PYTHON FULL COURSE

Introduction to Python.

Python is a <u>Cross-platform programming language</u>, which means that it can run on <u>multiple platforms</u>. like <u>windows</u>, mac os, <u>linux</u>, and has been even proted to the <u>java and .NET virtual machines</u>. It is free and open-source.

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Your First Python program.

Lets create a very simple program called 'Hello world'

Type the following code in editor or an IDE and Save it as hello world. Py

Print ("Hello, world!")

You will get the following output.

[Hello, Woold]

As you can see, this was a <u>pretty easy task</u>. This is the <u>beauty of the python programming</u> language.

Python Keywords!

Keyword are the reserved word in python. We cannot use a keyword as a variable name, function name or any other identifiers. They are use to define Syntax and structure of the python language.

False	qwait	else	import	Pass
None	break	except	in	raise
True	class	finally	13	return
and	continue	for	lambda	try
95	def	From	non local	While
assert	del	910691	not	With
asyne	elif	îF	Or	yleid.

All the Keywords except True, False and None are in lower case and they must be written as they are.

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• Python Identifiers:

An identifiers is a name given to entities like Class, functions, variables, etc.,

Keyword cannot be used as identifiers

Global = 1

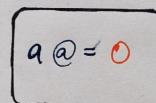
Output

File "< interactive input >", line 1
global = 1

A

Syntax Error: invalid Syntax

We cannot use special symbol like!, @, #, \$, 1. etc., in our identifier.



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Output

File "< interactive input >", line 1

9@=0

Syntax Error: invalid Syntax

Python Function

Syntax of function:

def function_name (Parameters):

""docstring""

Statement (S)

Example of a function:

def greet (name):

""

This function greets to

the person passed in as

a parameter

""

Print ("Hello,"+name + "Good Morning!")

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How to call a function in Python?

>>> greet ('Paul')
Hello, Paul. Good morning!

PYTHON OBJECT ORIENTED PROGRAMMING



Class Parrot:

→ Object:

Obj = Parrot ()

Methods:

Methods are functions defined <u>inside</u> the <u>body of a class</u>. They are used to define the behaviours of an object.

- Inheritance:

Inheritance is a way of creating a <u>new class</u> for using details of an existing class without modifying it. The newly formed class is derived.

- Encapsulation:

Using OOP in python, we can <u>restrict</u> access to <u>methods</u> and <u>variable</u>. This prevents data from <u>direct modification</u>.

- Polymorphism:

It is an ability (in oop) to use 9 Common interface for <u>multiple forms</u> (data type).

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INBUILT DATA STRUCTURE

• Creating a list:

- 1. My_list = [] # creating empty list.
- 2. Print (My_List)
- 3. My_list = [1,2,3 'example', 3.132] # creating list 4. Print (My_List) With data.

Creating a dictionary:

My-dict = {} # empty dictionary.

2. Print (My_dict)

My_dict={1:'Python', 2: 'Java'} # dictionary with elements.

Y. Print (My_dict)

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Creating a tuple

- 1. My_tuple = (1,2,3) # Create tuple
 2. Print (My_tuple)

Creating a set

- 1. $My_{set} = \{1, 2, 3, 4, 5, 5, 5\} \# Create set$ 2. Print $\{My_{set}\}$