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Period 4

Flag Project

AP Computer Science

Introduction

This is a project a program that produces an Applet or application which displays the United States flag to scale. The only error in the display should be due to the limited number of pixels which will make displaying the stars perfectly problematic.

Specification

It fulfills the requirements of having 50 stars, 13 stripes, a blue union and scaling when dragging the window.

Errors

There is no error in this code.

Structure

The project have 2 classes, A JFrame class with class variables for the length of each parts of the flag, a constructor that sets up the window, a paints method that contains all the helper method and do all the graphic drawing, and 5 helper method that help drawing and scaling the stars, stripes, and blue union. Another class is the main class that create a flag object and display the flag.

Major challenges

The major Challenge that I encountered in the process of making code is drawing the star.This is hard because of star’s shape and sides. There is no method for drawing a star(for example, you can use fillRectangle, fillCircle to draw a rectangle or circle). To draw a star, I used drawPolygon(xPoints[], yPoitns[], number of points) to draw my stars. fillPolygon method connects all the points and fill the polygon. This is also hard because I need to find 10 points for my star. I used math class trig function to find each points of the star. I think it as a trig 2 circle, one for outer circle(5 points outside), 5 points on inner circle(5 points inside).

Acknowledgement

I asked Mr. Kuszmaul and my partner for help about drawing the stars.