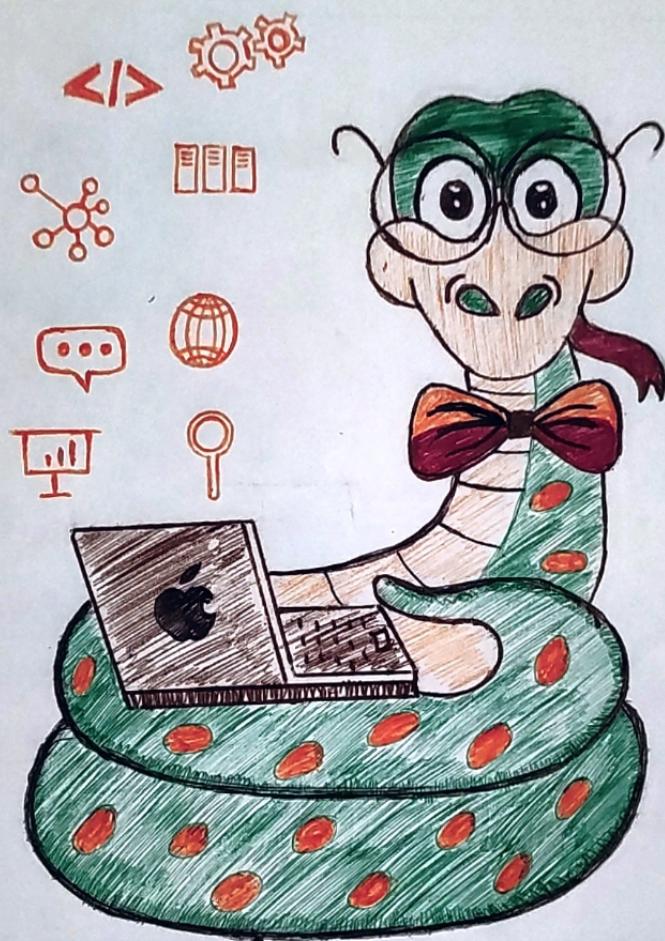


Python Introduction

Python is a popular programming language. It was created by Guido van Rossum, and released in 1991.



Indentation

Indentation refers to spaces at the beginning of a code line.

Where in other programming languages the indentation in code is for readability only, the indentation in python is very important.

Python uses indentation to indicate a block of code.

Example :

if 5 > 2 :

Print ("Five is greater than two!")

Syntax Error :

if 5 > 2 :

Print ("Five is greater than two!")

The number of spaces is up to you as a programmer,
the most common use is four, but it has to be at least
one.

Example :

if 5 > 2 :

Print ("Five is greater than two!")

if 5 > 2 :

Print ("Five is greater than two!")

You have to use the same number of spaces in the
same block of code, otherwise Python will give you an
error :

Example :

if 5 > 2 :

Print ("Five is greater than two!")

Print ("Five is greater than two!")

Comments

Comments can be used to explain Python code.

Comments can be used to make the code more readable.

Comments can be used to prevent execution when testing code.

Creating a Comment

Comments starts with a **#**, and Python will ignore them:

Example:

```
# This is a comment
```

```
Print("Hello, World!")
```

Comments can be placed at the end of a line, and Python will ignore the rest of the line:

Example:

```
Print("Hello, World!") # This is a comment
```

A comment does not have to be text that explains the code, it can also be used to prevent Python from executing code:

Example:

```
# Print("Hello, World!")
```

```
Print("Cheers, Mate!")
```

Multiline Comments

Python does not really have a syntax for multiline comments.

To add a multiline comment you could insert a **#** for each line:

Example:

```
# This is a comment  
# written in  
# more than just one line  
Print("Hello, world!")
```

Or, not quite as intended, you can use a multiline string.

Since Python will ignore string literals that are not assigned to a variable, you can add a multiline string (triple quotes) in your code, and place your comment inside it:

Example:

```
"""  
This is a comment  
written in  
more than just one line  
"""  
Print("Hello, world!")
```

Variables

Variables are containers for storing data values.

Creating Variables

Python has no command for declaring a variable. A variable is created the moment you first assign a value to it.

Example:

X = 5

Y = "Kumar"

Print(X)

Print(Y)

Variables do not need to be declared with any particular type, and can even change type after they have been set.

Example:

X = 4 # X is of type int

X = "Siya" # X is now of type str

Print(X)

Casting

If you want to specify the data type of a variable, this can be done with casting.

Example:

X = str(3) # X will be '3'

Y = int(3) # Y will be 3

Z = float(3) # Z will be 3.0

Get the Type

You can get the data type of a variable with the type() function.

Example:

X = 5

Y = "kumar"

Print(type(X))

Print(type(Y))

Single or Double Quotes

String variables can be declared either by using single or double quotes:

Example:

X = "Kumar"

is the same as

X = 'Kumar'

Case-Sensitive

Variable names are case-sensitive.

Example:

This will create two variables:

a = 4

A = "Siya"

A will not overwrite a