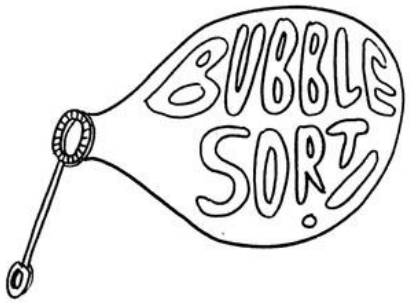
Bubble Sort File.



This program sorts an integer array using bubble sort.

(1) First, write out the three title comments to the file: Write out your name, the date and the purpose (tracing bubble sort). They won't have a // in front of them, just the data.
(2) Change the array so that it holds 15 elements in unsorted order at the beginning.
(3) Instead of printing the results to the screen, print them to a file.

```
import java.io.*;
public class bubblesortFile
{

    public static void main (String args[])
    { //Create the array
        int a[] = {5, 62, 81, 9, 30, 42, 0};

        PrintWriter out;
        try
        {
            out = new PrintWriter (new FileWriter ("BubbleSortFile.txt"));

            //Prints the array before it runs
            System.out.println ("Before Bubble Sort is Run: ");
            for (int i = 0 ; i < a.length ; i++)
            {
                System.out.print (a [i] + " ");
            }
            System.out.println ();

            //Run bubble sort
            System.out.println ("Tracing Bubble Sort:");
            int temp;

            for (int i = 0 ; i < a.length - 1 ; i++)
            {
                for (int j = 0 ; j < a.length - 1 - i ; j++)
                { // compare the two neighbours
                    if (a [j + 1] < a [j])
                    { //swap the neighbours if necessary
                        temp = a [j];
                        a [j] = a [j + 1];
                        a [j + 1] = temp;
                        //Printing out the array
                        for (int b = 0 ; b < a.length ; b++)
                        {
                            System.out.print (a [b] + " ");
                        }
                        System.out.println ();
                    }
                }
            }
            System.out.println ();
            //print out the array after
            System.out.println ("After Bubble Sort is Finished: ");
            for (int i = 0 ; i < a.length ; i++)
            {
                System.out.print (a [i] + " ");
            }
            System.out.println ();
            out.close ();
        }
        catch (IOException e)
        {
            System.out.println ("Error opening file " + e);
        }
    }
}
```