Database Management System – cs422 DE

Lab 5 – Week 10 & 11

Solve the following Exercises from the course text book.

1. 22.18/20.18 (a, c, d, e) (5^{th}/4^{th} edition) – only do conflict serializable

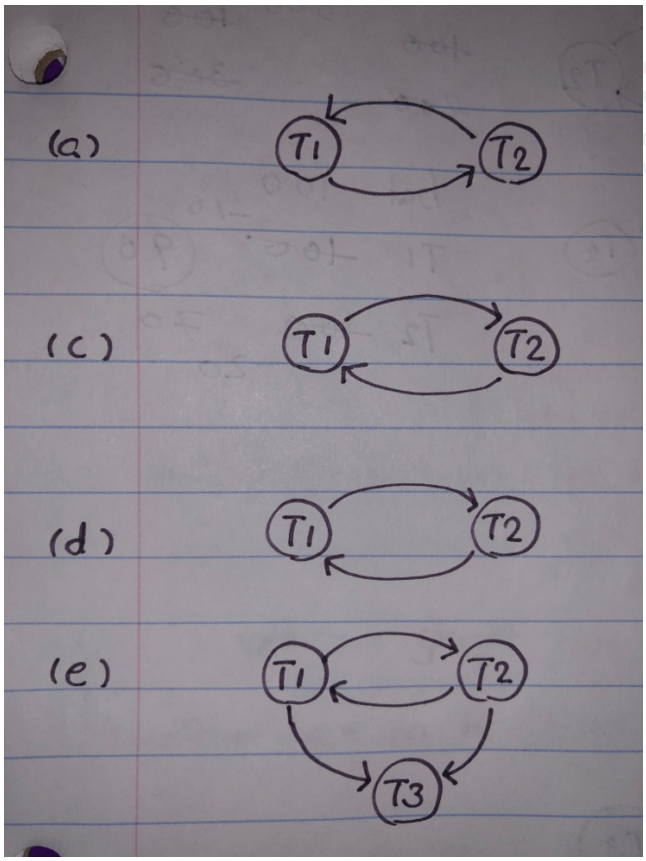
(a) read(T1, balx), read(T2, balx), write(T1, balx), write(T2, balx), commit(T1), commit(T2)
This schedule is not conflict serializable, recoverable and it can avoid cascading aborts.

(c) read(T1, balx), write(T2, balx), write(T1, balx), abort(T2), commit(T1)
This schedule is not conflict serializable, not recoverable and it can avoid cascading aborts.

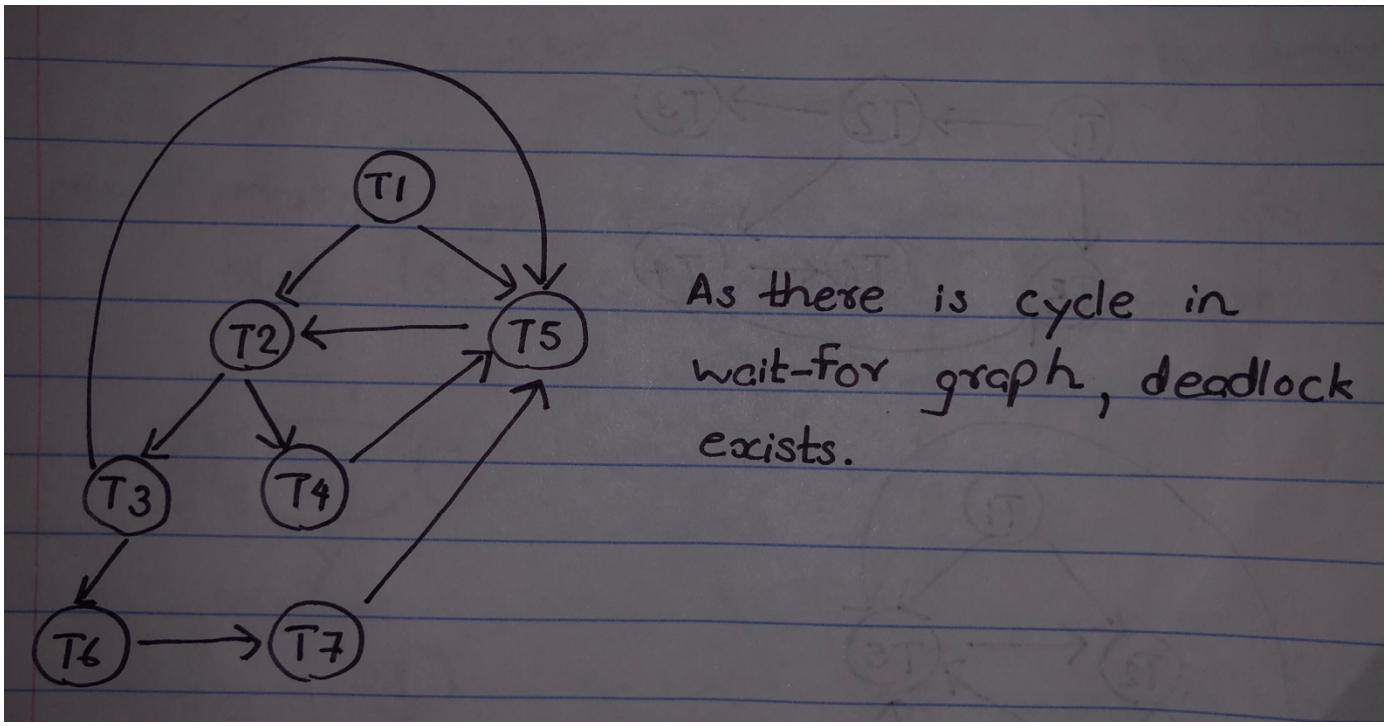
(d) write(T1, balx), read(T2, balx), write(T1, balx), commit(T2), abort(T1)
This schedule is not conflict serializable, not recoverable and it does not avoid cascading aborts.

(e) read(T1, balx), write(T2, balx), write(T1, balx), read(T3, balx), commit(T1), commit(T2), commit(T3)
This schedule is not conflict serializable, not recoverable and it does not avoid cascading aborts.

2. 22.19/20.19 (a, c, d, e) (5^{th}/4^{th} edition)



3. 22.22/20.22 (5^{th}/4^{th} edition)


T1
T2
T5
T3
T4
T6
T7
As there is cycle in wait-for graph, deadlock exists.