resource "aws\_cloudwatch\_dashboard" "EC2\_Dashboard" {

dashboard\_name = "EC2-Dashboard"

dashboard\_body = <<EOF

{

"widgets": [

{

"type": "explorer",

"width": 24,

"height": 15,

"x": 0,

"y": 0,

"properties": {

"metrics": [

{

"metricName": "CPUUtilization",

"resourceType": "AWS::EC2::Instance",

"stat": "Maximum"

}

],

"aggregateBy": {

"key": "InstanceType",

"func": "MAX"

},

"labels": [

{

"key": "State",

"value": "running"

}

],

"widgetOptions": {

"legend": {

"position": "bottom"

},

"view": "timeSeries",

"rowsPerPage": 8,

"widgetsPerRow": 2

},

"period": 60,

"title": "Running EC2 Instances CPUUtilization"

}

}

]

}

EOF

}

resource "aws\_cloudwatch\_composite\_alarm" "EC2" {

alarm\_description = "Composite alarm that monitors CPUUtilization "

alarm\_name = "EC2\_Composite\_Alarm"

alarm\_actions = [aws\_sns\_topic.EC2\_topic.arn]

alarm\_rule = "ALARM(${aws\_cloudwatch\_metric\_alarm.EC2\_CPU\_Usage\_Alarm.alarm\_name}) OR ALARM(${aws\_cloudwatch\_metric\_alarm.EBS\_WriteOperations.alarm\_name})"

depends\_on = [

aws\_cloudwatch\_metric\_alarm.EC2\_CPU\_Usage\_Alarm,

aws\_sns\_topic.EC2\_topic,

aws\_sns\_topic\_subscription.EC2\_Subscription

]

i}

# Creating the AWS CLoudwatch Alarm that will autoscale the AWS EC2 instance based on CPU utilization.

resource "aws\_cloudwatch\_metric\_alarm" "EC2\_CPU\_Usage\_Alarm" {

# defining the name of AWS cloudwatch alarm

alarm\_name = "EC2\_CPU\_Usage\_Alarm"

comparison\_operator = "GreaterThanOrEqualToThreshold"

evaluation\_periods = "2"

# Defining the metric\_name according to which scaling will happen (based on CPU)

metric\_name = "CPUUtilization"

# The namespace for the alarm's associated metric

namespace = "AWS/EC2"

# After AWS Cloudwatch Alarm is triggered, it will wait for 60 seconds and then autoscales

period = "60"

statistic = "Average"

# CPU Utilization threshold is set to 10 percent

threshold = "70"

alarm\_description = "This metric monitors ec2 cpu utilization exceeding 70%"

resource "aws\_cloudwatch\_log\_group" "ebs\_log\_group" {

name = "ebs\_log\_group"

retention\_in\_days = 30

}

resource "aws\_cloudwatch\_log\_stream" "ebs\_log\_stream" {

name = "ebs\_log\_stream"

log\_group\_name = aws\_cloudwatch\_log\_group.ebs\_log\_group.name

}

resource "aws\_sns\_topic" "EC2\_topic" {

name = "EC2\_topic"

}

resource "aws\_sns\_topic\_subscription" "EC2\_Subscription" {

topic\_arn = aws\_sns\_topic.EC2\_topic.arn

protocol = "email"

endpoint = "automateinfra@gmail.com"

depends\_on = [

aws\_sns\_topic.EC2\_topic

]

}