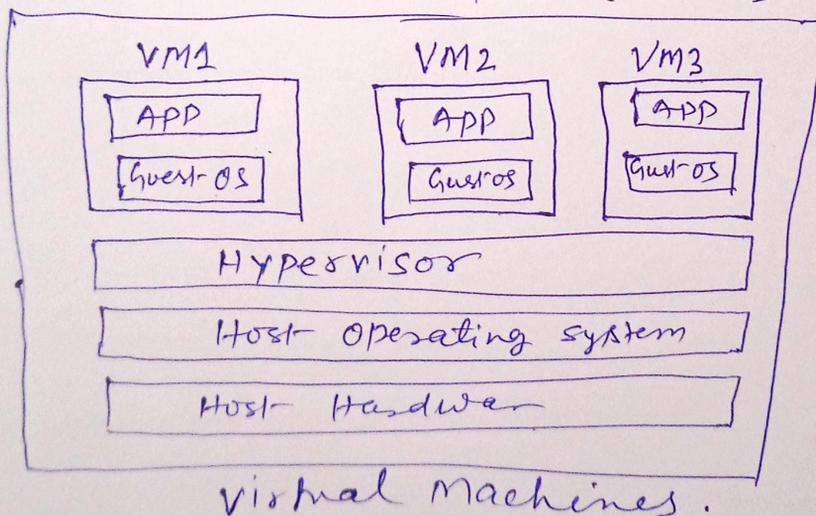


Virtual Machines (VMs)

A virtual machine abstracts physical hardware such as the CPU, memory, disk and network into multiple isolated environments, each functioning like an independent system. Tools like VirtualBox demonstrate this concept by allowing several virtual systems to run on one machine.

- Each VM behave like a separate independent machine.
- VirtualBox is a common example of virtualization.
- CPU scheduling and virtual memory give each VM dedicated-like resources.



The fundamental issue with the virtual machine technique is disk-system limitations. If a host machine has only three physical disks but needs to support seven VMs, it can't assign one disk per VM. Instead the hypervisor create virtual disks.