**CLOUD WATCH**

* To check the server status

**Need of Monitoring Tool**

* How Cloud Engineer (CE) know which server is up and which server is down for this he/her has to login and particular EC2 instance and verify the server status
* If one or two server we can monitor manually, if more than one server then manual intervention is not possible, we need tool for checking server status frequently

**Few monitoring tools in market**

1.Nagios

2.Splunk

3.AppDynamics

4.DynaTrace

5.Metric Fire

To use this tool, we need to buy license

* CloudWatch is used to monitor all AWS Services (EC2, ELB, RDS, ASG)
* CloudWatch, we don’t have to buy or license
* CloudWatch can also monitor applications with EC2
* CloudWatch monitor the performance
* CloudWatch is monitor using alaram
* CloudWatch is all about Alaram, Events and logs
* Host Level metrics is including (CPU, Network, Disk, Status checks are AWS provided default metrics)
* CloudWatch can monitor only HOST level metrics (Default Metrics)

**Two Types of Monitoring**

* Basic Monitoring Every 5min interval data points, FREE
* Detailed Monitoring Every 1min interval data points, Billable

**AWS Monitoring Tools**

**CLOUDTRAIL**

Monitor entire AWS environment

Records, monitor, track, audit, logs

**CONFIG**

Monitors the changes in AWS resources

**METRICS**

Metrics = CPU + Network + Memory

**ALARAM**

Alaram can do some actions based on metrics of CPU usage,

If CPU usage less than 2, it will terminate EC2 instance or stop, reboot

**Free Tier Eligible of CloudWatch Alaram**

If 100 instance each instance one alaram means 100 alaram we need to create

Per account 10 alaram free including all region and interval should be 5min

**Alaram has 3 states**

1.OK

2.in Alaram

mater of concern

3.Insufficent

If somebody Terminated instance accidentally then “CloudWatch” will continuously wait for the information from the server that server some body deleted which is not there,

then CloudWatch not having any information either go to OK status or go to ALARAM status because it is having insufficient info

Therefore, alaram status will be Insufficient

**EVENTS**

If some some one stop EC2 instance, we need to get notification

Stop event should be triggered

Pending/running, stopping/stop shutting down/Terminated

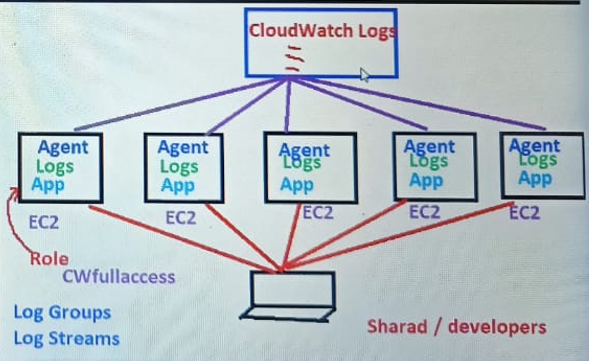
EC2 instance status change notification

**CLOUDWATCH LOGS**

Every EC2 instance will have own application, also have its own application logs

Agent software has to install all EC2 instances

Agent will collect the logs push that logs to central repo logs

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