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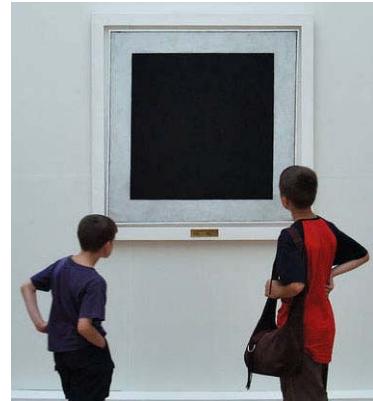
CIT130: Homework 3

Due date: March 20

Starship Decoration

If you like classical paintings, you may be familiar with the famous painting called *Black Square*, created by Kazimir Malevich in 1915. When Captain Picard was decorating his ready room on the Starship *Enterprise*, he realized that nowadays artists did not need to draw squares by hand, as he could produce nice wall pictures of squares using the ship's computer.

Your task is to help Captain Picard by implementing a program that prints squares of a given size. Specifically, you should complete *either* Problem 3A or Problem 3B (but not both). The second problem is harder; if you solve it, you will get 5 bonus points.



Problem 3A (50 points)

Implement a program that inputs an integer n and draws an $n \times n$ square. The perimeter of the square is composed of the symbol “*” (asterisk), and the space inside is filled with the symbol “o” (lower-case letter o).

Input and output: Your program should prompt the user to enter an integer n between 2 and 60, and draw an $n \times n$ square.

Example:

```
cmd Command Prompt
G:\>java Homework3a
Enter square size: 6
*****
*ooooo*
*ooooo*
*ooooo*
*ooooo*
*ooooo*
*****
G:\>
```

Problem 3B (50 points + 5 bonus)

Implement a program that inputs two integers, m and n , and draws m^2 squares, each of the size $n \times n$, arranged in an $m \times m$ table. That is, it draws a table with m rows and m columns, each element of which is an $n \times n$ square. For example, if the input integers are 4 and 6, it draws 16 squares, each of the size 6×6 , arranged in a 4×4 table. The perimeter of each square is composed of the symbol “*” (asterisk), and the space inside is filled with the symbol “o” (lower-case letter *o*).

Input and output: Your program should prompt the user to enter two integers, m and n , between 2 and 8, and draw m^2 squares, each of the size $n \times n$.

Example:

```
ca Command Prompt
G:\>java Homework3b
Enter table size: 4
Enter square size: 6

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G:\>
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