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Coms 363 – Homework 4

Homework 4

* 1. In Serial Schedule 1 (SS1) if we execute P1 and then P2 the result we get is A = 1 and B = 2. In SS2 if we execute P1 and then P2 the result we get is A = 1 and B = 2. We know that the result of S1 is A = 1 and B = 2, which is equivalent to one of the two serial schedules, as such S1 is a serializable schedule.
  2. Here the result of S2 is A = 0 and B = 2, which is not equivalent to any of the two serial schedules, as such S2 is not a serializable schedule.
  3. Here the result of S3 is A = 1 and B = 2. This is equivalent to one of the two serial schedules, therefore S3 is a serializable schedule.
  4. S1 is a schedule because all of the reads and writes are in the same order as in their original programs. It is not a serial schedule because the T1’s and T2’s execution interleaves, and it is not a strict schedule because T1 has a R(A), before T1 commits or aborts and W(A) in T2 is executed.
  5. S2 is a schedule because all of the reads and writes are in the same order as in their original programs. It is not a serial schedule because the T1’s and T2’s execution interleaves, and it is not a strict schedule because T1 has a R(A), before T1 commits or aborts and W(A) in T2 is executed.
  6. S3 is a schedule because all of the reads and writes are in the same order as in their original programs. Is a serial schedule because T1 and T2 are executed one by one with no interleaving, and it is a strict schedule because a serial schedule must also be a strict schedule.
  7. S4 is not a schedule because R(C) in P1 is missing in T1, not a serial schedule, and not a strict schedule.