

$$Nota = \left(10, 0.5 * \underbrace{mola\ lais}_{\geq 5} + 0.5 * \underbrace{mola\ ev}_{\geq 5} + 0.1 * mola\ nereg\right)$$

nu se
montajesc

Limbajul PYTHON

Guido van Rossum → 1990

Progr. procedurată:

Sto de date

Alg

Program (WIK Paws Wirth)

Clasă

Tipuri de date:

1 tip de date = o clasă.

a) Nometype → Nome

b) Tipuri numerice → tipul întreg → clasă int
 tipul real → clasă float
 tipul complex → clasă complex
 (a + bj)

c) tipul boolean → clasă bool
 (True sau False)

d) tipuri neeventual

→ sirurile de caractere → clasă str

→ listele → clasă list + "[]"

→ tuplurile → clasă tuple

T = (-17, 3, 12).

e) tipuri multiple → clasă set

→ clasă frozenset.

X 81 testarea paritatii.

$$X = 1011101(2)$$

$$y = x \ll 3$$

1011101000

$$x \ll b (\Rightarrow) x \cdot 2^b$$

$$y = x \gg 3$$

1011101

$$x \gg 3 = x / 2^b$$

$$2 \times 3 \times 2 = 2^3 = 2^9$$

② on relational: $<, >, \leq, \geq, =, \neq, \text{is}, \text{is not}, \text{in}, \text{not in}.$

$$x \text{ is } y = \text{True}$$

$$\Rightarrow \text{id}(x) = \text{id}(y)$$

$$7 \text{ in } [1, 2, 7, 5] \Rightarrow \text{True}$$

③ on logic not, and, or

$$0, 0, 0.0, 0+0j, [], "", \dots \Rightarrow \text{False}$$

$$-100 \text{ and } 7 = \text{False}$$

$$x \text{ and } y = \begin{cases} x, & \text{dc. } x \approx \text{False} \\ y, & \text{dc. } x \approx \text{True} \end{cases}$$

$$x \text{ or } y = \begin{cases} y, & x \approx \text{False} \\ x, & x \approx \text{True} \end{cases}$$

$$\text{not } 17 = \text{False}$$

④ op bitwise

negate

not and or xor left shift

right shift.

$$x = 23 = 00 \dots 01011 (2)$$

$$\sim x = (24) 1 \dots 101000 (2)$$

$$\sim x = -x - 1$$

$$\begin{array}{r|l} 8 & 0 \quad 1 \\ \hline 9 & 0 \quad 0 \\ \hline 1 & 0 \quad 1 \end{array}$$

$$\begin{array}{r|l} & 0 \quad 1 \\ \hline 0 & 0 \quad 1 \\ \hline 1 & 1 \quad 1 \end{array}$$

$$\begin{array}{r|l} 1 & 0 \quad 1 \\ \hline 0 & 1 \quad 1 \\ \hline 1 & 1 \quad 0 \end{array}$$

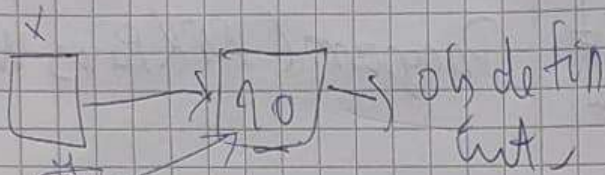
f) tipul dictionary \rightarrow clasa dict.

key: value

$d = \{ \text{"Popescu Ion": [15, 1, 10]}, \text{"Popescu Ana": [15, 2, 10]} \}$

variables

$x = 10$



$\uparrow \text{var} = \text{ref.}$

- `type(variable)`

- `id(variable)` // referința variabilei ??

Operatori:

1. op. \rightarrow aritate = nr operatori

$$d = a - b$$

$$\uparrow \text{aritate} = 2$$

$$d = -b$$

$$\uparrow \text{aritate} = 1$$

\rightarrow prioritate

\rightarrow asociativitatea.

1. op aritmetici: $+$, $-$, $*$, $/$, $\% / \%$, $**$

$$7 \% (-2) = -1$$

$$7 \parallel (-2) = -4$$

$$a = (a \parallel b) * b + a \% b$$