CSc 552 Banker's Algo PPt Set 12

Slide 13:

Work = Available = [1 1 0]

No process$_i$ s.t. Need$_i$ < Work

Unsafe

	Finish
P	f
Q	f
R	f

Slide 14: Work = [2 1 1]

Need$_P$ < Work

Work += Alloc$_P$ + [0 1 0] = [2 2 1]

Finish$_P$ = true

Need$_Q$ < Work + [2 0 0] = [4 2 1]

Finish$_Q$ = true

Need$_R$ < Work + [2 0 1] = [6 2 2]

Finish$_R$ = true

	Finish
P	*t
Q	*t
R	*t

Safety Sequence

[P Q R]

Safe

Slide 15: Assume R's request is granted

Work = [1 1 0]

Finish	
P	f
Q	f
R	f

Slide 16 - No allocation possible

- request can't be granted

Slide 21: Work = [0 0 0]

		Finish	
P_0 ok	+ [0 1 0]	P_0	✱ t
	= [0 1 0]	P_1	✱ t
	+ [3 0 3]	P_2	✱ t
P_2 ok	= 3 1 3	P_3	✱ t
	+ [1 0 0]	P_4	✱ t
P_1 ok	= 4 1 3		
	+ [2 1 1]		
P_3 ok	= 6 2 4		
	+ 0 0 2		
P_4 ok	= 6 2 6		

seq
[P_0 P_2 P_1 P_3 P_4]

Slide 22: Work = 000
+010
P_0 ok = 010

Nobody else - deadlock