Advanced SQL - PROG3070
Assignment #3

Submissions – individual or group of 2
Objectives

1. To demonstrate the concept of transactions
2. To create and use triggers

Requirements

Create a database to support a simple electronic Kanban solution.
For an explanation of Kanban, see the following sites:
http://en.wikipedia.org/wiki/Kanban
http://www.strategosinc.com/kanban_1.htm

The customer builds a fog lamp assembly for automobiles. The assembly is made up of a harness, a reflector, a housing, a lens, a bulb and a bezel. Each of these parts is in its bin, and an employee takes one of each of these parts and puts it together. Once completed, the fog lamp is placed on a tray with separators. When full, the tray is sent to the testing department.

At present, the customer uses a manual Kanban system. Each bin has the following capacities:

- Harness: 75
- Housing: 25
- Lens: 40
- Bulb: 50
- Bezel: 75

There is a Kanban card in a sleeve on the side of each of the bins. When there are only 5 parts left, the card is removed by the assembler and placed into a common tray. A runner picks up all cards from the tray every 5 minutes. He goes to the stock room, picks up a new bin of the specific part on the card, then replaces it with the old one. Any remaining parts are placed on top of the stock in the new bin.

The stock room is on a separate Kanban system, but both systems should access a common stock room inventory database.

Build a database to support an electronic version of this system. Use triggers, transactions and stored procedures as is necessary. Please demonstrate each of these concepts in a reasonable manner.

Assignment submission - in a zipped folder
- Provide design documentation for your solution
- Provide all scripts to create the objects in the database
- Provide test cases to exercise the database functionality