



OPERATING SYSTEMS

What Operating Systems do ?

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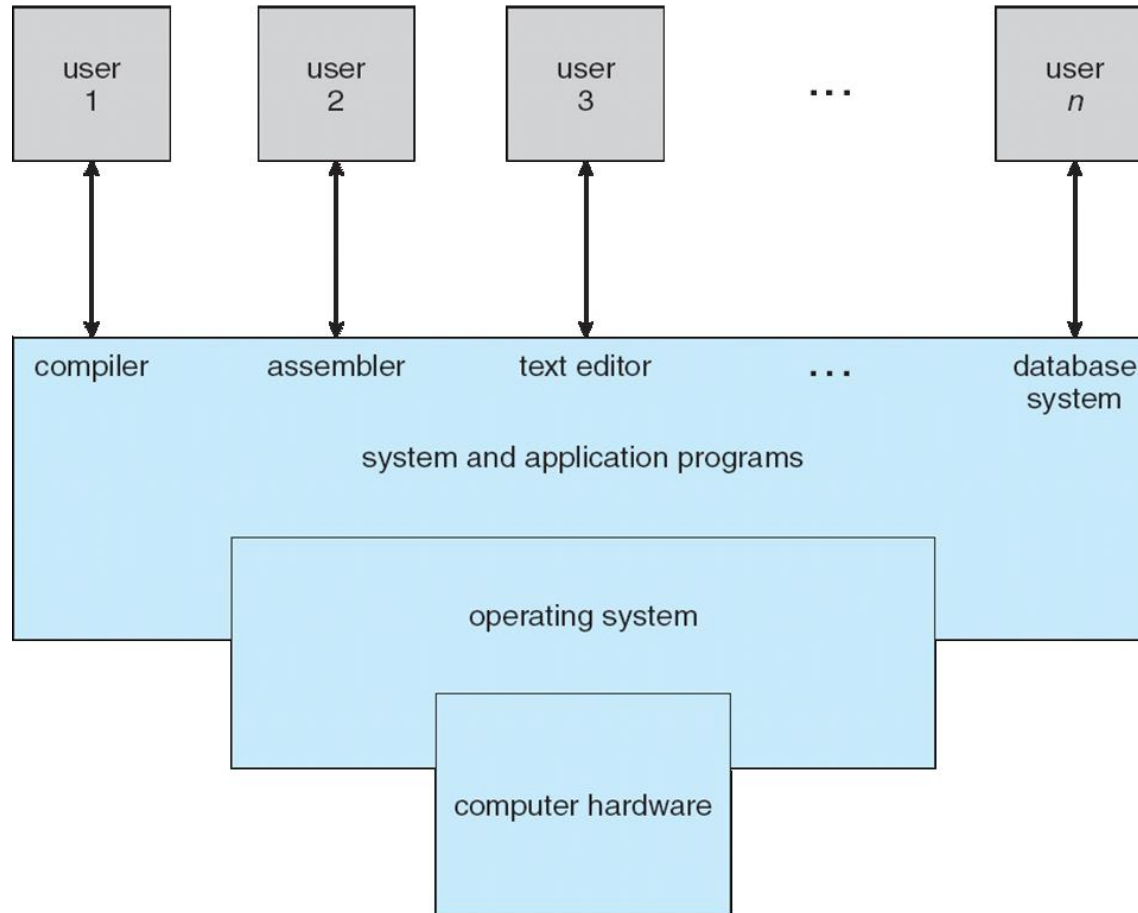
OPERATING SYSTEMS

What is an Operating System ?



- A program that acts as an intermediary between user & computer H/W
- Operating system goals:
 - Execute user programs and make solving user problems easier
 - Make the computer system convenient to use
 - Use the computer hardware in an efficient manner

Four Computer System Structure



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What Operating Systems Do (User View) ?



- **User View**
 - Users want convenience, ease of use and good performance
 - Users as such Don't care about resource utilization
 - Shared mainframe/minicomputers need to fairly cater to all users
 - Workstations with dedicated resources frequently share resources of servers
 - Handheld systems are resource poor, optimized for usability and battery life
 - Embedded & mobile systems have little or no user interface,

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What Operating Systems Do (System View) ?



- Systems View
 - OS is a resource allocator, Manages all resources
 - Decides between conflicting requests for efficient & fair use
 - OS is a control program
 - Controls execution to prevent errors and improper Use

- No universally accepted definition
- “Everything a vendor ships when operating system”
- “Kernel program running at all times on the computer”
- Everything else is either
 - a system program
 - Ships with the operating system
 - an application program



THANK YOU

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