

# Python Programming



- \* **Why Python Programming**
- \* **Data Types and Operators**
- \* **Data Structures**
- \* **Control Flow**
- \* **Function**
- \* **Scripting**
- \* **Classes**



# Why Python Programming

- \* Learn why we program
- \* Understand how programming in Python is unique



# Data Types and Operator

- \* Understand how data types and operators are the building blocks for programming
- \* Data types and usage
- \* Operators and usage



# Data Structures

- \* Types of Data Structures: List, Tuples, Sets, Dictionaries, Compound Data Structures
- \* Operators: Membership, Identity
- \* Built-In Functions



# Control Flow

- \* Implement decision-making in your code with conditionals
- \* Exit a loop, skip an iteration of loop
- \* Use helpful build-in functions
- \* List comprehensions



# Functions

- \* Write your own functions to encapsulate a series of commands
- \* Understand variable scope
- \* Make functions easier to use with documentation
- \* Use lambda expressions, iterators and generators



# Scripting

- \* Write and run scripts locally on your computer
- \* Work with raw input from users
- \* Read and write files, handle errors, import local scripts
- \* Use modules from the Python library and third-party



# Classes

- \* Object Oriented programming over procedural programming
- \* How to use Classes



# Bonus

- \* Git and Github

- \* Project