IT440 Module 10 – problems

1.

a.

There would be four database requests for an inventory update one for each part and one for product.

b.

UPDATE Part

SET PART\_QOH=’###’ ---- where ### is the number you want to update it to

WHERE PART\_CODE=’A’

UPDATE Part

SET PART\_QOH=’###’ ---- where ### is the number you want to update it to

WHERE PART\_CODE=’B’

UPDATE Part

SET PART\_QOH=’###’ ---- where ### is the number you want to update it to

WHERE PART\_CODE=’C’

UPDATE Product

SET PROD\_QOH=’###’ ---- where ### is the number you want to update it to

WHERE PROD\_CODE=’ABC’

c.

SQL> UPDATE Part SET PART\_QOH=’###’ WHERE PART\_CODE=’A’

1 row affected Rows matched:1 Changed:1 Warnings:0

SQL> UPDATE Part SET PART\_QOH=’###’ WHERE PART\_CODE=’B’

1 row affected Rows matched:1 Changed:1 Warnings:0

SQL> UPDATE Part SET PART\_QOH=’###’ WHERE PART\_CODE=’C’

1 row affected Rows matched:1 Changed:1 Warnings:0

SQL> UPDATE Product SET PROD\_QOH=’###’ WHERE PROD\_CODE=’ABC’

1 row affected Rows matched:1 Changed:1 Warnings:0

d/e.

Don’t Know

2.

The three most common are: lost updates, uncommitted data, and inconsistent retrievals. Concurrency controls can avoid these problems by keeping transactions that are running at the same time from using the same data at the same time etc. using locks and a scheduler.

3.

The Scheduler is responsible for concurrency control. It is used to schedule which transaction has first dibs to use segments of data and schedules the rest one at a time afterwards.

4.

Binary locks are relatively simple you need to think of each piece of data (attribute, row, table, etc.) as having a “lock” function, this lock can either be on (Locked 1) or off (Unlocked 0). If a piece of data is locked by a transaction, then no other transaction can access that data. An Exclusive lock is pretty similar, but it only can be put on a piece of data if it is being changed or modified in some way. Shared locks are bit different, they get blocked out by both of the other types of locks but not by each other, think of these locks as the kind of locks you would have on a read-only word file, many can read it at once but no one can modify it while it is being read.

5.

6.

7.

8.

9.

10.

11.