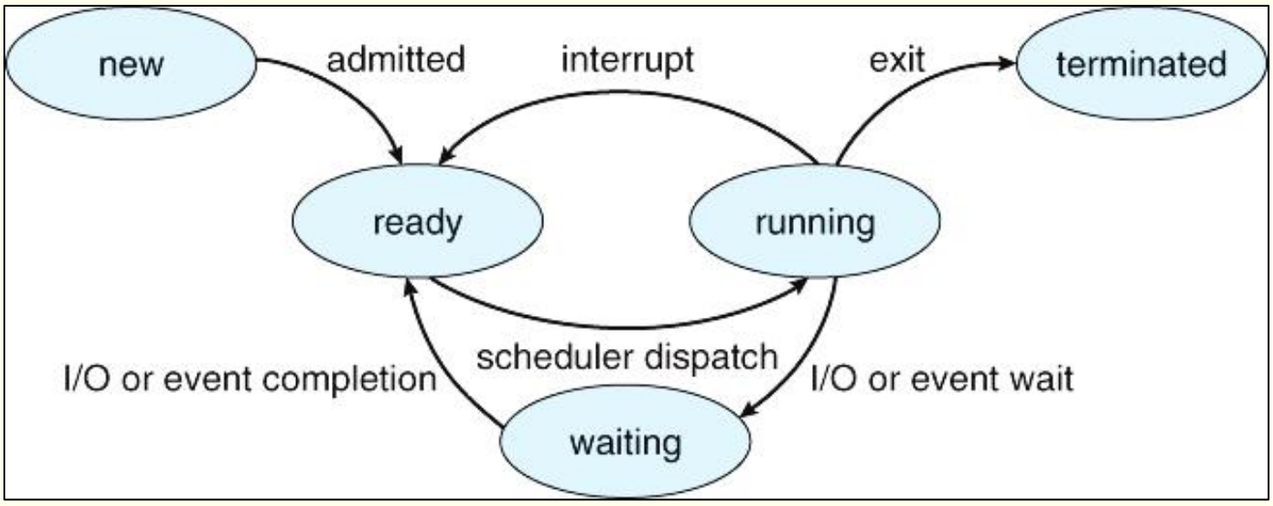
What are different states of Process?

A process state is a condition of the process at a specific instant of time. It also defines the current position of the process.



- **New:** The process is being created but has not yet started execution. It is in the initial state, waiting to be admitted into the system.
- **Ready:** The process has been created and is waiting to be allocated the CPU for execution. It is in main memory and is prepared to run as soon as the CPU becomes available.
- **Running:** The process is currently being executed by the CPU. It is actively performing its instructions and making progress towards completing its task. At any given time, there is typically only one process in the running state on a single-CPU system, while multiple processes can be running simultaneously on a multi-CPU or multi-core system.
- **Waiting (Blocked):** The process cannot run at the moment, because it is waiting for some resource to become available or for some event to occur. For example, the process may be waiting for keyboard

input, disk access request, inter-process messages, a timer to go off, or a child process to finish.

- **Terminated:** The process has finished executing or has been explicitly terminated. It has completed its task, a