Python

# **History:**

Developed by Guido van Rossum -A Dutch programmer . First released in 1991

Name inspired by Monty python’s flying ci

Python syntax: can be executed by writing directly in the Command

Print(“hello word”)

Out put: hello word

**Comments:**

Python comments can be used to write a python code

Python comments can be used to make code more readable

Python comment start with :  **“** # “

Example:# this is comment

Print(“hello”)

## **Variables**

Variables are containers for storing data values.

Python variables:

* A variable name must start with a letter or the underscore character
* A variable name cannot start with a number
* A variable name can only contain alpha-numeric characters and underscores (A-z, 0-9, and -)
* Variable names are case-sensitive (age, Age and AGE are three different variables)

Two different types of variables

Legal variables ,illegal variables

**camel Case**

Each word, except the first, starts with a capital letter

## **Pascal Case**

Each word starts with a capital letter

## **Snake Case**

Each word is separated by an underscore character:

## **Global Variables**

Variables that are created outside of a function (as in all of the examples above) are known as global variables.

Global variables can be used by everyone, both inside of functions and outside.

**Data Types**

Python has the following data types built-in by default, in these categories:

|  |  |
| --- | --- |
| Text Type: | Str |
| Numeric Types: | int, float, complex |
| Sequence Types: | list, tuple, range |
| Mapping Type: | Dict |
| Set Types: | set, frozenset |
| Boolean Type: | Bool |
| Binary Types: | bytes, bytearray, memoryview |
| None Type: | NoneType |

In Python, the data type is set when you assign a value to a variable:

**Slicing**

You can return a range of characters by using the slice syntax.

Specify the start index and the end index, separated by a colon, to return a part of the string.

Ex

X=(“hello world”)

Print(x [2:5])

Output = llo

**Slicing**

You can return a range of characters by using the slice syntax.

Specify the start index and the end index, separated by a colon, to return a part of the string.

### **Example**

Get the characters from position 2 to position 5 (not included):

b = "Hello, World!"  
print(b[2:5])

**Note:**The first character has index 0.

**Slice From the Start**

By leaving out the start index, the range will start at the first character:

### **Example**

Get the characters from the start to position 5 (not included)

b= "Hello, World!"  
print(b[:5])

**)**