

CS3402 Tutorial 8:

1. Which of the following schedules is (conflict) serializable? For each serializable schedule, determine the equivalent serial schedules.

- (a) $r_1(X); r_3(X); w_1(X); r_2(X); w_3(X);$
 (b) $r_1(X); r_3(X); w_3(X); w_1(X); r_2(X);$
 (c) $r_3(X); r_2(X); w_3(X); r_1(X); w_1(X);$

2. Consider the following concurrent schedule. Draw the serialization graph for the schedule. Is it conflict serializable?

Ta	Tb	Tc
	Read(x)	
Write(y)		
		Read(y)
	Write(y)	
Write(x)		
	Commit	
		Write(z)
Commit		
		Commit

3. Consider schedules S_1 , S_2 and S_3 below. Determine whether each schedule is strict, cascadeless, recoverable, or nonrecoverable. Determine the strictest recoverability condition that each schedule satisfies.

- (a) $r_1(X); w_1(X); r_2(X); r_1(Y); w_2(X); c_2; c_1;$
 (b) $r_1(X); w_1(X); r_2(X); r_1(Y); w_2(X); w_1(Y); c_1; c_2;$
 (c) $r_1(X); w_1(X); w_2(X); w_1(Y); c_1; r_2(X); c_2;$

Can you change c) into a strict schedule?