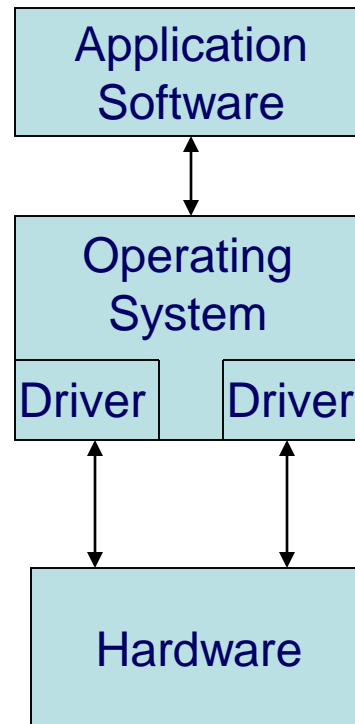




Operating System

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OS & Application Software



What is an Operating System

Operating System handles

- Process & Task Management
- Interrupt & Exception Handling
- Memory Addressing & Management
- Process Scheduling & Synchronization
- File System

Examples of Operating Systems

- Single-user, Single-task: PalmOS
- Single-user, Multi-task: MS Windows and MacOS
- Multi-user, Multi-task: UNIX, Windows Server 2003/2008

DOS

- ❑ **IBM Introduced DOS (Disk Operating System) in 1981. Later many versions like MS-DOS (1982) by Microsoft were introduced.**
- ❑ **Text based OS**
- ❑ **All DOS-type operating systems run on machines with the Intel x86 or compatible CPUs, mainly the IBM PC and compatibles.**
- ❑ **DOS is a single-user, single-task operating system with basic kernel functions that are non-reentrant: only one program at a time can use them.**

DOS

- ❑ DOS consists of two parts, the kernel and the command.com which is the command interface.
- ❑ The DOS kernel provides various functions for programs, like displaying characters on-screen, reading a character from the keyboard, accessing disk files and memory etc.
- ❑ Command.com provides the shell or the user and system commands
- ❑ The new Windows versions provide emulated DOS command interface (cmd).

Windows Operating System

- Microsoft Windows has a significant majority of market share in the desktop and notebook computer markets
- Microsoft first introduced an operating environment named *Windows* in November 1985 as an add-on to MS-DOS in response to the growing interest in graphical user interfaces (GUIs). It was a 16 Bit OS running on top of DOS providing Multitasking and GUI
- Windows 3.0 (1990) and Windows Workgroup 3.11 (1992) improved the design and were 16/32 Bit OS. Windows 3.1 had Internet Explorer browser as a part of the OS.
- Later came Windows 95 (1995), Windows 98 (1998) and Windows ME (2000) which were 32 Bit OS and used FAT File System and supported DOS also.

Windows Operating System

- ❑ **NTFS was introduced in 1993 as the file system for Windows NT server and it was later adopted as default File system for all later releases of Windows client and server OS.**
- ❑ **Windows NT 4.0 (1996) was a popular server OS which was later replaced by Windows 2000 (2000). NT was the true Multi-User and Multi-Tasking OS based on NTFS File System.**
- ❑ **Windows XP (2001), Vista (2006), 2003 (2003) and 2008 (2008) are all available in 32 bit and 64 bit versions.**
- ❑ **The most recent client version of Windows is Windows Vista; the most recent server version is Windows Server 2008.**