to monitor Network in out utilisation of ftp instance.

Cloudwatch

- Amazon CloudWatch is the component of Amazon Web Services that provides real-time monitoring of AWS resources and customer applications running on Amazon infrastructure.

- Amazon CloudWatch allows developers, system architects, and administrators to monitor their AWS applications in the cloud, in near-real-time. CloudWatch is automatically configured to provide metrics on request counts, latency, and CPU usage. Users also can send their own logs and custom metrics to CloudWatch for monitoring.

- The data and reports CloudWatch provides lets users keep track of application performance, resource use, operational issues, and constraints. This helps organizations resolve technical issues and streamline operations.



Resources Monitored By CloudWatch

Stream EC2 logs to CloudWatch and Create Alarm based on Log message

Monitoring AWS Resources With CloudWatch

Amazon CloudWatch is configured out-of-the-box to integrate with EC2, offering two levels of monitoring capabilities:

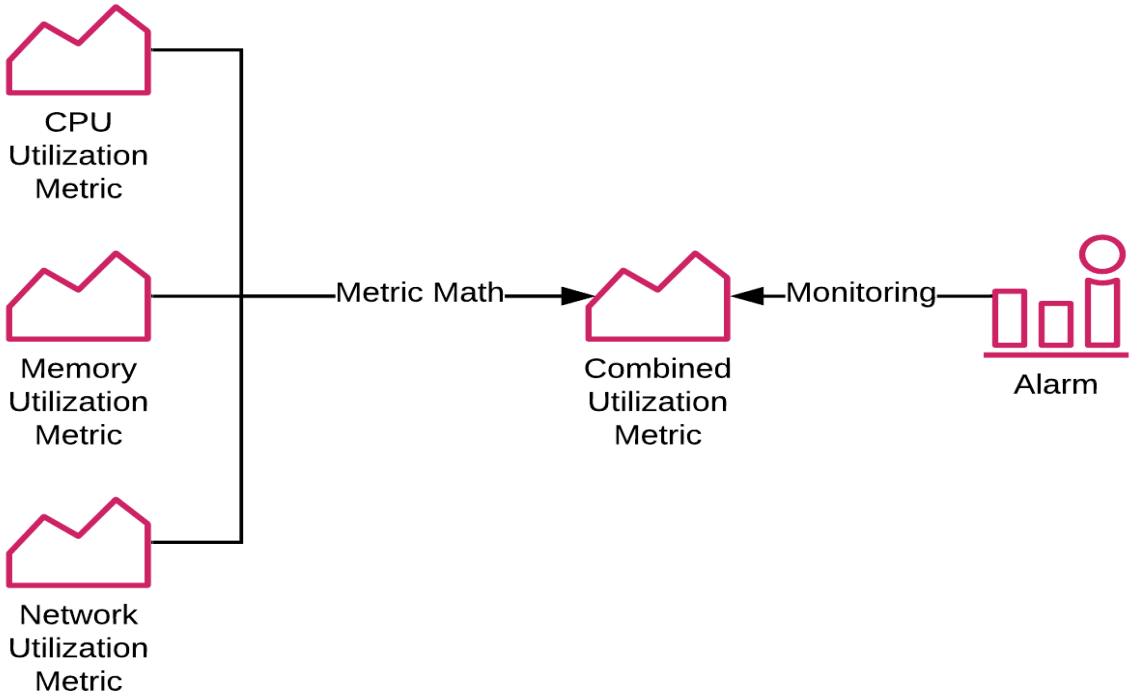
- **Basic monitoring**, which requires no additional fee, includes seven pre-selected metrics and three status-check metrics, produced at five-minute and one-minute intervals, respectively.
- **Detailed monitoring**, which comes at an additional charge, increases the frequency of all metrics to one-minute intervals.

Additional AWS services that CloudWatch can monitor automatically include the following:

- **EBS**: Monitors read/write latency and similar measurements.
- **RDS database instances**: Monitors metrics such as storage space and freeable memory.
- **SQS Queues**: Monitors messages sent, messages received, and other key metrics.
- **SNS Topics**: Monitors common metrics like number of published and delivered messages.

Does CloudWatch Charge for All Monitoring

Amazon CloudWatch offers Basic Monitoring at no cost for EC2 instances. Data included in Basic monitoring includes CPU load, disk I/O, and network I/O metrics which is collected in five minute intervals with two week storage.

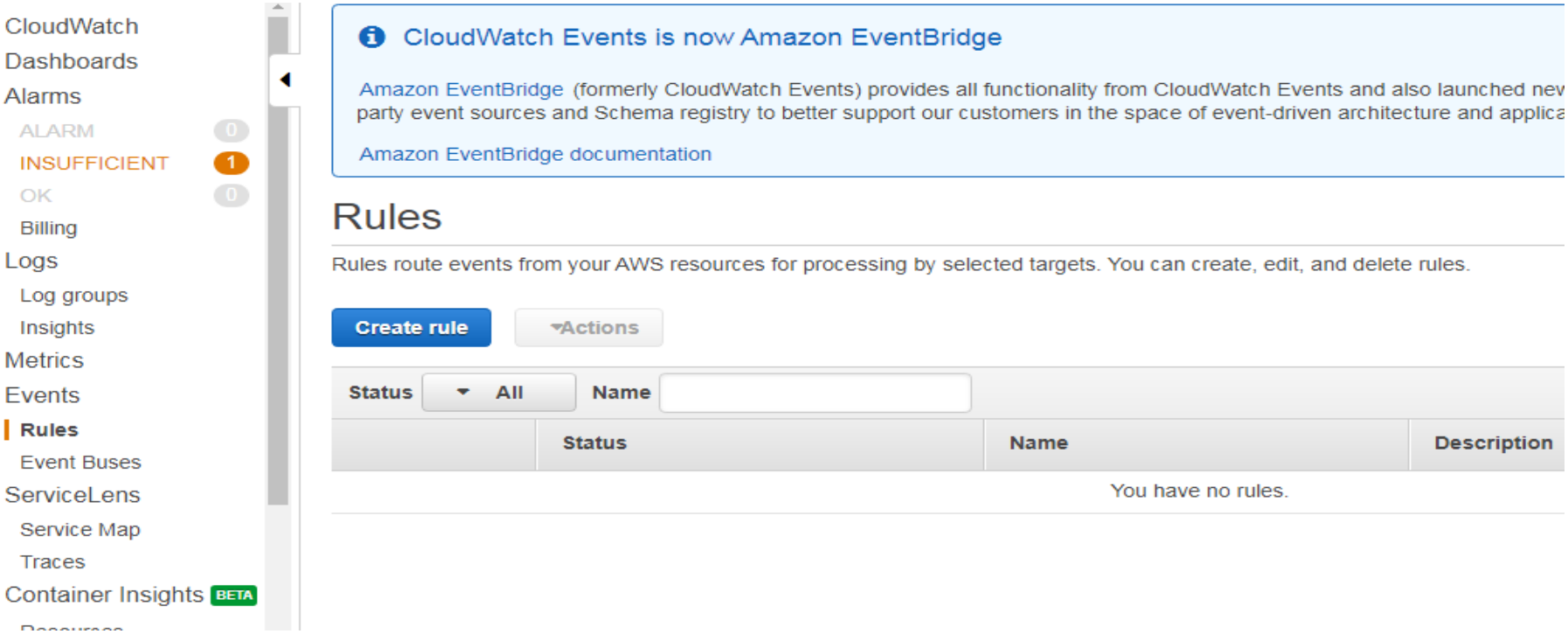


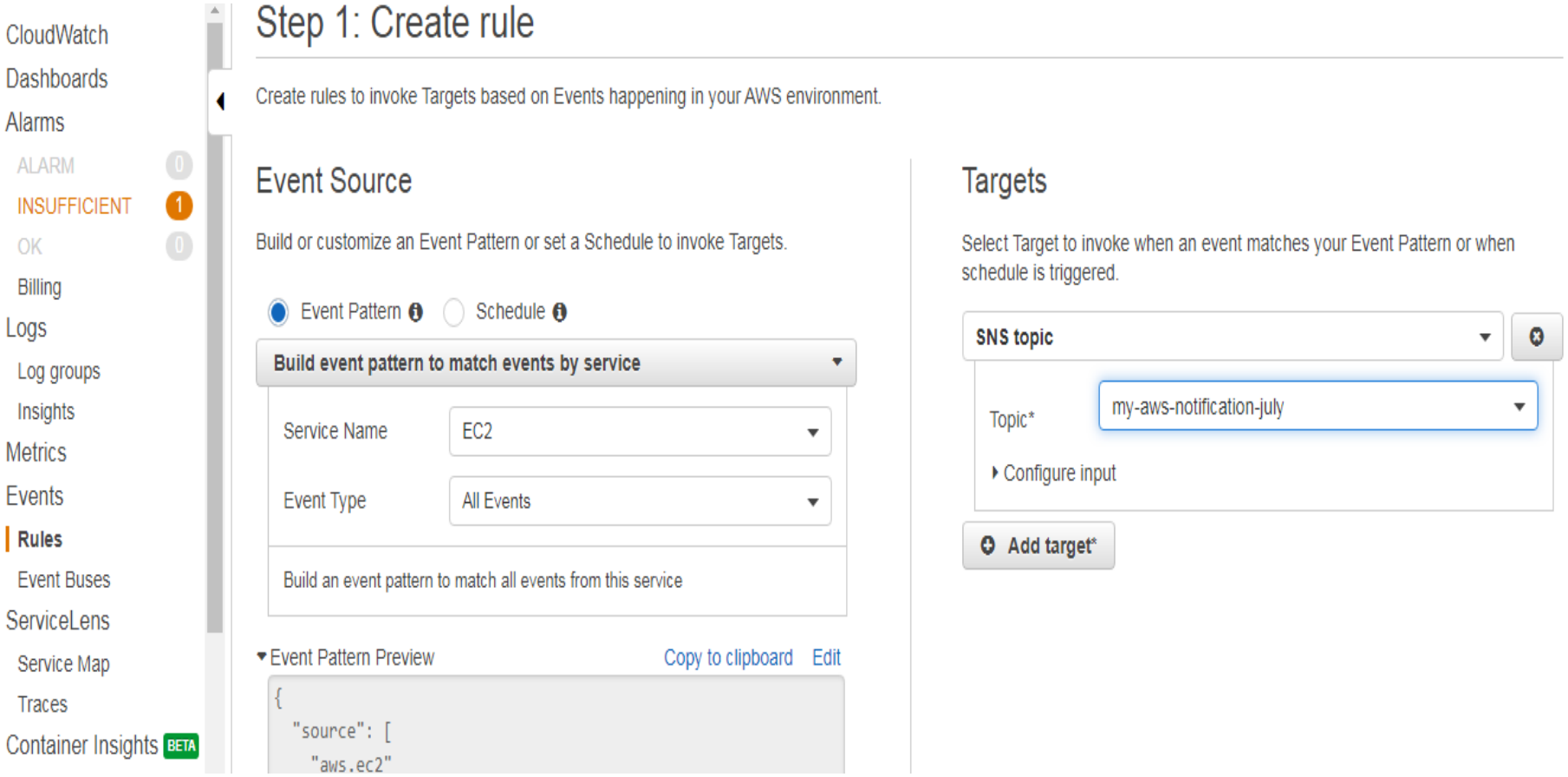
Cloudwatch Lab

1) Configure Cloudwatch alert to get notification for each and every activity of EC2 console.
2) Configure Cloudwatch alarm to stop the instance in case cpu utilization cross 80% of the usage
3) Create a metric graph to monitor CPU utilisation of webserver instance.
4) Create a metric graph to monitor Network in out utilisation of ftp instance.

1) Configure Cloudwatch alert to get notification for each and every activity of EC2 console.

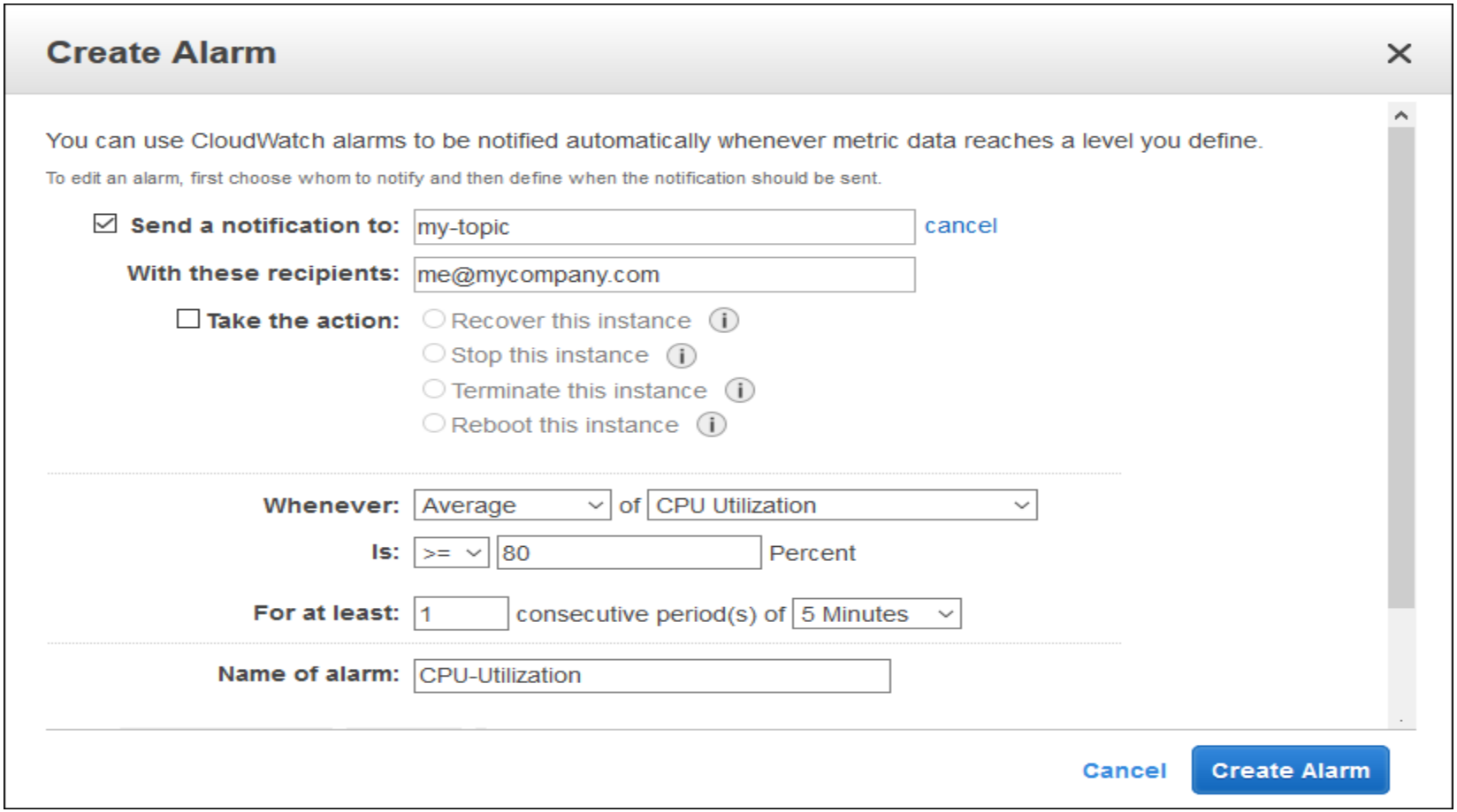
Ans: Open Services--Cloudwatch –Rule –create rule—Event pattern---Service name: EC2 –Event Type: All events– Add target—SNS topic –Select SNS created topic name –configure detail –give rule name --create




CloudWatch
Dashboards
Alarms
ALARM 0
INSUFFICIENT 1
OK 0
Billing
Logs
Log groups
Insights
Metrics
Events
Rules
Event Buses
ServiceLens
Service Map
Traces
Container Insights BETA
Step 1: Create rule
Create rules to invoke Targets based on Events happening in your AWS environment.
Event Source
Build or customize an Event Pattern or set a Schedule to invoke Targets.
Event Pattern
Schedule
Build event pattern to match events by service
Service Name
EC2
Event Type
All Events
Build an event pattern to match all events from this service
Event Pattern Preview
Copy to clipboard
Edit
{
"source": [
"aws.ec2"
Targets
Select Target to invoke when an event matches your Event Pattern or when schedule is triggered.
SNS topic
Topic*
my-aws-notification-july
Configure input
Add target*

2) To stop the instance in case cpu utilization cross 80% of the usage.

Ans: Launch one Instance----click on alarm – and fill the detail—SNS topic – action—stop the instance –set cpu value –80%



How to increase CPU load manually ?

- **Open Linux Instance**

sudo su

top

%cpu = 0

yes >/dev/null &

top

%cpu = 99

How to decrease cpu load manually ?

Ans:

top

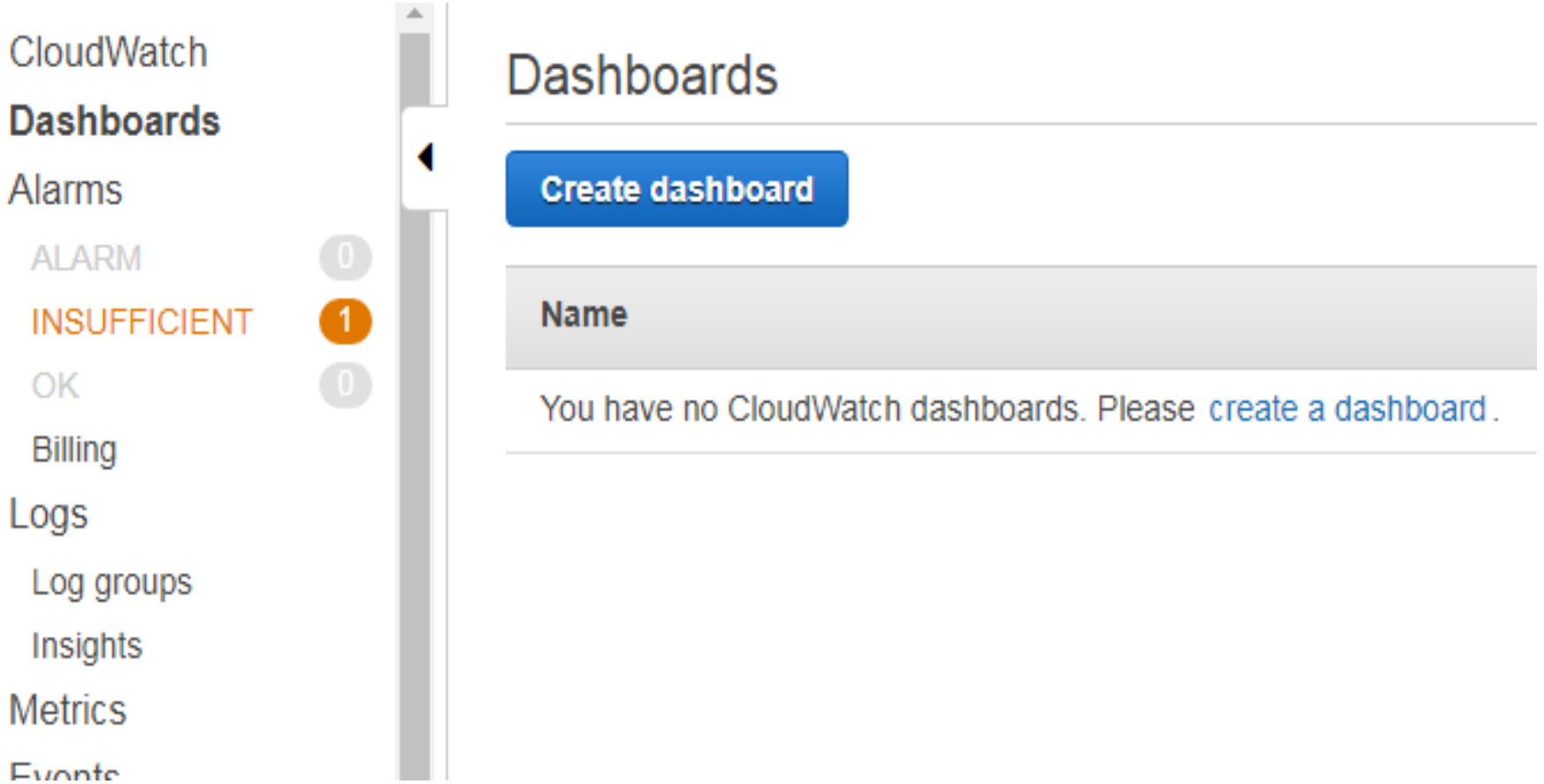
%cpu = 99

check th pip consuming more cpu usage (eg : 3147)

kill -9 3147

3) Create a metric graph to monitor CPU utilisation of webserver instance.

Ans: Launch One Instance – Open Cloudwatch –Dashboard—Create dashboard --



Cloudwatch Lab

3) Create a metric graph to monitor CPU utilisation of webserver instance.

Ans: Now give dashboard name—create dashboard—select line metric – configure—select EC2—Per Instance metric – select the required instance with cpu utilisation metric –create widget