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CPADS Lab Activity #2

1. Open Pycharm making sure to select the Python 3.5 interpreter. Create a new project named **CS100-Lab2**. Right click on **CS100-Lab2** in the left sidebar and select **New->Python File**. Name the file **drawSquare**. Type the following code **exactly** as shown

```python
import turtle

def drawSquareFromCenter(turtle,x):
    turtle.penup()
    turtle.forward(-x/2)
    turtle.right(90)
    turtle.forward(x/2)
    turtle.left(90)
    turtle.pendown( )
    turtle.forward(x)
    turtle.left(90)
    turtle.forward(x)
    turtle.left(90)
    turtle.forward(x)
    turtle.left(90)
    turtle.forward(x)
    turtle.left(90)
    turtle.penup( )
    turtle.forward(x/2)
    turtle.left(90)
    turtle.forward(x/2)
    turtle.right(90)

def main():
    # Create turtle
    bob = turtle.Turtle()

    # Draw graphics
    drawSquareFromCenter(bob,200)

    # Press any key to exit
    input()

main()
```

Execute your program by selecting **Run->Run->drawSquare.** You should see a window open up and a turtle draw a square returning to the center. Hit any key in the bottom pane of Pycharm to close the program.

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2. Right click on **CS100-Lab2** in the left sidebar and select **New->Python File**. Name the file **layerCake**. Copy the code from problem 1 into this file. **Add/modify code in main()** as necessary in the **# Draw Graphics** section using **drawSquareFromCenter(x)** to construct the following layer cake figure. The layers are sizes 40, 80, 120, and 160 and centered on each other. You do not need to worry about where the cursor ends up once the figure is drawn.

Hint: ***USE YOUR STRATEGY FROM LAB ACTIVITY 1!***
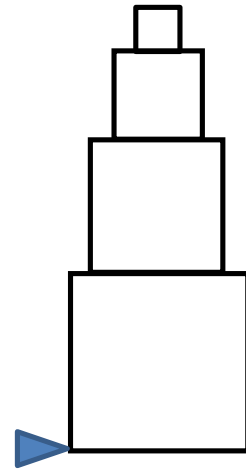
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3. Right click on **CS100-Lab2** in the left sidebar and select **New->Python File**. Name the file **pinwheel**. Copy the code from problem 1 into this file. **Add/modify code in main()** as necessary in the **# Draw Graphics** section using **drawSquareFromCenter(x)** to construct the following pinwheel (assume the squares are sizes 40, 80, 120, 160).

*Hint: **USE YOUR STRATEGY FROM LAB ACTIVITY 1!***