

UCS1701 - Distributed System Assignment - 2

Name: P.T. Jayanthan
Roll: 205001049

$$P_1 \rightarrow P_2 \parallel P_3 \rightarrow P_4 \parallel P_1$$

a) Lamport D-Muten Algorithm

	P ₁	P ₂	P ₃	P ₄
initial	(1,1) (2,2) (2,3) (3,1) (3,4)	(1,1) (2,2) (2,3) (3,1) (3,4)	(1,1) (2,3) <u>(3,2)</u> (3,1) (3,4)	(1,1) (2,2) (2,3) (3,4) (3,1)
	req(1,1)			
		rec req(1,1) rep req(1,1)	rec req(1,1) rep req(1,1)	rec req(1,1) rep req(1,1)
	rec rep(1,1):P ₂ rec rep(1,1):P ₃ rec rep(1,1):P ₄ exec CS rel req(1,1)			
		rec rel(1,1) del req(1,1) req(2,2) rec req(2,3)	rec rel(1,1) del req(1,1) req(2,3) rec req(2,2)	rec rel(1,1) del req(1,1)
	rec req(2,2) rec req(2,3) rep(2,2) rep(2,3)			rec req(2,2) rec req(2,3) rep req(2,2) rep req(2,3)
		rec rep(2,2):P ₁ rec rep(2,2):P ₄	rec rep(2,3):P ₁ rec rep(2,3):P ₄ rep(2,2)	
		rec rep(2,2):P ₃ exec CS rel req(2,2)		
	rec rel(2,2) del req(2,2)	rel rep req(2,3)	rec rel(2,2) del req(2,2)	rec rel(2,2) del req(2,2)



P1	P2	P3	P4
		rec req(2,3):P	
		excc(2	
		rel req(2,3)	
rec rel(2,3)	rec rel(2,3)		rec rel(2,3)
del req(2,3)	del req(2,3)		del req(2,3)
req(3,1)			req(3,4)
rec req(3,4)			rec req(3,1)
	rec req(3,4)	rec req(3,4)	
	rec req(3,1)	rec req(3,1)	
	rec req(3,4)	rec req(3,4)	
	rec req(3,4)	rec req(3,4)	
rec req(3,1):P2			rec req(3,4):P3
rec req(3,1):P3			rec req(3,1):P4
			excc(2
			rel req(3,1)
			rec req(3,4)
	rec rel(3,1)	rec rel(3,1)	rec rel(3,1)
	del req(3,1)	del req(3,1)	del req(3,1)
			rec req(3,4)
			excc(2
			rel req(3,4)
rec rel(3,4)	rec rel(3,4)	rec rel(3,4)	
del req(3,4)	del req(3,4)	del req(3,4)	