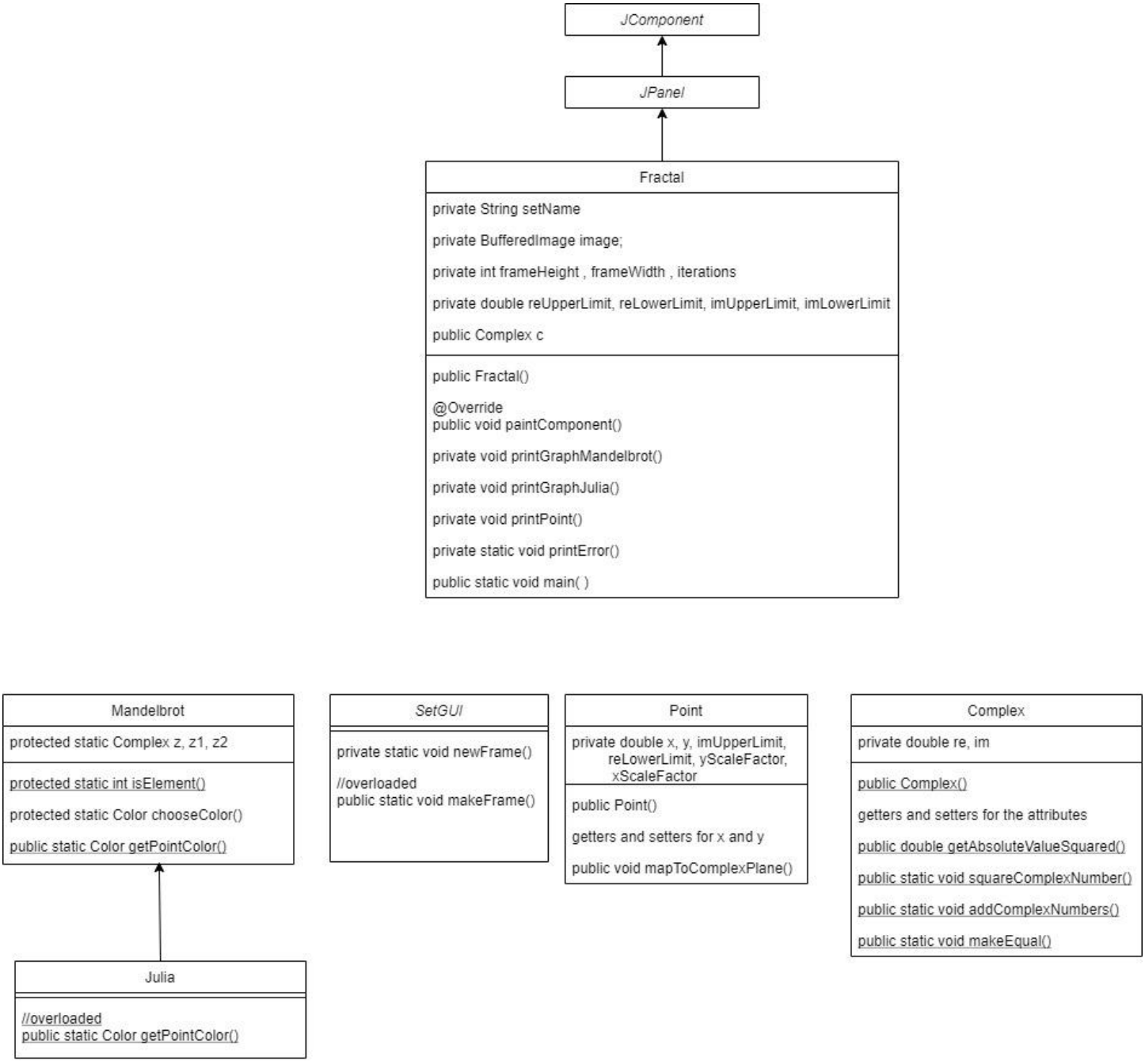
Class Diagram

(E/17/369 – S.B.Wannigama)



- Fractal class extends the JPanel class, and overrides the paintComponent() method to print the graph. It also contains other methods used to print the graph.
- Mandelbrot class contains the methods necessary to check whether a point on the canvas maps to a complex number (inside the region of interest) which is in the Mandelbrot set.

- Julia class extends Mandelbrot class, and overloads a method from the Mandelbrot class.
- SetGUI class contains the methods necessary to set up a JFrame, and create objects from the Fractal class.
- Point class contains methods and necessary attributes to create an object which represents a point on the canvas.
- Complex class contains methods and necessary attributes to create an object which represents a complex number.

Note:

- The program is written to print the specified graph (Mandelbrot or Julia) on the JPanel, as well as to create an PNG image of the specified graph.
- This PNG image will be saved inside the same folder containing the source code, and will be named as Fractal.png.