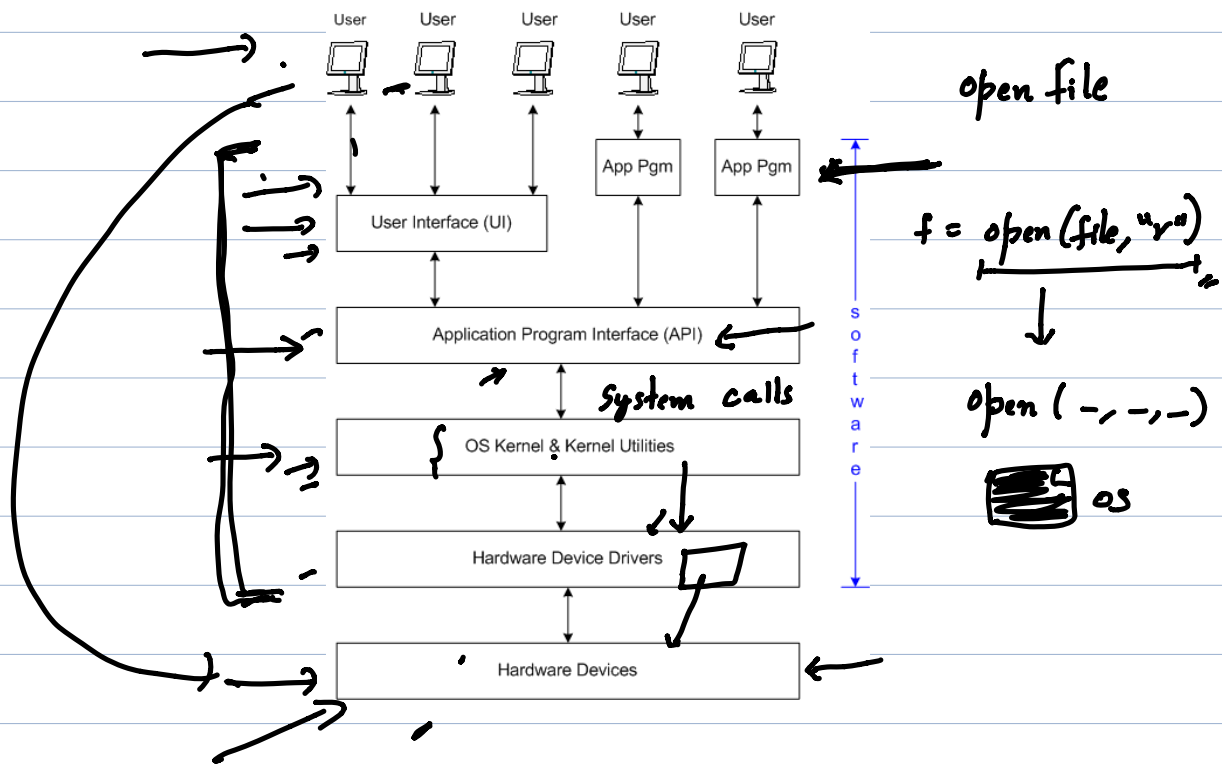


What is an operating system?

- An operating system is a system program that manages the system's hardware.
- An operating system acts as an interface between the user and the system's hardware.
- We have no universally accepted definition of what is a part of the operating system.
- An operating system includes all the programs that are associated with the operation of the system.
 - Kernel ✓ (C) → (C)
 - Device drivers ✓
 - User interface - CLI or GUI ✓ mount ←
 - System libraries ✓
 - System utilities - disk formatters, anti-virus, data recovery tools etc.
- Also, it's not always easy to draw a line between the system softwares and application softwares.
- Microsoft in 1998 argued in the court that Internet Explorer was a system software that cannot be uninstalled.



- An operating system acts as an interface between the user and the hardware devices.
- A kernel acts as an interface between the application and the hardware devices.
- In some cases, the kernel itself becomes the operating system. In embedded devices, there is no CLI/GUI, system utilities etc.

• Functions of the kernel :-

- process management ✓
- memory management ✓
- file system management ✓
- protection and security ✓
- Device management ✓ (device drivers)

• Functions of the operating system :-

- All functions of the kernel plus
- Includes CLI/GUI for interaction with system
- Includes system utilities ✓
- Includes system libraries (API) ✓

Examples :-

