> **Vocabulary**
>
> 1. **Multiprogramming**
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> 2. **Mechanism**
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> 3. **Policies**
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> 4. **CPU Bound**
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> 5. **I/O Bound**
>
> 6. **Non-preemtive Scheduling**
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> 7. **Preemtive Scheduling**
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> 8. **Context Switching**
>
>   - Is dispatching a process from a ready queue

1 Recall State Diagram

- Thread/Process is blocked during I/O burst and therefore **does not use CPU**
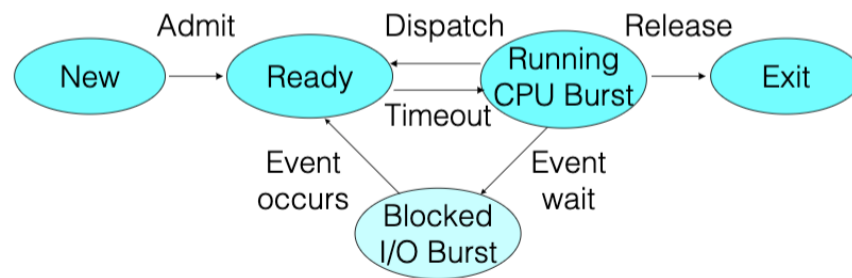
2 Scheduling Goals

- All Systems

    - Fairness - Each process receives fair share of CPU
    - Avoid starvation
    - Policy enforcement - Usage policies should be met
    - Balance - All parts of the system should be busy

- Bach Systems

- Throughput - Maximize job completed per hour
- Turnaround time - Minimize time between submission and completion
- CPU utilization - Keeps the CPU busy all the time

3   Scheduling Goals

- Interactive Systems

  - Response time - Minimize time between receiving request and starting to produce output
    - ∗ Response time = First Run Time - Arrival Time
  - Proportionality - "Simple" tasks complete quickly

- Real-Time Systems

  - Meet deadlines
  - Predictability

4   Process State Diagram

- Dispatching a process from the ready queue is called **context switching**