Computer Graphics 101
PPaint – Final Project

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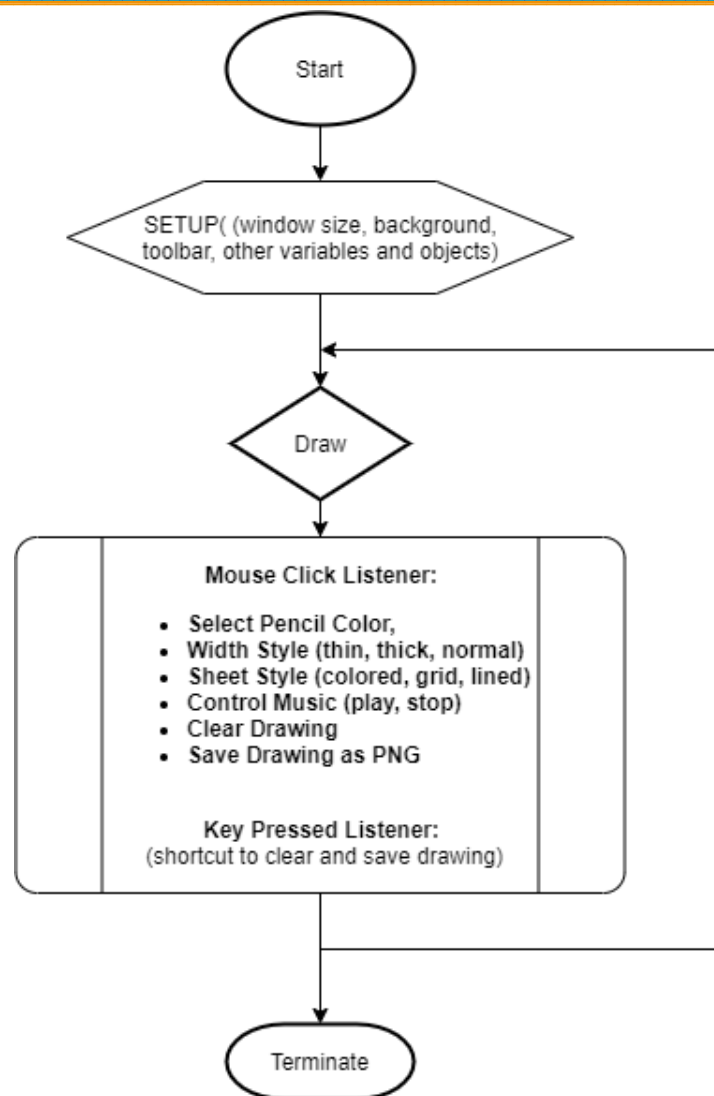**Husanboy 20182653**

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Introduction

- PPaint (Processing Paint) is a program capable of providing general drawing experience with extra featres.

- Written entirely with code (no drag and drop).

- Based on precise calculations to place objects on screen and to manage interactions for them.

- Our goal is not to deliver the best paint program to public, but to show that it is possible to make these sort of programs using Processing only by combining what we have learned in this class.

Process Flow Diagram

Start

SETUP((window size, background, toolbar, other variables and objects)

Draw

Mouse Click Listener:

- **Select Pencil Color,**
- **Width Style (thin, thick, normal)**
- **Sheet Style (colored, grid, lined)**
- **Control Music (play, stop)**
- **Clear Drawing**
- **Save Drawing as PNG**

Key Pressed Listener:
(shortcut to clear and save drawing)

Terminate

Libraries and Classes Used

- Sound 2.3.1

  Author: The Processing Foundation

 Provides a simple way to work with audio. It can play, analyze, and synthesize sound.

- PImage

  Author: The Processing Foundation

  Datatype for storing images. A class available from the Processing core library.

Interactions

- mousePressed() - called once after every time a mouse button is pressed.

- keyPressed() - called once every time a key is pressed. The key that was pressed is stored in the key variable.
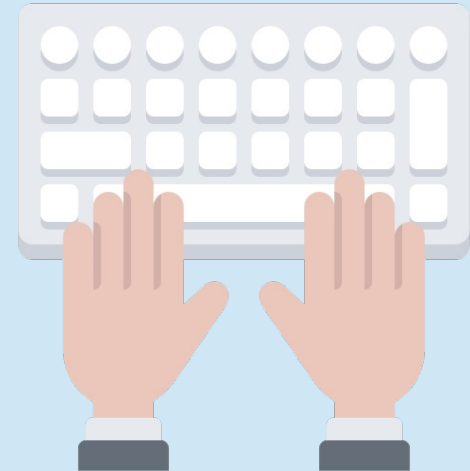
Output

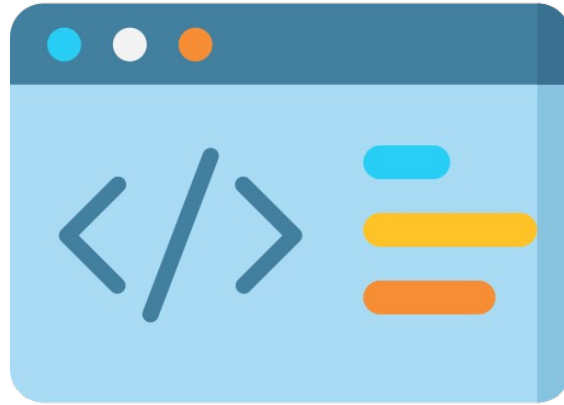- saveFrame() - Saves a numbered sequence of images, one image each time the function is run.

  We use this function to save a drawing user has drawn. It is stored in a local folder as PNG image file.

Features

- Draw in 6 different pencil colors

- Adjust ink size (thin, normal, thick)

- Choose background style (colored, grid, lined)

- Eraser and empty sheet tools

- Coordinates for mouseX and mouseY

- Prevent drawing on toolbar

- Listen to music while drawing

- Save finished drawing as PNG image file

Code explanation

Demo simulation