**Programming Foundations: Fundamentals**

\* Work with numbers

print("5 \*\* 2 = ", 5 \*\* 2) # 5²

print("5 / 2 = ", 5 / 2)

print("5 // 2 = ", 5 // 2) #without reminder

print("5 % 2 = ", 5 % 2) #reminder

print("55000 / 11 = ", 55000 / 11) #no comma in large numbers

print("0.3 + 0.5 = ", 0.3 + 0.5)

Result

5 \*\* 2 = 25  
5 / 2 = 2.5   
5 // 2 = 2  
5 % 2 = 1  
55000 / 11 = 5000.0  
0.3 + 0.5 = 0.8

\*Data types

num = 321

float\_num = 3.2

word = "blablabla"

print(type(num))  #<class 'int'>

print(type(float\_num))  #<class 'float'>

print(type(word))  #<class 'str'>

\*Strings

print("Hi, "Ammar" ") #synatx error

print('Hi, "Ammar" ') # Hi, "Ammar"

print("Hi, 'Ammar' ") # Hi, 'Ammar'

Fname = "Ammar "

Lname = "Yasser"

name = Fname + Lname

print("My name: ", name)

Result  
My name: Ammar Yasser

\*Boolean

print("3==3.5 : ", 3==3.5) #False

print("3<=3.5 : ", 3<=3.5) #True

print("50/5 >= 10 : ", 50/5 >= 10) #True

print("5!= 2.5\*2 : ", 5!= 2.5\*2) #False

\* Conditional code

user = input("Input your username: ")

if user == "ammar":

    print("login")

else:

    print("Error!")

Result

Input your username: any name  
Error!

\*Functions  
 function return the sum except sum is negative

def summ(num1, num2):

    x = num1 + num2

    if x >= 0:

        return x

    else:

        return -1