Sinh viên: Nguyễn Đình Khoa

MSSV: 1833051

BÀI TẬP CÁ NHÂN HỆ QUẢN TRỊ CƠ SỞ DỮ LIỆU

Bài 5.1.1

T1	T2	Т3
Lock(B)		
R1(B)		
	Lock(A)	
	R2(A)	
		Wait(T2)
	W2(A)	
	Unlock(A)	
W1(B)		
Unlock(B)		
		Lock(A)
		R3(A)
		Lock(B)
		R3(B)
Lock(C)		
R1(C)		
	Wait(T1)	
		W3(A)
		Unlock(A)
W1(C)		
Unlock(C)		
	Lock(C)	
	W2(C)	

Bài 5.1.2

T1	T2	Т3
RLock(B)		
R1(B)		
	RLock(A)	
	R2(A)	
		RLock(A)
		R3(A)
	Wait(T3)	
WLock(B)	*Deadlock*	
W1(B)		
Unlock(B)		
		RLock(B)
		R3(B)
RLock(C)		
R1(C)		
		Wait(T2)
		Deadlock
Wlock(C)		
W1(C)		
Unlock(C)		

Bị deadlock do T2 đợi T3, và T3 đợi T2

S: T1 < T3 < T2

T1	T2	T3	A	В	C
TC 10	TS=17	TS=15	RTS = 0	RTS = 0	RTS = 0
TS=10			WTS = 0	WTS = 0	WTS = 0
R1(B)				RTS = 10	
	R2(A)		RTS = 17		
		R3(A)	RTS = 17		
	MO(A)		WTS =		
	W2(A)		17		
W1(B)				WTS =	
W I(D)				10	
		R3(B)		RTS = 15	
R1(C)					RTS = 10
	W2(C)				WTS =
	W2(C)				17
		W3(A)	abort(T3)		
W1(C)					abort(T1)

Reschedule:

T1	T2	T3	A	В	C	
TC_10	TS=17	TS=15	FC 17 TC 15		RTS = 0	RTS = 0
TS=10	15=17		WTS = 0	WTS = 0	$\mathbf{WTS} = 0$	
R1(B)				RTS = 10		
		R3(A)	RTS = 15			
		W3(A)	WTS =			
		W3(A)	15			
	R2(A)		RTS = 17			
	W2(A)		WTS =			
	W 2(A)		17			
W1(B)				WTS =		
W1(B)				10		
		R3(B)		RTS = 15		
R1(C)					RTS = 10	
W1(C)					WTS =	
W1(C)					10	
	W2(C)				WTS =	
					17	

5.4

S: T1 < T3 < T2

T1	T2	Т3	A0	В0	C0	A17	B10	C17	A15	C10
TS=10	TS=17	TS=15	RTS = 0	RTS = 0	RTS = 0	RTS = 17	RTS = 10	RTS = 17	RTS = 15	RTS = 10
			WTS = 0	WTS = 0	WTS = 0	WTS = 17	WTS = 10	WTS = 17	WTS = 15	WTS = 10
R1(B)				RTS = 10						
		R3(A)	RTS = 15							
	R2(A)		RTS = 17							
	W2(A)					created				
W1(B)							created			
		R3(B)					RTS = 15			
R1(C)					RTS = 10					
	W2(C)							created		
		W3(A)							created	
W1(C)										created