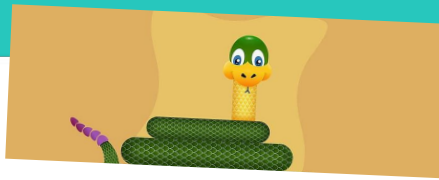




Python

**By: Gabriella Carrington, Sydney
McMahon, and Adante Michel**



What is Python?

→ Uses

Learn about the uses of python and how it can impact the world

→ History

Learn about the history of python and who created it!

→ Definition & Examples

Python is an easy programming language for multiple things in computer science.



Uses

By the end of this section, you will know what Python is used for.

→ What

Unlike HTML and CSS, python is more of an interactive programming language. Python uses functions like the if, else statement. Python, as a high level programming language, can be used for security and games.

→ Who Uses Python

Google makes extensive use of Python in its web search systems. The popular YouTube video sharing service is largely written in Python. The Dropbox storage service codes both its server and desktop client software primarily in Python. And there are many more companies using this language.



Fun Fact:

Python can be used for hacking! Also, programmers have to learn code, they don't just open a laptop and start typing. :)

What you can do with Python

Encoding

Messages : Caesar
Cipher Encoder

Decoding

Messages :

Caesar Cipher
Decoder

If and Else

Statement

Example:

Adventure Game



Simple Things to remember when programming with python.

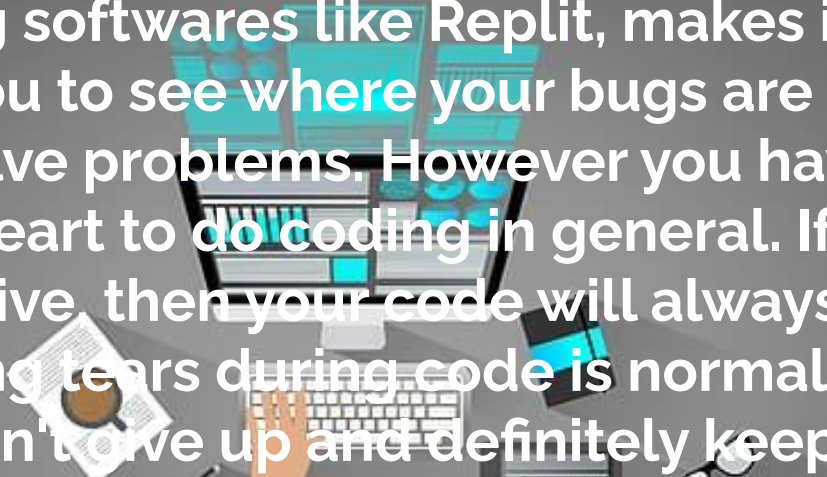
Indenting is key when working with python. In HTML and CSS, We use things like parentheses and brackets to show the difference between functions, however in python you just have to separate the functions with indents.

Examples Comparison:

HTML/CSS Python

Tip

When all else fails, use the [w3schools.com](https://www.w3schools.com). This is an excellent resource for learning programming and getting examples of what you want to create.



Python, is a great responsive programming language for all users including beginners. Using softwares like Replit, makes it easier for you to see where your bugs are and how to solve problems. However you have to have the heart to do coding in general. If there is no drive, then your code will always fall flat. Having tears during code is normal though, so don't give up and definitely keep on trying.



My Citations and Resources:

Thecleverprogrammer.com

W3schools.com

[Repl](https://Repl.it)

And Me!



About Python

- Guido Van Rossum was working at Amoeba. While working for them, Guido realized that developing in C took too much time. So, he decided to spend his free time developing a new coding language that would be faster.
- Python was later developed and released in 1991.
- The name of the programming language comes from the old BBC television comedy "Monty Python's Flying Circus"



Guido Van Rossum

Why Should You Learn Python?

- Knowing python can get you a high paying job as more and more industries are looking for python coders.
- Python is beginner friendly which means it's the perfect way to start learning how to code!
- Knowing a coding language is helpful as the world relies more and more on technology.
- Coding makes you smarter! From coding, you will start to look at problems from a bigger picture and your brain adapts to working through frustration to solve problems.
- As you face bugs and spend hours trying to debug, you're teaching yourself to never give up and have patience, which can be applied to the real world.

Python we learned in Artemis

We have learned about different elements of python including: strings, variables, loops, conditionals, booleans, floats, comments, integers, and functions. We used the popular IDE repl.it to code most of our python projects.

For all of our projects, we had to incorporate some/most of these elements. For example, the Caesar Cipher encoder/decoder relied on loops. Our story/quizzes project relied heavily on conditionals which included if, elif, and else.

Often we would encounter challenges like Invalid Syntax:

Invalid Syntax means you have some type of typo or incorrect indentation. Think of it as the spelling/grammar is not correct just like in English.

Sydney's Sources

<https://exyte.com/blog/a-brief-history-of-python>

<https://pythoninstitute.org/what-is-python/>

<https://careerfoundry.com/en/blog/web-development/7-benefits-of-learning-to-code/>

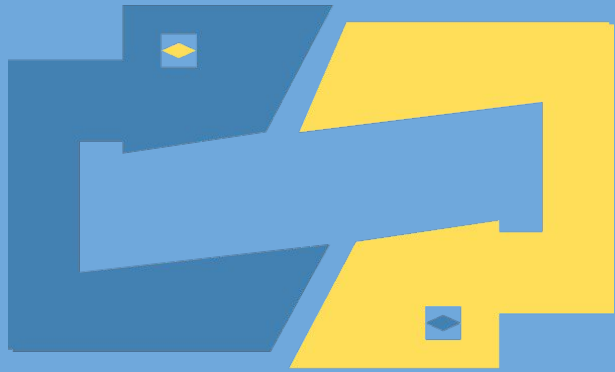
IMG=<https://gvanrossum.github.io/images/DO6GvRhi.gif>

About python's uses

- Python started to become one of the best and popular programming languages in the world.
- Python is used for every machine learning to making websites and software testing.
- Python is a general purpose language which also means that it is at use to making a variety of different programs and is not made to make any or specific problems.
- Python isn't always in the use for programmers and scientist, Learning how to do or use python is a new way for people in less data heavy professions like for those who journal, small business owners, or social media marketers.
- Python also has the ability to enable non programmers to achieve certain tasks in their lives.

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Examples of python

INPUT

```
Name = input('What is your name?\n' )  
print('Hi, %s.' % name)
```

The input function allows a user to insert a value into a program. input returns a string value.

LOOP

```
For i in range(5):  
    print('A number:',i)
```

Python do while loops run a block of code while a statement evaluates to true.

SERVER (FLASK)

```
from flask import Flask  
app = Flask('app')
```

```
@app.route('/')  
def hello_world():  
    return 'Hello, World!'
```

```
app.run(host='0.0.0.0', port=8080)
```

flask provides you with tools, libraries and technologies that allow you to build a web application.

FACTORIAL

```
def factorial(n):  
    if n == 0:  
        return 1  
    else:  
        return n * factorial(n - 1)  
print(factorial(5))
```

HELLO WORLD

```
print('Hello World!')
```

The factorial is always found for a positive integer by multiplying all the integers starting from 1 till the given number



[Link](#)

__ All Of our resources

[Thecleverprogrammer.com](https://thecleverprogrammer.com)

[W3schools.com](https://w3schools.com)

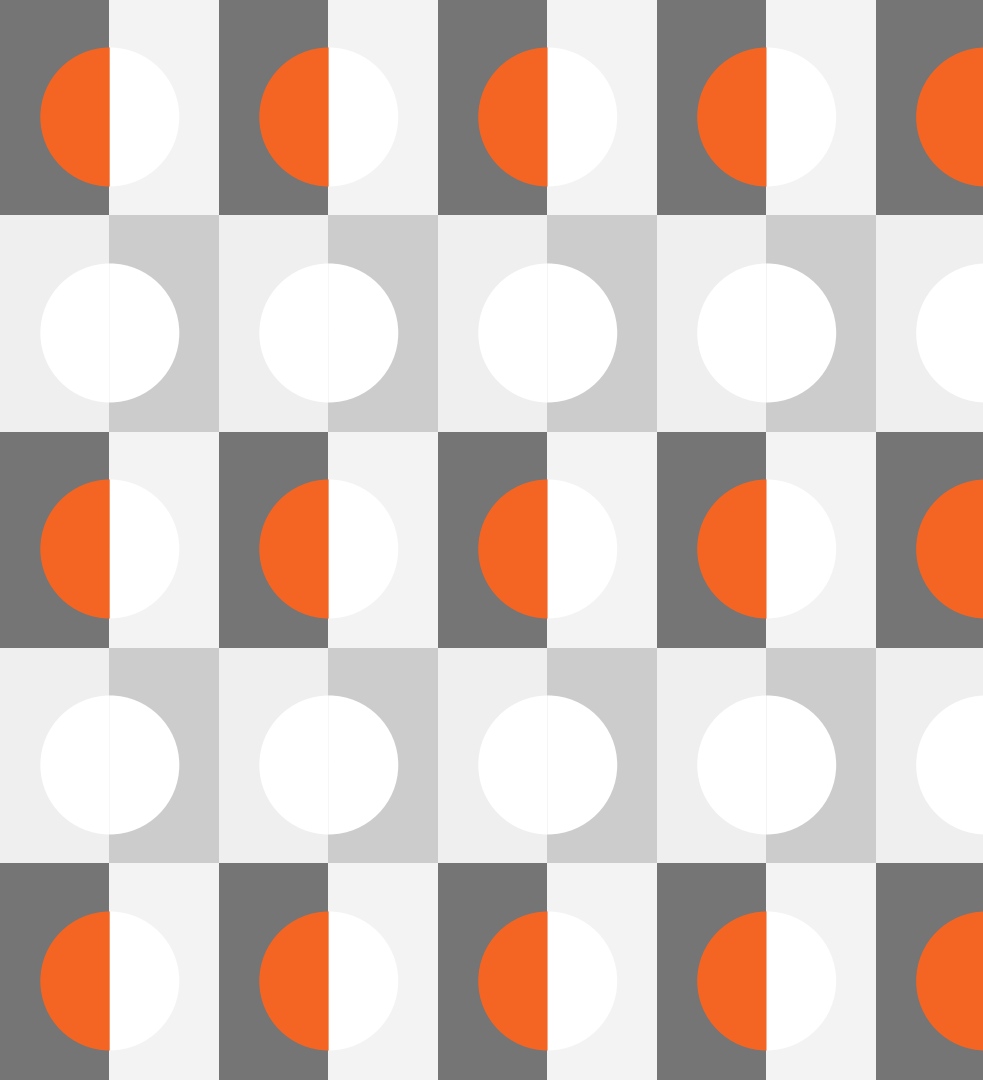
[Repl](#)

<https://exyte.com/blog/a-brief-history-of-python>

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<https://careerfoundry.com/en/blog/web-development/7-benefits-of-learning-to-code/>

IMG=<https://gvanrossum.github.io/images/DO6GvRhi.gif>



**Thank You
For Listening!
Let's Play
Kahoot**