12.02 Assignment Instructions

Instructions: Create an image representative of the Neoplasticism style, using a recursive design algorithm.

An image rendered in the Neoplastic style complies with the following rules: (Specific details can be found in "Computational Modeling of Creativity in Abstract Art," referenced previously.)

- The image can only contain the colors red, yellow, blue, black, white, and gray.
- The image can only contain rectangular shaped planes and lines.
- If two lines run in the same plane, they are parallel.
- Lines may only intersect at 90^o angles.
- The ratio of white space to color (red, blue, and yellow) should be 2:1.
- Areas of complexity and simplicity must be placed in opposite corners.
- No Mondrian art my contain symmetry.

1. Use a graphics program (e.g., Windows Paint) or one of the online Mondrian art generators to create your image.
2. If you need to make a copy of the active window containing your art, press ALT + PrtScn or ALT + PrntScrn.
3. Save your image with an appropriate name to reflect your vision of what the abstract image represents.
4. Explain how you use the principal of recursion to create your image.
5. Briefly describe a plan for how you might write a program to produce Mondrian art.
6. Respond thoughtfully to one of the following:
    - Who should get the copyright credit for a piece of computer art: the CPU, the software, or the programmer? Explain your reasoning.
    - If a computer, with no human intervention, produced Mondrian art indistinguishable from an original masterpiece, would it be a sign of artificial intelligence?
    - If a computer, with no human intervention, produced Mondrian art indistinguishable from an original masterpiece, would it diminish the accomplishments of a human?

Grading: Your assignment will be graded according to the following rubric.

Grading Rubric	Pts
Image contains only the appropriate colors.	1
Image contains only rectangular shaped planes and lines.	1
Lines are either parallel or perpendicular.	1
Ratio of white space to color is 2:1.	1
Areas of complexity and simplicity are in opposite corners.	1
No symmetry is apparent.	1
Plan for a program to create Mondrian art is described.	2
Thoughtful PMR included.	1

Submission: Submit the image file, as well as a document describing how recursion was used to make the image, and the plan for a Mondrian art generator as Assignment 12.02.