

- * Web APP \Leftarrow
- * Data science \Leftarrow
- * Network / Security \rightarrow DevNet

Intro to Programming Using Python

Files R/W
connect DB
GUI
(HR System)

- Input / output
- Variables / Datatypes
- Expressions / Functions
- if - stat
- Loops (for, while)
- Lists / Dicts
- Functions
- OOP

Student

Trainer

Course

- * Python
- * PyCharm

Errors:

- * Syntax
- * Runtime
- * Logic

input
storage
Process
output

salary \rightarrow Variable
7000 $\left\{ \begin{array}{l} \text{int} \\ \text{float} \\ \text{str} \end{array} \right.$

$$\text{annnd-salary} = \text{salary} * 12$$

Full-mark
25

mark
23

$$\text{Pct} = \frac{\text{mark}}{\text{Full-mark}} * 100$$

92

Math Operators

1. **
2. *, /, //, %
3. +, -

$$\begin{array}{l} 5^2 \rightarrow 5 ** 2 \rightarrow 25 \\ 5 / 2 \rightarrow 2.5 \\ 5 // 2 \rightarrow 2 \end{array} \quad \begin{array}{l} 7 \% 3 \rightarrow 1 \\ 11 \% 3 \rightarrow 2 \\ 10 \% 2 \rightarrow 0 \end{array}$$

$$4 + (6 / 2)^3$$

$$(6 / 2)^3 * 3$$

Assignment Operator

$$x = 5$$

$$x = 3$$

$$x = x + 5$$

$$x += 2$$

$$x *= 3$$

$$x -= 5$$

2
5

3

8

10

30

25

Common Functions

$$\text{max}(2, 5, 3) \Rightarrow 5$$

$$\text{min}(2, 5, 3) \Rightarrow 2$$

$$\text{round}(19.6) \Rightarrow 20$$

$$\text{round}(19.6666, 2) \Rightarrow 19.67$$

$$\text{randint}(0, 10) \Rightarrow 2$$

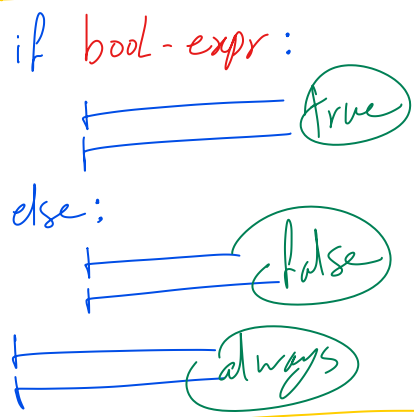
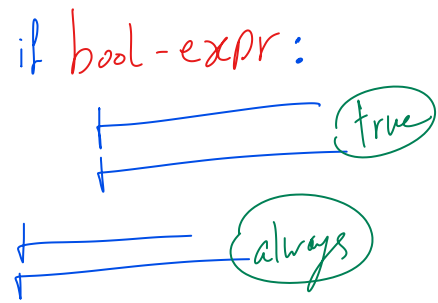
4
7

weight
68

height
182

$$\text{bmi} = \frac{\text{weight}}{(\text{height} / 100)^2}$$

20.52...



Relational operators:

>, >=, <, <=
 ==, !=

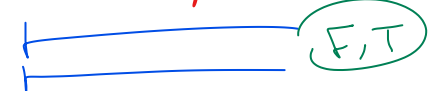
x = 5 x
 5

x == 3 x != 3
 false true

if bool-expr:



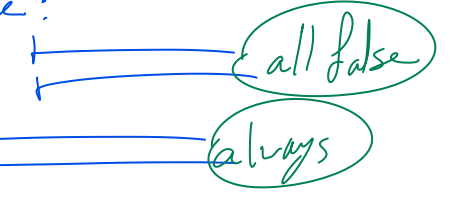
elif bool-expr:



elif bool-expr:



else:



Full-mark mark

[] []

$$Pct = \frac{\text{mark}}{\text{full-mark}} \times 100$$

- >85 Excellent
- >75 V. Good
- >65 Good
- >=50 Pass
- Sail

