

Mydraw: Rasterization based Interactive Drawing

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Brush Size Handling:

1. Modified the stroke functions of the all the three classes `point_brush_t`, `eraser_point_brush` and `smooth_brush_t` in `brush.cpp` file to draw the pixels within a circle equal to the size of the brush.
2. By pressing key W we can change the size of the brush and it is implemented in `gl_framework.cpp`

Smooth Brush Handling:

1. Used cursor position callback in `gl_framework.cpp` to get the position of the mouse and checked whether the mouse button is pressed or not using a boolean `onPress` in `canvas`.
2. After getting the consecutive positions of the mouse in the callback function we used the smooth curve drawing function in `primitive.cpp` to draw the smooth curve between them.

Keyboard Input Handling:

1. Implemented the keyboard handling functionality in the `gl_framework.cpp` file under the `key_callback`.

Primitive Mode Handling:

1. Implemented Bresenham's Line drawing algorithm between 2 points and extended it to form triangles.
2. Functions Implemented:
 - `draw_line` and `mode_changes` in `primitive.cpp`

FloodFill:

1. Implemented FloodFill by BFS around the given point and coloring the connected valid pixels until we hit a different color.
2. Functions Implemented:
 - `fill` function under `floodfill` class in `fill.cpp`