Python Programming Class

<https://www.youtube.com/watch?v=1F_OgqRuSdI&list=PL0-84-yl1fUnRuXGFe_F7qSH1LEnn9LkW&index=1>

<https://automatetheboringstuff.com/>

Python Chapter 1:

* \*Python is an interpreter\*
* Python Interpreter Software 🡪 comes with an editor program IDLE
* Python Language 🡪 what you code in the editor program

**Interactive Shell vs. File Editor**:

* Shell –
* pops up when initially opening IDLE – displays ‘>>>’
* runs/executes Python instructions one at a time & shows the results immediately
* Editor –
* File 🡪 New File
* used for entering code for complete programs
* Other text editors used for python – Sublime, Pycharm

**Expressions**: Consist of Values & Operators, and always evaluate to a single value

* Precedence – Order of Operations: Parentheses 🡪 \* & / 🡪 + & -

**Data Types**: a category for values – every value belongs to one data type

* Integers
* Floating-Point Numbers
* Strings – use single quotes

**Variables**: like a box in the computer’s memory where you can store a single value

* Evaluate to the single value that they contain
* Case sensitive
* You store values in variables with **Assignment Statements**:
* Variable name = value to be stored
* \*Statements: don’t evaluate to a single value

\*Ch.1 Lesson 3 – Your first program\*

**File Editor**: is used for writing whole programs

* Allows you to write many instructions, save the file, & then run the program

**Input/Output**: [functions]

* print() – displays the string value inside its parenthesis onto the screen
* create a blank line – print()
* input() – waits for user to type text on keyboard and press ENTER
* evaluates to the string value of what the user typed
* always returns a string
* len() –
* str(), int(), float() –
* used to obtain the string, integer, & float forms of the value passed to them
* evaluate to the string, integer, & float forms of the value you pass them

**#** -

* Used to make a comment
* Can be used to add blank spaces in program – easier readability

PYTHON:

Machine learning – typically implements an algorithm that automatically detects a pattern in the given input

Web development

* Frameworks to use: Django, Flask
* DJANGO:
* Very high level
* Very abstract – don’t pay attention to the semantics too much
* Forces you to do thing the “Django way” – safer than Flask which gives you more freedom
* Helps ‘scale’ the website well?
* Divides your web app / web page into smaller sub apps
* Flask:
* Ok

\*Can’t get cmd prompt to recognize ‘pip’ to download these frameworks\*

**API Basics to Grab Data with Python**: <https://www.youtube.com/watch?v=pxofwuWTs7c>

\*API: gives you access to websites data 🡪 LOCU API

**What is Rest API**? <https://www.youtube.com/watch?v=qVTAB8Z2VmA>

Dynamic server

Static server

Serviet???

Creating a Weather App:

* API connects you to the server with the weather report information on it