

CST 8132 Object Oriented Programming

Assignment #1 For Loops and Printing Patterns

Due Date: See Due Date on Blackboard

Problem Statement:

Using the Eclipse IDE, write a Java program that displays the following patterns separately, one below the other, on the computer screen. See the *Required Output* below.

Use **for** loops to generate the patterns. After your program is capable of printing the patterns with a width of 10 characters (as in the sample output), change your program so that a single numerical value in your code controls the width of the patterns. That is, changing a single "10" to "20" in ONE place in your code causes the patterns to be printed properly with a width of 20 characters.

All ampersands (#) must be printed individually by a single statement (inside a loop) of the form `System.out.print("#");`

A statement of the form `System.out.println();` can be used to move to the next line.

A statement of the form `System.out.print(" ");` can be used to display a single space for the last two patterns.

There should be no other output statements in the program.

Submission Requirements

Required Output (10 ampersands)

```
#
##
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####
#####
#####
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```

```
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#####  
 #####  
  #####  
   #####  
    #####  
     #####  
      #####  
       ##
```

```

#
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```

```
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#####  
####  
###  
##  
#
```

1. Demonstrate your finished program to your lab instructor.
2. Copy your Eclipse project folder into another folder named the following (using your own Lastname and Firstname) Lastname_Firstname_CST8132_Lab1 and create a zip archive of that folder. Be sure that your zip archive unzips to produce the folder with your name on it, which itself should contain a single folder (your Eclipse project folder).
3. Upload your zip archive through the Lab 1 link in Blackboard.

Grading Scheme:

5 marks: Correctness

5 marks: Readability