

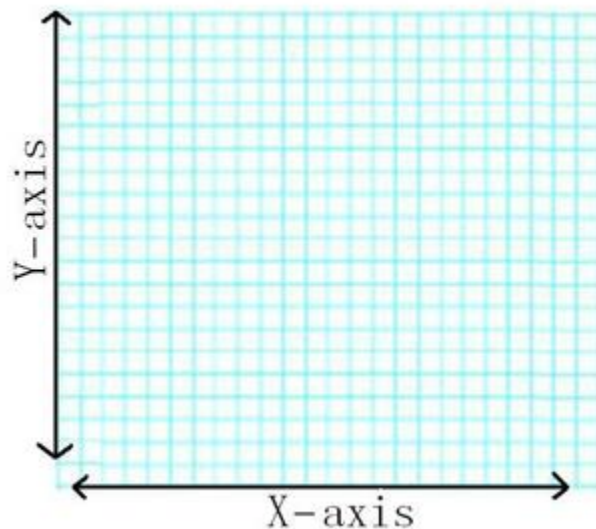
CONSOLE DRAWING PROGRAM

This program/application can be used to create a canvas to draw and color in Console by providing appropriate commands. Currently it supports creation of canvas, drawing of lines, rectangles and bucket fill.

The application uses X, Y coordinates for drawing the line and creating the canvas. The canvas uses the basic horizontal x-axis and vertical y-axis. All the values for x and y coordinates are positive.

$$X > 0$$

$$165 > Y > 0$$



Commands and Functionalities

1. Canvas: Creates new canvas to draw on command console. For proper functioning of big canvas, its recommended to use full screen command console.

Command*: `C w h`

w = width of canvas ($1 < w < 165$)

h = height of canvas

2. Line: Draws line inside the canvas by providing the starting point and ending point.

Command*: L X1 Y1 X2 Y2

X1: x coordinate of starting point of line

Y1: y coordinate of starting point of line

X2: x coordinate of ending point of line

Y2: y coordinate of ending point of line

3. Rectangle: Draws a Rectangle inside the canvas by providing the two vertices, Top left vertex and Bottom right vertex.

Command*: R X1 Y1 X2 Y2

X1: x coordinate of top left vertex of rectangle

Y1: y coordinate of top left vertex of rectangle

X2: x coordinate of bottom right vertex of rectangle

Y2: y coordinate of bottom right vertex of rectangle

4. Bucket Fill (Color Fill): Fills the area by a provided character around a provided point. This will exclude the previously drawn lines and rectangles. The command acts like Bucket fill for the paint. We provide the point from where the fill is to be started and we provide the character to be filled.

Command*: B X Y C

X: x coordinate of the point

Y: y coordinate of the point

C: character to be filled surrounding the point (Color)

5. Quit: This command will Exit the application

Command*: Q

* each character in the command is separated by a single space with no space at the end of the command.

Dependencies & Other Info

1. Dot Net version: 4.5.2
2. Unit Test project Dot Net version: 4.6.1
3. Number of csproj : 3 (drawing_program, DrawingFunctions, UnitTest)
4. Starting project: drawing_program
5. Libraries used:
 - a. Unity: Used for Dependency Injection
 - b. XUnit: Used for unit testing
 - c. Shouldly: For assertion while unit testing

Done By:

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