

Python 3.10.6 (tags/v3.10.6:9c7b4bd, Aug 1 2022, 21:53:49) [MSC v.1932 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

Python Turtle Graphics

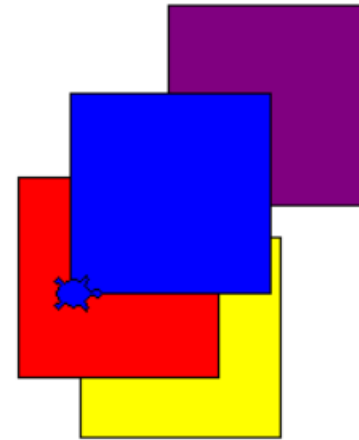
9장 연습문제.py - C:\Users\#82107\Desktop\9장 연습문제.

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```
import turtle
import random
t= turtle.Turtle()
t.shape("turtle")

def draw_square(x, y, c):
    t.up()
    t.goto(x,y)
    t.down()
    t.color("black", c)
    t.begin_fill()
    t.forward(100)
    t.left(90)
    t.forward(100)
    t.left(90)
    t.forward(100)
    t.left(90)
    t.forward(100)
    t.left(90)
    t.end_fill()

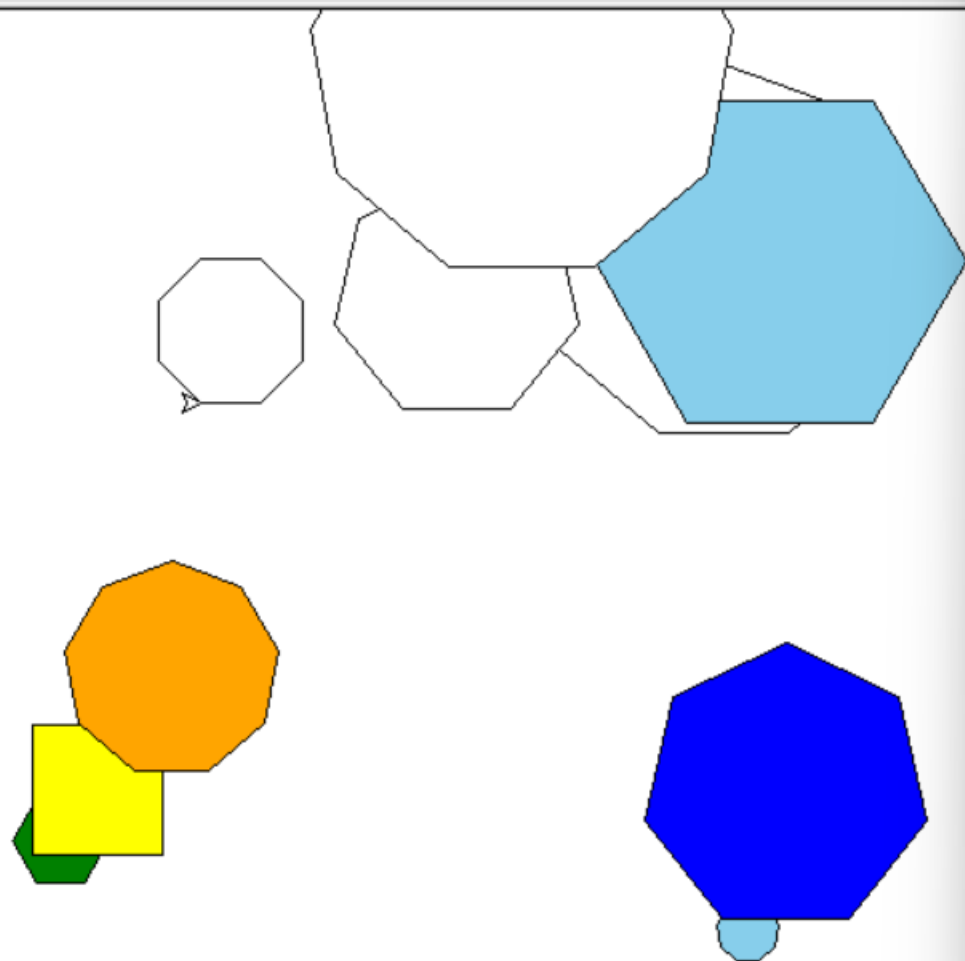
for c in ["yellow", "red", "purple", "blue"]:
    x = random.randint(-100, 100)
    y = random.randint(-100, 100)
    draw_square(x, y, c)
```



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=====

rtle Graphics



9장 연습문제.py - C:\Users\82107\Desktop\9장 연습문제.py (3.10.6)

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```
import turtle
import random
```

```
t= turtle.Turtle()
s= turtle.Screen()
```

```
def draw_shape(t, c, length, sides, x, y):
```

```
    t.up()
    t.goto(x, y)
    t.down()
    t.fillcolor(c)
    angle = 360.0 / sides
    t.begin_fill()
    for dist in range(sides):
        t.forward(length)
        t.left(angle)
    t.end_fill()
```

```
for i in range(10):
```

```
    color = random.choice([ 'white', 'yellow', 'blue', 'skyblue', 'orange', 'green' ])
    side_length = random.randint(10, 100)
    sides = random.randint(3, 10)
    x = random.randint(-200, 200)
    y = random.randint(-200, 200)
    draw_shape(t, color, side_length, sides, x, y)
```

Ln: 1 Col: 0

```
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>>>
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```

9장 연습문제.py - C:\Users\82107\Desktop\9장 연습문제.py (3.10.6)

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```
import turtle
import random
```

```
t= turtle.Turtle()
s= turtle.Screen()
s.bgcolor("black")
```

```
def draw_star(aturtle, colour, side_length, x, y):
    aturtle.color(colour)
    aturtle.begin_fill()
    aturtle.penup()
    aturtle.goto(x, y)
    aturtle.pendown()
    for i in range(5):
        aturtle.forward(side_length)
        aturtle.right(144)
        aturtle.forward(side_length)
    aturtle.end_fill()
```

```
for i in range(20):
    color = random.choice(['white', 'yellow', 'blue', 'skyblue', 'orange', 'green'])
    side_length = random.randint(10, 100)
    x = random.randint(-200, 200)
    y = random.randint(-200, 200)
    draw_star(t, color, side_length, x, y)
```

