What is cloud computing?

Cloud Computing

Cloud computing is a technology that enables access to and delivery of computing resources, including computing power, storage, and various services, over the internet. Instead of owning and maintaining physical servers or infrastructure, users can rent or lease these resources on a pay-as-you-go basis from a cloud service provider.

Key characteristics of cloud computing include:

- **On-Demand Self-Service:** Users can provision and manage computing resources as needed without requiring human intervention from the service provider.
- **Broad Network Access:** Cloud services are accessible over the internet from various devices, such as laptops, tablets, and smartphones.
- **Resource Pooling:** Resources are pooled to serve multiple customers. Providers use multi-tenant models with different physical and virtual resources dynamically assigned and reassigned.
- **Rapid Elasticity:** Resources can be rapidly scaled up or down to accommodate changes in demand. Users only pay for the resources they consume.
  -**Measured Service:** Cloud computing resources are metered, and usage can be monitored, controlled, and reported, providing transparency for both the provider and the consumer.

Service Models

Cloud computing encompasses various service models and deployment models. Here are the primary types of cloud computing:

Infrastructure as a Service (IaaS)