**Virtual Machine:**

VM is simple a software-based computer. They run like a physical computer. They have OS, Applications.

Each VM can run independently as they have own OS. So, it is easy to port VM from one Hypervisor to other when there is any host issues.

**Hypervisor:**

Hypervisor pulls the resources of a physical server and allocate them to the virtual environments/VM.

A hypervisor allows one host computer to support multiple guest VMs by virtually sharing its resources, such as memory and processing.

A hypervisor allows a physical server to operate multiple VMs as guests run alongside each other.

Each VM can run a different OS.

A hypervisor allocates each VM resource such as CPU, memory, storage, and network to run the guest OS and applications.

The size of Guest OS in Hypervisor is in GBs **whereas** in Container it is in MB.

A screenshot of a computer screen

Description automatically generated

In Docker world – Dockerfile.

In Cloud – manifest file.

Tools to Containerization :

1. Docker.
2. Rocket(rkt) developed by RedHat.
3. Podman compatible with Docker. Focusing on providing a daemon less, rootless experience.