Chris Harms

DBMS HW 7

* 1. The balance will be $450, since the last transaction is the one that writes and commits a balance change the latest.
  2. If there was concurrency control, the balance would be $50.
  3. They would get stuck in a deadlock, since they both read at the same time placing a shared lock, then they both request exclusive locks, so they both get stuck waiting for each other to finish.
  4. No deadlocks will occur, since transaction 1 reads with a shared lock, and would request for an exclusive lock before the last transaction requests a shared lock to read, so transaction 1 will go through all the way, and transaction 3 will have to wait before it can read until transaction 1 is committed.
  5. The 3 transactions will all commit changes on separate copies of the database, when they’re compared, the DBMS will see that they will conflict and revert all changes, so nothing will change.
  6. You could combine the player and specialty tables into just a player table, you could combine team and manager into just team
  7. Create indexes on every primary and foreign key, and create partitions on tables where it applies, such as partitioning location based on population size.