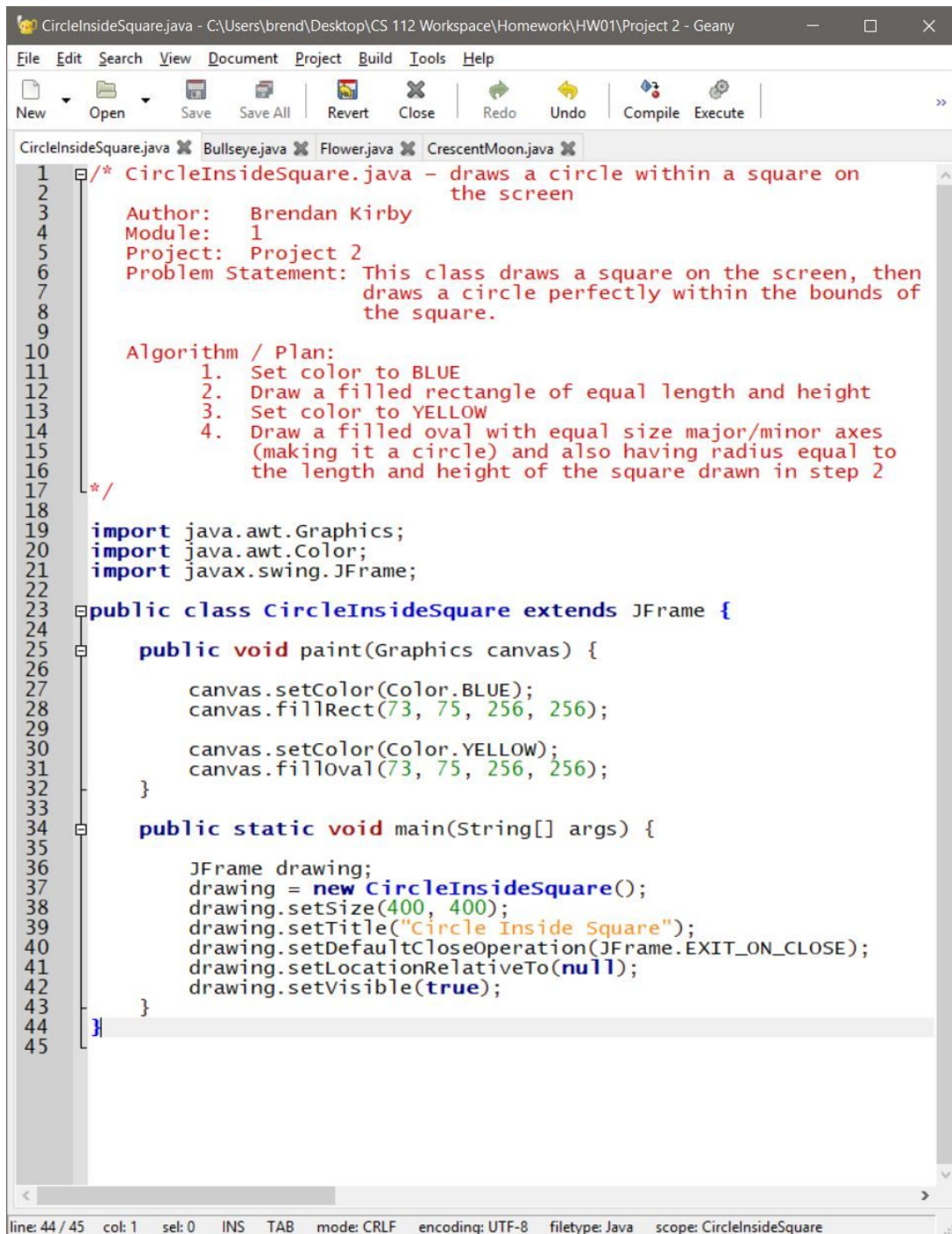
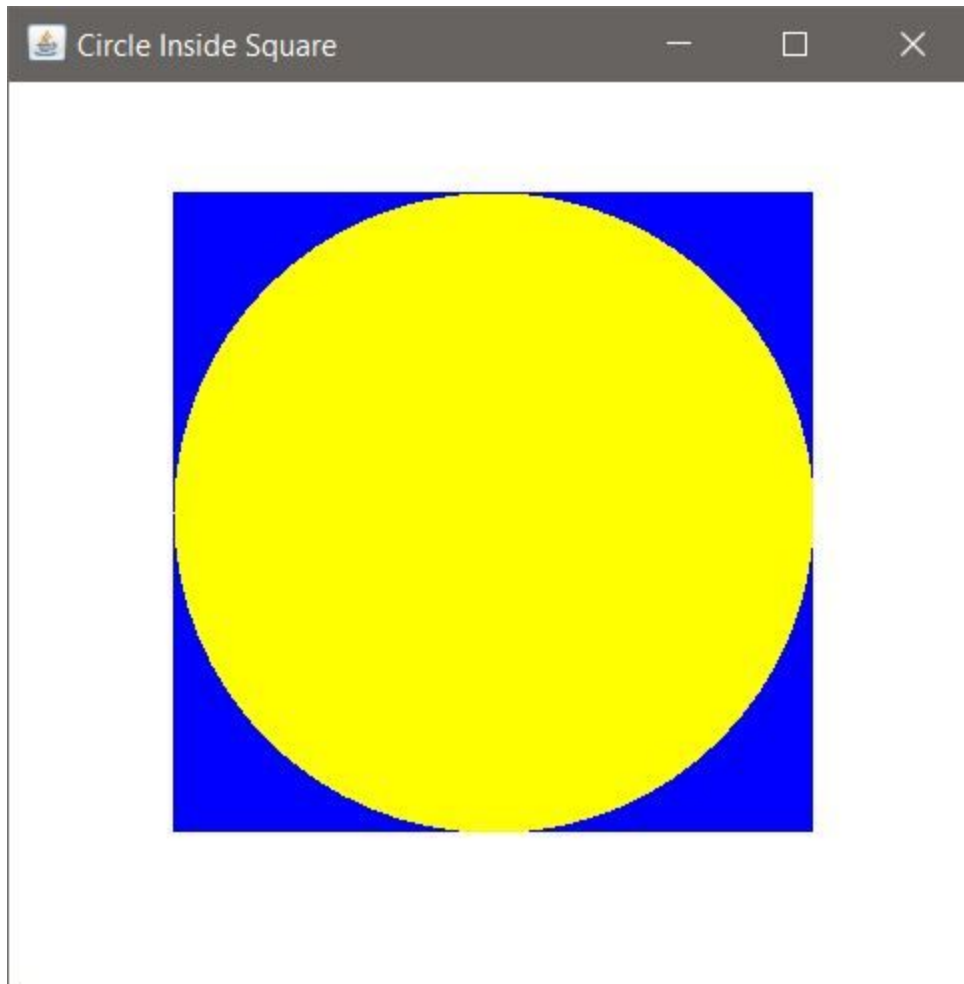


HW 01

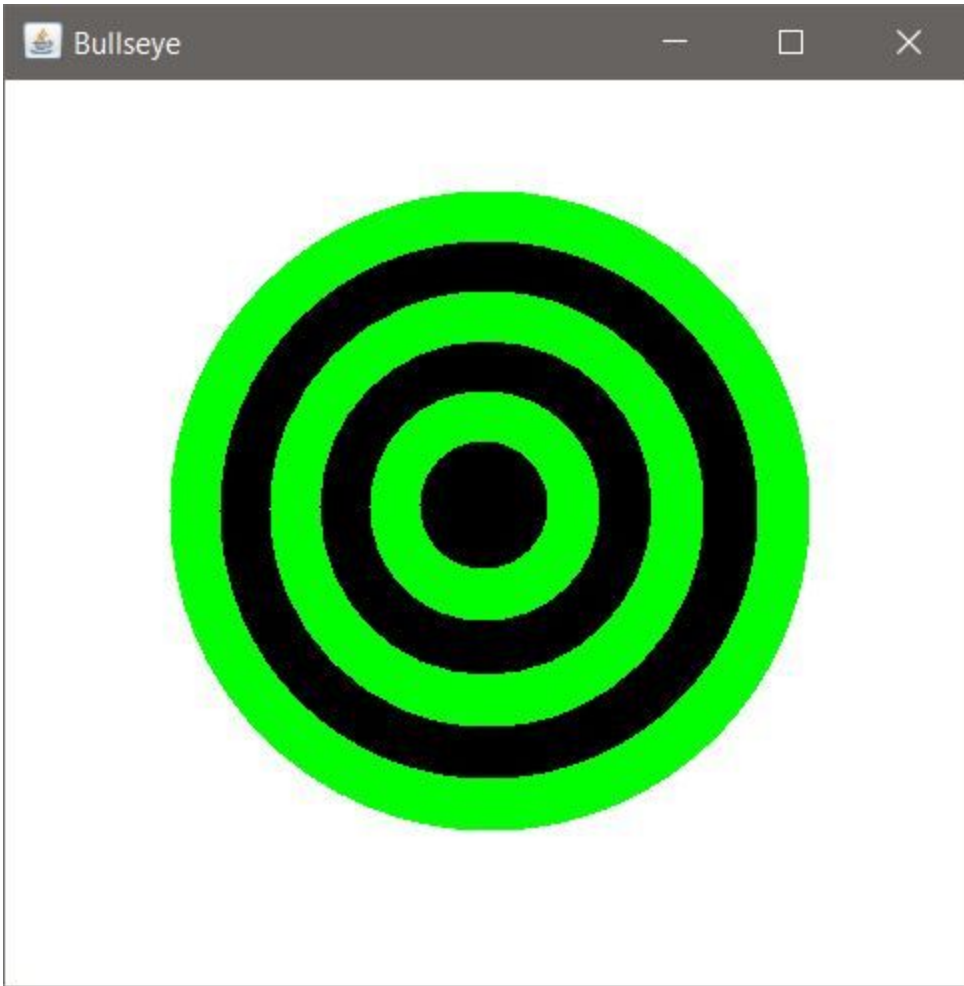


```
1  /* CircleInsideSquare.java - draws a circle within a square on
2     the screen
3     Author:  Brendan Kirby
4     Module:  1
5     Project: Project 2
6     Problem Statement: This class draws a square on the screen, then
7                       draws a circle perfectly within the bounds of
8                       the square.
9
10    Algorithm / Plan:
11        1. Set color to BLUE
12        2. Draw a filled rectangle of equal length and height
13        3. Set color to YELLOW
14        4. Draw a filled oval with equal size major/minor axes
15           (making it a circle) and also having radius equal to
16           the length and height of the square drawn in step 2
17    */
18
19    import java.awt.Graphics;
20    import java.awt.Color;
21    import javax.swing.JFrame;
22
23    public class CircleInsideSquare extends JFrame {
24    public void paint(Graphics canvas) {
25        canvas.setColor(Color.BLUE);
26        canvas.fillRect(73, 75, 256, 256);
27
28        canvas.setColor(Color.YELLOW);
29        canvas.fillOval(73, 75, 256, 256);
30    }
31
32    public static void main(String[] args) {
33        JFrame drawing;
34        drawing = new CircleInsideSquare();
35        drawing.setSize(400, 400);
36        drawing.setTitle("Circle Inside Square");
37        drawing.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
38        drawing.setLocationRelativeTo(null);
39        drawing.setVisible(true);
40    }
41    }
```

line: 44 / 45 col: 1 sel: 0 INS TAB mode: CRLF encoding: UTF-8 filetype: Java scope: CircleInsideSquare

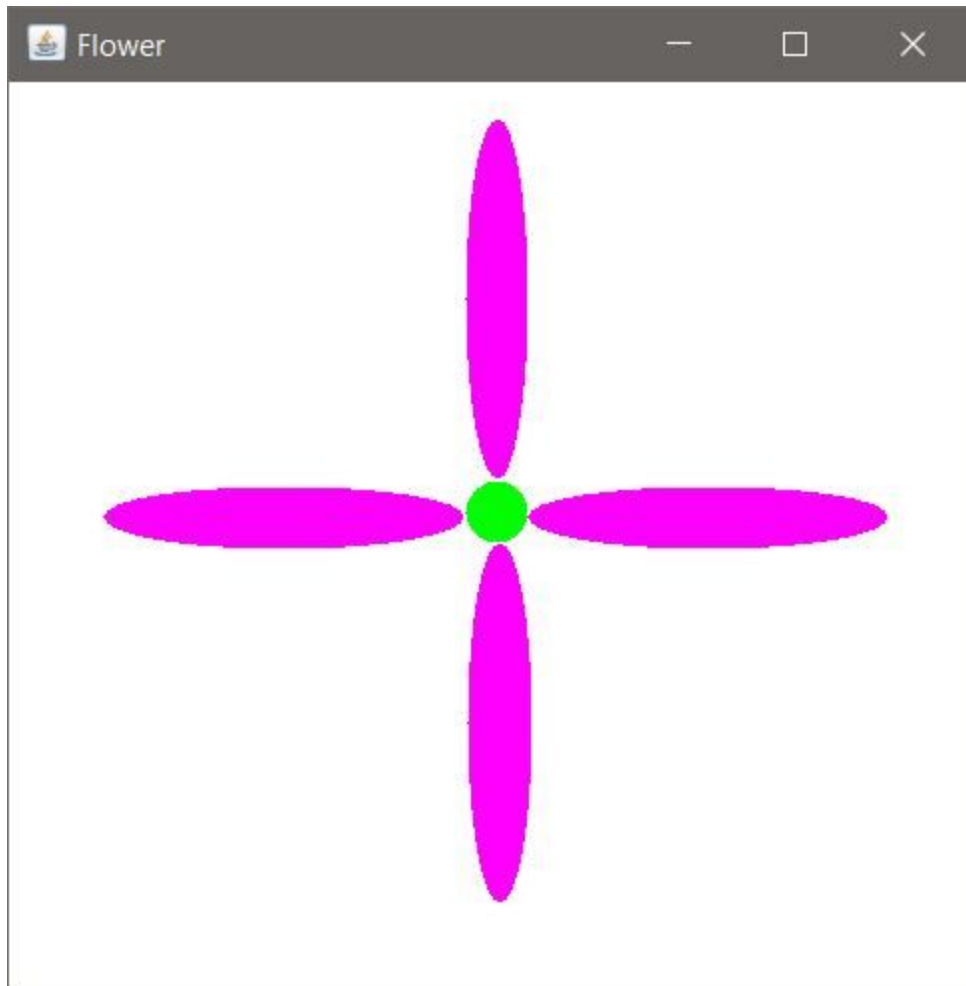


```
Bullseye.java - C:\Users\brend\Desktop\CS 112 Workspace\Homework\HW01\Project 3 - Geany
File Edit Search View Document Project Build Tools Help
New Open Save Save All Revert Close Redo Undo Compile Execute
CircleInsideSquare.java Bullseye.java Flower.java CrescentMoon.java
1  /* Bullseye.java - draws a bullseye pattern on the screen
2     Author:  Brendan Kirby
3     Module:  1
4     Project: Project 3
5     Problem Statement: This class draws the rings of a bullseye
6                        pattern and fills them using alternating
7                        colors.
8
9     Algorithm / Plan:
10    1. Define a circle of radius 256 with coordinates (73,75)
11    2. For every decrement the radius by 41, if the resulting
12       radius is even: set color to BLACK and if it is odd:
13       set color to GREEN
14    3. For every decrement of the radius, while the radius
15       remains greater than 10, draw a filled oval and
16       increment the x and y coordinates by 20
17 */
18
19 import java.awt.Graphics;
20 import java.awt.Color;
21 import javax.swing.JFrame;
22
23 public class Bullseye extends JFrame {
24
25     public void paint(Graphics canvas) {
26
27         int radius, xcoord, ycoord;
28
29         radius = 256;
30         xcoord = 73;
31         ycoord = 75;
32
33         for (radius = 256; radius > 10; radius -= 41) {
34
35             if ((radius % 2) != 0) {
36
37                 canvas.setColor(Color.BLACK);
38
39             }
40             else {
41
42                 canvas.setColor(Color.GREEN);
43
44             }
45
46             canvas.fillOval(xcoord, ycoord, radius, radius);
47             xcoord += 20;
48             ycoord += 20;
49         }
50     }
51
52     public static void main(String[] args) {
53
54         JFrame drawing;
55         drawing = new Bullseye();
56         drawing.setSize(400, 400);
57         drawing.setTitle("Bullseye");
58         drawing.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
59         drawing.setLocationRelativeTo(null);
60         drawing.setVisible(true);
61     }
62 }
63
line: 62 / 63 col: 1 sel: 0 INS TAB mode: CRLF encoding: UTF-8 filetype: Java scope: Bullseye
```



```
Flower.java - C:\Users\brend\Desktop\CS 112 Workspace\Homework\HW01\Project 3 - Geany
File Edit Search View Document Project Build Tools Help
New Open Save Save All Revert Close Redo Undo Compile Execute
CircleInsideSquare.java Bullseye.java Flower.java CrescentMoon.java
1  /* Flower.java - draws a flower on the screen
2     Author:  Brendan Kirby
3     Module:  1
4     Project: Project 3
5     Problem Statement: This class draws the center and petals
6                        of a flower and fills them using different
7                        colors.
8
9     Algorithm / Plan:
10        1. Set color to GREEN
11        2. Draw and fill center of flower
12        3. Set color to MAGENTA
13        4. Draw and fill petals of flower at 3, 6, 9, and 12
14           o'clock relative to the center drawn in step 2
15  */
16
17  import javax.swing.JFrame;
18  import java.awt.Color;
19  import java.awt.Graphics;
20
21
22  public class Flower extends JFrame {
23
24      public void paint(Graphics canvas) {
25
26          canvas.setColor(Color.GREEN);
27          canvas.fillOval(190, 190, 25, 25);
28
29          canvas.setColor(Color.MAGENTA);
30          canvas.fillOval(215, 192, 144, 25);
31          canvas.fillOval(191, 215, 25, 144);
32          canvas.fillOval(190, 45, 25, 144);
33          canvas.fillOval(45, 192, 144, 25);
34      }
35
36      public static void main(String[] args) {
37          JFrame drawing;
38          drawing = new Flower();
39          drawing.setSize(400, 400);
40          drawing.setTitle("Flower");
41          drawing.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
42          drawing.setLocationRelativeTo(null);
43          drawing.setVisible(true);
44      }
45  }
46
47
48
line: 47 / 48 col: 1 sel: 0 INS TAB mode: CRLF encoding: UTF-8 filetype: Java scope: Flower
```





```
CrescentMoon.java - C:\Users\brend\Desktop\CS 112 Workspace\Homework\HW01\Project 3 - Geany
File Edit Search View Document Project Build Tools Help
New Open Save Save All Revert Close Redo Undo Compile Execute
CircleInsideSquare.java Bullseye.java Flower.java CrescentMoon.java
1  /* CrescentMoon.java - draws a lit crescent moon
2     Author:  Brendan Kirby
3     Module:  1
4     Project: Project 3
5     Problem Statement: This class draws and fills a picture of a
6                        crescent moon with one side lit, and the
7                        rest dark.
8
9     Algorithm / Plan:
10        1. Draw a filled oval using color ORANGE
11        2. Draw another filled oval using color DARK_GREY such
12           that it is offset rightward from the initial oval,
13           giving the impression of three dimensions
14  */
15
16  import javax.swing.JFrame;
17  import java.awt.Color;
18  import java.awt.Graphics;
19
20
21
22  public class CrescentMoon extends JFrame {
23
24      public void paint(Graphics canvas) {
25
26          canvas.setColor(Color.ORANGE);
27          canvas.fillOval(105, 90, 225, 225);
28
29          canvas.setColor(Color.DARK_GRAY);
30          canvas.fillOval(90, 90, 225, 225);
31      }
32
33      public static void main(String[] args) {
34
35          JFrame drawing;
36          drawing = new CrescentMoon();
37          drawing.setSize(400, 400);
38          drawing.setTitle("Crescent Moon");
39          drawing.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
40          drawing.setLocationRelativeTo(null);
41          drawing.setVisible(true);
42      }
43  }
44
line: 43 / 44 col: 1 sel: 0 INS TAB mode: CRLF encoding: UTF-8 filetype: Java scope: CrescentMoon
```

