

PROCESSING PROJECT PAINT

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To do the GUI of my application I used ControlP5 library.

Functions in my code:

- **void setup()**

It is a starting function to set up the application. It sets the size of the display, color of the background, initial values of some variables and call function *setUpGUI* to make the GUI for my application.

- **void draw()**

It sets the proper values of colors for the color button (which shows the current color chosen by the user) and draws the line on the screen.

- **void mouseReleased()**

If the menu is hidden it saves the background to the ArrayList as a backup after releasing a mouse.

- **void controlEvent(ControlEvent event)**

It is a big *if* condition which checks from which element the event came and:

- ✓ for „menu” button it shows and hides this button after clicking on it;
- ✓ for „clear” button it clears the screen and removes all the backups;
- ✓ for „save” button it saves drawn image as a jpg file in the project directory.
- ✓ for „undo” button it removes late drawn line and removes it from the backups list;

- ✓ for all sliders it sets r/g/b/alpha values and colors values of the sliders;
- ✓ for all colors buttons it sets the proper values of the r and g and b values and changes the sliders color values;

Finally, this function sets the *currentColor* value as: „*color(rValue, gValue, bValue, aValue)*“

- **void manageMenu()**

Depending on *showMenu* value it shows or hides the menu and set the background pixels.

- **void setUpGUI()**

It creates and sets up all the necessary GUI elements:

- ✓ „menuGroup” - group of the menu elements
- ✓ „menu” button
- ✓ all lables to know what one button or slider means
- ✓ all color sliders
- ✓ color button to know what is the current color chosen by the user
- ✓ stroke slider
- ✓ „clear” button
- ✓ „save” button
- ✓ „undo” button

and then calls „*setUpColorButtons*” and „*manageMenu*” functions.

- **void setUpColorButtons()**

It creates all the ready colors buttons which the user can use without using colors sliders.