Department of Computer Science and Engineering

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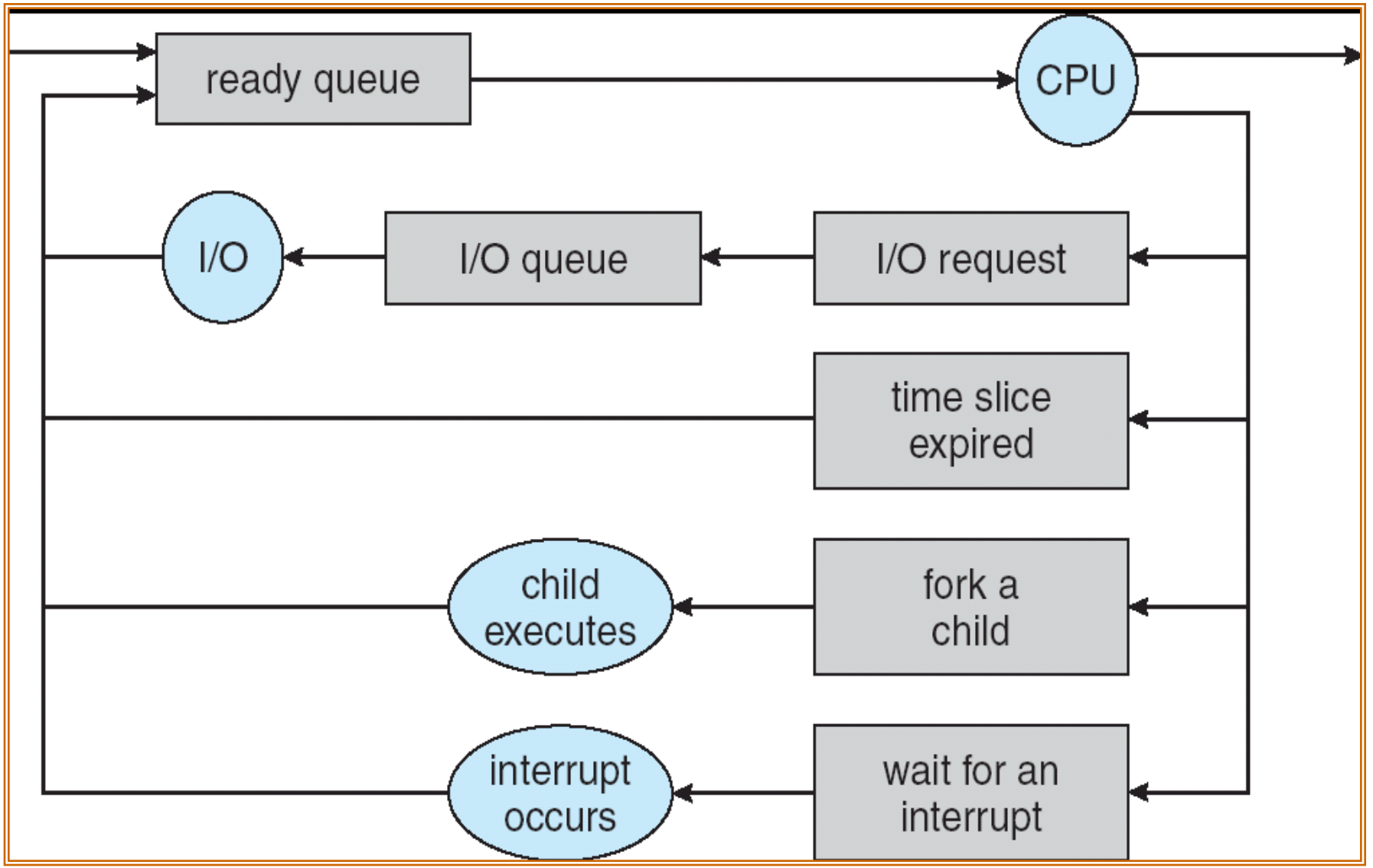
PROCESS SCHEDULING

Processes Scheduling

- The objective of multiprogramming is to have some process running at all times, to maximize CPU utilization.

- The objective of time sharing is to switch the CPU among processes so frequently that users can interact with each program while it is running.

Queueing-diagram representation of Process Scheduling



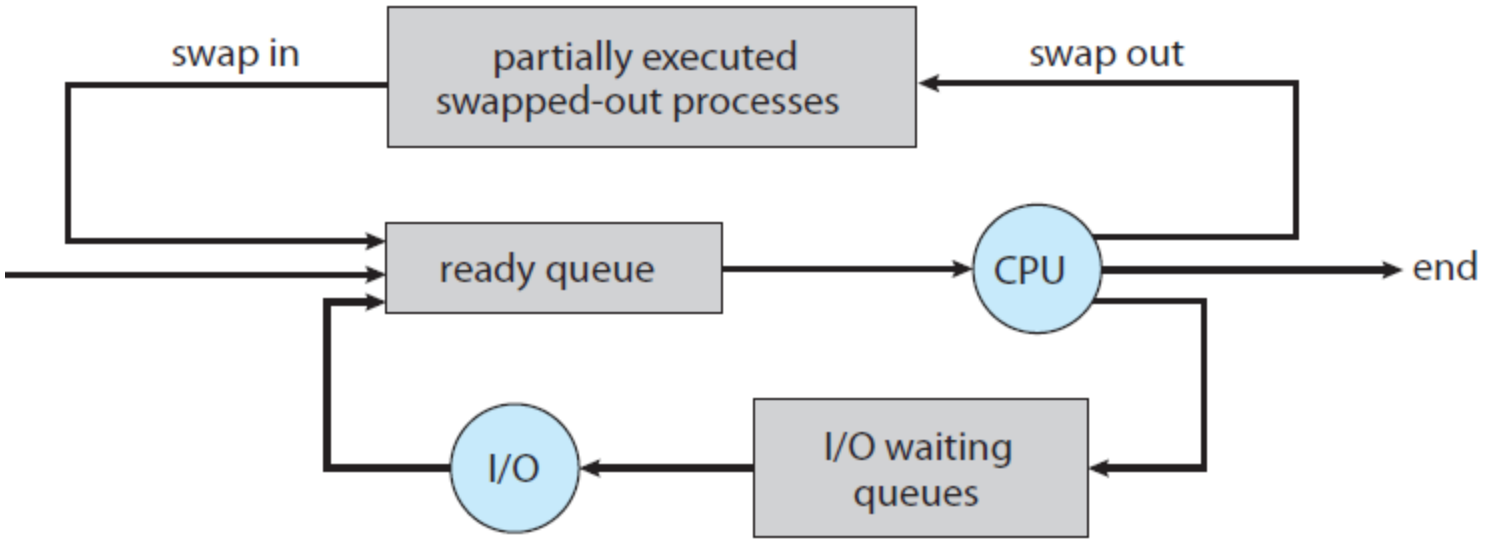
Schedulers 1/2

- Long-term scheduler (or job scheduler) – It selects which processes should be brought from the job pool and insert into the ready queue.
  - The long-term scheduler controls the degree of multiprogramming.

- Short-term scheduler (or CPU scheduler) – It selects which process from the ready queue should be executed next and allocates it to CPU.

Schedulers 2/2

- Medium-term scheduler - The process is swapped out to reduce the degree of multiprogramming, and is later swapped in, by the medium-term scheduler. This scheme is called swapping.



References

1. Silberschatz, Galvin and Gagne, “Operating Systems Concepts”, Wiley.

2. William Stallings, “Operating Systems: Internals and Design Principles”, 6th Edition, Pearson Education.

3. D M Dhamdhere, “Operating Systems: A Concept based Approach”, 2nd Edition, TMH.

Thank You.