

Name: \_\_\_\_\_

In the wound-wait protocol what timestamp is used for a restarted transaction?

What do wait-for graphs in a DBMS where the wound-wait protocol is used look like?

How does the wound-wait protocol prevent livelock from occurring?

Sketch two different two phase locking protocols and explain the difference between them in terms of performance and deadlock.

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What problem(s), if any, is there with the following schedule? The letter is the operation read/write, the left number is the transaction number, and the right number is the sequence number.

S:  $r_{1,1} : (X)$ ;  $w_{1,2} : (X)$ ;  $r_{1,3} : (Y)$ ;  $w_{2,2} : (Y)$ ;  $w_{1,4} : (X)$ ;  $r_{2,1} : (X)$ ;

For the transactions from the previous question, list 3 conflict serializable schedules, or state why it is not possible to create three.

Explain which is more important the dependency preservation property or the lossless join property.

Explain which is more generic functional dependencies or multivalued dependencies?