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Unit Code: FIT2094

Applied Class No: 04

Comments for your marker:

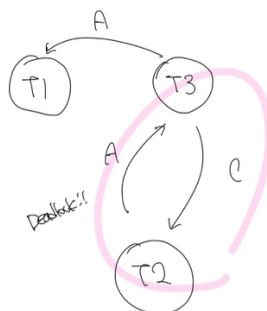
(a)

TIME	TRANS	ACTION	A	B	C	D
0	T1	UPDATE A	X(T1)			
1	T1	UPDATE B		X(T1)		
2	T2	READ C			S(T2)	
3	T2	READ D				S(T2)
4	T3	UPDATE A	T3 WAIT T1			
5	T2	UPDATE C			X(T2)	
6	T1	ROLLBACK	X(T3)			
7	T3	UPDATE C			T3 WAIT T2	
8	T2	UPDATE B		X(T2)		
9	T2	UPDATE A	T2 WAIT T3			

- Does a deadlock exist in this transaction sequence?
- Explain why you came to this conclusion.

There is a deadlock between T3 – T2.

The reason why there is a deadlock is that T3 is waiting T2 in TIME7. T2 is waiting T3 in TIME9. Therefore, the deadlock is exist.



(b)

TRL ID	TRX NUM	PREV PTR	NEXT PTR	OPERATION	TABLE	ROW ID	ATTRIBUTE	BEFORE VALUE	AFTER VALUE
101	601	NULL	102	START	****Start Transaction				
102	601	101	103	UPDATE	PRODUCT	ABC	PROD_QOH	1205	1206
103	601	102	104	UPDATE	PART	A	PART_QOH	567	566
104	601	103	105	UPDATE	PART	B	PART_QOH	98	97
105	601	104	106	UPDATE	PART	C	PART_QOH	549	548
106	601	105	NULL	COMMIT	****End Transaction				