Criterion C: Development

1. Fourier Transform method
2. Converting Fourier Transform method to java
3. Drawing the images
4. Displaying Images

1. I assumed that programming a Fourier Transform method to draw the images using Fourier series would be much easier than it turned out to be. After failing multiple times to create my own version, I found one in a GitHub repository by Daniel Shiffman. His Fourier Transform method was coded in Processing which created a problem.
2. I had to convert Daniel Shiffman's Fourier Transform method into java to make it usable with the rest of my application. Since I was using Javax Swing as my method of displaying the application, I had to convert the Processing methods to fit within the JFrames and JPanels I was using. These tasks were a lot more complicated than I was planning on.
3. To draw the images, it took a lot of effort to convert the images into coordinates that the JSONArray in the Fourier Transform method could read. To do this, I converted the images into svg files, after which I used a very useful github repository by Aliza Aufrichtig to convert the svg files into a JSON file of coordinates. I used replace within a text editor to modify the formatting of the coordinates into a readable JSONArray.
4. I had to solve the issue of displaying the images within each individual JPanel so that once the user clicked a JButton on the title panel to bring them to an image JPanel, they each displayed their own unique image rather than a singular image that was universal for all 4 JPanels.