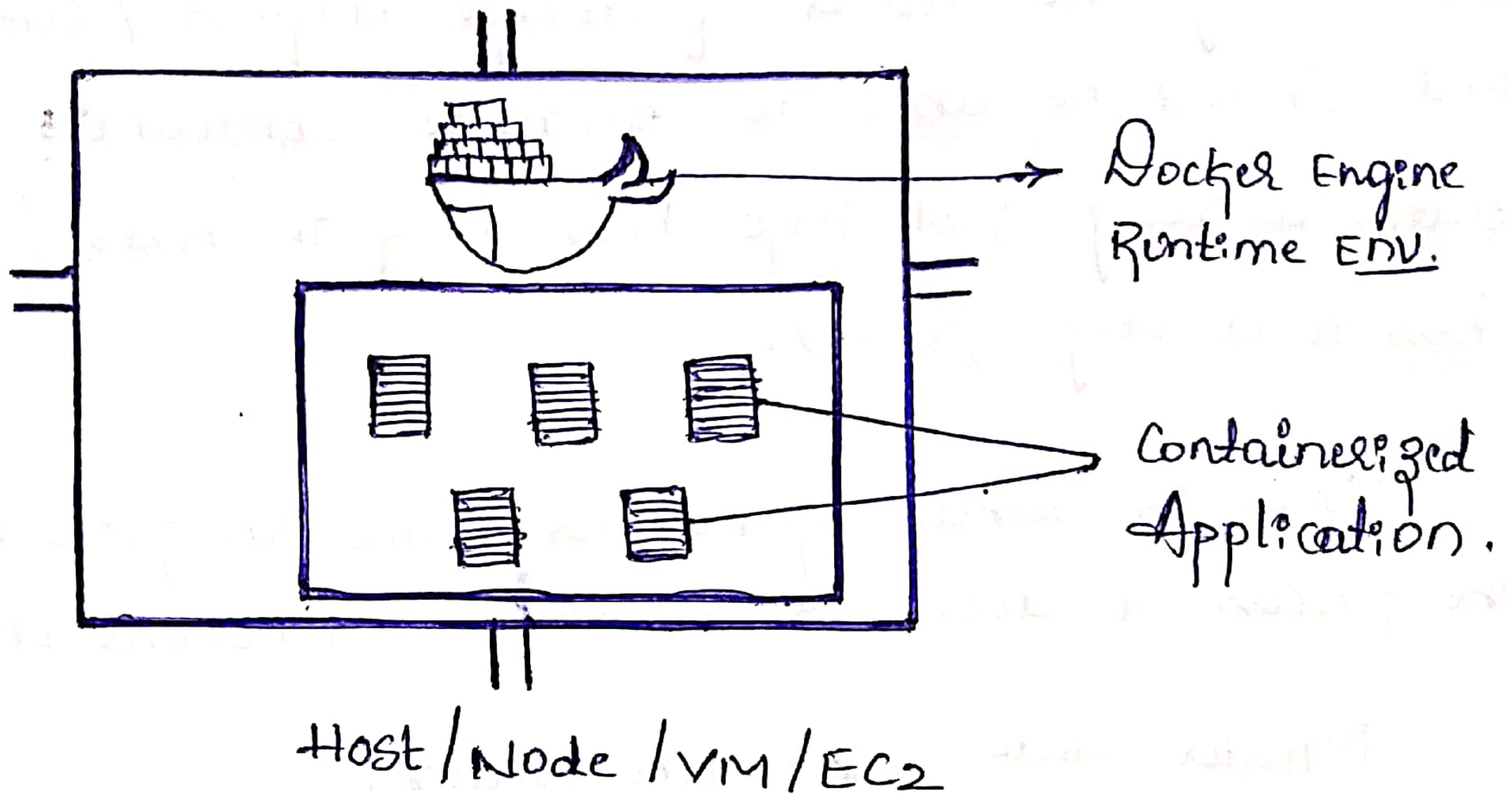


# KUBERNETES

# Day - 1

Q. What is Kubernetes.

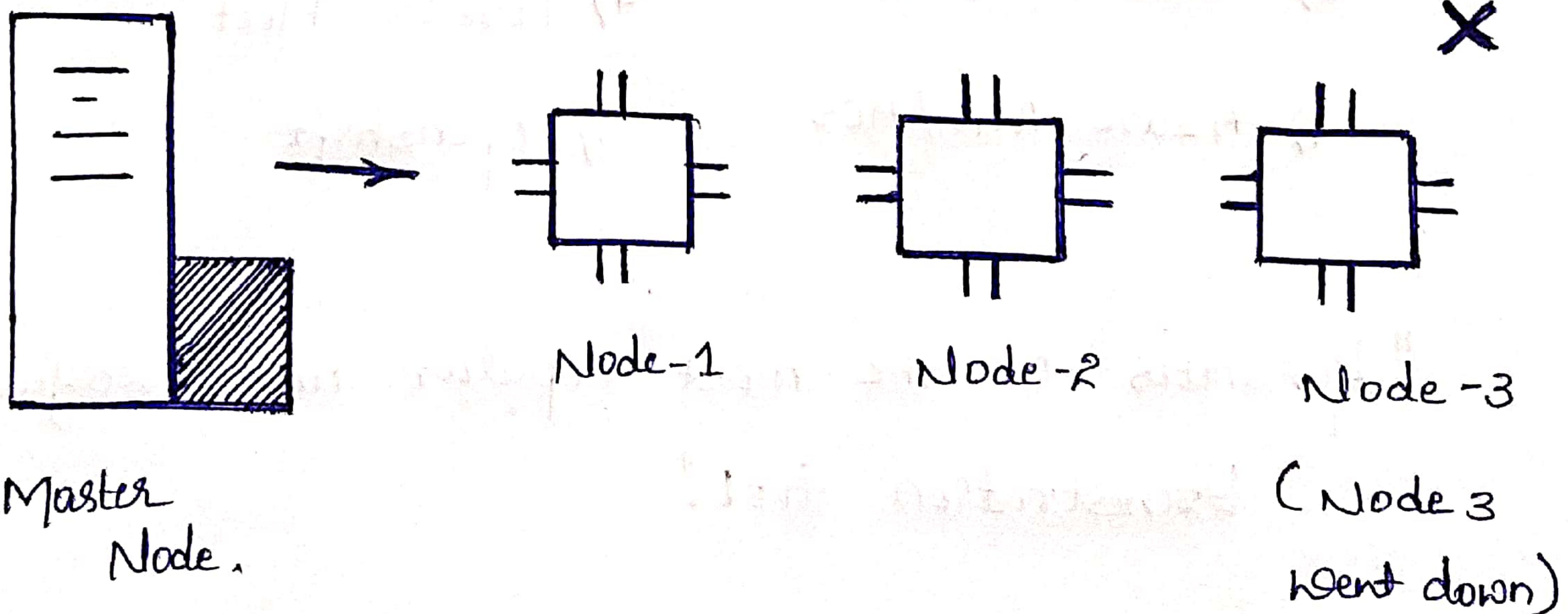
Docker vs k8s:-



→ What if Node / Docker Engine fails?

\* Our application went down, Not accessible.

\* To avoid this we can do Clustering.





\* Now application is accessible with decreased capacity.

What if we have high incoming request then?

\* There may be high chances of cluster fails.

Solution:- We should have someone who is always monitoring the cluster of docker engines / containers and should be able to recreate containers (pods) automatically just like how ASG in AWS (But this has to be a very fast).

This is where Kubernetes came in picture and the process it does is Container Orchestration.

Master Node  $\rightarrow$  Orchestrator.

Orchestration Tools:-

- |                  |                             |
|------------------|-----------------------------|
| 1) Docker Swarm  | 5) Mesosphere Marathon      |
| 2) Kubernetes.   | 6) Google Container Engine. |
| 3) AWS EKS/ECS   | 7) Core OS Fleet            |
| 4) Azure AKS/ACS | 8) OpenShift                |

"Kubernetes is the most popular and powerful Orchestration tool."



By this, you notice that k8s is not replacement for docker engine, It manages cluster of docker engines with lots of features loaded.

→ Key Advantages of Kubeenetes:-

