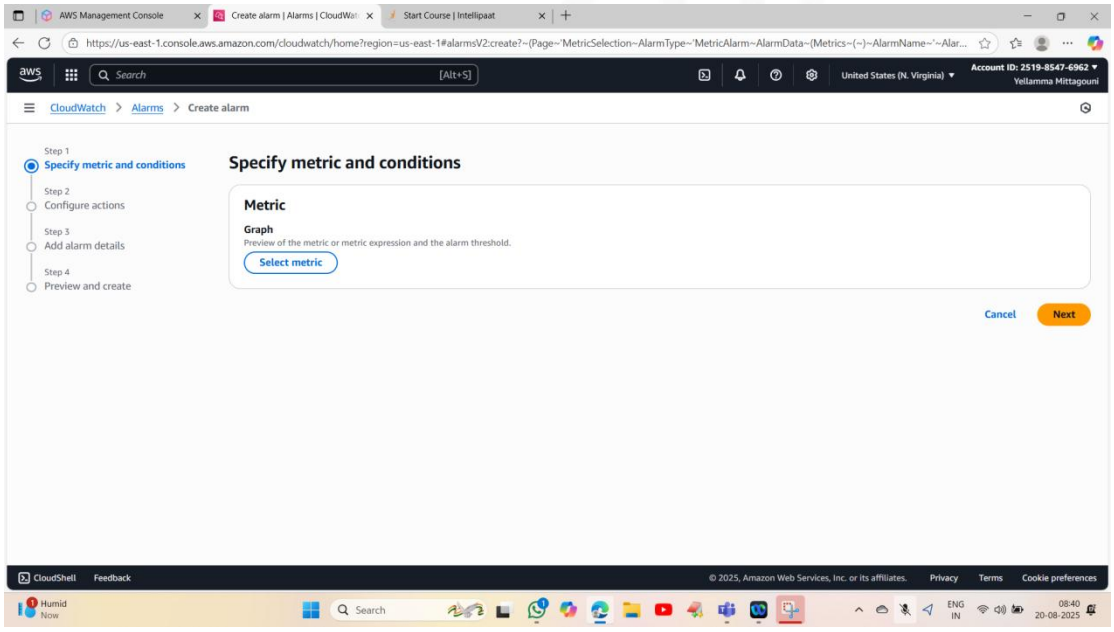
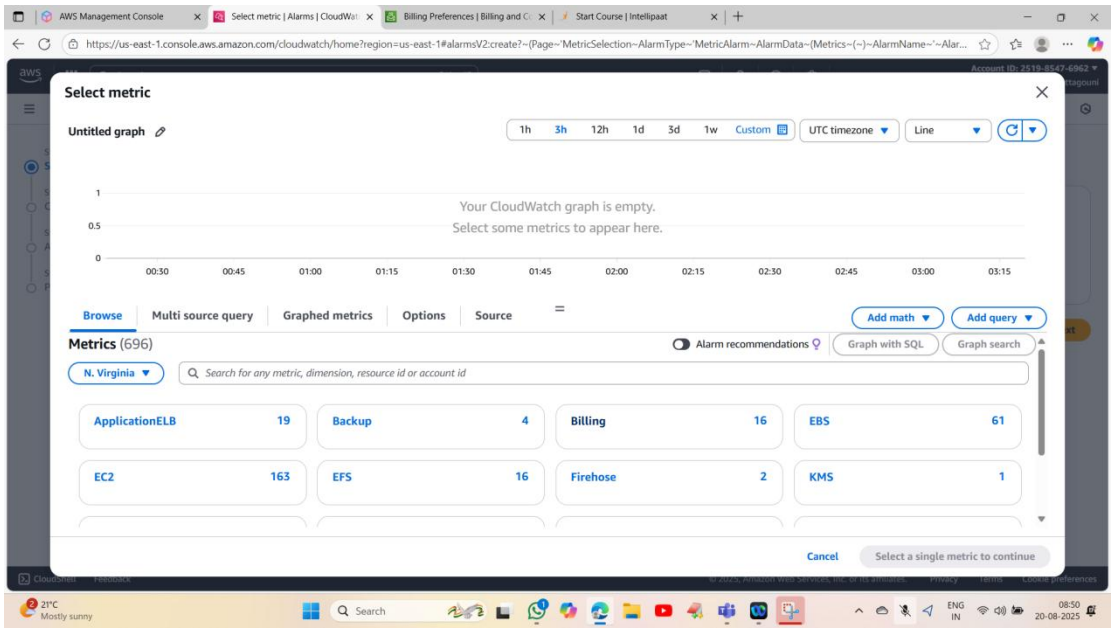
Problem Statement:

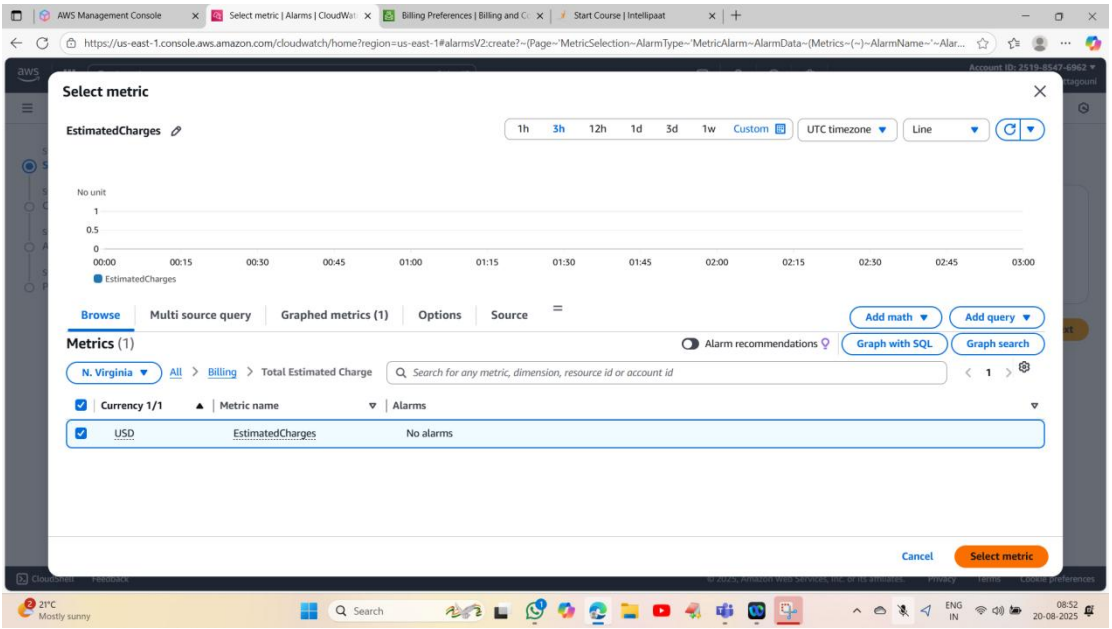
You work for XYZ Corporation. To maintain the security of the AWS account and the resources you have been asked to implement a solution that can help easily recognize and monitor the different users. Also, you will be monitoring the machines created by these users for any errors or misconfigurations.

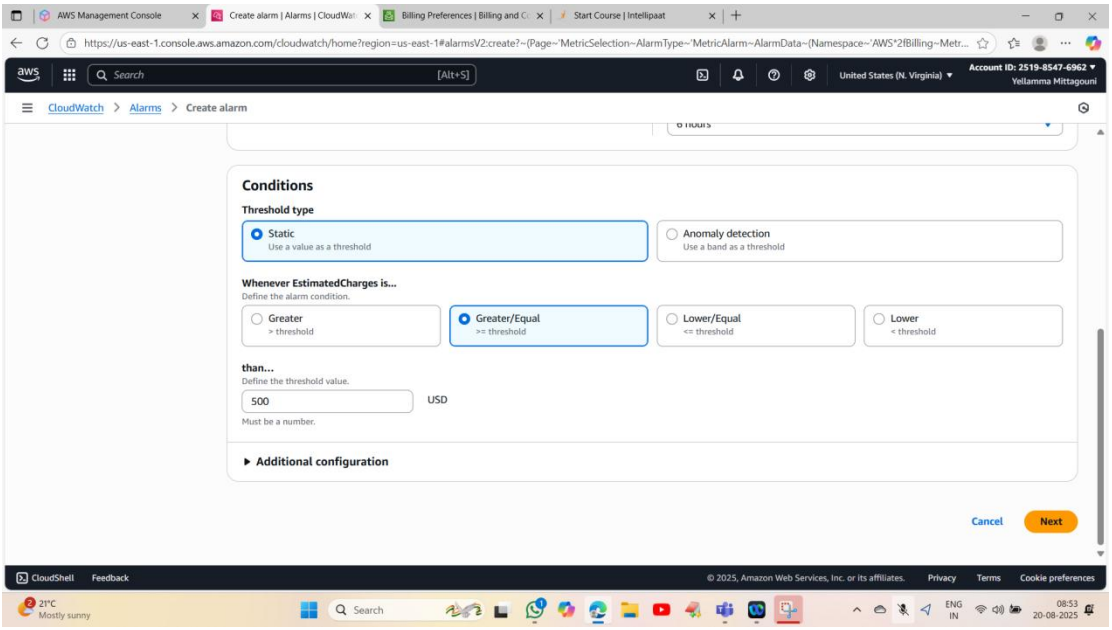
Tasks To Be Performed:

1. Create a CloudWatch billing alarm which goes off when the estimated charges go above $500.
2. Create a CloudWatch alarm which goes off to an Alarm state when the CPU utilization of an EC2 instance goes above 65%. Also add an SNS topic so that it notifies the person when the threshold is crossed.






Select metric
EstimatedCharges
1h 3h 12h 1d 3d 1w Custom
UTC timezone
Line
No unit
1
0.5
0
00:00 00:15 00:30 00:45 01:00 01:15 01:30 01:45 02:00 02:15 02:30 02:45 03:00
EstimatedCharges
Browse
Multi source query
Graphed metrics (1)
Options
Source
Add math
Add query
Metrics (1)
Alarm recommendations
Graph with SQL
Graph search
N. Virginia
All
Billing
Total Estimated Charge
Search for any metric, dimension, resource id or account id
Currency 1/1
Metric name
Alarms
USD
EstimatedCharges
No alarms
Cancel
Select metric


CloudWatch > Alarms > Create alarm
Conditions
Threshold type
Static
Use a value as a threshold
Anomaly detection
Use a band as a threshold
Whenever EstimatedCharges is...
Define the alarm condition.
Greater
> threshold
Greater/Equal
>= threshold
Lower/Equal
<= threshold
Lower
< threshold
than...
Define the threshold value.
500
USD
Must be a number.
Additional configuration
Cancel
Next
CloudShell
Feedback
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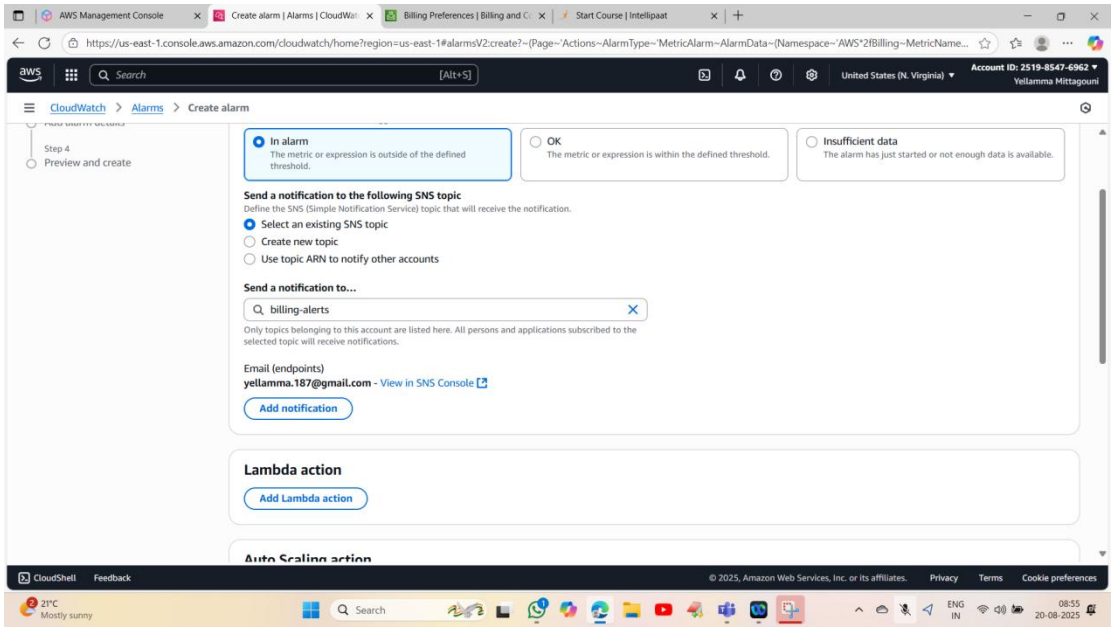
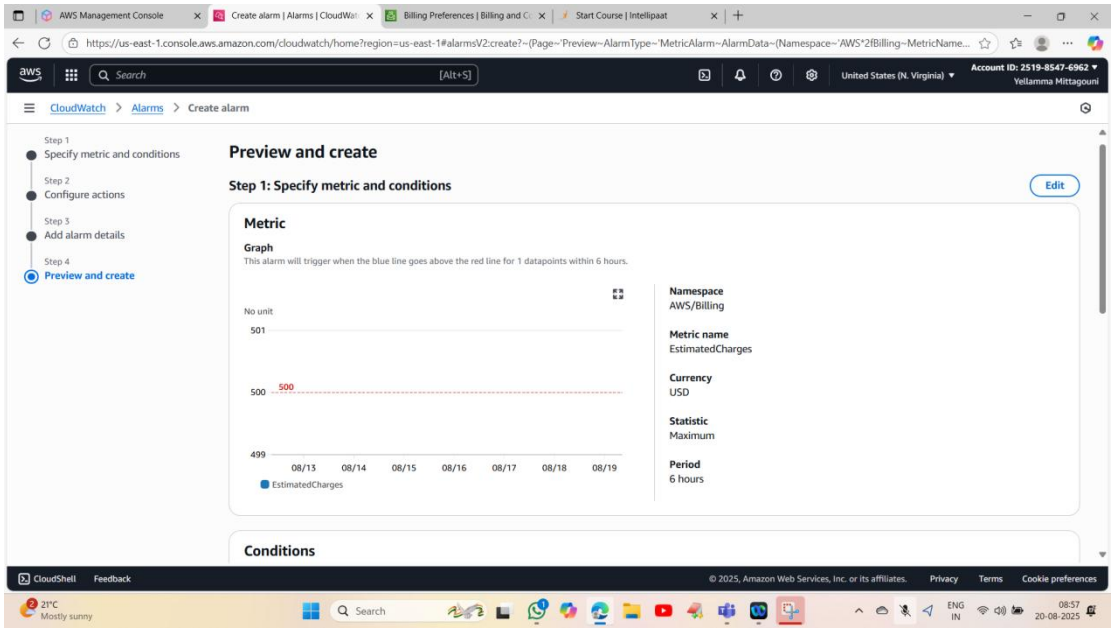
Terms
Cookie preferences


AWS Management Console
Create alarm | Alarms | CloudWat
Billing Preferences | Billing and Co
Start Course | Intellipaat
https://us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:create?~(Page~'Actions~AlarmType~'MetricAlarm~AlarmData~(Namespace~'AWS*2fBilling~MetricName...
Search
[Alt+S]
United States (N. Virginia)
Account ID: 2519-8547-6962
Yellamma Mittagouni
CloudWatch > Alarms > Create alarm
Step 4
Preview and create
In alarm
The metric or expression is outside of the defined threshold.
OK
The metric or expression is within the defined threshold.
Insufficient data
The alarm has just started or not enough data is available.
Send a notification to the following SNS topic
Define the SNS (Simple Notification Service) topic that will receive the notification.
Select an existing SNS topic
Create new topic
Use topic ARN to notify other accounts
Send a notification to...
billing-alerts
Only topics belonging to this account are listed here. All persons and applications subscribed to the selected topic will receive notifications.
Email (endpoints)
yellamma.187@gmail.com - View in SNS Console
Add notification
Lambda action
Add Lambda action
Auto Scaling action
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
21°C
Mostly sunny
Search
ENG
IN
08:55
20-08-2025


AWS Management Console
Create alarm | Alarms | CloudWat
Billing Preferences | Billing and Co
Start Course | Intellipaat
https://us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:create?~(Page~'Preview~AlarmType~'MetricAlarm~AlarmData~(Namespace~'AWS*2fBilling~MetricName...
Search
[Alt+S]
United States (N. Virginia)
Account ID: 2519-8547-6962
Yellamma Mittagouni
CloudWatch > Alarms > Create alarm
Step 1
Specify metric and conditions
Step 2
Configure actions
Step 3
Add alarm details
Step 4
Preview and create
Preview and create
Step 1: Specify metric and conditions
Edit
Metric
Graph
This alarm will trigger when the blue line goes above the red line for 1 datapoints within 6 hours.
No unit
501
500
500
499
08/13
08/14
08/15
08/16
08/17
08/18
08/19
EstimatedCharges
Namespace
AWS/Billing
Metric name
EstimatedCharges
Currency
USD
Statistic
Maximum
Period
6 hours
Conditions
CloudShell
Feedback
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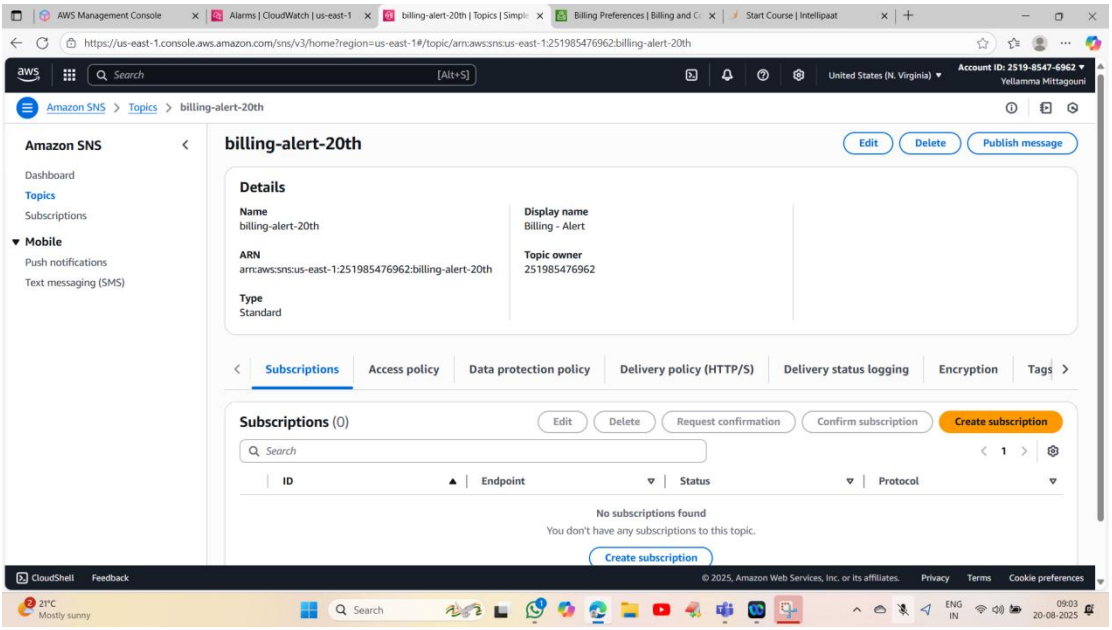
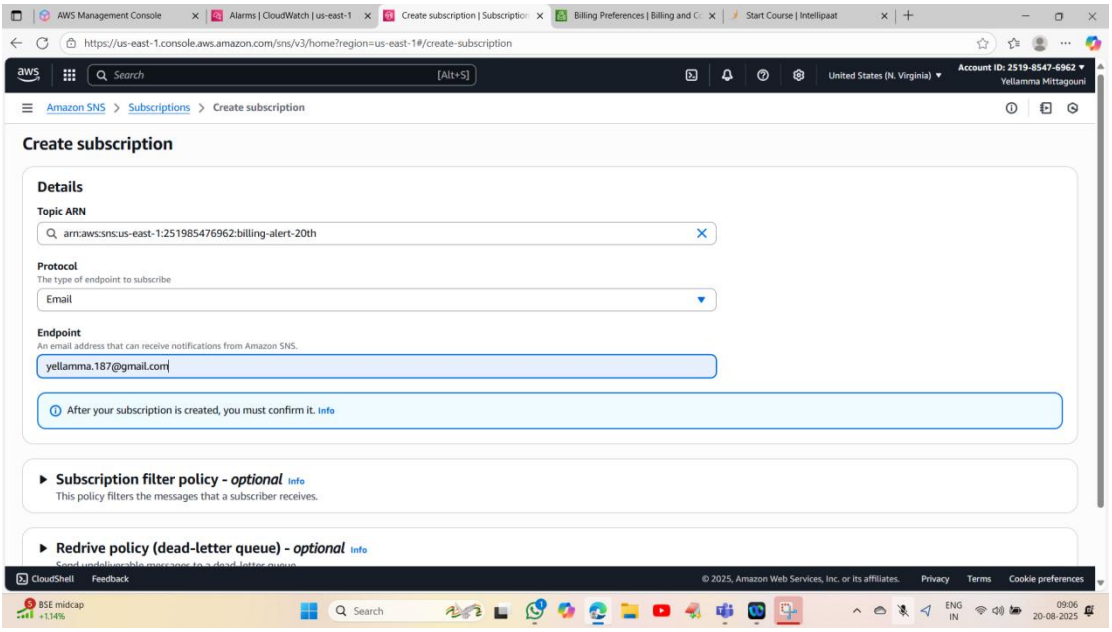
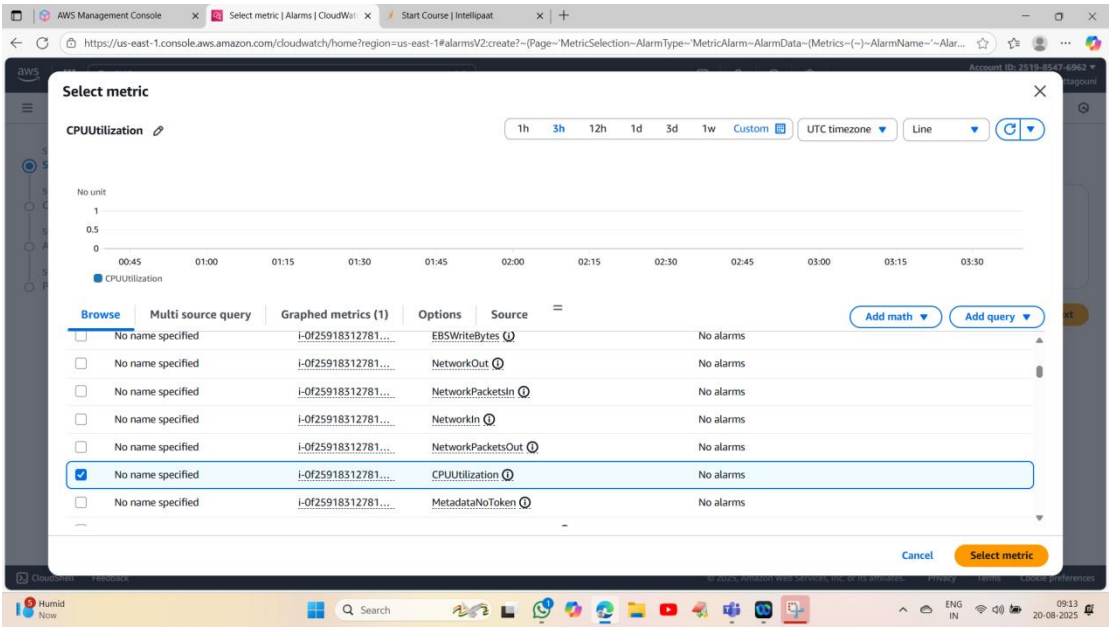
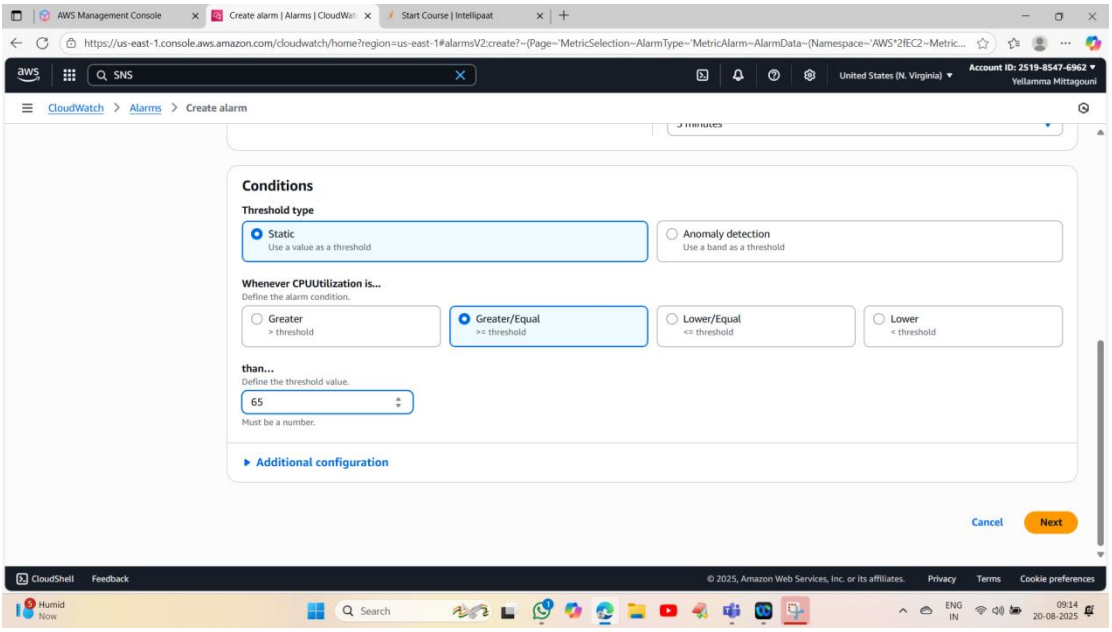
Terms
Cookie preferences
21°C
Mostly sunny
Search
ENG
IN
08:57
20-08-2025





2. Create a CloudWatch alarm which goes off to an Alarm state when the CPU utilization of an EC2 instance goes above 65%. Also add an SNS topic so that it notifies the person when the threshold is crossed.


Select metric
CPUUtilization
1h 3h 12h 1d 3d 1w Custom
UTC timezone
Line
No unit
1
0.5
0
00:45 01:00 01:15 01:30 01:45 02:00 02:15 02:30 02:45 03:00 03:15 03:30
CPUUtilization
Browse
Multi source query
Graphed metrics (1)
Options
Source
Add math
Add query
No name specified i-0f25918312781.... EBSWriteBytes No alarms
No name specified i-0f25918312781.... NetworkOut No alarms
No name specified i-0f25918312781.... NetworkPacketsIn No alarms
No name specified i-0f25918312781.... NetworkIn No alarms
No name specified i-0f25918312781.... NetworkPacketsOut No alarms
No name specified i-0f25918312781.... CPUUtilization No alarms
No name specified i-0f25918312781.... MetadataNoToken No alarms
Cancel
Select metric


CloudWatch > Alarms > Create alarm
Conditions
Threshold type
Static
Use a value as a threshold
Anomaly detection
Use a band as a threshold
Whenever CPUUtilization is...
Define the alarm condition.
Greater
> threshold
Greater/Equal
>= threshold
Lower/Equal
<= threshold
Lower
< threshold
than...
Define the threshold value.
65
Must be a number.
Additional configuration
Cancel
Next
CloudShell
Feedback
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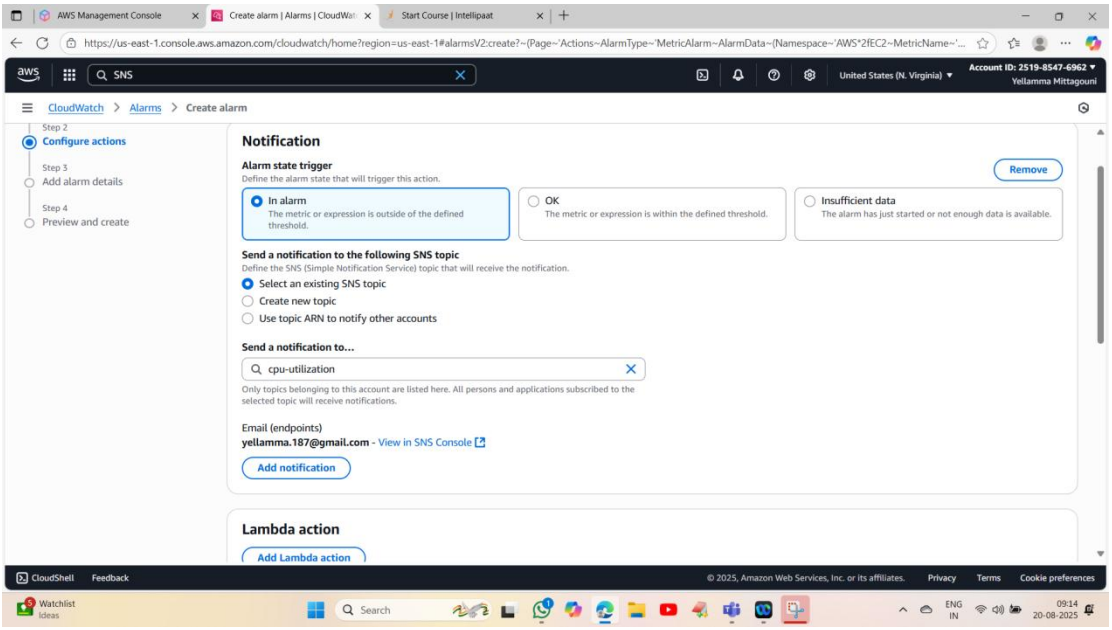
AWS Management Console
Create alarm | Alarms | CloudWat
Start Course | Intellipaat
https://us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:create?~(Page~'Actions~AlarmType~'MetricAlarm~AlarmData~(Namespace~'AWS*2fEC2~MetricName~'...
SNS
United States (N. Virginia)
Account ID: 2519-8547-6962
Yellamma Mittagouni
CloudWatch > Alarms > Create alarm
Step 2
Configure actions
Step 3
Add alarm details
Step 4
Preview and create
Notification
Alarm state trigger
Define the alarm state that will trigger this action.
Remove
In alarm
The metric or expression is outside of the defined threshold.
OK
The metric or expression is within the defined threshold.
Insufficient data
The alarm has just started or not enough data is available.
Send a notification to the following SNS topic
Define the SNS (Simple Notification Service) topic that will receive the notification.
Select an existing SNS topic
Create new topic
Use topic ARN to notify other accounts
Send a notification to...
cpu-utilization
Only topics belonging to this account are listed here. All persons and applications subscribed to the selected topic will receive notifications.
Email (endpoints)
yellamma.187@gmail.com - View in SNS Console
Add notification
Lambda action
Add Lambda action
CloudShell
Feedback
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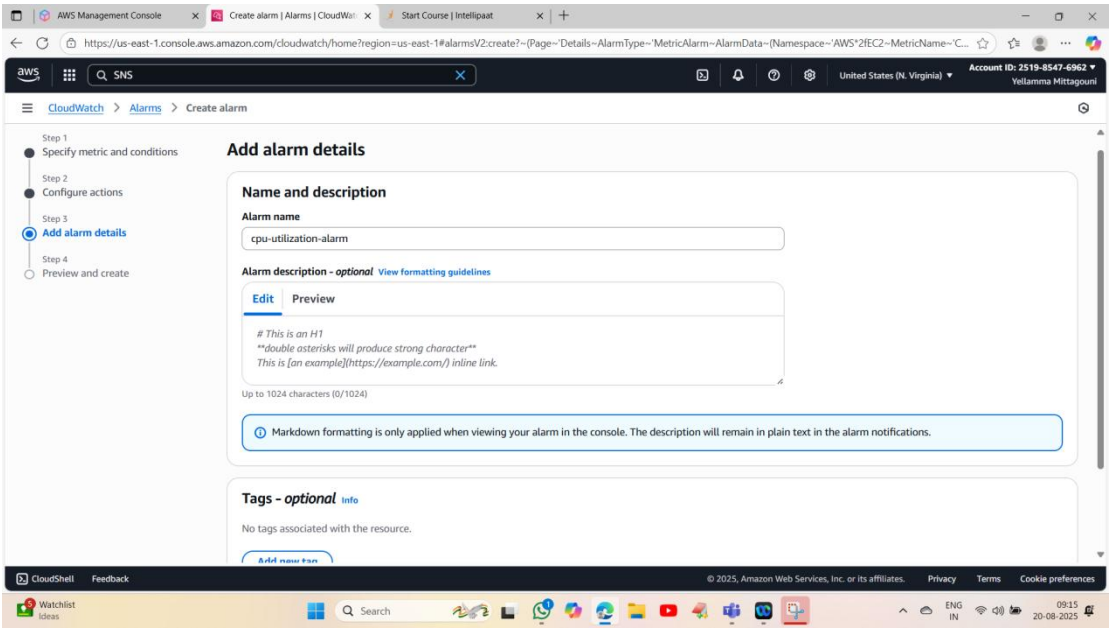
Terms
Cookie preferences
Watchlist
Ideas
Search
ENG
IN
09:14
20-08-2025


AWS Management Console
Create alarm | Alarms | CloudWat
Start Course | Intellipaat
https://us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:create?~(Page~'Details~AlarmType~'MetricAlarm~AlarmData~(Namespace~'AWS*2fEC2~MetricName~'C...
SNS
United States (N. Virginia)
Account ID: 2519-8547-6962
Yellamma Mittagouni
CloudWatch > Alarms > Create alarm
Step 1
Specify metric and conditions
Step 2
Configure actions
Step 3
Add alarm details
Step 4
Preview and create
Add alarm details
Name and description
Alarm name
cpu-utilization-alarm
Alarm description - optional
View formatting guidelines
Edit
Preview
This is an H1
double asterisks will produce strong character
This is [an example](https://example.com/) inline link.
Up to 1024 characters (0/1024)
Markdown formatting is only applied when viewing your alarm in the console. The description will remain in plain text in the alarm notifications.
Tags - optional
Info
No tags associated with the resource.
Add new tag
CloudShell
Feedback
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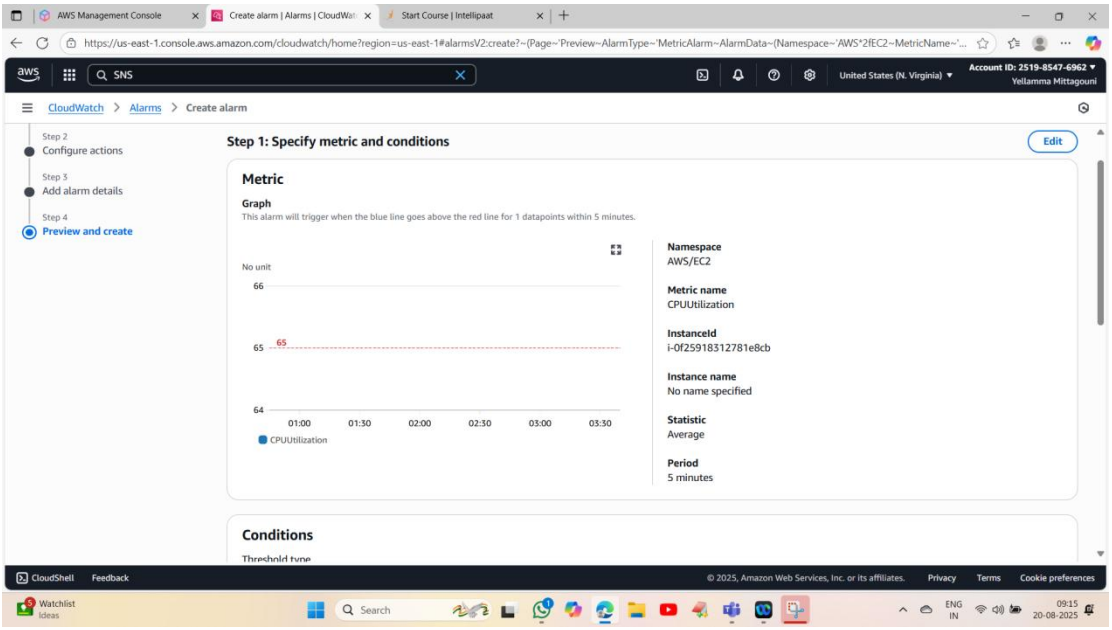
Terms
Cookie preferences
Watchlist
Ideas
Search
ENG
IN
09:15
20-08-2025


AWS Management Console
Create alarm | Alarms | CloudWat
Start Course | Intellipaat
https://us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:create?~(Page~'Preview~AlarmType~'MetricAlarm~AlarmData~(Namespace~'AWS*2fEC2~MetricName~'...
SNS
United States (N. Virginia)
Account ID: 2519-8547-6962
Yellamma Mittagouni
CloudWatch > Alarms > Create alarm
Step 2
Configure actions
Step 3
Add alarm details
Step 4
Preview and create
Step 1: Specify metric and conditions
Edit
Metric
Graph
This alarm will trigger when the blue line goes above the red line for 1 datapoints within 5 minutes.
No unit
66
65
64
65
01:00
01:30
02:00
02:30
03:00
03:30
CPUUtilization
Namespace
AWS/EC2
Metric name
CPUUtilization
InstanceId
i-0f25918312781e8cb
Instance name
No name specified
Statistic
Average
Period
5 minutes
Conditions
Threshold type
CloudShell
Feedback
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Watchlist
Ideas
Search
ENG
IN
09:15
20-08-2025