

# Programming

## Lesson4 - Boolean, Conditions & Scopes

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# Reminder - Lesson3

- ▶ Print

- ▶ `print('message', ...)` → prints message to the screen

- ▶ Input

- ▶ `input('message')` → reads input from user
  - ▶ prints message on screen and move control to user

- ▶ Types conversion

# New type: boolean


- ▶ Represents 2 values **ONLY**:
  - ▶ True
    - ▶ `x = True`
  - ▶ False
    - ▶ `y = False`
- ▶ The answer of expression/question

# Conditional statements

- ▶ if → python keyword to start conditional statement
- ▶ if <condition> → if statement
- ▶ How:
  - ▶ if <condition>:
    - ▶ do something
- ▶ Example:
  - ▶ if age > 16:
    - ▶ Print('your age is greater than 16')

# Scope


- ▶ Region of instruction
  - ▶ Variables declaration
  - ▶ Inputs/outputs
  - ▶ ...
- ▶ Variables file → no spaces at all → all instruction in one scope

if age > 16:  End of if statement & Beginning of scope

```
└─┬─┘ print('Hello', 'we are in if scope')
```

```
└─┬─┘ print('Welcome!', 'still in if scope')
```

└─┬─┘ } in if scope

print('NOT in if scope')  No spaces → NOT in if scope

# Nested Scopes

if age > 16:

└─ print('your age is > 16')

    if age < 30:

└─ └─ print('but its also < 30')

        print('in second if scope')

        print('in first if scope')

print('not in any if scope') └─ Not in any if scope

Age < 30  
scope

Age > 16  
scope

# Let's try...😊

- ▶ Open PyCharm:
  - ▶ Create new file: conditions.py
  - ▶ Read user age
  - ▶ Convert age
  - ▶ Check if age > 20
    - ▶ print something

“

Thank you 😊!

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Stay tuned for more!