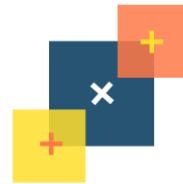


WEEK 2 COURSEPACK



TECH BHOI

JUL 6
JUL 10
2020



DATA TYPES

Integer / Float / String / Boolean

Integer:

If you have a whole/natural/integer number (ie: not a fraction, no decimal point) then we call this an integer, represented with **int** in python.

Ex: 15,12,450,67234

Float:

If you have a number that is a fraction or it has a decimal place, we call these numbers floats, represented with **float** in python.

Ex: 3.1459, 10.0, 789.204575

Boolean:

We use the boolean values to store into variables in python, we have the possibilities of storing the value **True** or **False**.

Ex: pythonIsCool = True

String:

When the value of a variable contains text (one or more characters), we call this a string, represented with **str** in python. We always put single/double quotes around a string.

Ex: "I love my mom"

When using boolean values, we never use quotes, because they are special keywords

We can force the data type of variables using their respective names that we want to force with brackets around what we want to change.

Ex:

```
myAge = 10
floatMyAge = float(myAge)
print(myAge)
print(FloatMyAge)

>> 10
>> 10.0
```

TUE
JUL 7

USER INPUT

WHAT IS USER INPUT

A realworld example of taking user input, is whenever we log into zoom/REPL, we need to input our username and password. Can you think of any real world examples that can be related to user input?

HOW TO TAKE AN INPUT

In python; it is very simple to get input from a user, all we need to do is call the **input()** function. This will be used to take information from the user via the terminal. When using the input function, we can add information on what we want from the user by putting a string inside the function.

Ex: `input("what is your name : ")`

Whenever we take an input, it is always taken as a str by default, but we can force this to be a different type using the type conversion functions seen last class

QUIZ 1 ANSWERS

- | | | |
|------------------|----------|-------|
| 1. c) | 2. a) | 3. 10 |
| 4. Jason Statham | 5. False | 6. b) |

WED JUL 8

MATH OPS

Programming and mathematics go together like peanut butter and jelly, most of the time they come smashed together. Many of the skills needed in math, can be found all over programming. The most important is having good problem solving skills, critical thinking skills, and attention to detail.

All of the math operations we have learnt in grade school are found in even the most complicated of programs!

Common Math Operations:

Addition:

$$3 + 4 = 7$$

Subtraction:

$$4 - 3 = 1$$

Multiplication:

$$3 * 4 = 12$$

Division:

$$2 / 4 = 0.5$$

New Math operations:

Floor Division:

$$4 // 3 = 1$$

Rounding down after regular division

Modulo:

$$7 \% 3 = 1$$

Calculating remainder of division

Exponents:

$$3 ** 4 = 81$$

Multiplying by a factor of itself

