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Programming in the Arts with Processing

In Class Exercise #17**Day:****Tue 4.1.14****Due:****In Class****Goal:****OOPs...****Course Web Site:**<http://www.andrew.cmu.edu/course/60-257/>**Assignment:**

1. Open a new .pde file and save it.
2. Copy the code on the next page into the file and save it. Be sure your copy captured the final brace in the **draw()** function.
3. On the left edge of the window near the top is a gray box with the program name in it. Immediately to the right of this box is a small circle with a triangle in it. Click on that circle and choose the New Tab option.
4. A gold bar will appear above the black console frame near the bottom of the window. Type the word **Figure** in the box – Be sure the **F** is upper case. Press the ok button.
5. You should see a new box or Tab between the program name and the circle you just clicked near the top of the window. This tab will gray and the tab with the program name will be blue. The gray tab is the active window.
6. Click on the tab with the program name and you should see the code you copied into this window in step #2.
7. Click back on the tab named Figure.
8. Type the following code in the Figure window:

```
class Figure  
{  
  
}  
  
}
```
9. Within the braces, declare four variables to store data:
 - three int variables named **x**, **y**, and **dim**
 - one color variable named **col**
10. Within the braces, define a method named **drawFigure()** and add code to draw a simple figure of your own choosing.
11. Within the braces, define a method named **moveFigure()** that moves the figure in a wrapping motion.

```
Figure f1, f2;

void setup ( )
{
  size( 400, 400 );
  f1 = new Figure( );
  f1.x = 200;
  f1.y = 100;
  f1.dim = 30;

  f1.col = color( 255, 0, 0 );
  f2 = new Figure( );
  f2.x = 300;
  f2.y = 200;
  f2.dim = 47;
  f2.col = color( 0, 0, 255 );

  noStroke( );
}

void draw( )
{
  background( 0 );
  f1.moveFigure( );
  f1.drawFigure( );
  f2.moveFigure( );
  f2.drawFigure( );
}
```