

Graphics Exercise

CS141 Assignment

Write a class that represents a digital snowman. Your class should follow these guidelines:

1. Store the following private class variables
 - a. bodyColor of type Color.
 - b. int x, int y for the upper left corner.
 - c. Graphics g.
2. Create two different constructor methods.
 - a. A (int x, int y, Graphics myG) parameter constructor that makes the snowman a light gray color by default and makes x and y the upper left corner and saves the graphics panel to draw on.
 - b. A (int x, int y, Graphics myG, Color c) parameterized constructor that requires a color as an input and then saves the color given in addition to the x and y and the graphics panel.
 - c. Each constructor should set /save the appropriate bodyColor to the necessary Color
3. Create a public drawSnowMan() method
 - a. Instantiate three Ovals that draw the body of the snowman.
 - b. Make sure to shift/translate the ovals based upon the proper x and y.
 - c. Your Ovals should be filled with whatever color bodyColor is set to.
 - d. Create several Objects to draw eyes, nose and mouth on the snowman
 - e. Create Lines to draw stick arms for the snowman.
4. Create a simple main program (main()) that displays several snowmen of different colors.
 - a. Create an array of 3 snowmen.
 - b. Snowman 0 should use the default constructor and hence should be gray.
 - c. Snowman 1 and 2 should be set to a non-gray color of your choice.
 - d. After making the snowmen, make sure to draw them to the screen.
5. Add a changeSnowManColor() method to the Snowman.
 - a. This should change the snowman to a random color.
 - b. Then it redraws the snowman

6. Create a loop in the main program that will change the color of one of the snowmen to a random color 10 times. You can use the `panel.sleep(300)` method in your main program/loop to slow it down to see the changes.

Sample output:

