

## **Term Assignments, CIS 234: Introduction to Java Programming**

Per our syllabus, the fundamentals of object oriented java programming will be taught over the course of 4 assignments. All will require individual programming and concrete deliverables, with time-sensitive deadlines.

### **Assignment One**

The premise of the term assignment is that we operate an electronic stock market, where shares in companies are bought, sold and priced. The market is a digital service which accepts orders, human and machine-originated.

The sales price of a stock is set by a seller, in relation to demand. Hence, as few orders come in, prices may discount to stimulate buying.

Your initial market must do the following.

1. Market setup. Six thousand unique stocks must open, with randomly determined ticker symbols and start pricing. Each symbol, price, buy volume and seller is to be entered into an ArrayList. Symbols may have up to four letters
2. Symbol lookup. A buyer enters a symbol by its four letter name, then receives a price, and last sale information from its corresponding ArrayLists.
3. Purchase order. After lookup takes place, a buy is placed, updating its price within the ArrayList item associated with it. The buyer also demands a certain number of shares.
4. An if statement is created, enabling or prohibiting the sale in (3), based on the volume of the trade. For example, the rule must only permit price discounts if the sale is vastly greater than the prior sale. Otherwise, prices must remain steady, if the volume of the sale resembles the prior one.

#### **Deliverable:**

Test each feature completely.

Copy a screen shot of the console output to a Word document.

Print the source code with the screen shot, name and label "Assignment One."

Submit, printed by July 2, 6 pm.