11

Back

1 Candy

What does ACID stand for?

12

Back

2 Candy

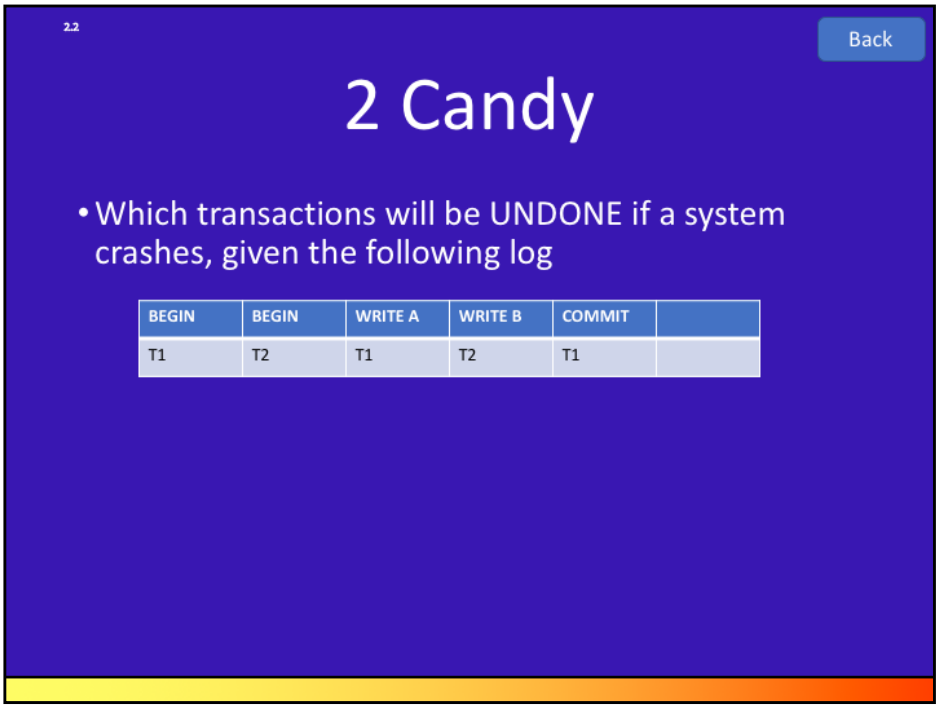
What is the connection between Atomicity, Isolation, and Durability with Concurrency Control, Logging?

1.3

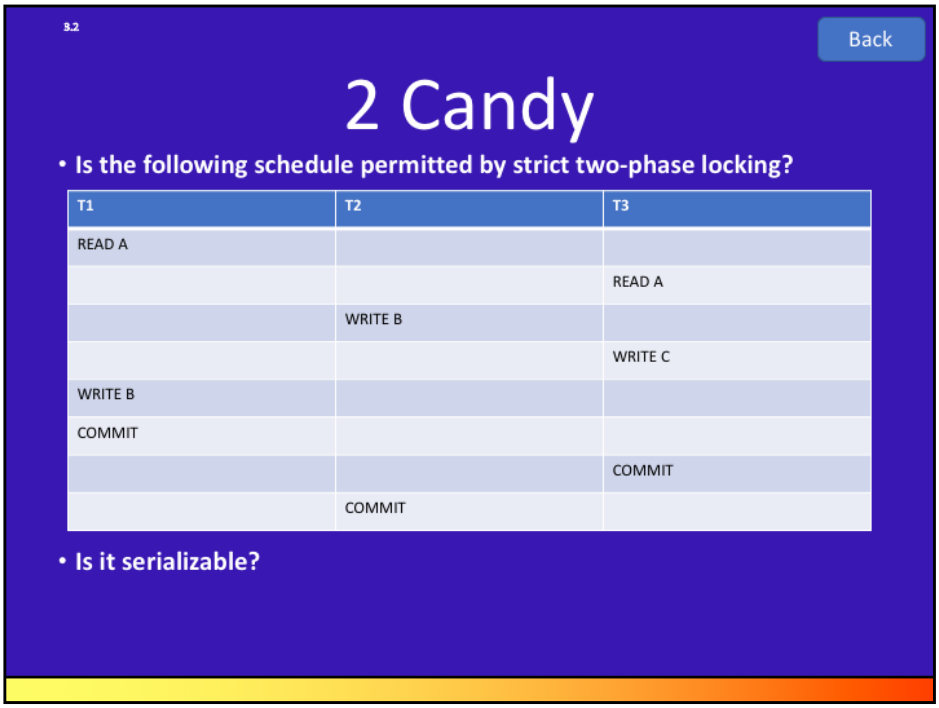
Back

3 Candy

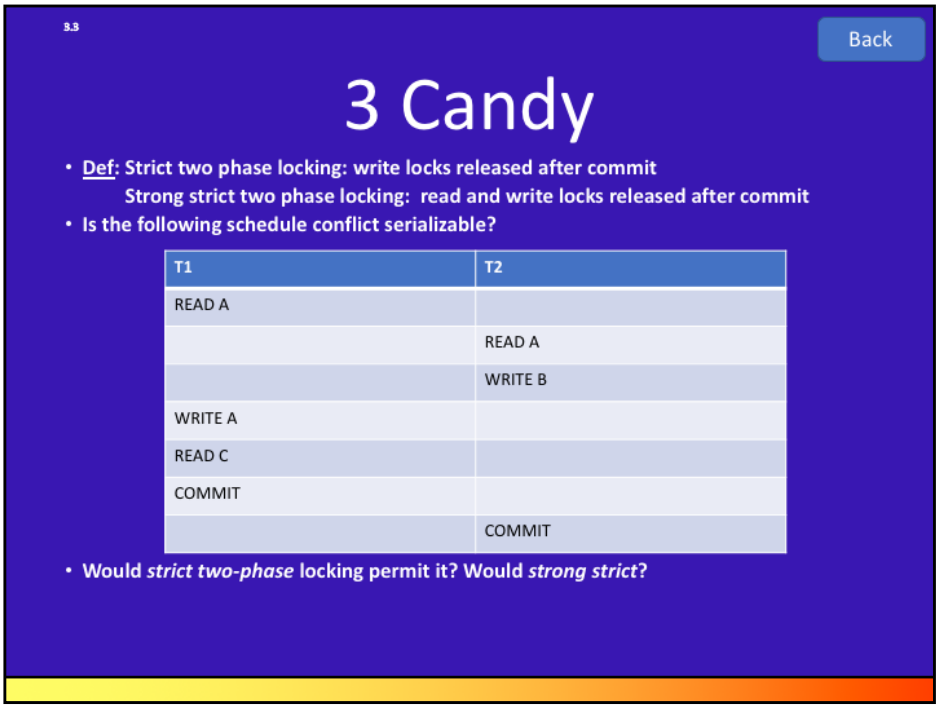
WAL, LSN, Undo, Redo, physical, logical, physiological are all important terms for describing logging. What do they stand for?


2.2
Back
2 Candy
• Which transactions will be UNDONE if a system crashes, given the following log
BEGIN
BEGIN
WRITE A
WRITE B
COMMIT
T1
T2
T1
T2
T1

T2

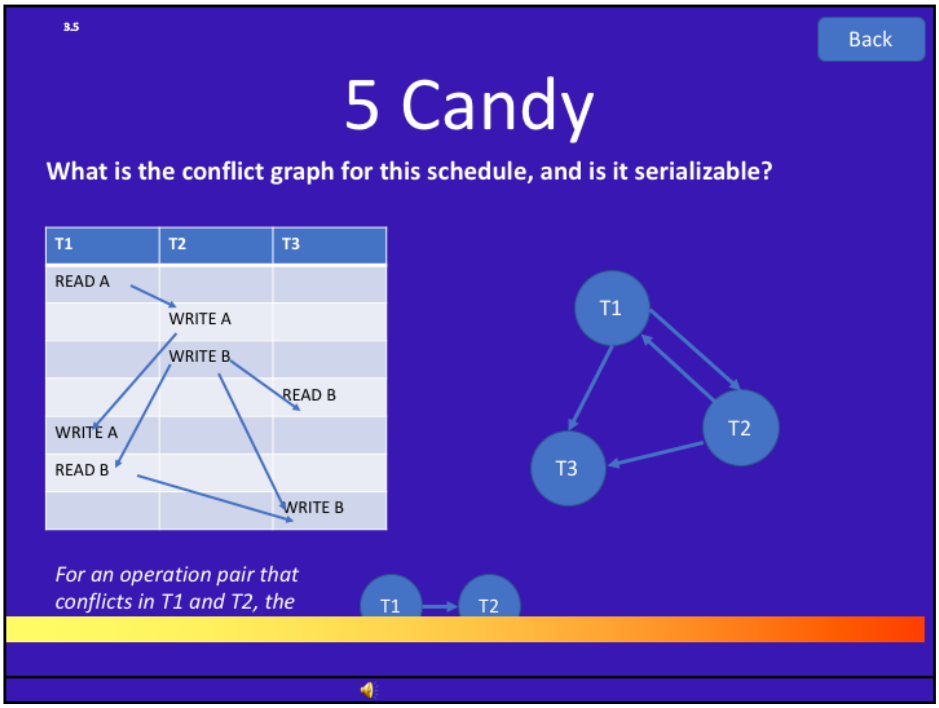


No, T1 would have to wait for lock on B.

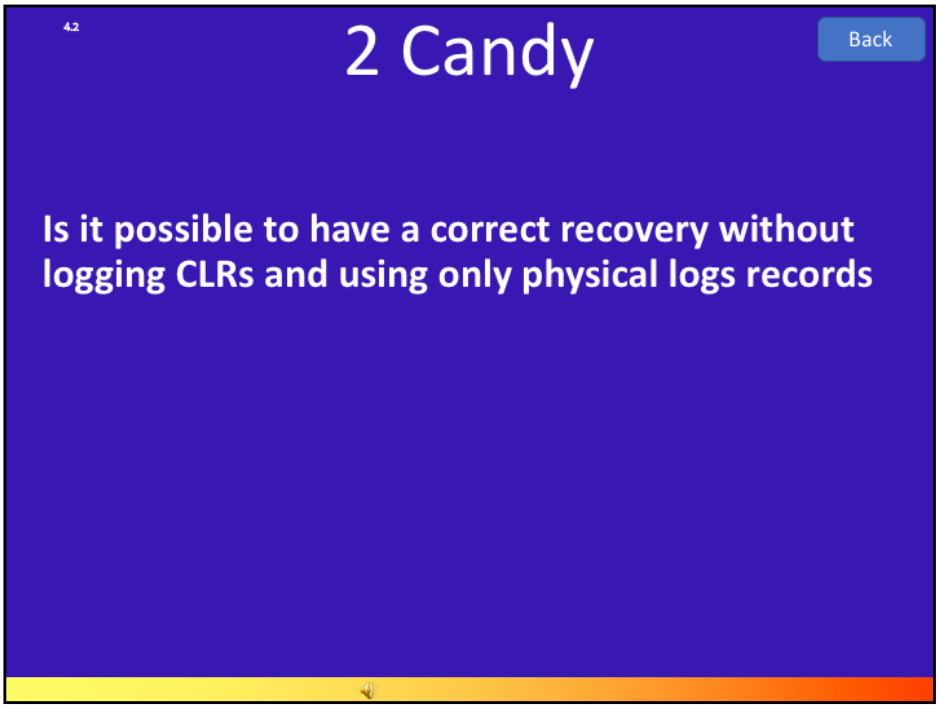


Strict-two-phase would permit it
Strong strict would not (write A from T1 has to wait)

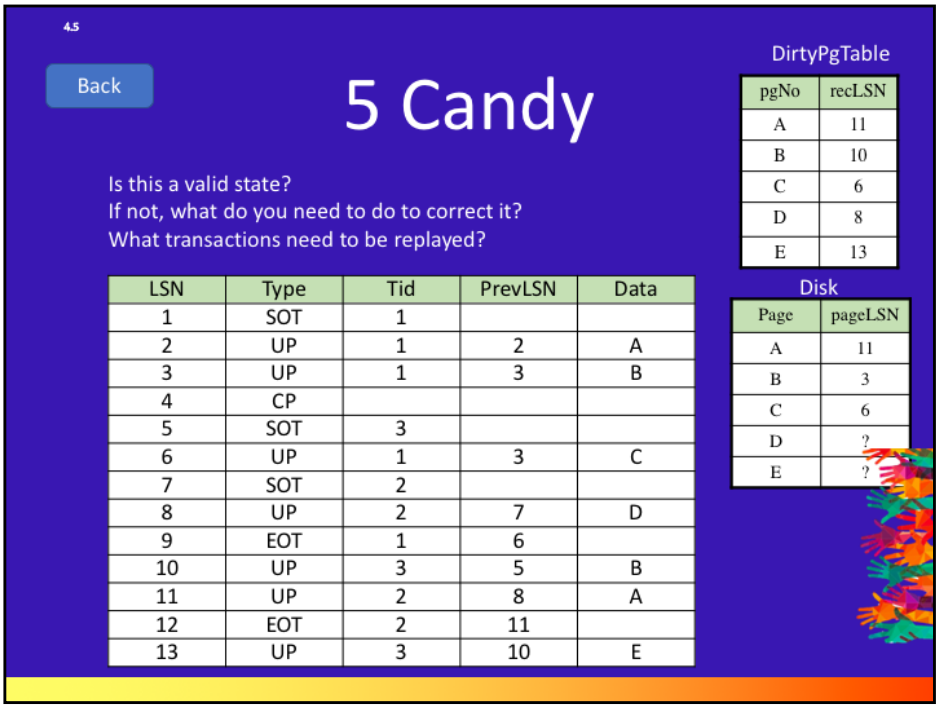
Schedule is serializable (outcome is the same as T2 commits before T1) .



This is just a variant of the previous problem 4, animations show solution



No as it is impossible to undo operations caused by even normal aborts



Redo UNLESS

- Page is not in dirtyPgTable
- LSN < recLSN
- LSN <= pageLSN

- Yes, can be a valid state. Flush happened shortly after checkpoint
- Replay 8, 10, 11, 13