Words And Sentences

Reserved words –

Cannot use reserved words as variable names.

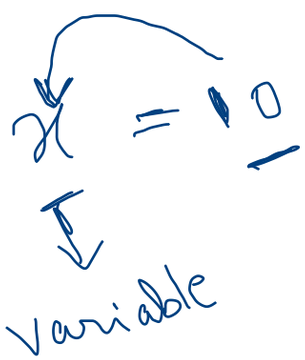

table 1 ✓
table 2 ✓
Table 3 ✓

1table ✗
2table ✗
3table ✗

Python Variable Name Rules –

→ Must start with letter or underscore (_)

→ Must consist of letters, numbers and underscores.

→ Case Sensitive : Spam ≠ Spam ≠ SPAM

1 2 3

Spam ≠ SPAM

Spam

print(spam) → ✗

Reserved words -

- and
- as
- assert
- break
- class
- continue
- def
- del
- elif
- else
- except
- finally
- for
- from
- global
- if
- import
- in
- is
- lambda
- nonlocal
- not
- or
- pass
- raise
- return
- try
- while
- with
- yield

" string " → string (enclosed in quotation mark (str)

123 → integer (int)

Height → 183 cm | 1.83 m

int

float

float → numbers with a decimal point.

Types of variables

- string <str>
- integer (int)
- float < float >

type function

↓

check the type.

Operators →

- Special symbols that represent computations like addition & multiplica...

The values the operator is applied to are called operands

+ , - , * , / , ** , %

+ → Addition

- → Subtraction

* → Multiplication

/ → Division

** → Exponential (Power)

% → Remainder

· Division of two integers, the output ⇒ float.

Exponential

$3 * * 2 = 9$

$3^{2} = 3 \times 3$

3**2 = 3^2 = 3 x 3

$2 * * 4 = 2^{4} = 2 \times 2 \times 2 \times 2$

$= 4 \times 4$

$= 16$

2 → base, 4 → power

Modulo (Remainder)

7 % 3

$3 \overline{)7}$ 2

-6

1 → Remainder

4 % 2

$2 \overline{)4}$ 2

-4

0 → Remainder

Order of Evaluation -

- Operator Precedence

Highest to Lowest

- Paranthesis ( )
- Exponentiation
- Multiplication, Division & Remainder
- Addition & Subtraction
- Left to Right

Higher to Lower

Q. $1 + [[2 ** 3] | 4 * 5]$

I

II

III

Soln:- $1 + 2^3 \mid 4 * 5$

$= 1 + (8 \mid 4) * 5$

$= 1 + 2 * 5$

$= 1 + 10$ ⇒ IV

$= 11$

$= 2 * (3-1)$

$= 2 * 2$

$= 4$

$(1+1) ** (5-2)$

$2 ** 3 = 2^3$

$\Rightarrow 2 \times 2 \times 2$

$\Rightarrow 8$

* Whenever we get the input from the user, the output will be always stored in the format of a String.

45 → X

'45' → ✓

String Conversion

- Use int() and float() to convert b/w string and integers.
- Error → String does not contain any numeric characters.

Q. Write program to prompt the user for hours and rate per hour to compute gross pay.

Enter Hours: 35

Enter Rate: 2.75

Pay: 96.25

} User - Input