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CSCI235-Assignment 2

TASK 4: DEADLOCKS

T1	T2
SWAP(54321, 12345)	
	SWAP(12345, 54321)
SELECT O_TOTALPRICE INTO total_price1 FROM ORDERS WHERE O_ORDERKEY = 54321;	
SELECT O_TOTALPRICE INTO total_price2 FROM ORDERS WHERE O_ORDERKEY = 12345;	
	SELECT O_TOTALPRICE INTO total_price1 FROM ORDERS WHERE O_ORDERKEY = 12345;
	SELECT O_TOTALPRICE INTO total_price2 FROM ORDERS WHERE O_ORDERKEY = 54321;
UPDATE ORDERS SET O_TOTALPRICE = total_price1 WHERE O_ORDERKEY = 12345;	
	UPDATE ORDERS SET O_TOTALPRICE = total_price1 WHERE O_ORDERKEY = 54321;
WAIT for commit on previous update where O_ORDERKEY = 54321;	
	WAIT for commit on previous update where O_ORDERKEY = 12345;

At this point both transactions are waiting on the other to commit because the database is running at READ-COMMITTED level. This waiting on one another by transactions is the definition of a deadlock.