**Bucks County Community College**

**Department of Science, Technology, Engineering & Mathematics (STEM)**

**CISC122 Computer Science II**

Lab04: the Stock Class Points: 25

**OBJECTIVE**

* To demonstrate creating a class for stock data
* To demonstrate creating fields and methods within a class
* To demonstrate creating constructors for a class
* To demonstrate creating an object from the class using set methods
* To demonstrate creating an object from the class using a constructor

**REQUIRED**

A report of your work, in a flat pocket folder, in the following order:

1. Grade form **Lab04GradeForm.doc**

2. This program description **Lab04Description.doc**

3. Problem Analysis **Lab04ProblemAnalysis.doc**

4. The listing of the class description **Stock.java**

5. Listing of the source program using the class **Lab04A.java**

6. Run of the program/ output

7. Listing of the source program using the class **Lab04B.java**

8. Run of the program/ output

**SPECIFICATIONS**

Write a class for stock data.

Then create an object from this class and use it in two versions of Lab03.

We will work on the class definition IN CLASS.

Write a class for stock data.

1. The class will have the following four fields:

Ticker Price of one share Shares owned Annual dividend

2. Create void “set” methods to store values in the fields, one for each field

3. Create a value-returning “get” method to retrieve values from the fields, one for each field

4. Create a value-returning method to calculate and return stock value

5. Create a value-returning method to calculate and return dividend yield

6. Create a constructor method to accept the four fields (use the set methods for these fields)

Ticker Price of one share Shares owned Annual dividend

7. Create a noArg constructor (use the set methods for these fields)

8. Save the class as a separate file

Write a program that creates an object from the stock class.

10. Start with Lab03 and rename it as Lab04A

Change input files to Lab04ArrayFile, Lab04InputFile

11 Create an object from the Stock class and use the noArg constructor

Then place values into the fields by using the set methods

12. Use the class method to get stock value and dividend yield and all other data

13. Continue to do the sequential search for stock name

14. Remove the unused methods from Lab03 since you will use the object’s methods

Write another program that creates an object from the stock class.

15. Start with Lab04A and rename it as Lab04B

16. Create an object from the Stock class and use the constructor

NOTE: you may need to create the object in a different logical place than in Lab04A

17. The rest of the program should remain the same