Cloud computing is the **on-demand delivery** of IT resources over the internet with pay-as-you-go pricing.

**Deployment models**

1)Cloud-Based🡪public cloud

2)On-premises->private cloud

3)Hybrid->combination of cloud and On-premises

**EC2(Elastic Compute cloud):-**

Aws charges for only running instances not for stop/terminated instances.

**Hypervisor** running on the host machine is responsible for sharing the underlying physical resources between the virtual machines.

The hypervisor is responsible for isolating the virtual machines from each other as they share resources from the host.

This idea of sharing underlying hardware between Vm’s is called **multitenancy**.

**EC2 instance types:**

1)General purpose instances🡪”**balanced resources**” such as compute, memory, networking🡪t

2)Compute optimized instances🡪”compute intensive task”--=> **high-performance** **processors**🡪gaming servers->c

3)Memory optimized instances🡪**high performance database** for workloads that process large datasets in memory.

workload that requires large amounts of data to be **preloaded** before running an application

4)Accelerated computing instances🡪use hardware accelerators, than is possible in software running on CPUs.

**floating-point number calculations**, graphics processing, and data pattern matching.

5)storage optimized instances🡪workloads that require high, sequential **read and write**  **access** to large datasets on local storage.

distributed file systems, data warehousing applications,  high-frequency online transaction processing (OLTP) systems.