

THE ART OF PROGRAMMING WITH PYTHON

```
15 totalPrice()
16
17 #Calculate the installed price. This function calculates area, cost, and installed price.
18 def installedPrice():
19     global l, w, pps
20     global area, carpet_cost, labor_cost
21     global installed_price
22     area = l*w
23     carpet_cost = area * pps
24     labor_cost = (0.35 * area)
25     installed_price = float(carpet_cost + labor_cost)
26
27 #Calculate the subtotal. This function calculates the discount and the subtotal.
28 def subtotal():
29     global d, discount_value, installed_price, sub
30     discount_value = float((d/100)* installed_price)
31     sub = float(installed_price - discount_value)
32
33 #Calculate the total price with discount and tax. This function calculates the subtotal, tax, and the total price.
34
35 def totalPrice():
36     global sub, tax, totalp
37     tax = float((8.5/100)*sub)
38     totalp = float(sub + tax)
39
40 #Print Functions
41 def PrintResult():
42     printMea()
43     printCha()
44
45 def printMea():
46     global l, w, area
47     print("%30s" % ('MEASUREMENT'))
48     print("%-10s %20s %20f %10s" % ("length", ' ', l, "ft"))
49     print("%-10s %20s %20f %10s" % ("Width", ' ', w, "ft"))
50     print("%-10s %20s %20f %10s" % ("Area", ' ', area, " square ft"))
51
52 #Print the result. Use two sub-functions to print the results: one to print the measurements, and one to print the charges.
53 def printCha():
54     global pps, carpet_cost, labor_cost, installed_price
55     global d, discount_value, sub, tax, totalp
56     print("%30s" % ('CHARGES'))
57     print("%-10s %20s %20s %20s" % ('DESCRIPTION', 'COST/SQ.FT.', 'DISCOUNT', 'TOTAL'))
```

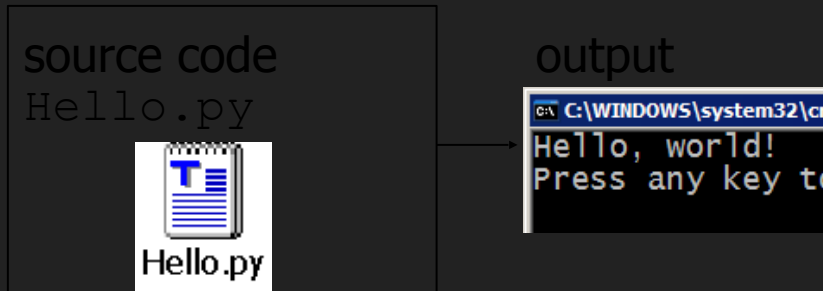
MAJOR POINTS

- ▶ WHAT IS PYTHON PROGRAMMING ?
- ▶ AN INSIGHT INTO PYTHON, JAVA & C
- ▶ PYTHON, JAVA OR C?
- ▶ WHAT NEXT...
- ▶ MAY THE FORCE BE WITH YOU!
- ▶ RESOURCES AND CONCLUSION

WHAT IS PYTHON???

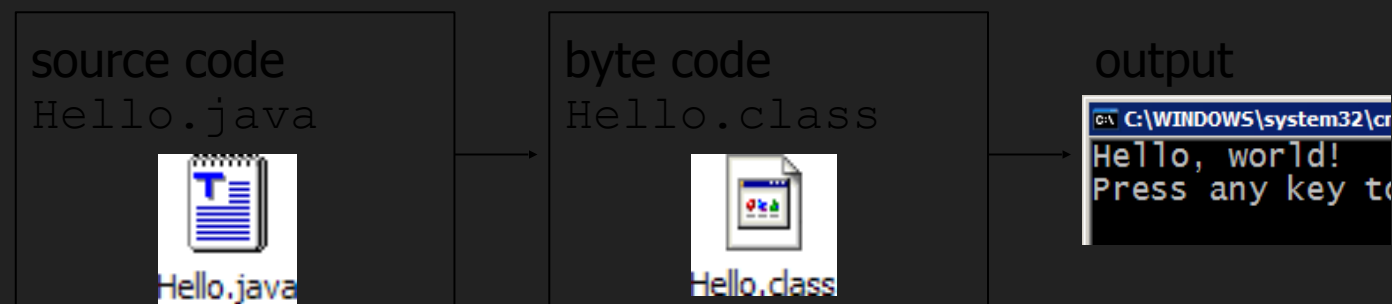
High level AND Interpreted language !

interpret



compile

execute



- Dynamically typed: Forget the type just put the data
- Object-Oriented: BLUEPRINTS EVERYWHERE!!!
- FREE AND OPEN SOURCE

Did You Know?:
1st version 1991
Guido Van Rosum
Tribute to the comic
troupe <Monty
Python>



DISADVANTAGES OF PYTHON

- ▶ SLOWER THAN C/C++
- ▶ NOT SO GREAT FOR MOBILE APPLICATION SOFTWARE
- ▶ FLEXIBILITY TAKES TO MUCH MEMORY!
- ▶ RUNTIME (ONLY) ERROR



Some Characteristics

.py for Programs and module

.py file directly executed= program/script

.py file via import statement = module

EXCEPTIONS, EXCEPTIONS EXCEPTION
EVERYWHERE!

WHY DOES PYTHON LIVE ON LAND??



BECAUSE IT IS ABOVE C LEVEL!!

	interpreted	compiled	dynamically typed	statically typed	object oriented	functional	GC	difficulty
JavaScript	X		X		X*	X	X	easy
Ruby/Python	X		X		X	X	X	normal
CoffeeScript		X	X		X	X	X	normal
Objective-C		X	X*	X	X	*	X	nightmare
Java		X		X	X		X	hard
Go		X	X*	X	X*	X	X	normal
Clojure		X	X		*	X	X	nightmare/hell
Scala		X	X*	X imperative	X	X	X	normal/ nightmare

HELLO, WORLD!

“Hello, World”

- C

```
#include <stdio.h>

int main(int argc, char ** argv)
{
    printf("Hello, World!\n");
}
```
- Java

```
public class Hello
{
    public static void main(String argv[])
    {
        System.out.println("Hello, World!");
    }
}
```
- now in Python

```
print "Hello, World!"
```

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EXTENSIBLE

BRACE YOURSELF, NO MORE BRACES :)

TREAT DIRECTLY REAL LIFE PROBLEMS

CROSS PLATFORM

“EASIER” TO CODE AND TO READ

ACCESSIBLE TO ANYONE

WHAT NEXT...

- ▶ You Know how to code, now what?

Jobs

- Software Programmer
- Web developer
- Ethical Hacker
- Create games!

Popular Jobs

Developer

109,861 salaries reported
Developer Jobs

Average Salary

\$91,528 per year

Salary Distribution



Engineer

63,461 salaries reported
Engineer Jobs

\$89,091 per year



Application Developer

59,158 salaries reported
Application Developer Jobs

\$85,637 per year



Senior Software Engineer

163,768 salaries reported
Senior Software Engineer Jobs

\$115,909 per year



Check it!

▶ [CodeAcademy.com](https://www.codecademy.com)

▶ python.org

▶ repl.it

NOW THE FUN PART!

RESSOURCES

- ▶ <https://www.slideshare.net/narendra.sisodiya/python-presentation-presentation>
- ▶ <https://data-flair.training/blogs/features-python/>
- ▶ <https://matt.aimonetti.net/posts/2012/10/05/pulsoconf-tour-of-programming-languages/>
- ▶ [https://www.google.com/search?
q=python+meme&source=lnms&tbm=isch&sa=X&ved=0ahUK
EwiY4_KOvq7eAhVEzlkKHQPsAioQ_AUIDigB&biw=1866&bih=
1044#imgdii=0F_OGpHAhSULoM:&imgsrc=3MoRdyRYBkzuqM:](https://www.google.com/search?q=python+meme&source=lnms&tbm=isch&sa=X&ved=0ahUK EwiY4_KOvq7eAhVEzlkKHQPsAioQ_AUIDigB&biw=1866&bih=1044#imgdii=0F_OGpHAhSULoM:&imgsrc=3MoRdyRYBkzuqM:)

CODE, CODE, CODE!

THANK YOU