

# 1+2 \_variable and data types

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Use ctrl b to run code on python in sublime text, a text editor that makes code writing way much more easier. type exit() to exit the current application and you can use command prompt to run the program on the terminal: locate your file in the directory and use cd.. to go up.

Save the file in .py to it read as a python file

When python interpreter saw the instructions, they highlight them in different colours.

## Variables

A variable is associated with a value and that value can be updated as python can trace back and find the newest version. like constantly putting a new label on a box.

Naming rules: only numbers, strings and underscores are allowed, and they can't be reserved words

Some basic data types are listed below:

# Strings

A series of characters inside single or double quotes.

## Case

We can change the case of string, for example:

```
language-python
name="marcos"
print(name.title())
#Marcos
```

Or:

```
language-python
name="marcos"
print(name.upper())
#MARCOS
```

## Variable in strings

```
language-python
#we can put variable in strings by using f string
firstname="marcos"
lastname="gao"
fullname=f"{firstname}-{lastname}"
print(fullname)
#marcos-gao
```

```
language-python
first_name = "ada"
last_name = "lovelace"
full_name = f"{first_name} {last_name}"
print(f"Hello, {full_name.title()}!")
#Hello, Ada Lovelace!
```

## Add blank/switch line

Blank=

```
language-python
```

```
\t
```

New line=

```
language-python
```

```
\n
```

```
language-python
```

```
print("Languages:\nPython\nC\nJavaScript")
```

```
# Languages:
```

```
# Python
```

```
# C
```

```
# JavaScript
```

## Remove white space

```
language-python
```

```
username=' marcos '
```

```
print(username.rstrip() ) #removes the white space on the right
```

```
# marcos
```

## Number

### Integer

Any number with no decimal spaces

```
language-python
```

```
3+2
```

```
#5
```

```
3/2
```

```
#1.5
```

```
3**4
```

```
#81
```

## Float

```
language-python
```

```
0.2+0.1
```

```
0.30000000000000004
```

Hahaha! not all floating number can be represented!

## Underscores

Increase readability.

1\_000\_000\_00 is the same as 100000000 to python

## Multiple assignment

```
x,y,z=0,1,2
```

## Constant

```
language-python
```

```
MY_BIRTHDAY=20021009
```

## Comment

---

language-python

```
# add "#" to show it as a comment
```