

David Wei

The Flag Project

Introduction(A)

In this project, we were asked to draw an American Flag, the teacher gave us the resources of the proper scale of the stars, stripes and union, and we are expected to use our knowledge and skills learnt throughout the first few weeks to make the flag. We were given two and a half week to make the flag. In this project, I improved my skills of using github, as well as do online research to learn things I did not know (such as the fillPolygon method) and making progress report of each stage.

#B & C

I started the flag project at August 24th when I first turned in the progress report. I had successfully make the Stripes with proper scale at school. When I was working at home, I made the Union of the flag with blue color, but the scale is a little bit off. I'm still do not know why the height does not match the 6th stripe, but when I add another 10 units, it matches. (you can find this on code line 22) As for the stars, I had successfully make all 50 stars! However, I was not able to make my code work so that when I resize the window (by using a mouse to dragging it) the flag will auto re-size. In order to solve this problem is to make another method that helps the flag to re-size. However, I was not able to spent all my free time on one work because I have to study on my other courses. Also, for my stars, I was trying to use a for loop to paint it, but I failed because at first I did not understand how to fillPolygon() method works, so I have to learn it and make some practices of it, then I realized I do not have enough time to figure it out of how to use for loop to paint the stars, so I just calculate the values and places them in the fillPolygon() to paint the star.

#D

So in my code, I used JFrame to draw the flag, init() to make the window, a helper method called MakeStars to draw one star. Then I use paint to paint the stars, Stripes and Unions. In my code of painting the stripes, I used a for loop to make the stripes color old glory red, and the rest are all color white. In my code of painting the union, I use fillRect to make a rectangle with the color old glory blue. For the stars, I use the MakeStars() method to paint one star, in that method, I just simply use two arrays with the x and y coordinates(so each array has 10 elements) and put them into the fillPolygon method with the number of points equals to 10. I made an attributes called number_of_stars which will eventually be equal to 50, paint 5 rows, each has 6 stars, and another 4 rows with each has 5 stars to make all 50 of them.

#E & F

In this project, I was having a hard time at how to use loop to draw the star and how to make 50 of them. The major challenges is how to fillPolygon method work. I searched online on fillPolygon basis but I could not understand it, so I asked a teacher in Paly who is currently teaching Functional Programming and taught me last year (his name is William Friebe). To help me understanding the method. Then I ask people around me of how to use trigonometry to paint the star.