

After running the first statement of T2.

This is what happens to T1.

#	ProductNumber	ProductName	ProductDescription	RetailPrice	QuantityOn
1	1	Trek 9000 Mountain Bike	NULL	1200.00	6
*	NULL	NULL	NULL	NULL	NULL

#	OrderNumber	OrderDate	ShipDate	CustomerID	EmployeeID
*	NULL	NULL	NULL	NULL	NULL

#	OrderNumber	ProductNumber	QuotedPrice	QuantityOrdered
*	NULL	NULL	NULL	NULL

After running the rest of T2.

T1 results.

#	OrderNumber	OrderDate	ShipDate	CustomerID	EmployeeID
*	NULL	NULL	NULL	NULL	NULL

#	OrderNumber	ProductNumber	QuotedPrice	QuantityOrdered
*	NULL	NULL	NULL	NULL

Commit T2.

T1 results

#	ProductNumber	ProductName	ProductDescription	RetailPrice	QuantityOnHand
1	1	Trek 9000 Mountain Bike	NULL	1200.00	4
*	NULL	NULL	NULL	NULL	NULL

#	OrderNumber	OrderDate	ShipDate	CustomerID	EmployeeID
1	945	2015-09-04	2015-09-05	1004	701
*	NULL	NULL	NULL	NULL	NULL

#	OrderNumber	ProductNumber	QuotedPrice	QuantityOrdered
1	945	1	1200.00	2
*	NULL	NULL	NULL	NULL

Commit T1

T1 results

#	ProductNumber	ProductName	ProductDescription	RetailPrice	QuantityOnHand
1	1	Trek 9000 Mountain Bike	NULL	1200.00	4
*	NULL	NULL	NULL	NULL	NULL

#	OrderNumber	OrderDate	ShipDate	CustomerID	EmployeeID
1	945	2015-09-04	2015-09-05	1004	701
*	NULL	NULL	NULL	NULL	NULL

#	OrderNumber	ProductNumber	QuotedPrice	QuantityOrdered
1	945	1	1200.00	2
*	NULL	NULL	NULL	NULL

Read committed is a lower isolation level compared to repeatable read. Unlike repeatable read, it is possible to get nonrepeatable read. The changes could be observed in T1 right after committing the changes in T2. Lost updates are a problem that occurs when two transactions that access the same database items have their operations interleaved in a way that makes the value of some database items incorrect. For example, T1 and T2 are trying to update the same database item. The final value of the item X is incorrect because T2 reads the value of X before T1 changes (commit) it in the database, hence the updated value resulting from T1 is lost.

T ₁	T ₂
SELECT * FROM Products WHERE ProductNumber = 1;	
	SELECT * FROM Products WHERE ProductNumber = 1;
	UPDATE Products SET QuantityOnHand = QuantityOnHand + 2 WHERE ProductNumber=1;
UPDATE Products SET QuantityOnHand = QuantityOnHand – 2 WHERE ProductNumber=1;	
Commit; /*this item has an incorrect value because its update by T1 is lost (overwritten)*/	
	Commit;