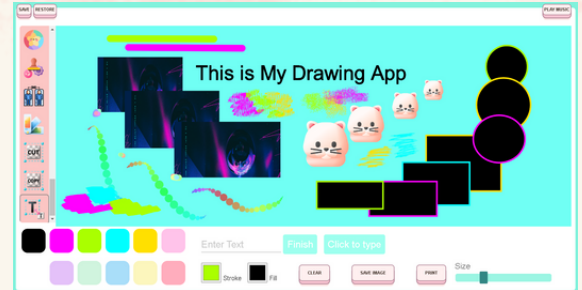


# FINAL PROJECT SUBMISSION [002]

LIST THE MODIFICATIONS AND EXTENSION THAT YOU HAVE MADE TO THE TEMPLATE (400WORDS)  
-WHAT IS THE FUNCTION OF THE EXTENSION?  
-HOW DOES THE CODE FIT INTO THE TEMPLATES DESIGN?  
- HOW HAVE YOU STRUCTURED THE EXTENSIONS CODE?



"cutPasteTool()" is a tool that allows you to cut an area of the canvas and draw it on a new one. To do this, the methods `keyPressed()` (the user is pressing the CTRL key), `mouseDragged()` (the user clicks the mouse and moves over the canvas) and `draw()` (rectangle over the selected area to cut) were used. ). Also, a mode indicator button has been implemented (0= "select area", 1="cut", 2="end paste"). So, the user presses the "Select Area" button, then presses the CTRL key and selects with the pointer the initial position of the area to be cloned, then clicks the mouse and scrolls the canvas to indicate the width and length of the area. . Release the click and press the "Cut" button which draws a white rectangle over the selected area to simulate the cut area. Finally, the selected (cut) area will be drawn at the current mouse position each time CTRL is pressed. "copyPasteTool()" works the same way, except that no white rectangle is drawn when cutting the area, which simulates the area being copied and not cut.

"textTool()" allows you to draw text on the canvas. To do this, an input was implemented that returns a string with the written text as a value, this is reflected on the canvas in the position where the mouse is clicked. Likewise, if the "click to type" button is pressed, we can press on the canvas and write, this works since the keys pressed are reflected on the canvas with the help of the `keyTyped()` method.

"filtersTool()" allows you to apply filters to the canvas. An array containing the names of the filters was created and with the help of the method `name.forEach()` it was iterated over each element and a button with ID equal to the name of the filter was created. Also, an object was created that attaches all the names and associates them to their corresponding function. Finally, with the help of the `Object.keys()` method, each of these names is iterated over, in such a way that when each button is pressed, it will detect its ID and its respective function, in this way the corresponding filter will be applied to the canvas.

"cloneShapeTool" clones an area of the canvas to a new one. Press CTRL and click on the area to be cloned, then when you click and drag the mouse across the canvas, the selected area will start cloning to this new area. Methods used: `keyPressed()`, `mouseReleased()` and `mousePressed()`.

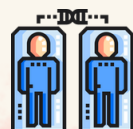
"geometricDesignTool()" allows you to simulate the shape of a spirograph by drawing lines that reflect through multiple lines of symmetry.



GEOMETRICDESIGNTOOL



COPYPASTETOOL



CLONESHAPETOOL



CUTPASTETOOL

**Extra: buttons and sliders that modify the size of the lines, areas or stickers for each tool have been implemented.**