School of Computer Science and Engineering

Operating System Assignment

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Safe State: -

* When a process request for an available resources, System must decide that if we immediate allocated the resources the system is still in safe state or not.
* A state is safe if the system can allocate resources to each process in some order and still avoid a deadlock.
* System is in safe state if there exists a safe sequence of all processes.
* Sequences <P1 , P2 , … , Pn> is safe if for each Pi, the resources that Pi can still request can be satisfied by currently available resources + resources held by all the Pj , with j<I
* If Pi resources needs are not immediately available, then Pi can wait until all Pj have finished.
* When Pj is finished, Pi can obtain needed resources, execute, return allocated resources and terminate.
* When Pi terminates, Pj+1 can obtain its needed resources, and so on.
* If no safe sequence is there than system is in unsafe state.
* If a system is in safe state than there is no deadlocks occur in the system.
* If a system is in unsafe state than there is possibility of deadlock occurred in system.