

Transactions

Exercise 1 (16.3). Consider a database with objects X and Y and assume that there are two transactions $T1$ and $T2$. Transaction $T1$ reads object X , and then writes objects Y and X . Transaction $T2$ reads object X , then reads object X once more, and finally writes objects X and Y (i.e. $T1: R(X), W(Y), W(X)$; $T2: R(X), R(X), W(X), W(Y)$)

1. Give an example schedule with actions of transactions $T1$ and $T2$ on objects X and Y that results in a write-read conflict.
2. Give an example schedule with actions of transactions $T1$ and $T2$ on objects X and Y that results in a read-write conflict.
3. Give an example schedule with actions of transactions $T1$ and $T2$ on objects X and Y that results in a write-write conflict.
4. For each of the three schedules, show that Strict 2PL disallows the schedule.