Intro to Python

Hey everyone, welcome to this introduction to Python. My name is Suraj Shah, and I’m a brother in AKPsi. I’m majoring in Computer Science as well

Anyways, are you guys excited to learn the basics of python?

Probably not, which is why we’ll speed through this boring stuff, and jump into some cool features using Python with Excel!

Hey Guys welcome to this tutorial – Introduction to Python

We’ll start with the basics

Download anaconda

It’ll take about 5-10 minutes, so in the meantime, let me introduce myself, why python is amazing and why your productivity with excel will be way better with python

Deselect both of those after anaconda installs

How this hour will go:

0: 10 minutes: Buffer to answer questions, solve issues, handle problems

1. 5-10 minutes: Initial setup and waiting for people to get ready, answer any technical questions

7:00-7:10 pm

2. 10-15 minutes: Introduction to basic python and explanation of coding and simple questions

7:10-7:25pm

3. 15-20 minutes: Introduction to complex python with excel:

Division of time based on different uses of python

Excel sheet with dataframes python

7:25-7:45pm

4: 15 minutes: Graphing with python (matplot lib)

7:45-8pm

5: Questions? Cool things you can do with python?

8:00-8:10pm

6: Ideas for next workshop?

Anyways, let’s begin

* Let’s start with the basics
  + Printing: print(“hello”)
  + Printing: print “hello” – does not work
  + One of the biggest differences in python3 vs python2, but newer is better so that’s why we’re learning python 3
* Math is super easy:
  + Variables – name = Number/String/Decimal
  + Good variable names include underscores or camelCase – No preference but be consistent throughout your code. Consistency is key – first\_var
  + What did I do wrong here?
    - Was not consistent
  + What is cool about this? I added 2 variables and printed them out in the same line
  + Everything is the same – exponents are \*\*
* Comments
  + Comments are key to understanding your code 5 months from now
  + Use a hashtag to comment
* Functions
  + What is the point of functions? To simplify your code! Each function should have one specific task it solves, and the overall goal is that you combine your functions into a class, to do a set of tasks – THAT is the goal of programming
    - Python is tab/space sensitive – this means that code isn’t separated by curly brackets, just the spaces you put between things
  + In this code block – I “define” (def) a function called function (I can call this anything)
    - Then to show you how indentation works, I use a loop, which is just a repeated series of events, and I use another loop, and then I break out of the loop
      * This code does not do ANYTHING, but it is just to show you what indentation is, and python programming
* User input:
  + How do you take in user input? Interaction in a program is super important!
  + Super easy! Raw\_input or input!
* Okay – so now let’s get into excel, and I’ll explain the syntax as we go along
  + The important thing isn’t the syntax
    - Don’t focus on memorizing the code, focus on what it does