Quiz

Sep 18, 2024

Which of the following is/are true about operating systems?

A Berkeley Systems Distribution is a type of Linux OS

B Windows 1 was a graphic user interface on MS-DOS

C Functionalities of an OS include virtualization, concurrency, and persistence.

D John von Neumann invented the first operating system.

提交

Which of the following is/are true about processes, memory and storage?

A A file system is a subsystem of an operating system.

B CPUs may load data and instructions directly from a file that is stored on a hard drive.

C Process executes instructions sequentially, so it cannot have loops or branches.

D A process is a program in execution, so when a process is paused, it becomes a program.

提交

Which of the following is/are true about dual-mode operation?

A Interrupts are asynchronous, so the process that is interrupted must have triggered this interrupt

B A process runs in the user mode and the kernel runs in the kernel mode.

C If the CPU hardware does not support dual mode operation, the OS can enable dual mode by itself

D Three types of mode transitions: system calls, interrupts, and exceptions.

提交

Which of the following is/are true about dual-mode operation?

A　The operating system must maintain a global bit to represent the current execution mode

B　Certain operations are not permitted in the kernel mode and will be trapped to the user mode

C　Three ways to transit from user to kernel mode: system call, interrupt, and exception

D　Dual-mode operations are needed because applications need to be protected from OS

提交

What are the differences between an interrupt and an exception?

A Interrupts are usually asynchronous with the program execution, but exceptions are usually synchronous

B Interrupts may happen due to an abnormal condition, but exceptions are typically caused by normal conditions

C Interrupts and exceptions are handled in completely different ways

D Interrupts include notifications from devices or hardware components (e.g., APIC) but exceptions do not

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Which of the followings belong to operating system services?

A Error detection and handling

B Inter-process communication and networking

C CPU scheduling

D User interface

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