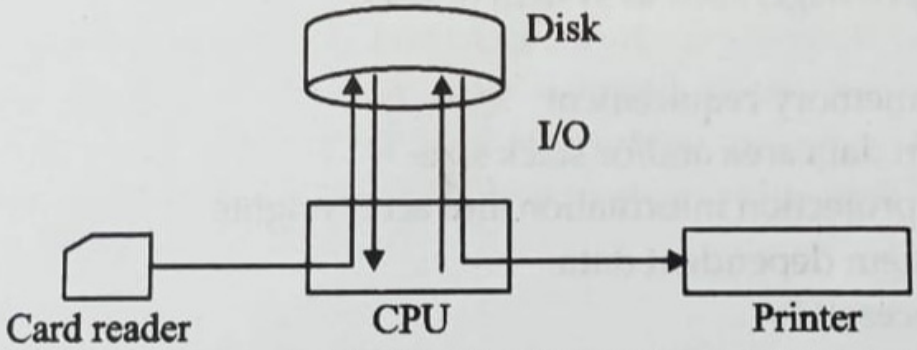
Spooling is a technique to minimize the problems due to slowness of input / output devices and share the system resources to complete the process efficiently. The name is an acronym for **"Simultaneous Peripheral Operation On-Line"**. Spooling essentially uses the disk as a very large buffer for reading as far ahead as possible on input device and for storing output files until the output devices are able to accept them.



In a disk system cards are read directly from the card reader on to the disk. The location of the card images is recorded in a table kept by the OS. Each job is noted in the table as it is read in. When a job is executed, it request or card reader input and are satisfied reading from the disk. Similarly when the job requests the printer to output a line, that line is copied in to the system buffer and written to the disk. When the job is completed, the output is actually printed. This form of processing is called spooling.

Advantage of Spooling :

1. The spooling operation uses a disk as a very large buffer.
2. Spooling is however capable of overlapping I/O operation for one job with processor operations for another job.

Buffering : Buffering attempts to keep both the CPU and I/O devices busy all the time. The idea is quite simple. After data has been read and the CPU is about to start operating on it, the input device is instructed to begin the next input immediately. The CPU and the input device are both busy. By time the CPU is ready for the next data item, the input device will have finished reading it. The CPU can then begin processing the newly read data, while the input device starts to read the following data. Similarly buffering can be done for output. "Buffering overlaps the input output of a job with its computation.