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CSCI235-Assignment 2

TASK 3:

(1)

T1	T2
MAX_MIN(orderkey)	
SELECT MAX(L_QUANTITY * L_EXTENDEDPRICE) INTO max_value FROM LINEITEM WHERE L_ORDERKEY = orderkey;	
	DELETE FROM LINEITEM WHERE L_QUANTITY > 1;
	COMMIT;
SELECT MIN(L_QUANTITY * L_EXTENDEDPRICE) INTO min_value FROM LINEITEM WHERE L_ORDERKEY = orderkey;	
RETURN max_value-min_value;	

This would result in incorrect value returned as '*max_value*' would have changed by the time the stored PL/SQL function returns its value because non-repeatable read phenomenon would have occurred for "SELECT MAX(L_QUANTITY * L_EXTENDEDPRICE)".

```
(2) CREATE OR REPLACE FUNCTION MAX_MIN ( orderkey IN NUMBER ) RETURN  
    NUMBER IS max_value NUMBER(12);  
    min_value NUMBER(12);  
    BEGIN  
        SELECT MAX(L_QUANTITY * L_EXTENDEDPRICE), MIN(L_QUANTITY *  
            L_EXTENDEDPRICE)  
        INTO max_value, min_value  
        FROM LINEITEM  
        WHERE L_ORDERKEY = orderkey;  
  
        RETURN max_value-min_value;  
    END MAX_MIN;  
/
```

This function now ensures no changes can be made between two select statements because there is only one select statement preventing invalid and incorrect results.