**POS System**

**A Simple Point-of-Sale (POS) System**

**1. OBJECTIVE**

The objective of this assignment is to get you familiar with all (mostly) Java basics and some advance concepts, which include the syntax, Java input/output, arrays, lists, classes, objects, inheritance and interfaces utilizing polymorphism. After performing this assignment, you should be able to master these Java concepts. You need to use Eclipse for this assignment.

**2. TASK**

In this assignment, the overall task is to develop an application that records sales and handle payments in a retail store.  Study the **POS Project Requirements** below.  Your POS application should be executed in **Interactivemode**.

In the interactive mode, the POS accepts textual commands submitted by cashiers at their consoles to handle payments in a retail store.

In the interactive mode, a cashier will be asked to log in the system using his/her user id and password. (There are no limits on the maximum tries of incorrect passwords or users). The system displays a successful message if the cashier inputs the right user id and password. If the user id or password is wrong, the cashier will be asked to re-enter as follows.

Welcome to the Point-Of-Sale Registration System

Please enter your user name: alinaqvi

Please enter your password: thisismypassword

<LOG> Electronic-Sales Counter is started successfully by user alinaqvi!

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Welcome to the Point-Of-Sale Registration System

Please enter your user name: alinaqvi1

<LOG> Non-existent user alinaqvi1, please enter again!

Please enter your user name:

**POS Project Requirements**

* Point of Sale Support System is developed to support supermarket-type store operations. In particular software shall:
  1. Keep track of the amount of sales ($) at each register for each log on/off cycle.  The register record of each such cycle shall identify the register, the user, the dates and times of log on/off, and the amount of sales.
  2. Keep track of the "drawer" for each cashier on duty.    The "drawer" keeps track of the total amount of sales made by a single cashier during the entire shift.
  3. Support cancellation of the entire sale as well as return of an individual item.
  4. Keep track of the inventory, including quantity, price, supplier, and outstanding orders.
  5. Keep track of orders for a period of one year and the suppliers for a period of one year from the time of the last order.
  6. Support inventory management (add/remove item to/from inventory, setting threshold for re-ordering.)
  7. Extra Credit: Support receiving and warehouse operations including reporting spoilage. Broken, spoiled, damaged items have to be removed from inventory with proper authorization.
  8. Support automatic reorder of items triggered by the stock falling below a set threshold.
  9. Support report generation:
     + Inventory report (listing off al inventory items with name, quantity, threshold, supplier, and quantity of items in pending orders.)
     + Cashier report (listing of all assignment records, all register records, all discrepancy records.)
     + Register report (listing of all register records, all assignment records.)

1) First design the system and use UML.

2) Then divide up the work between team members

3) Then Start coding.