The process state diagram is a graphical representation of the different states a process can be in during its lifetime in an operating system.

Here are the different states of a process as represented in a process state diagram:

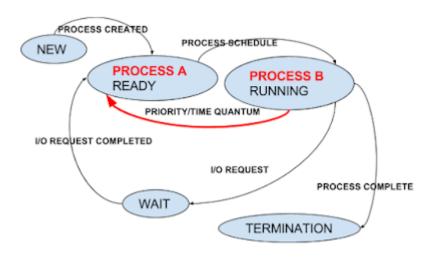
New: This is the initial state of a process. The process is being created but has not yet been admitted to the system.

Ready: A process that is ready to be executed is in the ready state. It is waiting in the ready queue for the CPU to be assigned to it.

Running: When the CPU is assigned to a process, it moves into the running state. The process is actively executing on the CPU.

Blocked: A process may move into the blocked state when it is waiting for some event to occur, such as an I/O operation or a signal from another process. The process is not currently executable and is waiting for the event to occur.

Terminated: When a process completes its execution, it moves into the terminated state. The resources allocated to the process are released, and the process is removed from the system.



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- 62. Explain concept of a process with its components?
- 63. Explain the following in brief Contiguous and Linked list allocation for implementing file system?
- 64. Explain various Disk scheduling algorithms with Illustrations?
- 65. Define process and thread. What is PCB ? Explain its various entries with their usefulness ?
- 66. Discuss advantages and disadvantages of the Buffer cache?
- 67. Explain different types of OS with examples of each?

- 68. What is an Operating System? Write down its desirable characteristics?
- 69. Define a deadlock? Write down the conditions responsible for deadlock? How can we recover from deadlock?
- 70. What are the various services provided by Operating system?
- 71. What do you mean by PCB? Where is it used? What are its contents? Explain.
- 72. What is Binary and Counting semaphores?
- 73. What is File? What are the different File attribute and operations?
- 74. What are System call? Explain briefly about various types of system call provided by an Operating System?
- 75. Describe necessary conditions for deadlocks situation to arise.
- 76. What are points to be consider in file system design? Explain linked list allocation in detail?
- 77. Write a Semaphore solution for dining Philosopher's problem?
- 78. Consider the following page reference string:1,2,3,4,5,3,4,1,2,7,8,7,8,9,7,8,9,5,4,5.

 How many page faults would occur for the following replacement algorithm, assuming four frames:a) FIFOb) LRU
- 79. Explain CPU schedulers in operating system?
- 80. What is Mutex in operating system?
- 81. Explain Network operating system?
- 82. What do you mean by paging in operating system?