Assignment 12: For Loops

1. You are not given a starting class for this project. Create one on your own with a main and name it ForLoopFun.java.
2. In between each of the following parts, print a blank line using System.out.println();
3. First, use a for loop to print “I love Java” 10 times.
4. Then, prompt the user to enter a number, and then use a for loop to count from 0 to that number. Print each number separated by a space.
5. Next, prompt the user for a starting number, an ending number, and a number to count by. Then, count from the starting number to the ending number by the counting number using a for loop, again with a space between each number. For example, if the starting number is 2 and the ending number is 8 and the counting number is 2, you should print “2 4 6 8”.
6. Create an array of ints with values 1-10. You can use a for or while loop to fill it. Then, use a for loop to create a copy of the array, where all the values are changed by 2 (add 2 to each number). Create the second array before you fill it using a for loop. Print out the values of the second array separated by spaces.
7. Bonus: Create an array of ints with values 1-100. Use a for loop to print the numbers line by line, but print an exclamation point after multiples of 5. Use an if statement and the math concept of mod:
   1. x mod y gives the remainder when x is divided by y. For example, 5 mod 2 is 1 because 5/2 is 2 remainder 1. In Java, % is mod. So 12 % 5 is 2. Use this to find multiples of 5.
8. Run the program and make sure it works as expected.
9. Save the program in Git.