

Coding challenge

Introduction to the problem

You are free to implement any mechanism for feeding input into your solution. You should provide sufficient evidence with unit tests that your solution is complete. As a minimum, please use the provided test data to indicate that the solution works correctly. Any programming language can be used to solve the problem.

Drawing tool

You're given the task of writing a simple console version of a drawing program. At this time, the functionality of the program is quite limited but this might change in the future. In a nutshell, the program should work as follows:

1. Create a new canvas
2. Start drawing on the canvas by issuing various commands
3. Quit

At the moment, the program should support the following commands:

C w h	Should create a new canvas of width w and height h.
L x1 y1 x2 y2	Should create a new line from (x1,y1) to (x2,y2). Currently only horizontal or vertical lines are supported. Horizontal and vertical lines will be drawn using the 'x' character.
R x1 y1 x2 y2	Should create a new rectangle, whose upper left corner is (x1,y1) and lower right corner is (x2,y2). Horizontal and vertical lines will be drawn using the 'x' character.
B x y c	Should fill the entire area connected to (x,y) with "colour" c. The behaviour of this is the same as that of the "bucket fill" tool in paint programs.
Q	Should quit the program.

Sample I/O

Below is a sample run of the program. User input is prefixed with 'enter command:'.

xxxxxxx	

	xxxxxxx	
	x	
	x	

	xxxxxx
xxxxxxx	x x
x	xxxxxx
x	

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| oooooooooooooooooxxxxxx |
| xxxxxxxxoooooooooxx   x |
|           xooooooooxxxxxx |
|           xooooooooooooo  |
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