Project 5: Write Your Own Turtle with a Menu-Driven Program

Basic Information:

Project Heading:

Use the following as a header for all of your projects:

Style:

Be sure you have header comments for each of your functions.

Due Date:

Week 16

Turn in:

- 1. Algorithm or flow chart
- 2. Program listing
- 3. Save file(s) as P5_YourName.py include your module *draw_shape.py*.

Problem Specification:

You will write a MENU-DRIVEN program with your own functions.

You will create the module, draw_shape.py. This module will allow the player to draw geometric shapes and an option to quit the program. draw_shape.py must have a set of Python Turtle Graphics functions built-in. Review the lecture Modularity, prior starting this project- it has an example of the turtle Function.

Specific Requirements:

USER MENU

```
DRAW_SQUARE_CHOICE =1
DRAW_RECTANGLE_CHOICE =2
DRAW_ANYSHAPE_CHOICE =3
QUIT_CHOICE = 4
```

• <u>First Menu Option</u>: the user will have the option to draw a square. Use turtle to draw a square of any size. Create a function *drawSquare()* that takes two parameters, namely the turtle to draw the square and the size of the square. The user will enter the length size. Later your program will call this function.

- <u>Second Menu Option</u>: the user will have the option to draw a rectangle. Create a function *drawRectangle()* to double the size of a shape to make a rectangle.
- <u>Third Menu Option</u>: the user can draw a shape of your choice. This shape function drawShapeOfYourChoice(), takes three parameters: myTurtle, width, height.
- Fourth Menu Option: quit
- Your program must have instructions for the player.
- Your program must use meaningful functions and show modularity in the design.
- Your program should not accept invalid choices from the player.