CS143: Database Systems
Homework #7

1. Consider the following schedule:

$$w_3(A)r_1(A)c_3w_1(B)c_1r_2(B)w_2(C)r_4(B)c_2c_4$$

   (a) Is it a serial schedule?

   (b) Is the schedule conflict serializable? If so, what are all the equivalent serial schedules?

   (c) Is the schedule recoverable? If not, can we make it recoverable by moving a single commit operation to a different position?

   (d) Is the schedule cascadeless? If not, can we make it cascadeless by moving a single commit operation to a different position?

2. Consider the following two transactions.

   T1 : UPDATE SET salary = salary + 100 FROM Employee WHERE name = Tony
   T2 : UPDATE SET salary = salary - 300 FROM Employee WHERE name = Tony

   Assume that the current salary of Tony is 1000. What are the possible salary values of Tony if $T_1's$ isolation level is **READ UNCOMMITTED** and $T_2's$ isolation level is **REPEATABLE READ**?