Java Programming

An introduction to Classes and Methods

Handouts to accompany the *Introduction to Classes and Methods* presentation

```java
// Name: Mr. Brennan
// File: Echo2.java
// purpose: Prompt the user to enter some text and then
//          an integer, and echo them to the user.
//          This uses the Scanner class.


import java.io.*;
import java.util.Scanner;

public class Echo2
{
    public static void main (String[ ] args)
    {
        Scanner scan = new Scanner(System.in);
        System.out.print ("Enter a string: ");

        String s = scan.nextLine();

        System.out.print ("\nEnter an integer: ");
        int i = scan.nextInt();
        System.out.println ("\nYou entered string " + s + " and integer " + i + "\n");
    }
}
```

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Sample class: Scanner

The Scanner class makes getting input from a terminal or a file a little bit easier by providing a series of methods for accessing input.

Method	*Returns*
int nextInt()	Returns the next token as an int. If the next token is not an integer, InputMismatchException is thrown.
long nextLong()	Returns the next token as a long. If the next token is not an integer, InputMismatchException is thrown.
float nextFloat()	Returns the next token as a float. If the next token is not a float or is out of range, InputMismatchException is thrown.
double nextDouble()	Returns the next token as a long. If the next token is not a float or is out of range, InputMismatchException is thrown.
String next()	Finds and returns the next complete token from this scanner and returns it as a string; a token is usually ended by whitespace such as a blank or line break. If not token exists, NoSuchElementException is thrown.
String nextLine()	Returns the rest of the current line, excluding any line separator at the end.
void close()	Closes the scanner.

From *Scanner Class,* University of Texas
http://www.cs.utexas.edu/users/ndale/Scanner.html

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Directions

Trace the program below to determine its exact output.

Use sample input   **5**

Java Notes

This example uses a `while loop as well as the Scanner class.`

```
import java.util.Scanner;

public class WhileDemo {

      public static void main(String[] args)  {

            int count, number;

            System.out.println("Enter a number");
            Scanner keyboard = new Scanner(System.in);
            number = keyboard.nextInt();

            count = 1;
            while (count <= number) {
                  System.out.print(count + ", ");
                  count++;
                   }
            System.out.println();
            System.out.println("Buckle my shoe.");

      } // main

} // class WhileDemo
```

Program output: