

Week 0 - Introduction To Python

`print("hello, world")`
↑ **Function** ^{String} `"hello, world"` `()` **Argument** `print` `"hello, world"` `()`
parenthesis + everything in between

Parameters

Parameters are rules set telling what you can pass in a function and when you insert your text into the function it's called an argument

print can be changed to input for user response

Return Values

`name = input("What's your name? ")`

`Print("Hello, ", name)`

or `Print(f"Hello, {name}")`

or `Print("Hello, " + name)`

Variables are containers that store values or Print("Hello, " + name)
ie.

`name = input("What is your name? ")`
Variable

Single equal sign assigns whatever is on the right to what is on the left

Parameters of print() in Python

`print(*objects, sep=' ', end='\n')`

`end '\n'`, tells the print function to start a new line. To stay on the same line we would use `Print(*object, end=)`

These are the parameters or rules for the function print

`sep = ' '` by default adds a space of separation
for example

`print("Welcome Back, ", Name)` where `Name = Caden`
prints

Welcome Back, Caden

(with a space)

`sep ' ' + end '\n'` can be changed to get desired results

Corner Case - Instances in which you try to put quotes in already existing quotes i.e.

```
print("Hello, "Friend")
```

* Syntax Error

To Fix

Use single quotes, then quotes

```
print('Hello, "Friend"')
```

or

```
print("Hello \"Friend\"")
```

↳ This is called escaping.

Backslashes are escape
characters.

Formatting

```
print(f"Hello, {Name}") where name = Cadan
```

↓
Format

Hello, Cadan

String Methods

- `strip()` removes whitespace from string
- `capitalize()` Capitalize first letter
- `title()` Capitalize first of every word
- `split(" ")` will split the input on the left and right of a character, in this case it is a space

Example

```
First, last = Name.split(" ")
```

where user types their full

name and we put the first &

last name in separate variables

Integers

+
-
*
/
% - modulo, take remainder

format Rounding
round(x, n)
f{x:.nf}

abs() absolute value

putting int in front of variable makes it an integer. (Whole number)
for decimals put float before variable

Creating Functions using def

```
def hello():
```

```
    print("Hello, ")
```

```
    print("How may I assist you? ")
```

Every line of code in indent will be
run when defined function is called

when called reads

Hello,

How may I assist you?

to call type

hello()

with def you set your own parameters
ie. hello(to) therefore when hello is called
any variable in the function will be thought of
as the parameter to.

```
def hello(to):
```

```
    print("Hello, ", to)
```

```
    print("How may I assist you? ")
```

→ This causes double space

To set default
parameter, set it equal
to some thing. Example

```
name = input("What's your name? ")
```

```
hello(name)
```

```
def hello(to="world"):
```

```
    What's Your name? Caden  
    Hello, Caden  
    How may I assist you?
```


Visual Studio Code for CS50

Terminal Commands

ls - List files

cp - Copy file

mv - move file or rename

rm - delete file

mkdir - Make directory

cd - Change directory

rmdir - Delete directory

code - open or create file

clear - Clears terminal. Can also use ctrl + l

.. - Parent folder, folder before the folder you are in

copy

this
file ↓

create copy
called
↓

cp hour_one.py mycopy.py

mv mycopy.py copy.py

rm copy.py

Directories are Folders