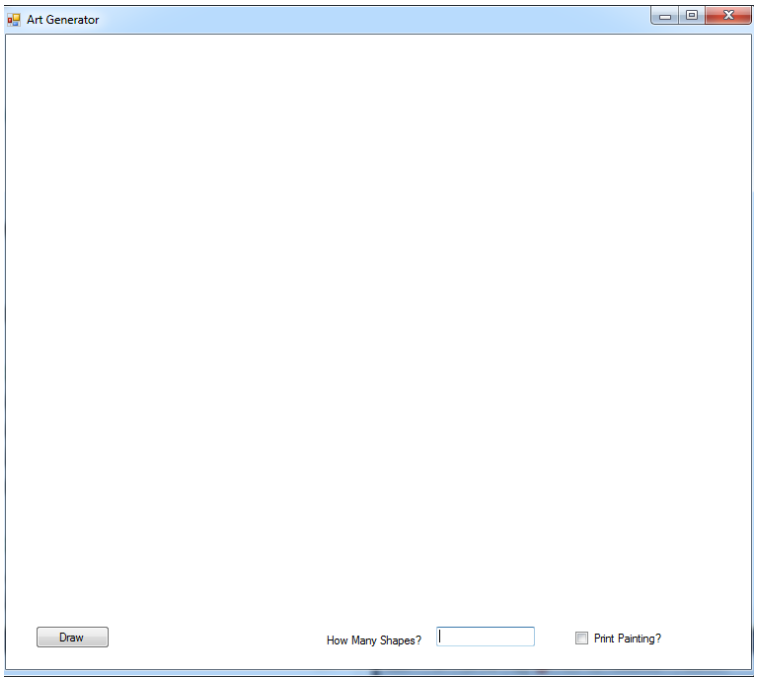
Name **Session:**
Programming II
Lab Exercise 3/22/2022
Move Over Jackson Pollack

I this lab you will create an abstract drawing program that will create computer generated artwork in the spirit of Jackson Pollack. Jackson Pollack was an abstract expressionist whose work was influential in post-World War and whose style attracted the attention of the CIA who saw it as a means of promoting the USA as a haven of free thought and free markets. When you have completed this project, submit an abstract drawing.

You program should do the following.

1. Create a graphics surface to draw on.
2. Select a random shape (Rectangle, Ellipse, Line, Filled Rectangle, Filled Ellipse)
3. Select a random starting point for your shape
4. Select a random width and height for your shape
5. Select a random color for your shape
6. Select a random pen width for your non-filled shapes
7. Draw the shape
8. Repeat steps 2 – 7 a user specified number of times

9. Create a new Windows Application



Notice that the form has a Draw button, a TextBox to specify the number of shapes to draw and a CheckBox to specify printing generated artwork.
These should have the following properties set:

Control	Name	Text
Form1	Form1	Art Generator
Button	btnDraw	Draw
Textbox	txtShapes	
Checkbox	ckbPrint	Print Painting?

10. When you click on the draw button, your program will hide all of the form controls, draw a number of random shapes, print if desired and restore the form to its original state.

11. Here is the btnDraw_Click event code:

```
//Add comment here
lblShapes.Visible = false;
txtShapes.Visible = false;
cboPrint.Visible = false;
btnDraw.Visible = false;

// Add comment here
int intTimes, rShape, rX, rY, rWidth, rHeight, rColor, index;
bool printPainting = false;

// Add comment here
Graphics FormSurface = CreateGraphics();
FormSurface.Clear(Color.White);

// Add comment here
intTimes = Convert.ToInt32(txtShapes.Text);

// Add comment here
Pen myPen =  new Pen(Color.Red, 5);
SolidBrush myBrush = new SolidBrush(Color.Red);
Color myColor = new Color();

//Add comment here
for (index = 1; index <= intTimes; index++)
{
   rShape = r.Next(1,5);    //Add comment here
   rColor = r.Next(1,5);    //Add comment here
   rX = r.Next(0, 800);     //Add comment here
   rY = r.Next(0, 800);     //Add comment here
   rWidth = r.Next(100,300);     //Add comment here
   rHeight = r.Next(100, 300);     //Add comment here


   //Add comment here
```

```
    switch (rColor)
    {
        case 1:
            myColor = Color.Red;
            break;
        case 2:
            myColor = Color.Green;
            break;
        case 3:
            myColor = Color.Blue;
            break;
        case 4:
            myColor = Color.Yellow;
            break;
        case 5:
            myColor = Color.Orange;
            break;
    }

      //Add comment here
    myPen.Color = myColor;
    myBrush.Color = myColor;

      //Add comment here
    switch (rShape)
    {
        case 1:
            FormSurface.DrawLine(myPen, rX, rY, rX + rWidth, rY + rHeight);
            break;
        case 2:
            FormSurface.DrawEllipse(myPen, rX, rY, rWidth, rHeight);
            break;
        case 3:
            FormSurface.DrawRectangle(myPen, rX, rY, rWidth, rHeight);
            break;
        case 4:
            FormSurface.FillRectangle(myBrush, rX, rY, rWidth, rHeight);
            break;
        case 5:
            FormSurface.FillEllipse(myBrush, rX, rY, rWidth, rHeight);
            break;
    }
}


//Add comment here
```

```
if (ckbPrint.Checked)
   printPainting = true;

//Add comment here
if (printPainting)
   printForm1.Print();

//Add comment here
Thread.Sleep(5000);

////Add comment here
btnDraw.Visible = true;
lblShapes.Visible = true;
txtShapes.Visible = true;
cboPrint.Visible = true;
cboPrint.Checked = false;
txtShapes.Text = "";
txtShapes.Focus();
FormSurface.Clear(Color.White);
```