

Python



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What is a Programming Language?

- ★ A programming language is the language of the computers.
- ★ These languages have to give exact directions to the computers and they should leave no room for interpretation.
- ★ The languages go from higher level to lower languages, meaning that some are more like the words we speak than others. Higher level languages are closer to our usual speech than lower level languages.
- ★ Some examples of languages include HTML, CSS, JavaScript, Java, C, Assembly, and Python.

What is Python?

- ★ A high level programming language

- Meaning that it's closer to english than other languages.

- ★ It allows programmers to use few lines of code

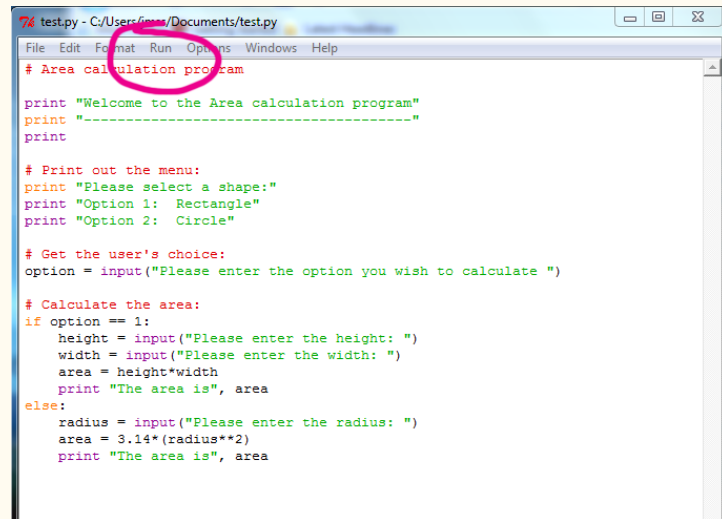
- ★ It's a readable code

- ★ Has clear syntax

- Syntax: is essentially the spelling and grammar of a programming language.

- ★ Can be used in many different operating systems

- For example: Mac OS, MS-DOS, and Window 98.



```
# Area calculation program

print "Welcome to the Area calculation program"
print "-----"
print

# Print out the menu:
print "Please select a shape:"
print "Option 1:  Rectangle"
print "Option 2:  Circle"

# Get the user's choice:
option = input("Please enter the option you wish to calculate ")

# Calculate the area:
if option == 1:
    height = input("Please enter the height: ")
    width = input("Please enter the width: ")
    area = height*width
    print "The area is", area
else:
    radius = input("Please enter the radius: ")
    area = 3.14*(radius**2)
    print "The area is", area
```

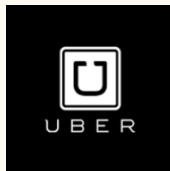
Who Made it?

- ★ Python was created in the late 1980's by a Dutch programmer, Guido van Rossum
- ★ He was born in January 31, 1956
- ★ Got a masters in both computer science and mathematics at the University of Amsterdam
- ★ In 2001, he received the [Award of Achievement of Free Software](#)
- ★ Worked for Google from 2005-2012. Then join Dropbox
- ★ Also worked on the ABC programming language
- ★ Created the early Grail web browser



Python in *your* Everyday Life

★ Uber



★ Youtube



★ Pinterest



★ Dropbox



★ Google

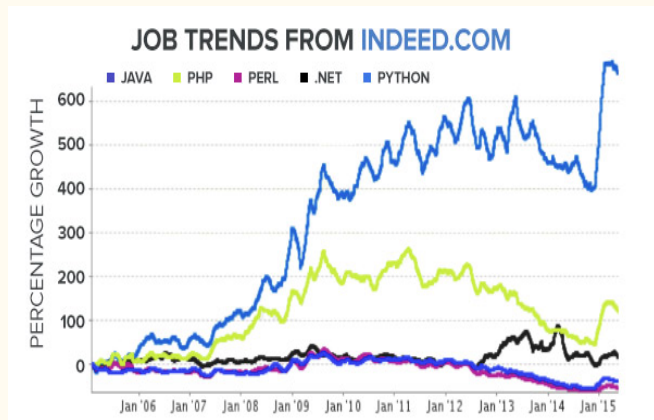


Other Programming Languages! *→software

- ★ **HTML** → *Hyper Text Markup* Language, a programming language used to describe Web pages. (Brackets*)
- ★ **CSS** → *Cascading Style Sheets*, controls the cosmetic appearance of a website.(Brackets*)
- ★ **JavaScript** → Used in tandem with HTML and CSS for Web Design,
- ★ **Java** → an object-oriented language.
- ★ **Binary** → Machine language. This consists entirely of 1s and 0s. It is also called Base 2.

The Future of Python

- ★ The number of Python users are climbing rapidly because of the clear syntax and the many possibilities of things you can do with this language.
- ★ There also also millions of children learning how to use Python at an early age because they can create awesome things using this language.



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What we learned at Artemis

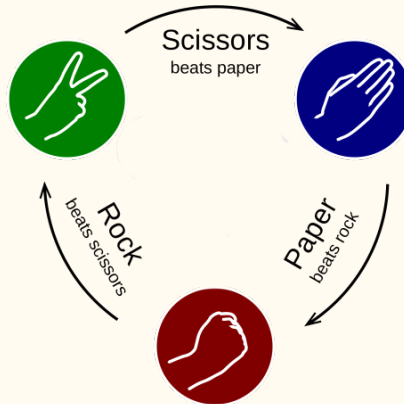
What we Learned

- ★ larger appreciation for how hard it is to create a working program.
- ★ Grew resilience, understanding, and patience
- ★ Honed our problem solving skills
- ★ Discovered how creativity plays into programming
- ★ Keep a keen eye

Python Program

Anyone wanna play Rock, Paper, Scissors?

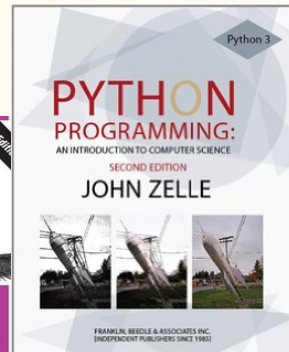
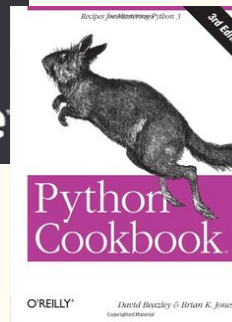
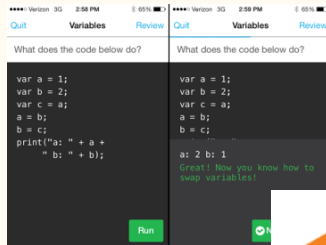
We coded this program using “if-else” statements. These statements decide what happens in your program. After an “if or else” statement the programmer will tell the computer what to say to the user (the one playing the game).



How to learn!

★ Websites

- Codecademy.com
- Codesters.com
- Treehouse.com



★ If we've learned anything, it's that the world is at your fingertips!

★ There is so much you can do with Python if you put your mind to it.

★ Books

- Python Cookbook 3rd edition. Authors: David Beazley & Brian K. Jones
- Python Essential Reference. Author: David Beazley
- Python Programming: An Introduction to computer science. Author: John Zelle
- A Byte of Python. Author: Swaroop C.H.

★ Youtube Channels

- 360° Code Everything
- Trevor Payne

*A software that you can use for python is
IDLE (Python GUI)

Thanks For Watching!

Any Questions?