Management & Governance

Amazon Cloud Watch

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AWS CloudWatch

Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS.

What is CloudWatch?

- Amazon CloudWatch monitors operational and performance metrics for your AWS cloud resources and applications.
- You can create your own dashboards of which metric your want to measure
- A **metric** represents a time-ordered set of data points that are published to **CloudWatch**.
- A **metric** as a variable to monitor, and the data points as representing the values of that variable over time.
  - For example, the CPU usage of a particular EC2 instance is one **metric** provided by Amazon EC2.
- You can also set alarms and automate actions to manage your EC2, RDS and S3.

Monitoring

Amazon
CloudWatch

Basic monitoring
Is free
Polls every 5 minutes
10 metrics
5GB of data ingestion
5GB of data storage

Detailed monitoring
Is chargeable
Charged per instance per month
Polls every minute

Dashboards

Metrics

AWS CloudWatch allows you to record metrics for EBS, EC2, ELB, and S3.

Create Dashboard

- Provide a name to your dashboard
- Choose a widget type by which the reports should be available on the dashboard
- Now choose to which resource you want to monitor
  - Give instance -id in search box
- Now create a widget of any type by specifying the performance measure you want to watch
- You can add as many as widgets for the same resource

Alarms

Set alarms to warn based on resources usage, for example CPU utilization is too high.

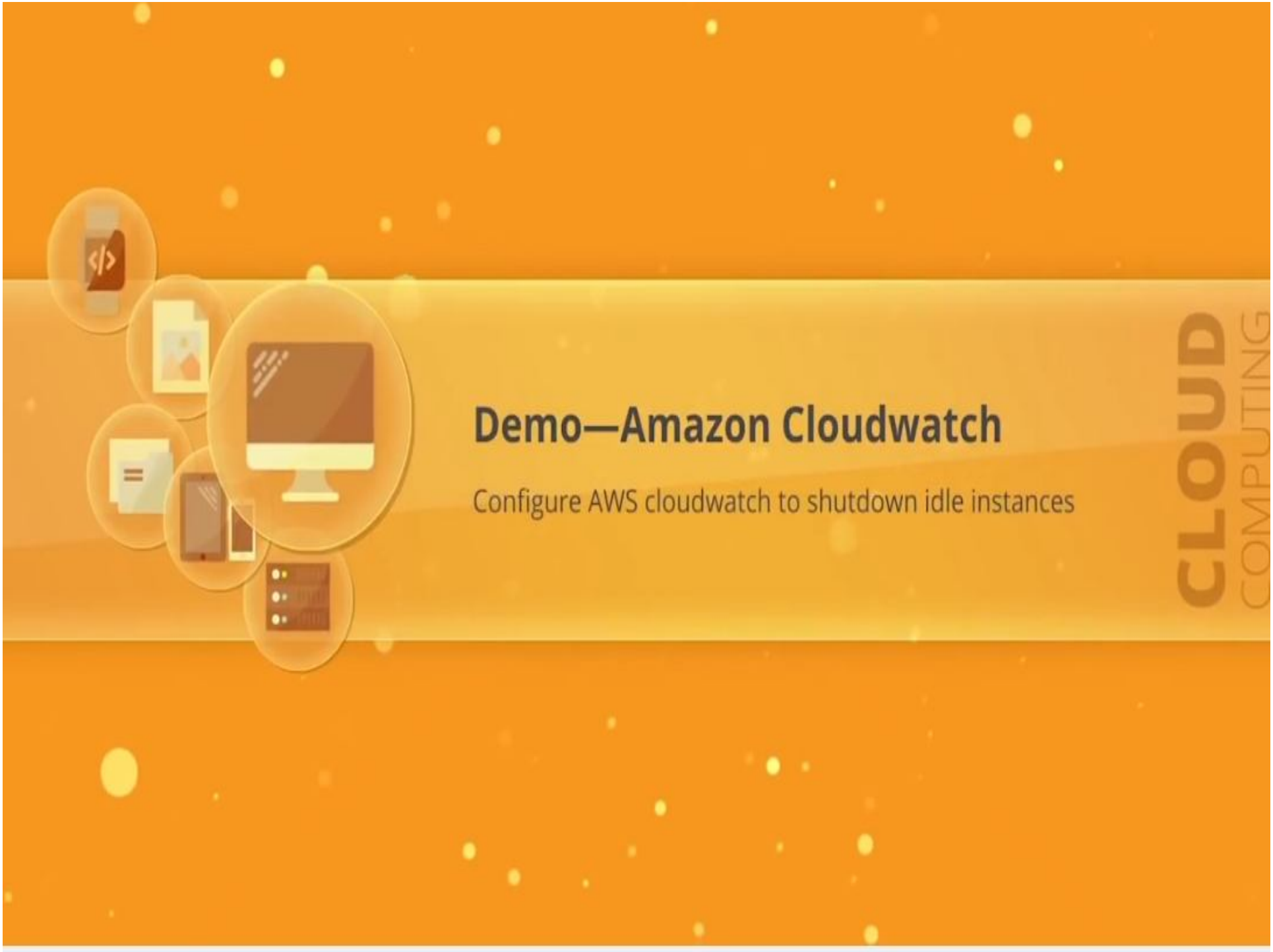
- Shutdown / Terminate / Add more instances to share the Load

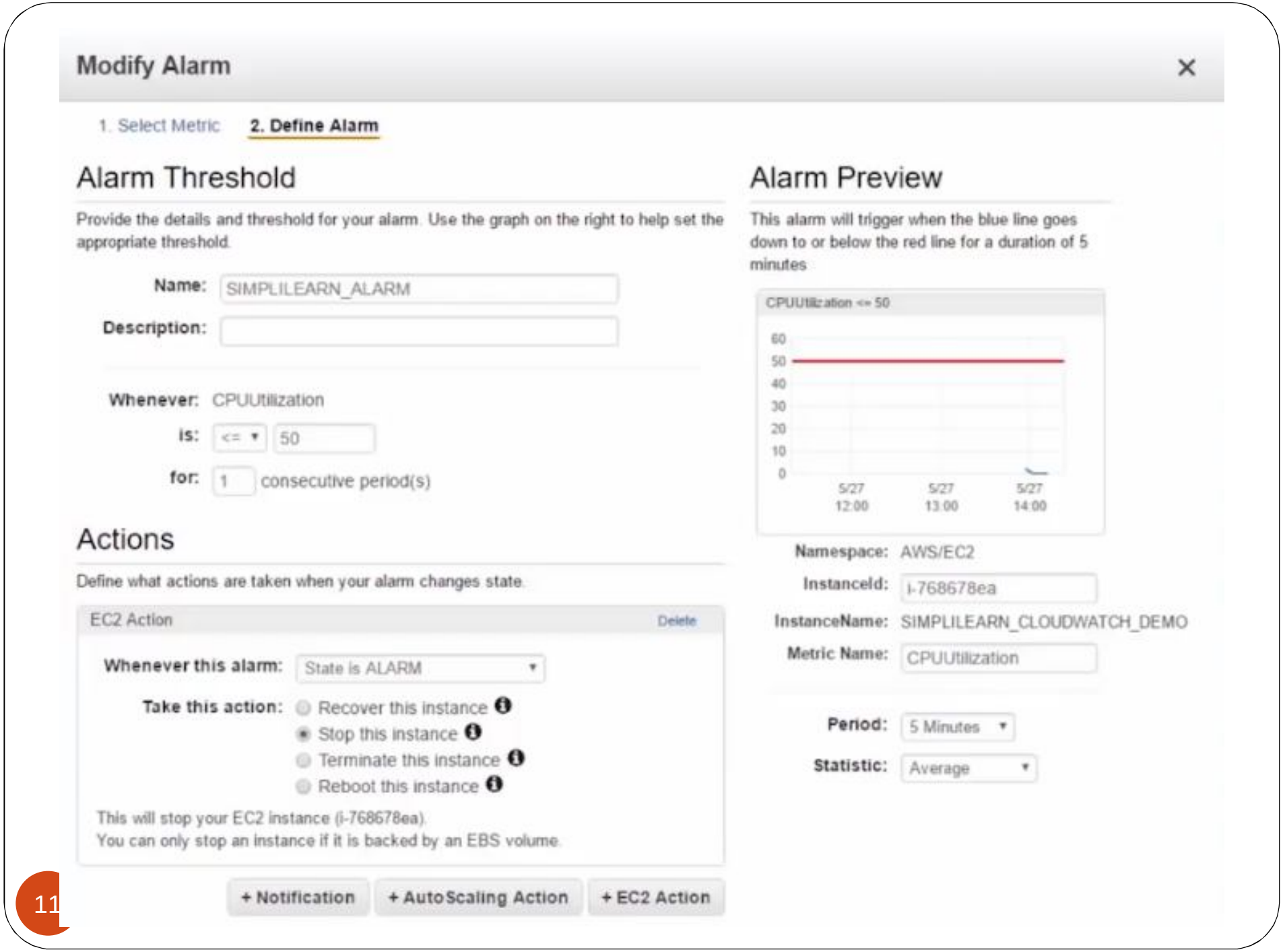
Create alarms

- You can create alarms and automate certain actions in the resources
- Give the alarm the name and the description
- Select the resource you want to trigger an alarm
- Set the threshold
- Specify the action.

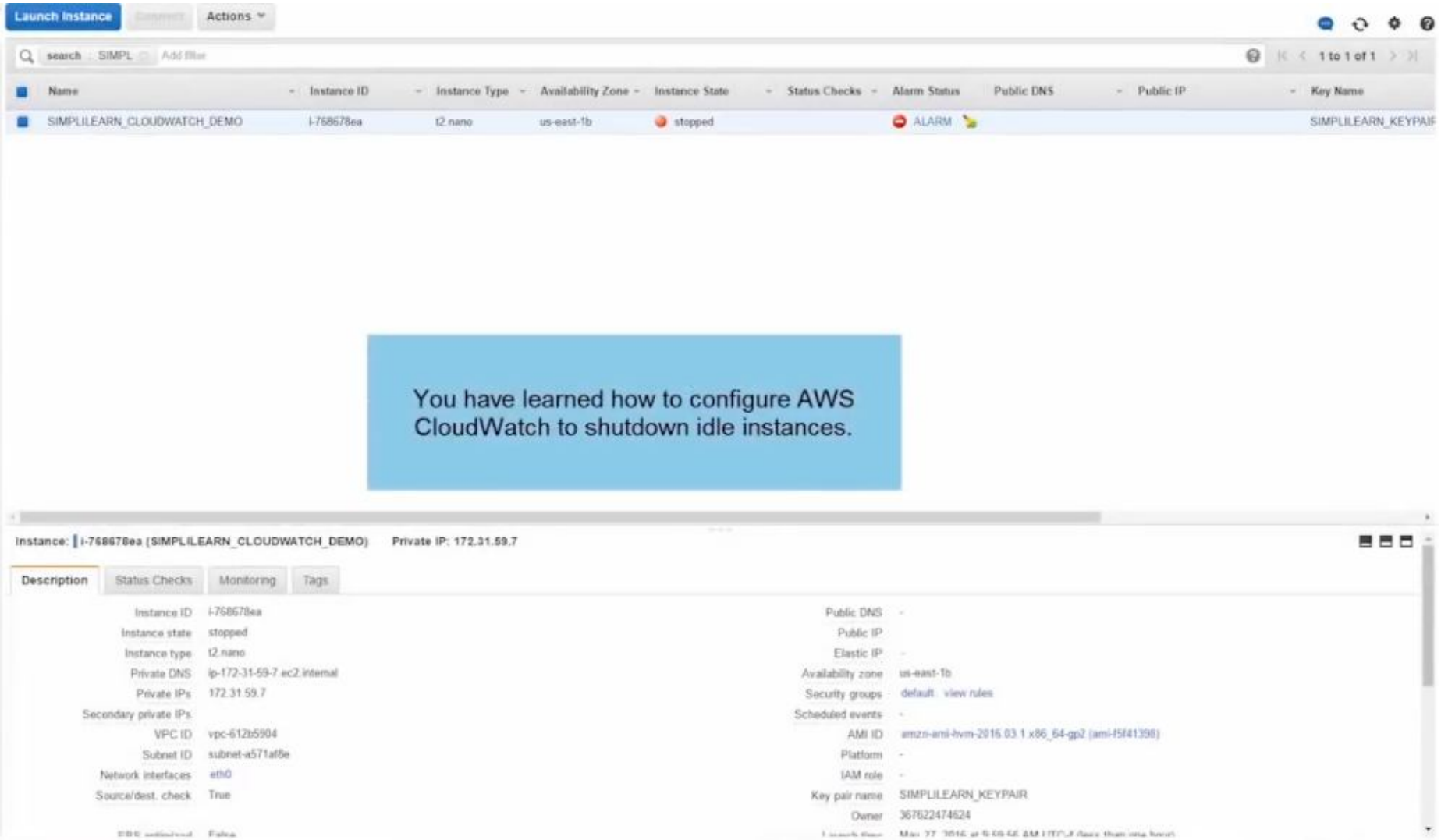
Logs

Install agents on EC2 instances to send monitoring data about the instance to CloudWatch.


Demo—Amazon Cloudwatch
Configure AWS cloudwatch to shutdown idle instances
CLOUD
COMPUTING


Modify Alarm
1. Select Metric
2. Define Alarm
Alarm Threshold
Provide the details and threshold for your alarm. Use the graph on the right to help set the appropriate threshold.
Name: SIMPLILEARN_ALARM
Description:
Whenever: CPUUtilization
is: <= 50
for: 1 consecutive period(s)
Actions
Define what actions are taken when your alarm changes state.
EC2 Action
Delete
Whenever this alarm: State is ALARM
Take this action:
Recover this instance
Stop this instance
Terminate this instance
Reboot this instance
This will stop your EC2 instance (i-768678ea).
You can only stop an instance if it is backed by an EBS volume.
+ Notification
+ AutoScaling Action
+ EC2 Action
Alarm Preview
This alarm will trigger when the blue line goes down to or below the red line for a duration of 5 minutes
CPUUtilization <= 50
60
50
40
30
20
10
0
5/27 12:00
5/27 13:00
5/27 14:00
Namespace: AWS/EC2
InstanceId: i-768678ea
InstanceName: SIMPLILEARN_CLOUDWATCH_DEMO
Metric Name: CPUUtilization
Period: 5 Minutes
Statistic: Average

Alarm Executed



Video Tutorial

- https://www.youtube.com/watch?v=_Tqce6pGb44