Homework 1

Est. Length: 3:00:00 Sharar Mahmood: Attempt 1

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Question 30 (7 points) ✓ *Saved*

In Unix systems, what system calls have to be executed by a command interpreter or shell in order to start a new process? What do these system calls actually do?

In Unix systems, a fork system call followed by an exec system call need to be performed to start a new process. The fork call clones the currently executing process, while the exec call overlays a new process based on a different executable over the calling process.

Question 31 (4 points) ✓ *Saved*

Explain the difference between preemptive and nonpreemptive scheduling.

Preemptive scheduling allows a process to be interrupted in the midst of its execution, taking the CPU away and allocating it to another process. The priority of a new process if greater than the currently running process the new process interrupts the running process and gets CPU time.

Nonpreemptive scheduling ensures that a process relinquishes control of the CPU only when it finishes with its current CPU burst. Suc processes run till termination or waiting conditions.