Lab 2

Objectives:

Learn about Input/Output, data types in Java, and practice writing algorithms.

1. Download and run Echo.java
http://www.csc.villanova.edu/~map/1051/Chap02/Echo.java

Observe what it does.

import java.util.Scanner;

public class Echo
{
    public static void main (String[] args)
    {
        String message;
        Scanner scan = new Scanner (System.in);

        System.out.println ("Enter a line of text:");
        message = scan.nextLine();
        System.out.println ("You entered: \
            + message + \\
            ");
    }
}

Modify this program so that it also inputs a number, and prints it out along with the line of text.
Be sure to test it to verify that it works well.

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2. Below is the skeleton of a program for experimenting with java and with simple programming projects. Type it in and verify that it compiles and runs as expected (it should just print a message). We will be using this program skeleton to write programs for some projects from the textbook.

```java
//***************************************************************
// something.java       Author: Your name goes here
// 9/10/2012 (be sure to update)
// Solution to PP ?????
// from Java Software Solutions by Lewis&Loftus
//********************************************************************

class Something{
   // This program does something????????
   //------------------------------------------------------------
   public static void main (String[] args)
   {
      System.out.println("Welcome to my program.
      + " This program was written as a solution
      + " to an exercise in my textbook.");
   }
}
```

3. Using the above program skeleton, we will now work on some projects from the text. For each one:

- Decide what variables you need to use, their types and their names
- Write out the algorithm, as instructed in class.
- Be sure to use appropriate names: PP_2_3.java PP_2_4.java, etc
- Update all the comments; include the statement of the problem.
- Use appropriate variable names – (e.g., name, age, college, petname)
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PP 2.3 Write an application that prompts for and reads a person’s name, age, college and pet’s name. Then print a paragraph inserting the appropriate data. For example:

Hello, my name is name and I am age years old. I’m enjoying my time at college, though I miss my pet petname very much!

Variables needed and their types:

Algorithm:

Implement the algorithm. Signature (classmate/instructor/TA): ____________________
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2.4 Write an application that reads two floating point numbers and prints their sum, difference, and product.

Variables needed and their types:

Algorithm:

Implement the algorithm. Signature (classmate/instructor/TA): ____________________
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2.8 Write an application that reads values representing a time duration in hours, minutes, and seconds and then prints the equivalent total number of seconds. (For example, 1 hour, 28 minutes, and 42 seconds is equivalent to 5322 seconds.)

Variables needed and their types:

Algorithm:

Implement the algorithm. Signature (instructor or TA): ____________________