Python Syntax

Python syntax is like grammar for this programming language. Syntax refers to the set of rules that defines how to write and organize code so that the Python interpreter can understand and run it correctly. These rules ensure that your code is structured, formatted, and error-free.

Here are some basic Python syntax:

Indentation in Python

Python Indentation refers to the use of whitespace (spaces or tabs) at the beginning of code line. It is used to define the code blocks. Indentation is crucial in Python because, unlike many other programming languages that use braces "{}" to define blocks, Python uses indentation. It improves the readability of Python code, but on other hand it became difficult to rectify indentation errors. Even one extra or less space can leads to indentation error.

Python keywords

Keywords in Python are reserved words that have special meanings and serve specific purposes in the language syntax. They cannot be used as identifiers (names for variables, functions, classes, etc.). For instance, "for", "while", "if", and "else" are keywords and cannot be used as identifiers.

Below is the list of keywords in Python:

False	await	else	import	pass	
None	break	except	in	raise	
True	class	finally	is	return	
and	continue	for	lambda	try	
as	def	from	nonlocal	while	
assert	del	global	not	with	
async	elif	if	or	yield	

Comments in Python

Comments in Python are statements written within the code. They are meant to explain, clarify, or give context about specific parts of the code. The purpose of comments is to explain the working of a code, they have no impact on the execution or outcome of a program.

Python Single Line Comment

Single line comments are preceded by the "#" symbol. Everything after this symbol on the same line is considered a comment.

Python Multi-line Comment

Python doesn't have a specific syntax for multi-line comments. However, programmers often use multiple single-line comments, one after the other, or sometimes triple quotes (either ''' or """), even though they're technically string literals. Below is the example of multiline comment.

```
'''
Multi Line comment.
Code will print name.
```

'''

Taking Input from User in Python

The input() function in Python is used to take user input from the console. The program execution halts until the user provides input and presses "Enter". The entered data is then returned as a string. We can also provide an optional prompt as an argument to guide the user on what to input.

name = input("Please enter your name: ")