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10.9



Shortest Job First (SJF)

- 1) Starvation may occur? Yes (look at T₂ in this example)
- 2) Average waiting time better than FCFS? Yes, probably.
- 3) Popular for long-term scheduling with known completion time
- 4) One type of Greedy algorithms

• • • • •

preemptive

1) Ready Queue? others?

2) • • • • •

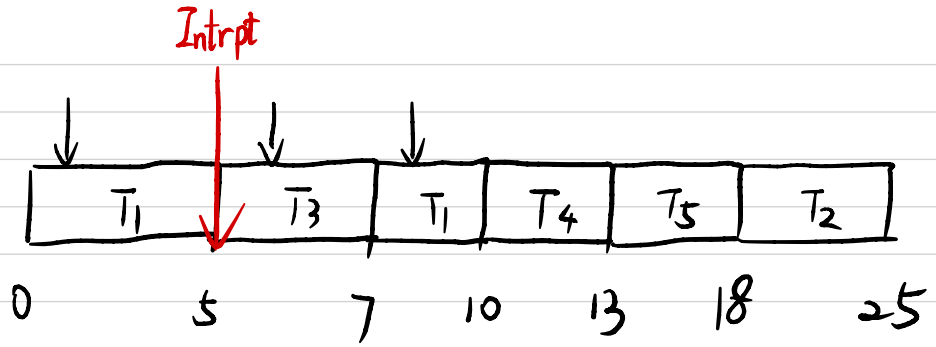
non-preemptive

1) Naive method or use tree DS?

2) • • • • •

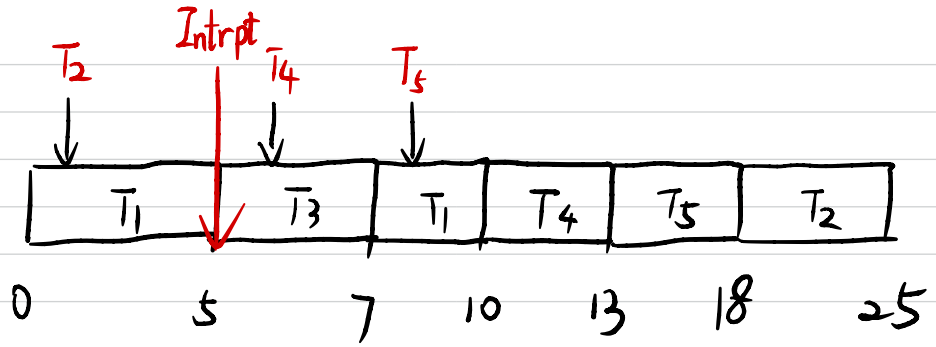
SJF For Preemptive

working examples
template



	Start	Burst	Remain 1	Remain 2
T ₁	0	8		
T ₂	1	7		
T ₃	5	2		
T ₄	6	3		
T ₅	8	5		

SJF For Preemptive



	Start	Burst	Remain 1	Remain 2	
T ₁	0	8	$8-5=3$	3 $3-3=0$ ^①	<p>Remaining time 3</p> <p>↑</p> <p>(Once interruption happens, e.g. $2 < 5$)</p>
T ₂	1	7		7 $7-7=0$ ^④	
T ₃	5	2	$2-2=0$ ($2 < 3$)	NaN	
T ₄	6	3		3 $3-3=0$ ^②	
T ₅	8	5		5 $5-5=0$ ^③	