

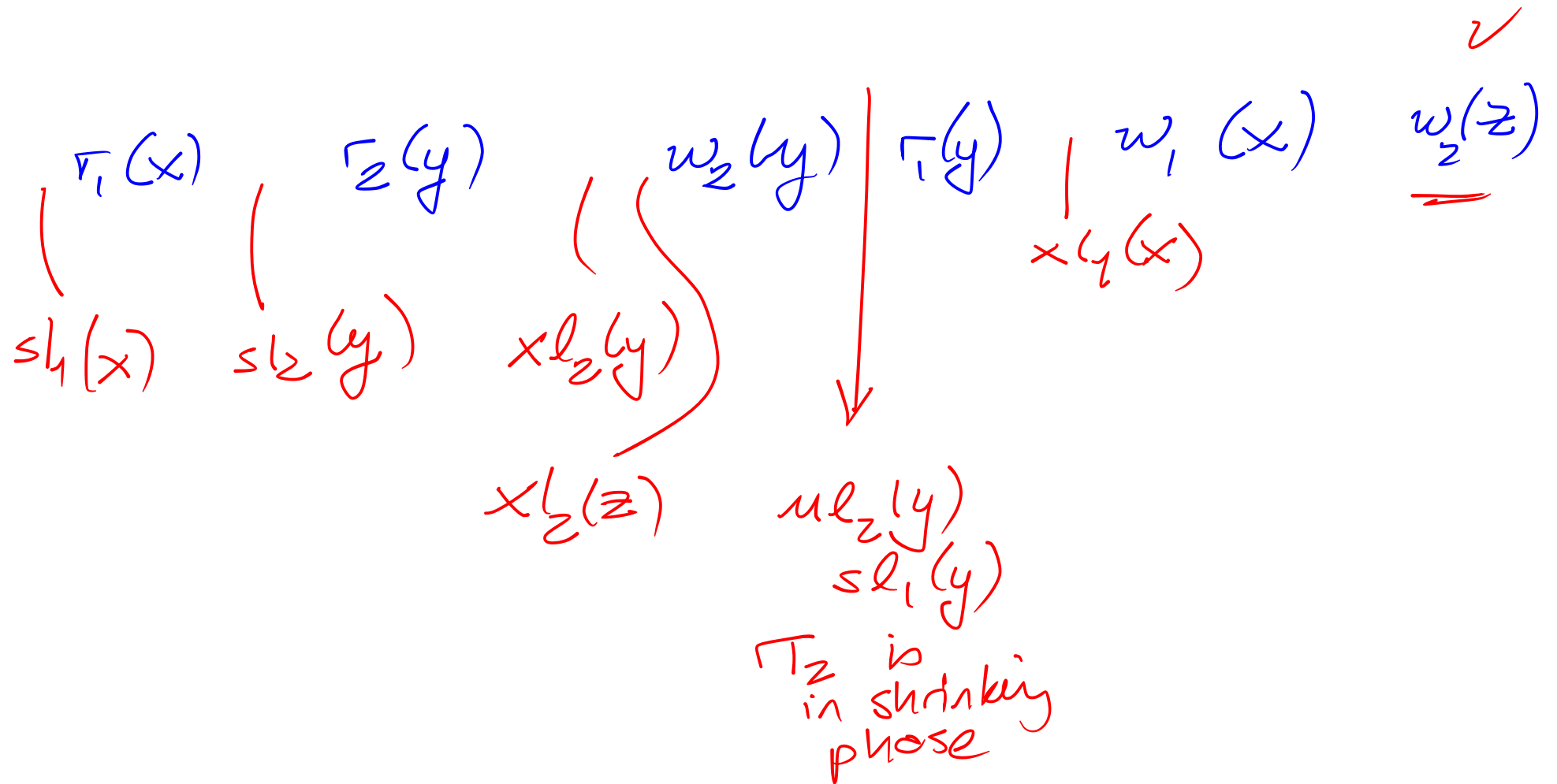
existing Locks

	No	S	X
Requested lock			
S	✓	✓	X
X	✓	X	X

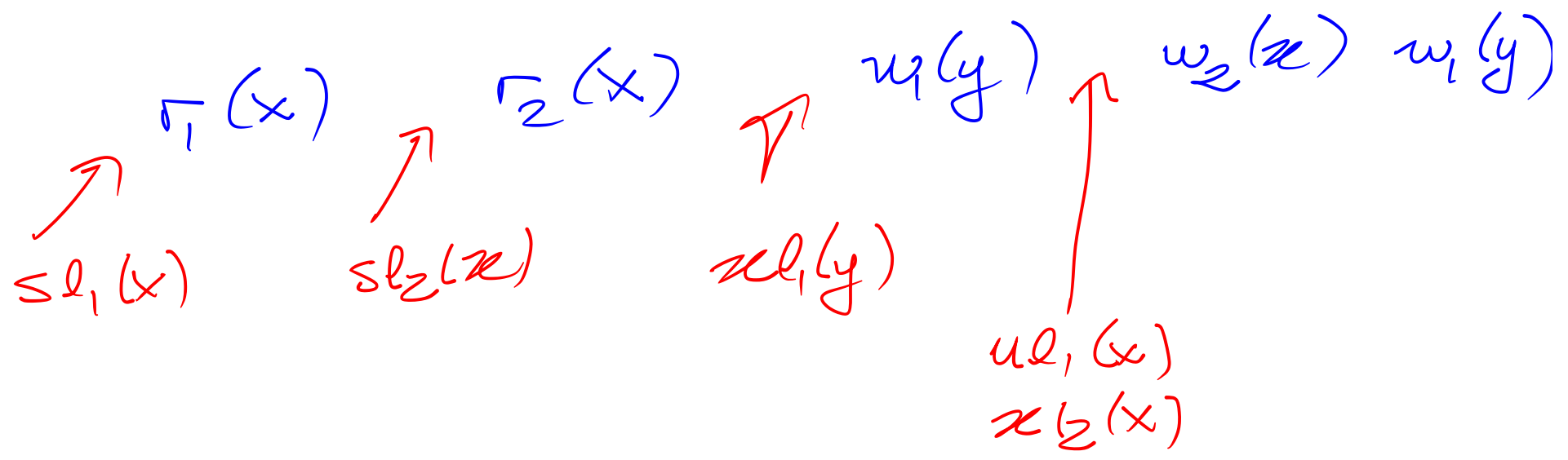
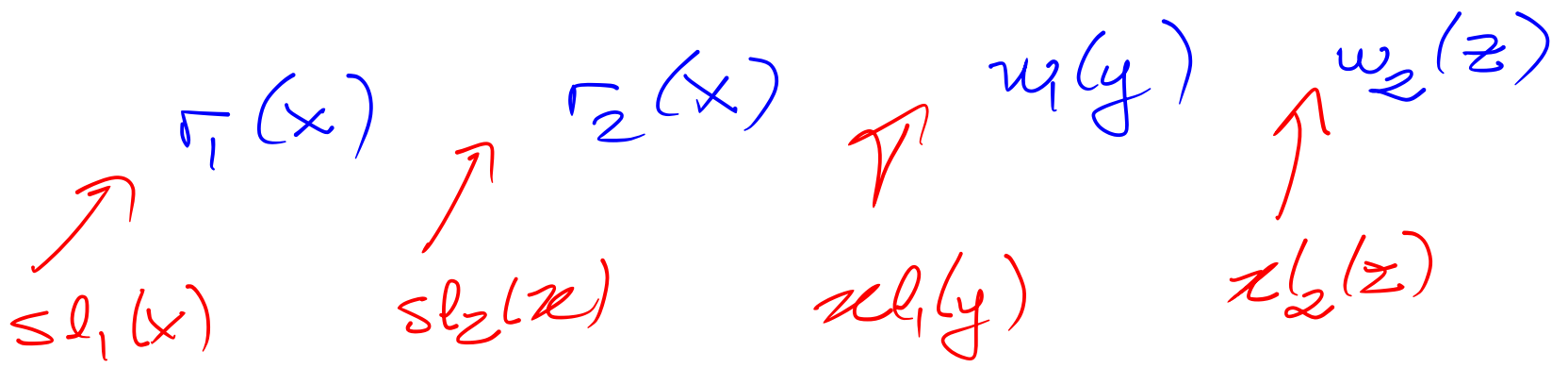


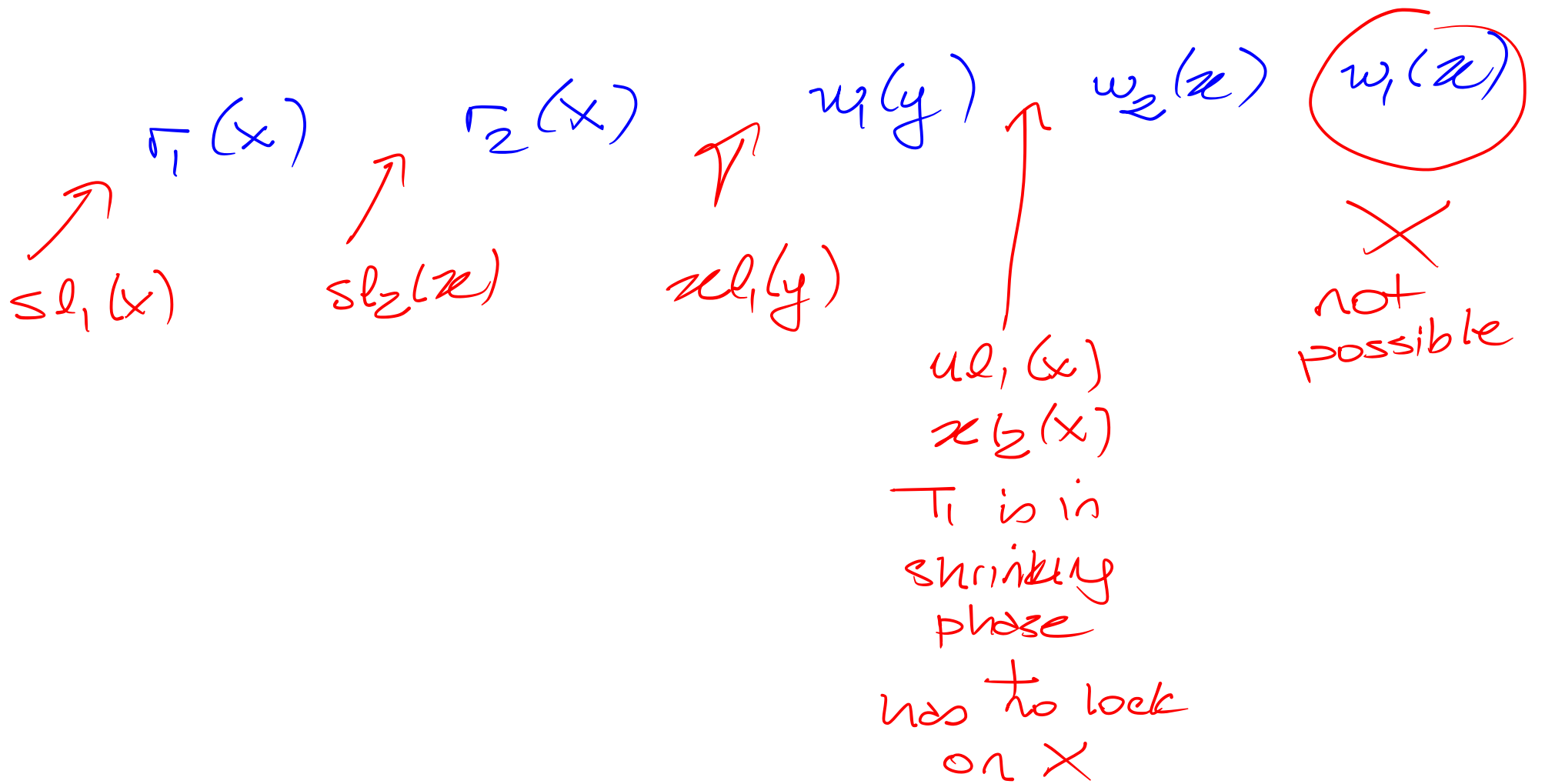
if it is
you and only you
holding an S
lock, you can upgrade!

This schedule is possible under 2PL



possible ✓



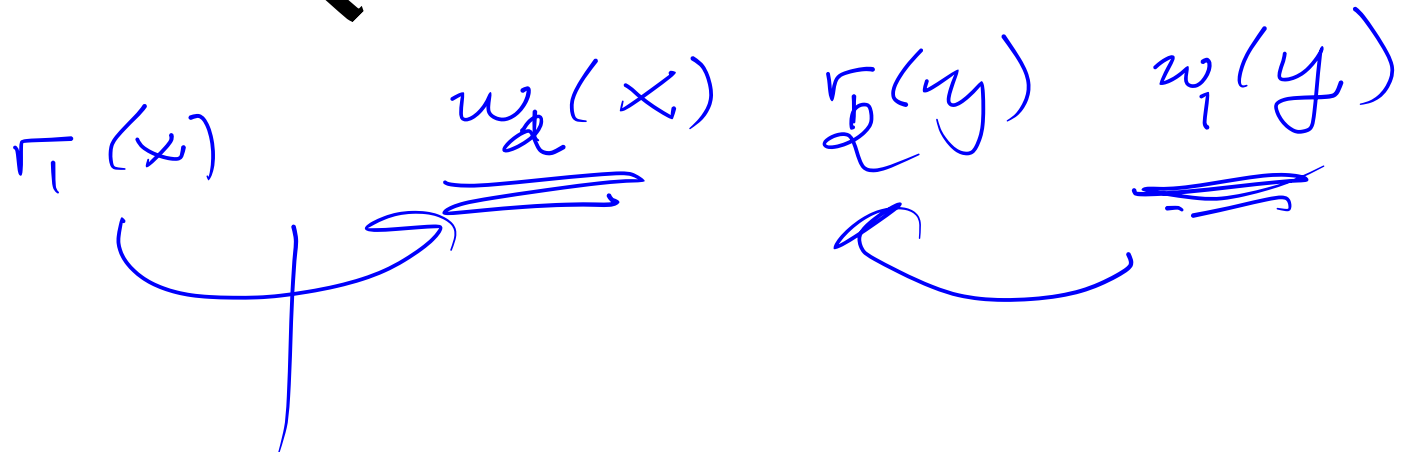
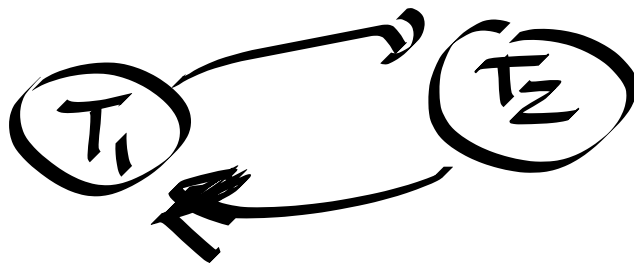


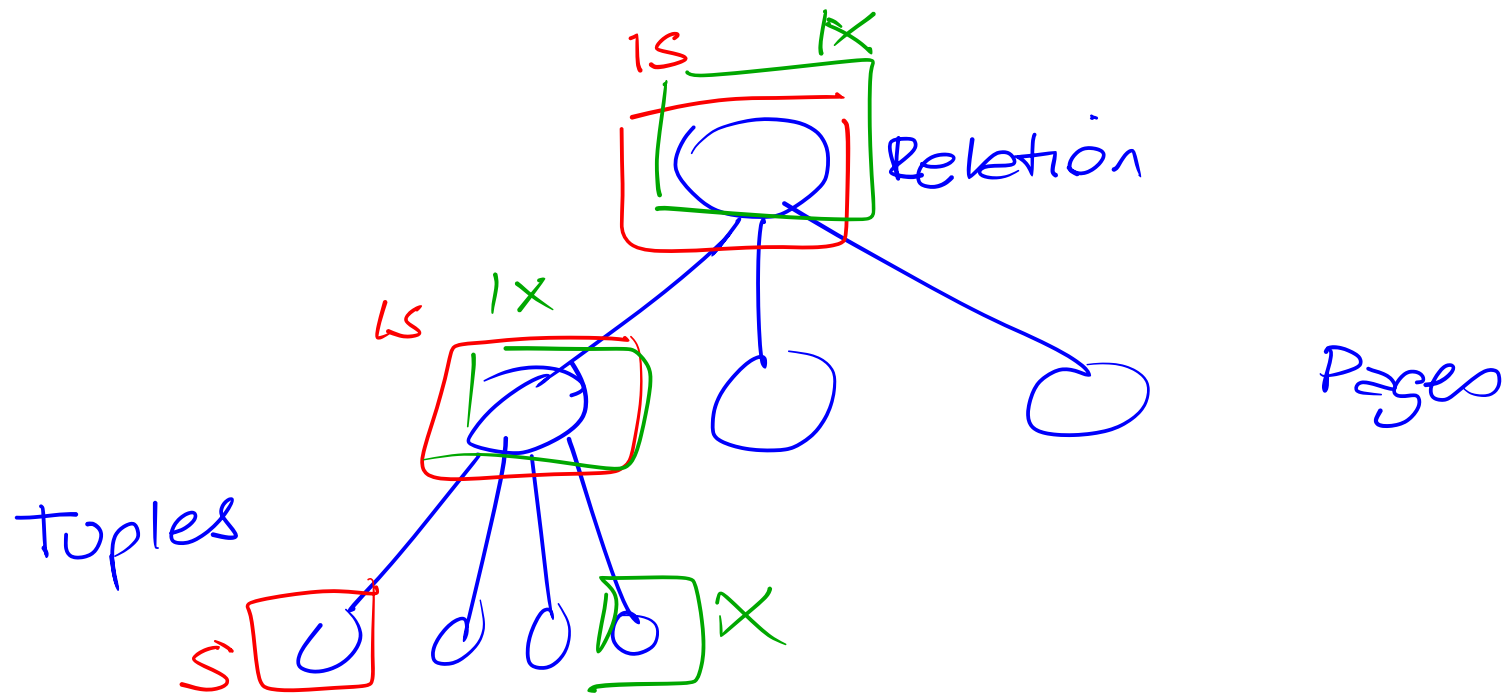
T_1 :

$w_1(x)$ $w_1(y)$ commit

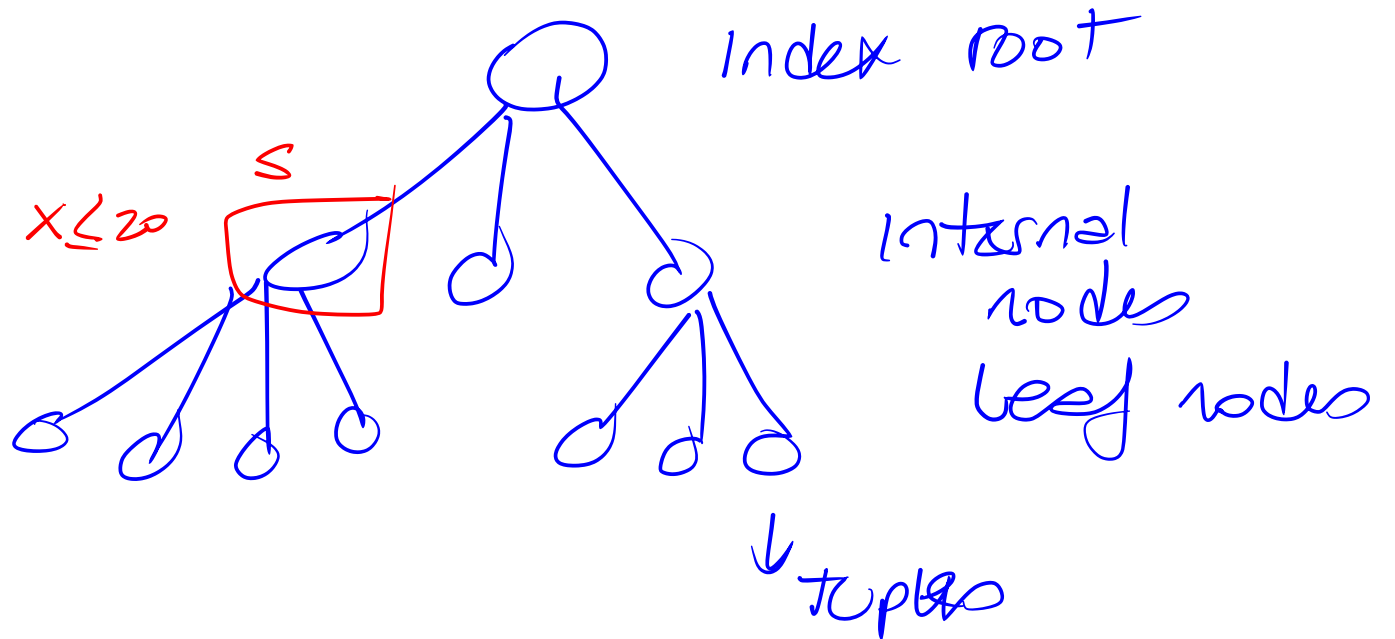
ZPL guarantees serializability

Not possible





SELECT
count(*)
FROM T
WHERE
X ≤ 20;



Multi-version Concurrency Control (MVCC)

