Python Notes - Topic 2: Python Syntax

Introduction to Python Syntax

Python syntax refers to the set of rules that defines how a Python program is written and interpreted. Python syntax is designed to be clean and easy to understand.

1. Python Indentation

Unlike many other programming languages, Python uses indentation (whitespace at the beginning of a line) to define blocks of code.

```
Example:

if 5 > 2:

print("Five is greater than two!")
```

2. Python Comments

```
# Single-line comment
"" or """ for multi-line comments
Example:
# This is a comment
print("Hello")
```

3. Python Variables

Variables do not need to be declared with any type.

Example:

```
x = 5
y = "Hello"
print(x)
print(y)
```

4. Case Sensitivity

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Python is case-sensitive. For example, 'Variable' and 'variable' are different.

5. Python Statements

A statement is a unit of code that the Python interpreter can execute.

You can write multiple statements on a single line using semicolons:

$$x = 10$$
; $y = 20$; print(x + y)

6. Line Continuation

You can split long lines using backslash (\) or inside brackets.

Example:

```
total = 1 + \
2 + \
3
```

Practice Questions:

- 1. What is indentation in Python and why is it important?
- 2. Write a Python program with a comment and a print statement.
- 3. What happens if you use incorrect indentation? Try and see!