**How your systems are performing in the real world?**

We will look at metrics and we have three major metrics;

**Environment metrics**: Themetrics that refer to the environments in which the application is running.

- CPU and memory utilization,

- Disk space, number of reads I/Os,

- Number of write I/Os in your database,

- Operational things that help you to detect architectural bottlenecks, and do optimizations.

- The monitoring of operations; the states of the CI/CD pipeline, configuration changes, and logging

**Application metrics:**

-How much time do those specific routines take to complete?

-What routines are more expensive in terms of computing, and memory resources?

For application metrics, you can count them with the help of AWS X-Ray and CloudWatch custom metrics.

**Network metrics:**

**-** Latency measurements, packets per second, and networking aspects of the operation.

-Network monitoring is also relevant if you have clusters and lots of internal communication between your servers.

-If your resources are sitting in the VPC-- like EC2 instances and RDS databases-- you can leverage AWS-managed services like VPC Flow Logs,

**Practise:**

* Ec2 disk space issue:

We decide which EBS volume issues, root or application;

/root volume check for issues of OS

Look at the

/var/log/application and /var/log/tmp

If not in root volume;

Look at the /application and if the disk full due to jar files, take a snapshot and increase the size of the volume.

* ASG multiple ec2 are terminating issue; (either debug in ec2 or application)

Ec2 Unhealthy means, issue could be disk space or CPU or memory

Disk space: EBS volume check, /var/log/application and /tmp checking

High CPU %100: **top** command tells us CPU usage

Memory: **free -mt** command check swap memory and it shouldn’t be zero.