

TOKEN

They are the smallest individual unit in a program.

PYTHON TOKENS –

- i. Keywords
- ii. Identifiers
- iii. Literals
- iv. Operators
- v. Punctuators

KEYWORDS

- i. They are some reserved words that has special meaning or purpose and must not be used as identifiers.
- ii. Ex – if, else, elif, while, for, class, from, return, break, etc.

IDENTIFIERS

- i. They are the names given to – variable, object, classes, functions, list, etc.
- ii. They can be the combination of letters and digits and underscores.
- iii. Also, digit can't be the first character.
- iv. CASE is also significant.
- v. Ex – myfirstprogram, MyFirstProgram, my_first_program, _my_first_program_, etc.

LITERALS

- i. They are data item that have fixed value.
- ii. Python String Literals –
 - i. String Literal
 - ii. Numeric Literal
 - iii. Boolean Literal
 - iv. Special Literal

STRING LITERAL

- i. They are the sequence of characters surrounded by quotes (single or double).
- ii. Ex – 'Hello', "PYTHON", '3.7', etc.

NUMERIC LITERAL

- i. They are the numeric type.
- ii. Python Numeric Literals –
 - i. Int (or long)
 - ii. float
 - iii. complex

BOOLEAN LITERAL

- i. They represent logical conditions.
- ii. Python Boolean Literals –
 - i. True
 - ii. False

SPECIAL LITERAL

- i. It represents something that has not yet been created.
- ii. Python Special Literal –
 - i. None

OPERATORS

- i. They perform their respective action when applied to a variable or to any other object of an expression.

- ii. Python Operators –

i. UNARY OPERATORS

- i. They require one operand to operate upon.

- ii. Python Unary Operators –

- i. Unary Plus (+)
- ii. Unary Minus (-)
- iii. Bitwise Complement (~)
- iv. Left Shift (<<)
- v. Right Shift (>>)
- vi. Not/Complement (not)

ii. BINARY OPERATORS**i. Arithmetic Operators**

- i. Addition (+)
- ii. Subtraction (-)
- iii. Multiplication (*)
- iv. Division (q) (/)
- v. Division (r) (%)
- vi. Division (floor) (//)
- vii. Exponent (**)

ii. Relational Operators

- i. Less than (<)
- ii. Greater than (>)
- iii. Less than or equals to (<=)
- iv. Greater than or equals to (>=)
- v. Equals to (==)
- vi. Not equals to (!=)

iii. Assignment Operators

- i. Assign value (=)
- ii. Assign sum (+=)
- iii. Assign difference (-=)
- iv. Assign product (*=)
- v. Assign quotient (/=)
- vi. Assign remainder (%=)
- vii. Assign floor division (//=)

iv. Logical Operators

- i. Logical AND (and)
- ii. Logical OR (or)

v. Identity Operators

- i. Check, same? (is)
- ii. Check, not same? (is not)

vi. Bitwise Operators

- i. And (&)
- ii. Or (|)
- iii. XOR (^)

- iv. Left Shift (<<)
- v. Right Shift (>>)

iii. **TERNARY OPERATORS**

- i. <on_true> if <condition> else <on_false>

PUNCTUATORS

- i. They are used to organize sentence structure.
- ii. Python Punctuators – ‘, “, #, \, (), [], { }, @, :, ., `, =, ;