**What is Amazon CloudWatch?**

Amazon CloudWatch monitors your Amazon Web Services (AWS) resources and the applications you run on AWS in real time.

You can use CloudWatch to collect and track metrics, which are variables you can measure for your resources and applications.

In addition to monitoring the built-in metrics that come with AWS, you can monitor your own custom metrics. With CloudWatch.

## **Metrics**

Metrics are the fundamental concept in CloudWatch. metric is a variable to monitor, and the data points represent the values of that variable over time.

There are several metrics available for resources, like CPU utilization, Network I/O, Sum requests etc.

Note: You can have **billing metrics** to monitor the price for your AWS account but this metric is only available in **North virginia** region.

Also we **don’t** have metrics for **memory (RAM) & Disk utilization** in built in AWS, we need to create **custom metrics** by using custom scripts.

# Creating Amazon CloudWatch Alarms

You can create a CloudWatch alarm that sends an Amazon Simple Notification Service (SNS) message when the alarm changes state. An alarm watches a single metric over a time period you specify, to a given threshold over a number of time periods.

A notification sent to an Amazon Simple Notification Service topic & which in return trigger the emails corresponding to the state of an Alarm.

An alarm has three possible states:

* ***OK***—The metric is within the defined threshold
* ***ALARM***—The metric is outside of the defined threshold
* ***INSUFFICIENT\_DATA***—The alarm has just started, the metric is not available, or not enough data is available for the metric to determine the alarm state

Questions   
  
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What is cloudwatch alarms? How to setup alarm notifications to send particular emails?

what is metrics? what alarms on our resurces we can set? can we set CPU utilization? memory utilzation? disk space?

what is custom metrics?

can we set billing metrics? in what region?

How many days we get the data in alarms?

What is minimum interval for detailed monitoring & for default monitoring?

what tools you use for monitioring the servers & websites?

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