Computational Practice

Lecture 1. Python/Numbers

Variable names

There are just a couple of rules to follow when naming your variables.

- Variable names can contain letters, numbers, and the underscore.
- Variable names *cannot* contain spaces.
- Variable names *cannot* start with a number.
- Case matters—for instance, temp and Temp are different.

Arithmetic in Python

Operator	Name	Description
a + b	Addition	Sum of a and b
a - b	Subtraction	Difference of a and b
a * b	Multiplication	Product of a and b
a / b	True division	Quotient of a and b
a // b	Floor division	Quotient of a and b, removing fractional parts
a % b	Modulus	Integer remainder after division of a by b
a ** b	Exponentiation	a raised to the power of b
-a	Negation	The negative of a

Operator Overloading

Operators have a different meaning depending on what kind of thing they're applied to

Builtin functions for working with numbers

min()

max()

abs()

int()

float()

Python built-in modules

RANDOM

    from random import randint

    randint(a,b) will return a random integer between a and b including both a and b

https://docs.python.org/3/library/random.html

Python built-in modules

MATH

sin, cos, tan, exp, log, log10, factorial, sqrt, floor, and ceil

      from math import sin, cos

https://docs.python.org/3/library/math.html

GITHUB

1. Create an account
2. Create Repository, [a guide](#)
3. Create a file
4. Create a pull request
5. [Add team members to your repo](#)

Jupyter

Installation:

```
#install jupyter

pip3 install jupyter

# create a notebook
jupyter notebook
```

Introduction