

New submission for: Lecture Exercise 25

Due: 12/09/2020 @ 11:59 PM EST

Question 1. Suppose you are using REDO/UNDO recovery, and the following are the relevant contents of the log and the disk after crash. Check all the following options below that you can conclude are correct based on this information:

- LOG:**
LSN | Entry
100 | T1 update P1
101 | T2 update P2
102 | T1 update P3
103 | T1 commit
104 | T3 update P3
105 | T2 update P4
106 | T3 commit
- Data pages:**
Page | LSN of Last recorded log entry
P1 | -
P2 | 101
P3 | 102
P4 | -
- ☐ This database uses FORCE.
 - ☒ This database does not use FORCE.
 - ☒ This database uses STEAL.
 - ☐ This database does not use STEAL.
 - ☒ REDO must be applied to LSN 100
 - ☐ REDO must be applied to LSN 101
 - ☐ REDO must be applied to LSN 102
 - ☒ REDO must be applied to LSN 104
 - ☒ REDO must be applied to LSN 105
 - ☐ UNDO must be applied to LSN 100
 - ☒ UNDO must be applied to LSN 101
 - ☐ UNDO must be applied to LSN 102
 - ☐ UNDO must be applied to LSN 104
 - ☒ UNDO must be applied to LSN 105
 - ☐ Transaction T2 must be committed
 - ☒ Transaction T2 must be aborted
 - ☐ None of these options is correct

Clear Use Most Recent Submission

Question 2. Suppose you are using REDO/UNDO recovery, and the following are the relevant contents of the log and the disk after crash. Check all the following options below that you can conclude are correct based on this information:

- LOG:**
LSN | Entry
101 | T1 update P1
102 | T2 update P2
103 | T3 update P3
104 | T2 update P4
105 | commit T2
106 | T1 update P5
107 | abort T1
108 | T3 update P6
109 | undo 106
- Data pages:**
Page | LSN of Last recorded log entry
P1 | 101
P2 | 102
P3 | 103
P4 | 104
P5 | 106
P6 | 108
- ☐ This database uses FORCE.
 - ☐ This database does not use FORCE.
 - ☒ This database uses STEAL.
 - ☐ This database does not use STEAL.
 - ☐ REDO must be applied to LSN 101
 - ☐ REDO must be applied to LSN 102
 - ☐ REDO must be applied to LSN 103
 - ☐ REDO must be applied to LSN 104
 - ☐ REDO must be applied to LSN 106
 - ☐ REDO must be applied to LSN 108
 - ☐ REDO must be applied to LSN 109
 - ☒ UNDO must be applied to LSN 101
 - ☐ UNDO must be applied to LSN 102
 - ☒ UNDO must be applied to LSN 103
 - ☐ UNDO must be applied to LSN 104
 - ☐ UNDO must be applied to LSN 106
 - ☒ UNDO must be applied to LSN 108
 - ☐ UNDO must be applied to LSN 109
 - ☐ Transaction T3 must be committed
 - ☒ Transaction T3 must be aborted
 - ☐ None of these options is correct

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By clicking "Submit" you are confirming that you have read, understand, and agree to follow the Academic Integrity Policy.

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Note: This version of your assignment will be graded by the instructor/TAs and the score recorded in the gradebook.
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12 / 12Test 1 l25ex_1

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10 / 13Test 2 l25ex_2

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Visualize whitespace characters

Student Question 2

Expected Question 2

ERROR: 1 missing line(s)

1 This database uses STEAL .
2 UNDO must be applied to LSN 101
3 UNDO must be applied to LSN 103
4 UNDO must be applied to LSN 108
5 Transaction T3 must be aborted
6

ERROR: 1 missing line(s)

1 This database uses STEAL .
2 REDO must be applied to LSN 109
3 UNDO must be applied to LSN 101
4 UNDO must be applied to LSN 103
5 UNDO must be applied to LSN 108
6 Transaction T3 must be aborted
7