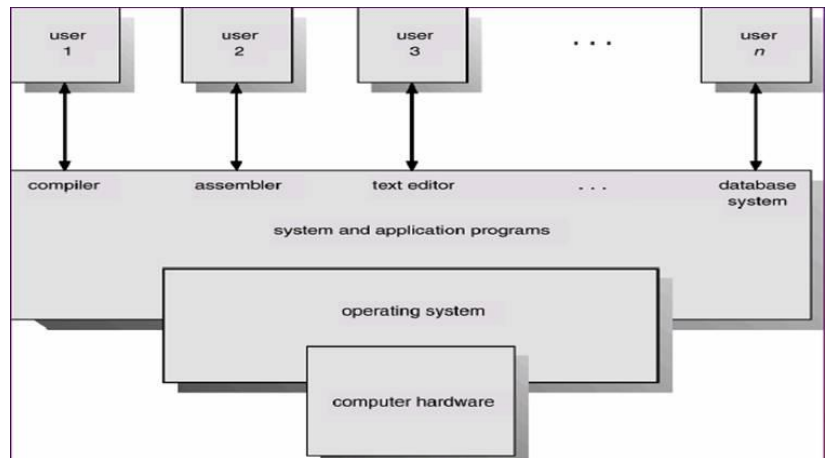


Pritee Parwekar

OS is s/w that takes the raw capabilities of the h/w and builds a more practical platform for the execution of programs.

OS is an s/w who manages h/w resources, provides services for accessing those resources and creates higher level abstractions such as files directories and process.



A typical computer contains 4 major components

Hardware : CPU ,Mem,I/O devices provides basic computing resources for the system

The OS and : controls the h/w and coordinates its use among the various application programs for the various users

Application Programs : word processor,compilers,web browsers defin the way in which these resources are using to solve users computing problems.

Users

OS is an interface,is a coordinator is manager,intermediater,it provides an environment to interact with system

Another definition of os is the one program running at all times on the computer usually called the kernel

Few e.g. of operating system are Windows, Linux(Puppy linux,linux mint etc), Macintosh OSX,Ubuntu,android,

Program that users interact with, usually called the **shell** when it is text based and the GUI (Graphical User Interface)—which is pronounced "gooey"—

A simple overview of the main components under discussion here is given in Fig. 1-1.

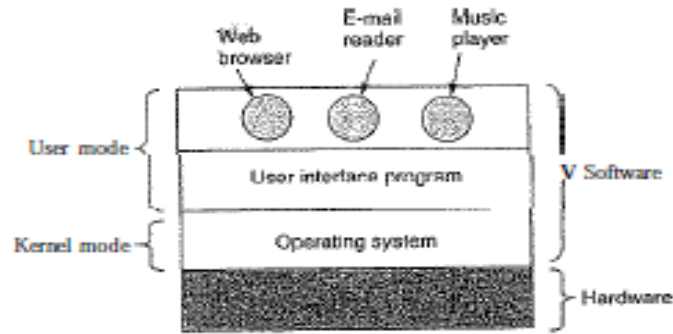


Figure 1-1- Where the operating system fits in.

Here we see the hardware at the bottom. The hardware consists of chips, boards, disks, a keyboard, a monitor, and similar physical objects.

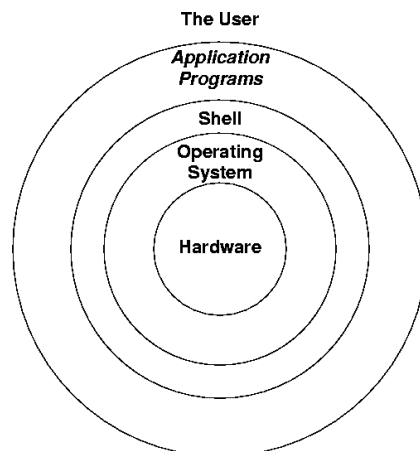
On top of the hardware is the software. Most computers have two modes of operation: kernel mode and user mode.

The operating system is the most fundamental piece of software and runs in kernel mode.

The user interface program, shell or GUI, is the lowest level of user-mode software, and allows the user to start other programs, such as a Web browser, email reader, or music player. These programs, too, make heavy use of the operating system.

The placement of the operating system is shown in Fig. 1-1. It runs on the bare hardware and provides the base for all the other software

1. In computing, a **shell** is a user interface for access to an **operating system's** services. In general, **operating system shells** use either a command-line interface (CLI) or graphical user interface (GUI), depending on a computer's role and particular **operation**.



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