

OS, Chapter 3, Process and Thread Management

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It is the key piece of code that undergoes

execution (processing) by the CPU.

15. Process

1. 4 Primary Processing States	Ready state, Running state, Waiting state and Finished state.	16	Process Control Block (PCB)	It is a data structure that keeps track of the key information about the process, such as its unique identifier, process state, allocated
2. Cache	It is based on the assumption that a significant amount of the data that was just removed from memory will be requested again in the very near future.	17	Processing	resources, priority, addresses, and so on. It is the work that the CPU performs.
			18. Queue	The order in which processes are put into. The processes themselves do not move, and neither do the PCBs. Instead, each PCB is linked from one to the next using a pointer, and the order is created throught a series of links. A situation where the outcome of a computation can vary depending on some aspect of luck or chance.
3. Cache memory	Works as a temporary storage area on the CPU chip where recently used data is kept			
4. COBEGIN and COEND	These commands designate when several CPUs can execute several processes.	19		
5. CPU	It is the common name given to the Central Process Unit, also known as the processor.			
6. CPU Responsibilities	To interpret and execute program instructions or requests and perform every calculation for every user.	20	20. Ready State	It is a state that a process is put in when it is first created. Also known as an incoming process. A process is also in the Ready State after it has used up its allotted time slice. It then waits for a new time slice before it can transition to a Running State again.
7. Finished state	It is the state a process enters in when it is complete with its processing and is ready to be terminated gracefully. This normally occurs immediately after the Running State is complete.			
		21	Running state	It is the state a process is in when it is being executed. Processors with multiple cores can have the same number of processes in the running state as cores available.
8. Kernel	It is responsible for managing communications that occur between the computer system's hardware and the CPU manager.			
		22	2. Serial Processing System	Describes a system that can execute only one process (or one thread) at once.
 Multicore Systems 	They are systems with multiple CPUs and may have two or more CPUs built in a single chip.	23	3. System	Used to coordinate activities with the kernel.
10. Multithreading Systems	A single process can have multiple threads; the threads are scheduled for execution and the results are reported back to the process that spun them off.	24	4. Thread Control Block	Holds data such as its unique thread identifier, thread state, pointer to the process that created it, pointer to any other threads that this threads created, priority, and so on. By using pointers, they are linked in the exact same way as
Order of operations	It is a mathematical standard that deciphers the complexities of multipart equations so they will always be solved in the correct order and thus result in only one solution, no matter who or what is doing the solving.			processes are linked.
		25	5. Threads	They are smaller entities of a process in some operating systems (threading or multithreading systems)
12. Parallel Processing	Perform different processes at the same time.	26	26. Waiting state	It is the state a process is in when it must wait for another part of the system to provide the necessary action so it can move back to the Ready State. In other words, this process has been sidelined until it gets an answer.
13. Parallel Processing System	It is a system that has several CPUs, and all of them can be working simultaneously.			
14. Pointer	It is the name given to a piece of data that refers directly to a location in memory where a value can be found.			
15 Dreeses	It is the key piece of code that undergoes			