

Student ID: 29796431

Student Name: Alexandra Goh

Unit Code: FIT9132

Applied Class No: A03

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		T2 wait T1		
9	T2	UPDATE A	T2 wait T3			

- Does a deadlock exist in this transaction sequence?
  - **Yes, a deadlock exists.**
- Explain why you came to this conclusion.
  - **This is because at Time 7, T3 has to wait for T2's update of C to be committed (i.e. update began at Time 5). However at Time 9, T2 has to wait for T3's update of A to be committed (i.e. update began at Time 6) hence a deadlock exists in this transaction sequence.**

(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 of transaction				

.... add extra rows as needed