

Lab 1 - Recap Basic Data Types and Data Structures.ipynb

Modalitate declarare variabile si tipuri date

```
stock_price = 20
print(stock_price)
stock_price = stock_price + 10
print(stock_price)
print(type(stock_price))

stock_price = 4.5
print(type(stock_price))

message = 'Un text'
message = '4.5'
# Concatenare text - modalitate inserare comentarii in cod
message = message + '10'
print(message)
```

```
20
30
<class 'int'>
<class 'float'>
4.510
```

```
print(message)
```

```
4.510
```

Structuri repetitive

```
year = 2020
# modalitate definire lista de valori
inflation = [3, 2, 2, 4, 1.5] # 3 -> 2020, 2-> 2021
while year < 2025:
    #print(str(year) + ': ' + str(inflation[year - 2020])) #2020: 3 # str() realizeaz[ conversia la un text (string)
    print(f'{year}: {inflation[year - 2020]}')
    year = year + 1

print(inflation[0]) # prima pozitie dintr-o lista are index-ul 0
```

```
2020: 3
2021: 2
2022: 2
2023: 4
2024: 1.5
3
```

```
year = 2020
inflation = [3, 2, 2, 4, 1.5] # declaram o lista de valori
number_of_values = len(inflation) # () -> apelul unei metode si intre paranteze avem valorile transmise
print(number_of_values) # () -> apelul unei metode
for i in range(len(inflation)): # range(5) => 0, 1, 2, 3, 4
    print(f"{year + i}: {inflation[i]}")

print(inflation[0])
print(inflation[1])
print(inflation[2])
print(inflation[3])
print(inflation[4])
```

```
2020: 3
2021: 2
2022: 2
2023: 4
2024: 1.5
```

```
print(range(3, 5, 1))
```

```
range(3, 5)
```

Structură decizională

```
# if
a = 4
b = 5
if a > b: # True, False
    print('a este mai mic decat b') # indentat cu tab
#else:
#    print('a este mai mare sau egal decat b')
print('test')
```

test

```
returns = [1.2, -0.8, 2.5, 4.2, -1.5]
```

```
for r in returns:
    #print(r)
    if r > 2:
        print ("Strong positive return")
    elif r > 0:
        print ("Positive return")
    elif r > -2:
        print ("Negative return")
    else:
        print ("Very negative return")
```

```
Positive return
Negative return
Strong positive return
Strong positive return
Negative return
```