**PRACTICAL-1**

**AIM:**

**a. Write a program to demonstrate all the basic data types in python.**

**Source Code:**

int\_var = 10

float\_var = 3.14

str\_var = "Hello, World!"

bool\_var = True

list\_var = [1, 2, 3]

tuple\_var = (4, 5, 6)

dict\_var = {"name": "Om", "age": 20}

set\_var = {7, 8, 9}

print(int\_var, "typeof(int\_var):", type(int\_var))

print(float\_var, "typeof(float\_var):", type(float\_var))

print(str\_var, "typeof(str\_var):", type(str\_var))

print(bool\_var, "typeof(bool\_var):", type(bool\_var))

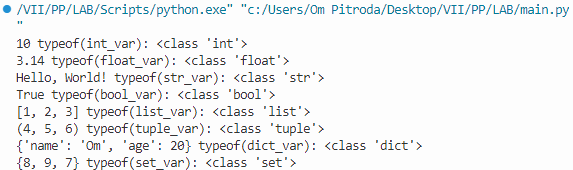
print(list\_var, "typeof(list\_var):", type(list\_var))

print(tuple\_var, "typeof(tuple\_var):", type(tuple\_var))

print(dict\_var, "typeof(dict\_var):", type(dict\_var))

print(set\_var, "typeof(set\_var):", type(set\_var))

**Output:**

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**b. Write a program that takes two numbers as command line arguments and prints its summation.**

**Source Code:**

import sys

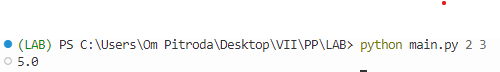
num1 = float(sys.argv[1])

num2 = float(sys.argv[2])

result = num1 + num2

print(result)

**Output:**



**c. Write a program to print the largest and smallest number of three numbers input from user with and without using library functions.**

**Source Code:**

num1 = float(input("Enter the first number: "))

num2 = float(input("Enter the second number: "))

num3 = float(input("Enter the third number: "))

if num1 >= num2 and num1 >= num3:

max\_num = num1

elif num2 >= num1 and num2 >= num3:

max\_num = num2

else:

max\_num = num3

if num1 <= num2 and num1 <= num3:

min\_num = num1

elif num2 <= num1 and num2 <= num3:

min\_num = num2

else:

min\_num = num3

print(f"Largest number: {max\_num}")

print(f"Smallest number: {min\_num}") num1 = float(input("Enter the first number: "))

num2 = float(input("Enter the second number: "))

num3 = float(input("Enter the third number: "))

if num1 >= num2 and num1 >= num3:

max\_num = num1

elif num2 >= num1 and num2 >= num3:

max\_num = num2

else:

max\_num = num3

if num1 <= num2 and num1 <= num3:

min\_num = num1

elif num2 <= num1 and num2 <= num3:

min\_num = num2

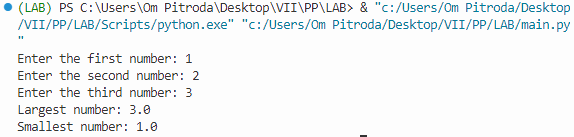
else:

min\_num = num3

print(f"Largest number: {max\_num}")

print(f"Smallest number: {min\_num}")

**Output:**

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**d. Write a program to calculate GCD of two numbers.**

**Source Code:**

def find\_gcd(x, y):

while(y):

x, y = y, x % y

return x

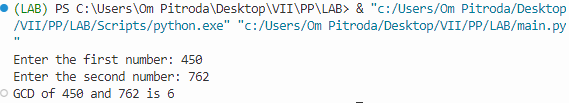
num1 = int(input("Enter the first number: "))

num2 = int(input("Enter the second number: "))

gcd = find\_gcd(num1, num2)

print(f"GCD of {num1} and {num2} is {gcd}")

**Output:**

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