Lab 5 – Week 10 & 11

This Lab is based on Transaction Management.

o Submit your *own work* on time. No credit will be given if the lab is submitted after the due date.
o Note that the completed lab should be submitted in .doc, .docx, .rtf, .pdf or .zip format only.

Solve the following Exercises from the course text book.

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

   (a) read(T1 , balx), read(T2, balx), write(T1, balx), write(T2, balx), commit(TJ, commit(T2)
       ⇨ No Conflict
   (b) read(T1, balx), read(T2, baly), write(T3, balx), read(T2, balx), read(T, , baly), commit(T,),
       commit(T2), commit(T3)
       ⇨ Not Conflict (If T2 is not abort)
       ⇨ T1 remains to make schedule serializable(If T2 is abort)
   (c) read(T1, balx), write(T2, balx), write(T,, balx), abort(T2), commit(T1)
       ⇨ Not Conflict (If T2 is not abort)
       ⇨ T1 remains to make schedule serializable(If T2 is abort)

   (d) write(T,, balx), read(T2, balx), write(T, , balx), commit(T2), abort(T1)
       ⇨ If T1 is not abort, No Conflict
       ⇨ If T1 abort, T2 remains, which make the schedule serial, conflict serializable.

   (e) read(T, , balx), write(T2, balx), write(T,, balx), read(T3, balx), commit(T1), commit(T2),
       commit(T3)

       ⇨ No Conflict

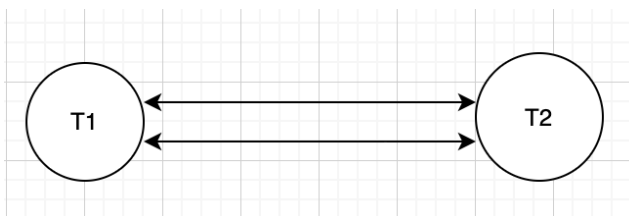2. 22.19/20.19 (a, c, d, e) (5th/4th edition)

   (a) read(T1 , balx), read(T2, balx), write(T1, balx), write(T2, balx), commit(TJ, commit(T2)

(b) read(T1, balx), read(T2, baly), write(T3, balx), read(T2, balx), read(T, , baly), commit(T,), commit(T2), commit(T3)
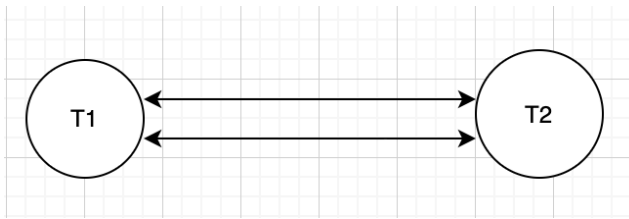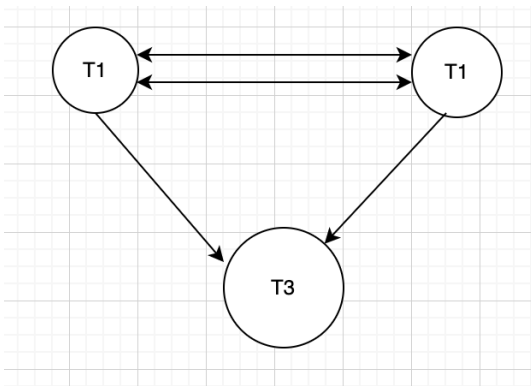

(c) d(T1, balx), write(T2, balx), write(T,, balx), abort(T2), commit(T1)

(d) write(T,, balx), read(T2, balx), write(T, , balx), commit(T2), abort(T1)

(e) read(T, , balx), write(T2, balx), write(T,, balx), read(T3, balx), commit(T1), commit(T2), commit(T3)

3. 22.22/20.22 (5th/4th edition)