CS475 – Assignment 1

Citations :-

1.For file IO operations :-
http://stackoverflow.com/questions/7868936/read-file-line-by-line

2.For floodfill reference and basic doubts:-
https://github.com/sprintr/opengl-examples/blob/master/OpenGL-FloodFill-Circle.cpp
Tutorials and demo codes uploaded by the professor

*3.*For vector usage :-
www.cplusplus.com/reference/**vector**/**vector**/

Things to note :-

1.Fill algorithm implemented is flood fill. So, triangles should not overlap while drawing.
2.Using the same points for different vertices in the triangle may lead to failure of the program
3.Once you change the mode of the pen and then revert it, (assuming it to be in line mode) then the first line you draw will have the first vertex as the last point you drew with the old mode.

User Manual :-

0. 'M' : For changing the mode of the pen

1. 'N' : Initialize a new canvas, including all elements of the 2D array to the background color. Assume that the size of canvas is equal to thesize of your window (and is fixed). Take the background color for the canvas as input from the terminal or an initial config file.

2. 'C' : To clear the canvas with current back ground color. To do this,clear the array with the required color and draw it to the screen.

3. 'S/L' : Save/Load drawing. For load, input filename on the terminal.

4. '1': Toggle Line drawing mode. Left clicks add points, and a line isdrawn between two successively clicked points, with the current pen.Right click removes the last added point, and if a line is left incomplete by removing the point, remove the line too.

5. '2': Toggle Triangle drawing mode. Left clicks add vertices. Three successively clicked vertices form a triangle. A right click removes the last added point, and if a triangle is left incomplete by removing the point, the triangle is also removed.

6. 'F': Fill the current triangle with the current fill color. This can require a click in the interior of the triangle to initiate a fill, depending on the
fill algorithm used.

7. 'G': Change current fill color. Input color from terminal.

8. 'H': Change current pen color. Input color from terminal.