

## Q) what is python?

python is interactive, interpreted, object-oriented high level scripting language.

-Developed by "Guido Van Rossum".

1.Here INTERACTIVE means, interacting with the interpreter directly by writing your code in python prompt.

2.Here INTERPRETED means, the code is not compiled, instead directly executed at run time by python interpreter.

Hence it is also known as SCRIPTING language.

3.Here OBJECT-ORIENTED means the language follows the oops concept to deal with the real world object.

4.Here HIGH LEVEL language means easily understandable by humans.

## Q)why we should learn python?

1.Syntatically python is much easier to write and read as compare to languages like JAVA.

2.python is used for Data Science Field and for Artificial Intelligence.

3.python is also used for web Application, Data extraction, Cyber security, database access and many other fields.

4.python libraries are one of the main reason to explore this perticular language.

## 1. Variables

Variables are temporary storage space in memory, where we can store the data and can also further change the data if its required.

lets practically do it!

```
In [2]: # Here var1 is a variable in which hello world (data) has been temporarily stored.  
var1="hello world"  
var1
```

```
Out[2]: 'hello world'
```

```
In [3]: var1="hii spartaaa"  
var1
```

```
Out[3]: 'hii spartaaa'
```

```
In [4]: #now if we want to know the data type of the variable, we can use type()  
type(var1)
```

```
Out[4]: str
```

```
In [5]: var2=23.56  
type(var2)
```

```
Out[5]: float
```

```
In [6]: var2=-56  
type(var2)
```

```
Out[6]: int
```

```
In [7]: # multiple assignments in python  
var1=var2=var3=567.7  
var1,var2,var3
```

```
Out[7]: (567.7, 567.7, 567.7)
```

```
In [8]: var1,var2=34,"hello"  
var1, var2
```

```
Out[8]: (34, 'hello')
```