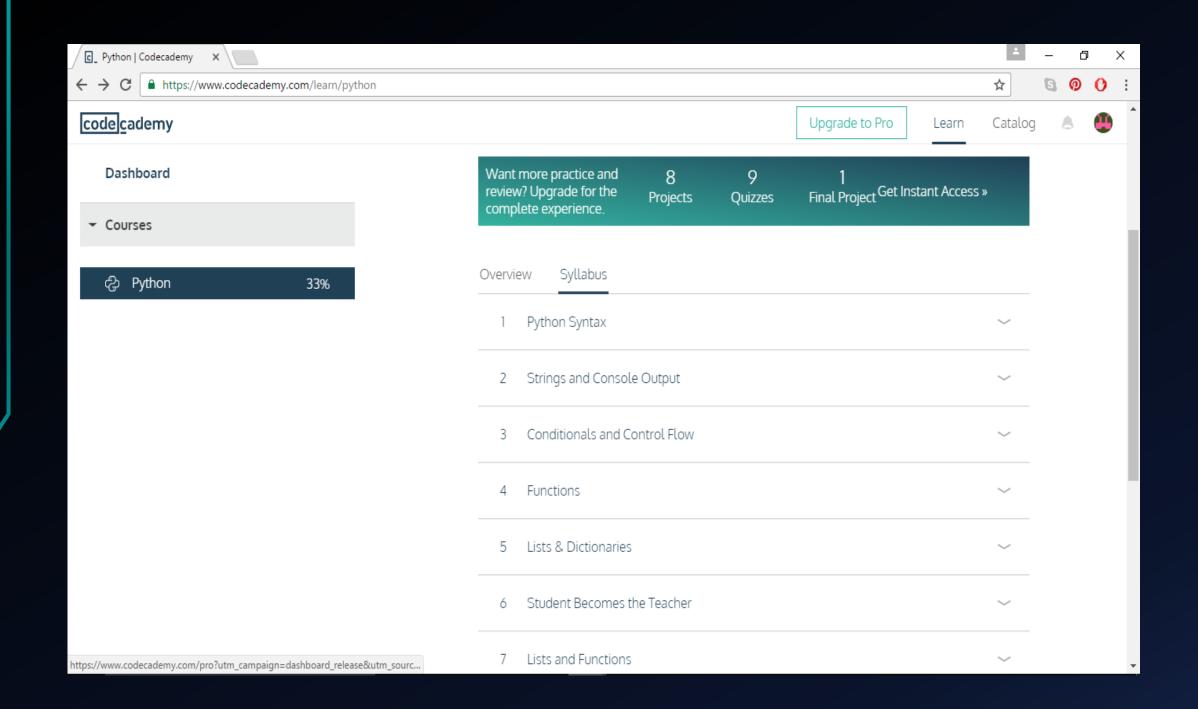
python

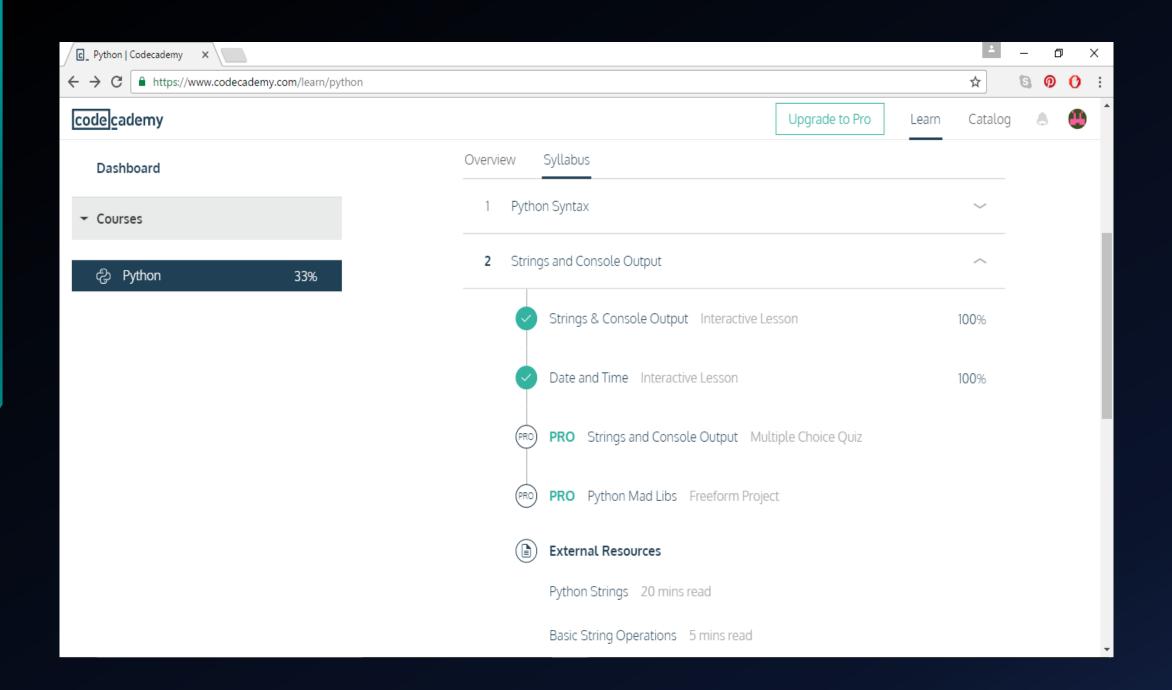
CODE ACADEMY AND PROCESSING

resources

There are so many useful websites that are created to help you

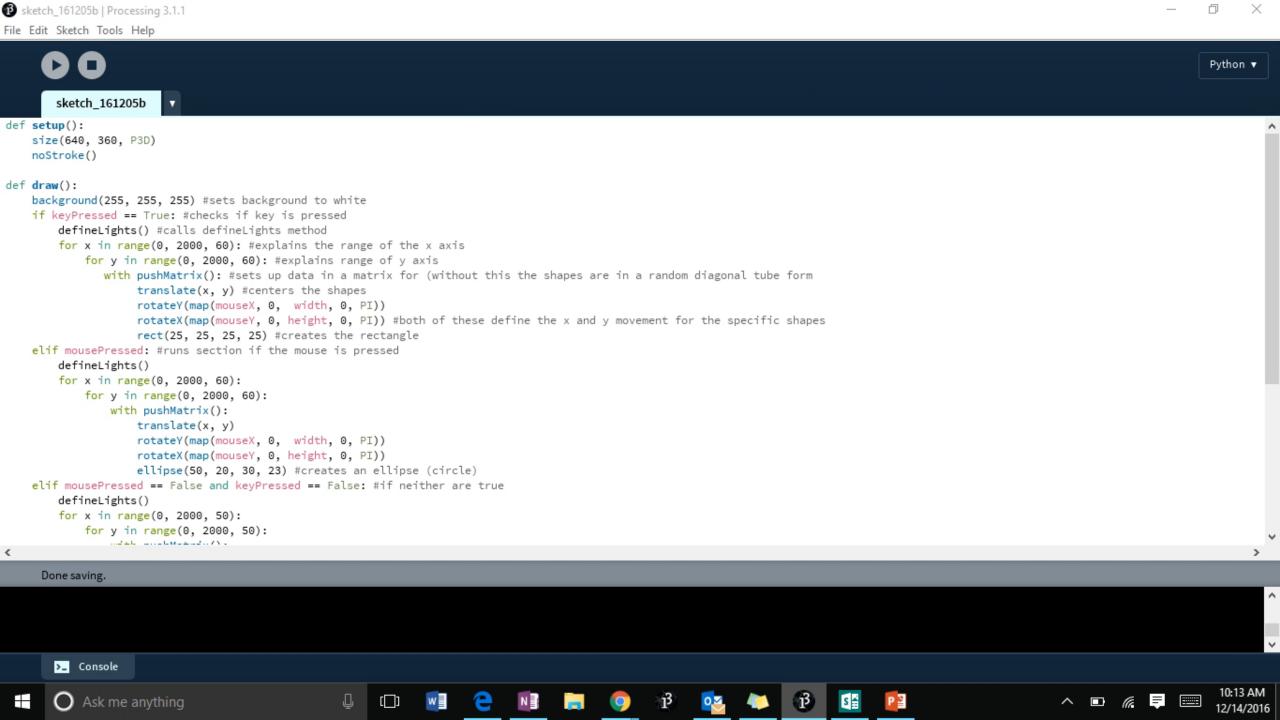
- CODEACADEMY
- KhanAcademy
- learnPython.org
- Python.org





Project Ideas

- Final Project
- Tic Tac Toe
- Maze
- Picture manipulation
- FINALLY: Shape/color manipulation



Combination

A lot of what I was doing was a learning more parts of processing through Python

Python ▼



sketch_161205b v

```
def setup():
    size(640, 360, P3D)
    noStroke()
def draw():
    background(255, 255, 255) #sets background to white
    if keyPressed == True: #checks if key is pressed
        defineLights() #calls defineLights method
        for x in range(0, 2000, 60): #explains the range of the x axis
            for y in range(0, 2000, 60): #explains range of y axis
               with pushMatrix(): #sets up data in a matrix for (without this the shapes are in a random diagonal tube form
                    translate(x, y) #centers the shapes
                    rotateY(map(mouseX, 0, width, 0, PI))
                    rotateX(map(mouseY, 0, height, 0, PI)) #both of these define the x and y movement for the specific shapes
                    rect(25, 25, 25, 25) #creates the rectangle
    elif mousePressed: #runs section if the mouse is pressed
        defineLights()
        for x in range(0, 2000, 60):
            for y in range(0, 2000, 60):
                with pushMatrix():
                    translate(x, y)
                    rotateY(map(mouseX, 0, width, 0, PI))
                    rotateX(map(mouseY, 0, height, 0, PI))
                    ellipse(50, 20, 30, 23) #creates an ellipse (circle)
    elif mousePressed == False and keyPressed == False: #if neither are true
        defineLights()
        for x in range(0, 2000, 50):
            for y in range(0, 2000, 50):
                and a feet and a feet a second or 7 No.
```

Python ▼

```
sketch_161205b

defineLights()
for x in range
for y in range
with p
```

```
defineLights()
        for x in range(0, 2000, 60):
            for y in range(0, 2000, 60):
                with pushMatrix():
                    translate(x, y)
                    rotateY(map(mouseX, 0, width, 0, PI))
                    rotateX(map(mouseY, 0, height, 0, PI))
                    ellipse(50, 20, 30, 23) #creates an ellipse (circle)
    elif mousePressed == False and keyPressed == False: #if neither are true
        defineLights()
        for x in range(0, 2000, 50):
            for y in range(0, 2000, 50):
                with pushMatrix():
                    translate(x, y)
                    rotateY(map(mouseX, 0, width, 0, PI))
                    rotateX(map(mouseY, 0, height, 0, PI))
                    triangle(50, 20, 30, 23, 34, 34) #creates a triangle
def defineLights():
    pointLight(10, 1000, 1000, 10, 1000, 1000) #green, purple, yellow, teal, blue, dark blue
    directionalLight(0, 102, 255, 1, 0, 0) #creates the different shading effects
    spotLight(255, 255, 109, 0, 40, 200, 0, -0.5, 0.5, PI / 2, 2) #more with the shading, etc.
    #deals witht the different lighting, this would have been the trickiest part
#most interesting things i have learned are the different syntaxes from JAVA, etc. I was reviewing the codeSmells handout and it talked about neatness of code, (indenting, spaces, etc.)
#in python the code must be neat in order for it to run! one extra line or space will crash the code!!!
```