

# Python Practice Problems for Beginners

## Hello World

Write a Python program that prints the message:

Hello, World!

Welcome to Python programming.

## Basic Data Types and Operations

Create three variables:

- an integer a with value 10
- a float b with value 5.5
- a string c with value 'Python'

Print the type of each variable and perform the following:

- Add a and b
- Concatenate c with ' is fun!'

## Arithmetic Operations

Ask the user to input two numbers.

Print the results of the following:

- Addition
- Subtraction
- Multiplication
- Division (float)
- Floor division
- Modulo
- Exponentiation

## **Boolean Logic**

You are given two boolean variables:

is\_sunny = True

have\_umbrella = False

Write a program to decide:

- Should you go outside? (Only if its sunny or you have an umbrella)
- Should you carry the umbrella? (Only if its not sunny)

Print appropriate messages using logical operators.

## **String Operations**

Ask the user to enter a sentence. Perform the following:

- Count the number of characters
- Convert to uppercase and lowercase
- Replace all spaces with underscores
- Check if the word 'Python' is in the sentence

## **Control Structures if**

Ask the user to input a number.

- If the number is positive, print 'Positive number'
- If the number is zero, print 'Zero'
- If the number is negative, print 'Negative number'

## **Control Structures if-elif-else**

Create a program that takes a student's marks (out of 100) as input and prints the grade:

- 90 and above: Grade A
- 75-89: Grade B
- 60-74: Grade C

- 4059: Grade D
- Below 40: Fail

### **Mini Calculator**

Ask the user for:

- First number
- Second number
- Operation to perform: +, -, \*, /

Use if-elif-else to perform the operation and print the result.

Handle division by zero using an if-condition.