Sample Psuedocode

06 Lab 2 - Rectangle
- *Lab UML* -

I. Driver class 

```
Packages needed:
import apcslib.*;
import chn.util.*;

Declare variables:
Rectangle rectanglo; //picking up after Sean's Spanishness ☺
ConsoleIO keyboard;
double x, y, width, height;
double area, perimeter;
```

A. Prompt the user. Have the user input
   1. an x coordinate
   2. a rectangle width
   3. a y coordinate
   4. a rectangle length

B. Process the information
   1. calculate the perimeter of the rectangle and return it in the perimeter double variable.
   2. calculate the area of the rectangle and return it in the area double variable.

C. Output
   1. Display the results from the calculations
   2. "output" the rectangle by invoking the draw() method.

II. Rectangle class

Rectangle	

private double myX;
private double myY;
private double myWidth;
private double myHeight;
private static DrawingTool pen = new DrawingTool(SketchPad(500, 500));
	// the x coordinate of the rectangle
	// the y coordinate of the rectangle
	// the width of the rectangle
	// the height of the rectangle

<<constructors>>
public Rectangle()
public Rectangle(double x, double y, double width, double height)
 	
<<accessors>>
none
 	
<<modifiers>>
public double getPerimeter()
public double getArea()
public void draw()
	// constructor with no arguments
	//constructor method with x and y coordinates along with height/width
	
	//calculates and returns the perimeter
	//calculates and returns the area
	/* Draws a new instance of a Rectangle object with the left and right
	edges of the rectangle at x and x + width. The top and bottom edges
	are at y and y + height. */

Rectangle CLASS SPECIFICATIONS

<<Constructors>>

```
public Rectangle()
       myX = myY = myWidth = myHeight = 0;

public Rectangle(double x, double y,  double width, double height)
       myX = x;
       myY = y;
       myWidth = width;
       myHeight = height;
```

<<Accessors>>

none

<<Modifiers>>

public double getPerimeter()
: returns a double representing the perimeter (myWidth + myHeight) * 2.

public double getArea()
: returns a double representing the area (myWidth * myHeight).

public void draw()
: draws a rectangle with coordinates (x, (y + myHeight)) (x, y) (y + myWidth) (x, (x + myWidth)).