Hello, this part is William. Welcome.

Here are some quick instructions to get started with Python on your computer:

1. You have to install the Python programming language on your computer...like an app.

* - go here: <https://www.python.org/downloads/release/python-340/>
* - click on the one that says “[Windows x86 MSI installer](https://www.python.org/ftp/python/3.4.0/python-3.4.0.msi) “
* - open up the downloaded file, follow the prompts to install python. No need to change anything, just use all default settings.

2. get a Python IDE (Integrated Development Environment) to work in. This is the code editor you use. The best free one out there I think is this one: <http://www.jetbrains.com/pycharm/>

* -install it
* -start it up, and click on the “create new project” icon
  + name your project. I named mine, “test”
  + “Interpreter” should have something next to it...'Python 3.4.0...' I think. If it doesnt, click on the […] button next to it.
    - Click on the green '+' sign
    - Click on the only option listed. It should say “Python 3.4.0...”. Note that this option will only show up if you've already installed python on your computer.



Once your project is set up, you can add python files to it. On your left is the project navigator column.

“Test” is highlighted.

Right-click on “test” and select:

'new' → 'file'

Type the name “main.py” as the name of your new file. The file “main.py” will appear below your 'test' folder. Double-click it. It opens up the editor pane for your code on the right. There, you can type all the code you learned from codeAcademy.

To run your code the first time, right-click on the editor pane and select 'Run: 'main'', with the green triangle. It will compile and run your code. After you run it this way one, a shortcut appears at the top of your editor....you'll recognize it as the green triangle button. Click the green triangle whenever you want to run your code.

Here is some simple sample code I just wrote up in pythin. Copy and paste it to your editor, see if it runs for you. Notice the output, and see if you can figure out exactly what its doing by looking at it:

################################

print("hello world")

#variables and math

var1 = 5

var2 = 3

fiveTimesThree = var1 \* var2

print(fiveTimesThree)

#defining a simple function

def thisFunctionTakesAnInputAndMultipliesItByFive(x):

answer = x\*5

return answer;

#using the function I defined

print(thisFunctionTakesAnInputAndMultipliesItByFive(99))

######################################

^ this should give you the feel for what's going on. Mess with it, change values, discover new and exciting error messages...then after you get comfortable with Python basics, try to complete the assignment below. Its the 2nd project given at BYU's 1st programming class.....its a little tricky, but with google and code academy you should be able to figure it out alright.

## Lab 2

### Purpose

This lab for you introduces some of the basic components of the Python programming language. Master these concepts and techniques, because they will be used time and time again in future lab assignments. This lab also introduces the Python reference website with its predefined functions.

### Background

After a laborious campaign, you've been elected as President of the Pizza Council of BYUSA. Your primary responsibility is determining how many pizzas should be ordered for each BYUSA event. To make things easier, you've decided to write a small Python program to help you do the calculations.

### Requirements

#### Part 1 - Count Your Many Pizzas (7 points)

* Prompt the user for the number of guests attending the event
* Determine and report the number of large, medium, and small pizzas you need to order
  + For every 7 guests, order one large pizza
  + For every 3 guests left over, order one medium pizza
  + For every 1 guest left over, order one small pizza

#### Part 2 - Serving Size (6 points)

* Compute and report the total surface area of pizza (in square inches) you need to purchase
* Compute and report the total surface area of pizza (in square inches) each guest can eat

#### Part 3 - Supplementing the Budget (7 points)

* Prompt the user for the percent of the total price to be paid as a tip
  + The tip percentage will be input as an integer from 0 to 100
* Compute and report the total cost (including tip) of all the pizzas, rounding up to the nearest dollar
* Compute and report the average cost per guest

### Requirement Notes

#### General

* It is required that you use 3.14159 as π (pi), as Python does not have a predefined value for π. The examples below were computed using this value.
* The following information is drawn from the menu of Jenga's Pizza:

|  |  |  |
| --- | --- | --- |
| Pizza | Price | Diameter |
| Large | $14.68 | 20 inches |
| Medium | $11.48 | 16 inches |
| Small | $7.28 | 12 inches |

* The following table shows some example input and output (input is bolded):

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| People | Tip | Larges | Mediums | Smalls | Area (in2) | Area/Person (in2) | Cost ($) | Cost/Person ($) |
| **2** | **15%** | 0 | 0 | 2 | 226.194 | 113.097 | $17 | $8.50 |
| **4** | **10%** | 0 | 1 | 1 | 314.159 | 78.5397 | $21 | $5.25 |
| **12** | **8%** | 1 | 1 | 2 | 741.415 | 61.7846 | $44 | $3.67 |
| **48** | **17%** | 6 | 2 | 0 | 2287.08 | 47.6474 | $130 | $2.71 |
| **120** | **25%** | 17 | 0 | 1 | 5453.8 | 45.4483 | $322 | $2.68 |
| **305** | **20%** | 43 | 1 | 1 | 13823 | 45.3213 | $780 | $2.56 |