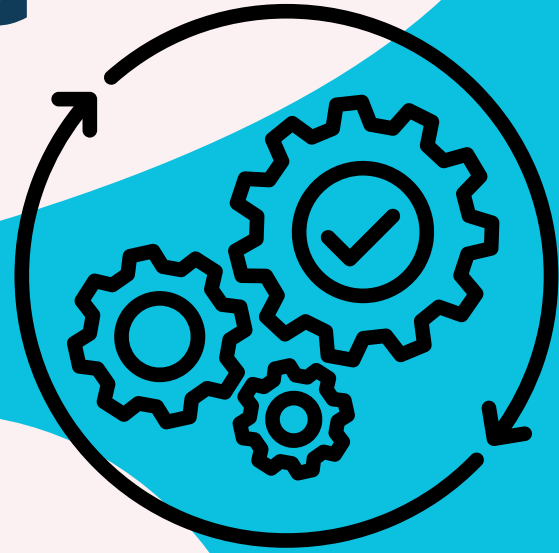


OPERATING SYSTEM IN CLOUD COMPUTING



What is Cloud Computing?

Delivery of computing services (servers, storage, databases, networking, software) over the internet.

What is an Operating System (OS)?

Software that manages hardware, software resources, and provides services for computer programs.

Cloud Stack

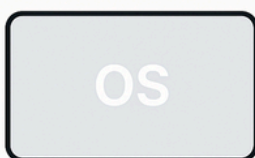
Applications

Platform

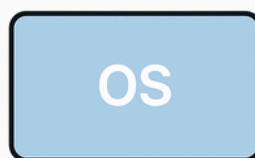
OS

Infrastructure

Traditional vs Cloud



- Install and maintain OS
- Deploy applications
- Manage resources



- Provision OS
- Install applications
- Configure resources

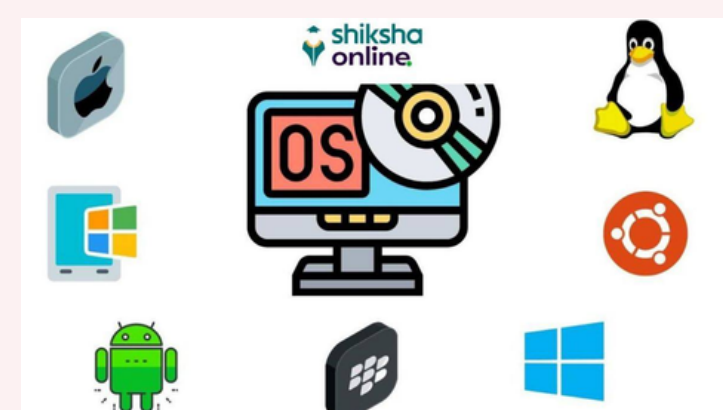
ROLE OF OS IN CLOUD COMPUTING

- Resource Management: Allocates and manages CPU, memory, and storage.
- Task Scheduling: Efficiently runs multiple cloud processes.
- Security Control: Ensures authentication, authorization & data privacy.
- Storage Management: Handles scalable, distributed data access.



TYPES OF OPERATING SYSTEMS IN CLOUD COMPUTING

- Linux-based OS: Ubuntu, CentOS
- Windows Server OS: Windows Server 2019/2022
- Cloud-Specific OS: OpenStack, Chrome OS –
- Hypervisors: VMware, Hyper-V, KVM



REAL-WORLD APPLICATIONS

- Amazon Web Services (AWS) – Uses custom Linux distributions
- Google Cloud Platform – Runs on Linux kernel-based OS
- Microsoft Azure – Uses Windows Server & Hyper-V

