OS?

- Manage interface between hardware and software
- Memory – HDD, RAM
- Processor
- Resource Management
- Application management

Example - Types of OS

- Batch Operating System
- Time-sharing Operating System
- Distributed Operating System
- Network Operating System
- Real-time Operating System
- Multiprocessing Operating System
- Single-User Operating Systems
- Multi-User Operating Systems
- Embedded Operating Systems
- Cluster Operating Systems

Operating System Usage

- Manage interface between hardware and software
- Memory Management
- Process management
- I/O Device Management
- Network Management
- Security Management

Operating System Functions

- Process management
- Memory management

- User management
- Device management
- Security Management
- Resource Management
- Performance monitoring
- Backup and recovery
- Scheduling
- Virtualization
- Networking

OS Examples

- Windows – 1981 interface manager, 1983 Windows, Latest Windows 11
- Linux –
  - Unix – 1960
  - GNU – 1983 – Stallman
  - 1991 – Linus Torwards -> Linux/GNU
        Opensource
    - GNU + GUI + Utilities = Linus Complete OS
- Android – Embedded OS - Android 15
- IOS – IOS 18.5
- MAC – Sequioa 15
- Unix – latest
- DOS -
- Solaris – latest 11.4

Comparison – Windows, Linux, MAC

- **Interface – UI**
- **Security**
- **Application and software combability**

- **Customization**

Linux –

Linux Commands

File and directory

- ls
- mkdir
- pwd
- cd ..
- touch
- cd –
- rm -r
- history
- clear
-

What is Linux

Linux Kernel

- Process management
- Memory Management
- User Management
- Networking
- Inter Unit Communication

Apt vs apt-get

Vim