1:

• Significance of keywords:

- Keywords are reserved words in Python that have specific meanings and cannot be used for other purposes like variable names or function names.
- o They are the building blocks of Python syntax and define the control flow, structure, and behavior of your code.

Example: if, else, elif, print, break, continue, False, True etc

2:

• Rule for defining identifiers:

- o Start with a letter (uppercase or lowercase) or an underscore ().
- o Contain only letters, numbers, and underscores.
- o Case-sensitive (e.g., age and Age are different).
- Cannot be a Python keyword.

Example:

- I. my_variable = 10
- II. temp = 20

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- Comments are lines of text ignored by the Python interpreter, but they are essential for human understanding.
- They help explain the code's purpose, logic, or document specific sections.

Types:

- o Single-line comments: Begin with a # symbol.
- Multi-line comments: Enclosed within triple quotes (" or """).

Example:

This is a single-line comment.

""

This is a multi-line comment

that can span multiple lines.

4:

• Importance:

- o In Python, indentation (spaces before code) defines code blocks, unlike curly braces in other languages like C++.
- o Consistent and proper indentation is crucial for accurate code execution.

5:

• Incorrect Indentation:

- Will likely result in syntax errors because Python interpreter cannot determine the block structure correctly.
- o Errors may vary depending on the complexity of the code.

6:

• Expressions:

- o Combinations of values, variables, operators, and function calls.
- o Evaluate to a single value.
- o Used in calculations, comparisons, and conditional statements.

• Statements:

- Complete instructions that tell the computer what to do.
- o Do not evaluate to a value (they have no "result").
- o Include assignments, control flow statements (if, else, for, while), function calls, and print statements.

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Examples:

- \circ **Expression:** 2 + 3 * 4 (evaluates to 14)
- Statement: x = 10 (assigns the value 10 to the variable x)