

# Module 13: Lab

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1. Extend the figure to show prevLSN and undonextLSN values.

LSN	Log	prevLSN	undoNextLSN
00	update: T1 writes P2	-	-
10	update: T1 writes P1	00	00
20	update: T2 writes P5	-	-
30	update: T3 writes P3	-	-
40	T3 commit	30	not an update log record
50	update: T2 writes P5	20	20
60	update: T2 writes P3	50	50
70	T2 abort	60	not an update log record

2. Describe the actions taken to rollback transaction T2.

Step 1: restore P3 to the before-image stored in LSN 60  
Step 2: restore P5 to the before-image stored in LSN 50  
Step 3: restore P5 to the before-image stored in LSN 20

3. Show the log after T2 is rolled back, including all prevLSN and undonextLSN values in log records.

The log tail would look something like:

LSN	prevLSN	transId	type	pageId	undoNextLSN
80	70	T2	CLR	P3	50
90	80	T2	CLR	P5	20
100	90	T2	CLR	P5	-
110	100	T2	END	-	-