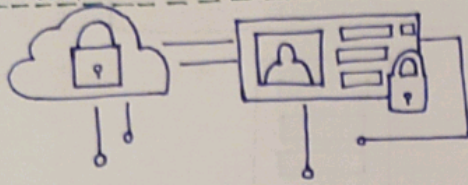
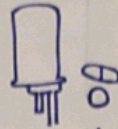


*Fraud Detection & Prevention



*Personalized Treatments

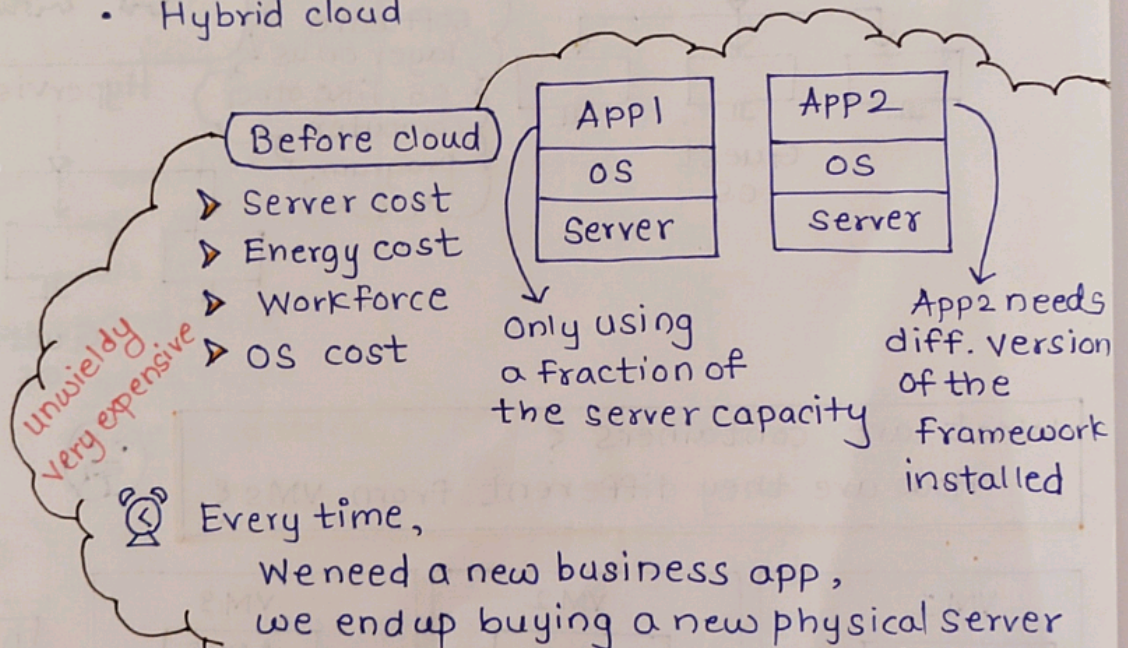
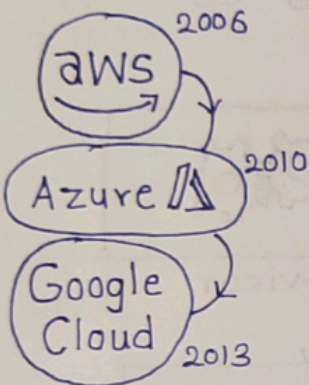


*Online Games

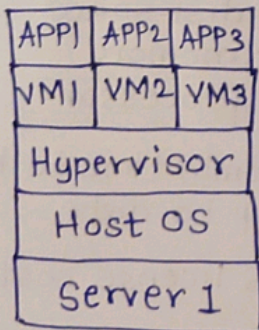


Cloud related Service

- Infrastructure as a service (IaaS)
- Platform as a service (PaaS)
- Software as a service (SaaS)
- Private cloud
- Public cloud
- Hybrid cloud



Virtualization

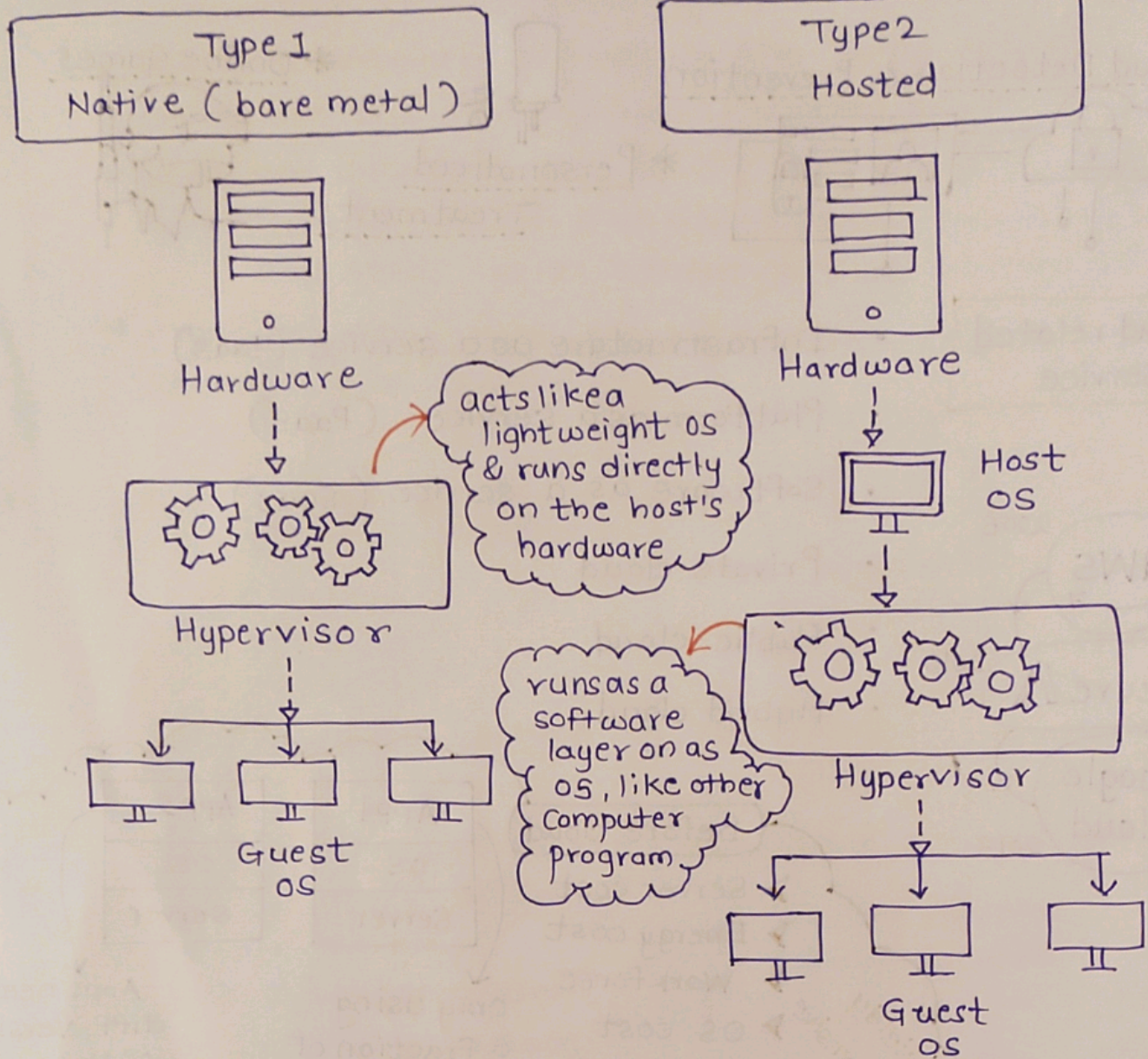


Hypervisors make it possible to use more of a system's available resources and provide greater IT mobility since the guest VMs are independent of the host hardware. This means they can be easily moved between different servers

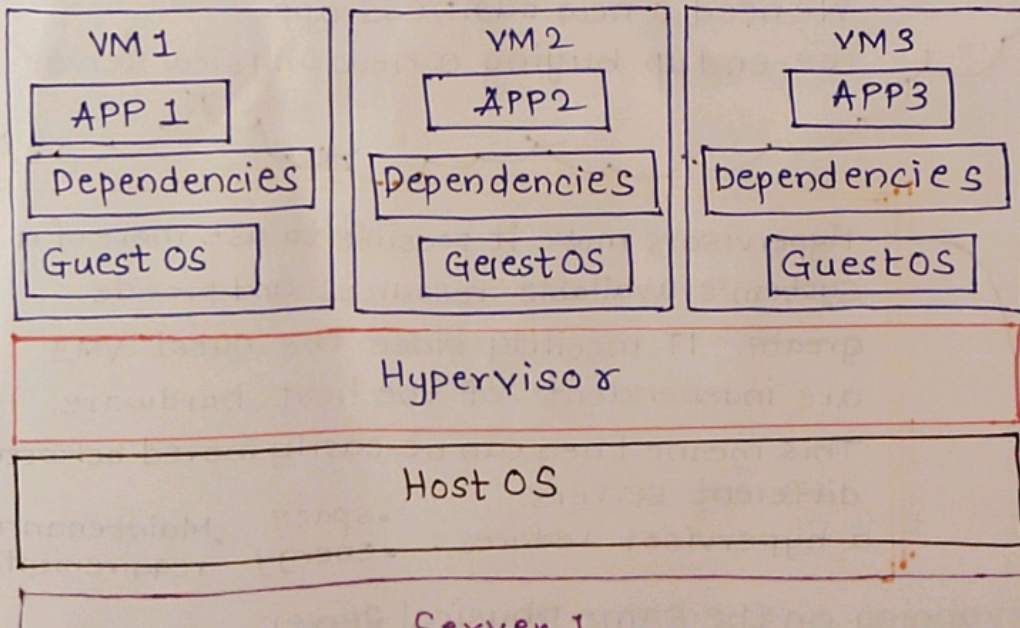
a hypervisor reduces : • space • Maintenance requirements • energy

In reality, Apps are running on the same physical server but on a dedicated virtual machine.

Hypervisor or Virtual Machine Monitor (VMM)



What are containers ?
How are they different from VMs ?



Downsides

- Wasted server resources
 - disk space
 - memory
 - processor
- Admin time to keep OS up to date
- OS license cost
- VM bootup consumes time

Containers Virtualizes the operating system

- abstraction at the operating system level
- Multiple containers can run on the same machine
- can share the host operating system kernel.
- container does not require its own operating system.
 - The amount of disk space, RAM, processor time and other server resources that are saved.
- container, packages your application code and its dependencies together.

* Benefits of cloud computing

Reduce costs

- ✓ cloud reduces both capex and opex.
- ✓ organization no longer have to spend huge amount of money on physical servers, related IT infrastructure specialized IT workforce server rooms or data centers.

pay as you go

You will pay for what you use.

Scalability

scale up ↑
scale down ↓

Accessibility

accessed from virtually anywhere and anytime

Increased collaboration

cloud resources are metered

Never run out of resources.

Business continuity

any crisis do not result in data loss

Automatic Update

Self service

setup & configure the server

Server room

secured!

Servers

connect it to UPS & n/w

organizations faced with a large initial capital expenditure (Capex)

antivirus software

db server

proper cooling system

Maintenance

any other dependencies

- disaster recovery
- failover system

Risk of cloud computing

Loss of cloud data and services

Data security

Compliance and legal risks

cost concerns

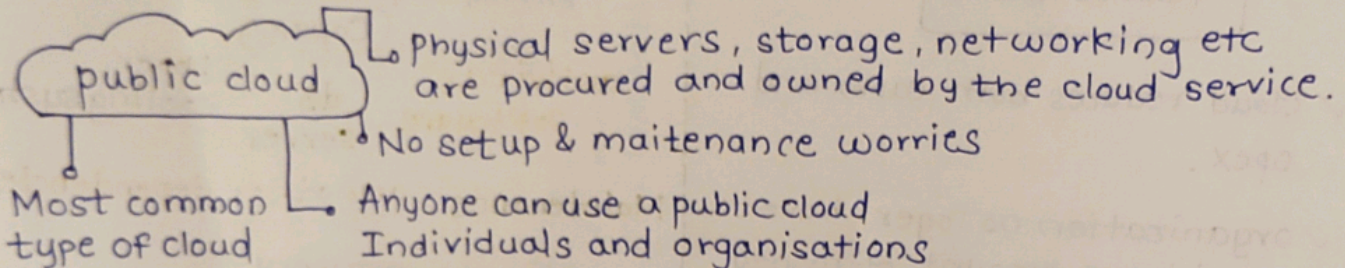
⇒ SLA's
Service Level Agreement



Local and international regulations
GDPR, HIPAA

What is a Public Cloud.

Benefits, Limitations & Usecases.



examples → Microsoft Azure
Amazon AWS

Multi-tenancy

Manage the cloud services and resources using cloud provider web portal.

Multiorganisations share cloud resources.

pay-as-you-go like water or electricity bills 

Benefits

pay as you go ::
No maintenance
Highly scalable
Highly reliable

Limitations

compliance and legal risks
cost concerns

usecase

Unlimited scalability
varying peak demands
Fast growing businesses
Backup and disaster recovery solutions.

Private Cloud

located on-premise | can be hosted by a third party

private cloud 
Inside organization's corporate n/w

The organisation that owns the private cloud must purchase the cloud hardware
single-tenancy

public cloud 
Anywhere on the Internet

cloud service provider (Amazon or Microsoft) provides the infrastructure.
Multi-tenancy

Hybrid cloud 
Inside corporate n/w or
Anywhere on the internet

private cloud - Your organisation provides the hardware
cloud service provider provides for the public cloud.
single-tenancy + Multi-tenancy.

Infrastructure as a Service IaaS

Platform as a Service PaaS

Software as a Service SaaS

Containers as a service CaaS

Functions as a Service FaaS

↓
Serverless Computing

On Premise

Application

Data

Runtime

Middleware

OS

Virtualization

Servers

Storage

Networking

You manage

On Premise

Application

Data

Runtime

Middleware

OS

You manage

Virtualization

servers

storage

Networking

CSP Manages

IaaS → Hardware as a Service (HaaS)

→ Computational or Storage

↓
web application
host & run

↓
install SQL server
oracle

Infrastructure
Teams

Software Development
Teams

Benefits

If your new product launch, well and good.
If it doesn't, shut things down and

speed

stop paying

al advantages
scalability.

→ Deployment
→ Geographic
→ Unlimited

PaaS

Application

Data

Runtime

Middleware

OS

Virtualization

Servers

Storage

CSP (Cloud Service
providers)
Manages

Data driven web app

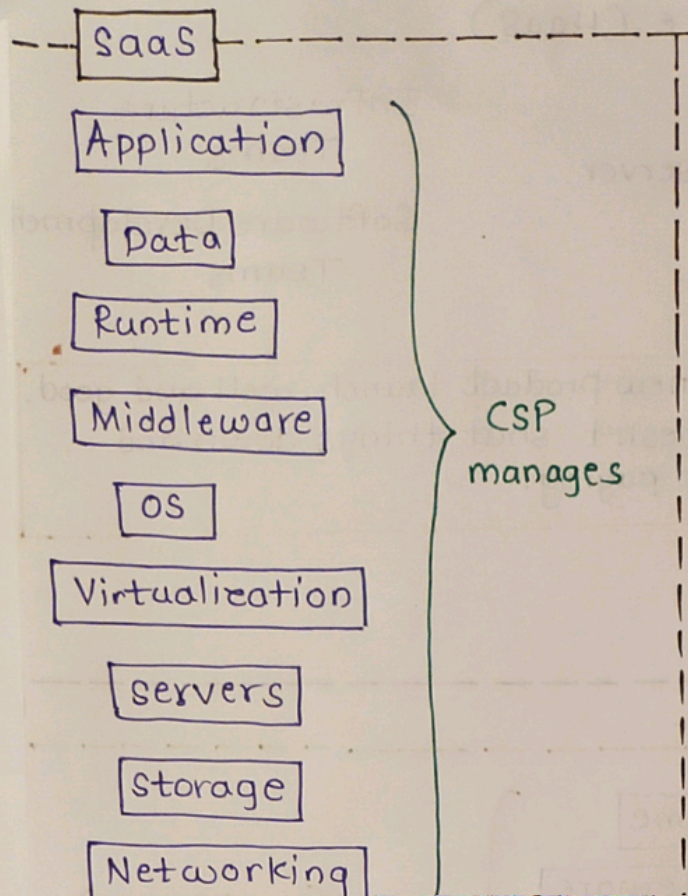
- ◇ ASP.NET Core or Java
- ◇ SQL Server or Oracle
- ◇ Web Server

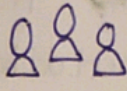
→ platform f
Development

Windows

AWS Elasti

Google App



⇒ Individuals 

⇒ Small, Medium & Large Organisat^o

SaaS Apps ↘

M

NETFLIX

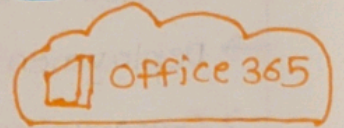
prime



Dropbox



Google Drive



→ Customer Relationship Management

→ Financial Management

→ Sales Management

→ Billing

→ Entertainment ...

easy to get started

visibility

automatic updates

pay-as-you-go usage-based pricing

reduced financial risk

scalability

➤ Very easy

➤ Access

➤ Auto

➤ Flexib

➤ Reduc

➤ Affov

on-premise to cloud, you are improving

Encryption



Run movie