

Student ID: 32713339

Student Name: Ooi Yu Zhang

Unit Code: FIT2094

Applied Class No: 3

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?

Answer: Yes, a deadlock exists in this transaction sequence.

- Explain why you came to this conclusion.

Answer: This is because there is a loop between the transactions T2 and T3, where T3 is waiting for T2 and T2 is waiting for T3.

(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	5	Null	COMMIT	**** End of Transaction				