

Data Types

Overview

- In this part we are going to get basic understanding of data types, built in functions and methods. We will learn how to:
 - Use variables effectively
 - Use commands effectively
 - Create variables of different data types (strings, integers and float) and manipulate them
 - Change or cast variable data types from one form to another in order to perform specific actions
 - Call functions and methods and pass appropriate arguments. When appropriate, we will grab the return value to store in a variable.
 - Print information to the screen
 - Get user input to make dynamic programs
 - Import the math library for higher level of mathematical operation

Data Types

- Strings: A collection of characters
- Integers: Whole numbers
- Float: Decimal numbers

Control Structures

- if

Operators

Assignment Operators

- = Assignment
- += Compound Assignment
- -= Compound Assignment
- + Concatenation (strings)

Algebraic Operators

- + Addition
- - Subtraction
- * Multiplication
- / Division
- ** Exponentiation
- // Absolute Division

Built in Functions

- `print()`
- `type()`
- `str()`
- `int()`
- `float()`
- `input()`
- `round()`

Methods

Strings

- `.upper()`
- `.lower()`
- `.title()`
- `.strip()`
- `.count()`

External Libraries

- math

Challenges (Assignments)

- Letter Counter App
- Miles per Hour Conversion App
- Temperature Conversion App
- Right Triangle Solver App
- Multiplication/Exponentiation Table Program