**Practical No: 1**

**Aim:** Write /execute simple ‘Python’ program: Develop minimum 2 programs using Arithmetic Operators, exhibiting data type conversion.

**Course Outcome:** Write and execute simple ‘Python ’programs.

**Theory:** Arithmetic operators are used to perform mathematical operations like addition, subtraction, multiplication and division.

There are 7 arithmetic operators in Python:

1. Addition
2. Subtraction
3. Multiplication
4. Division
5. Modulus
6. Exponentiation
7. Floor division

1. Addition Operator: In Python, + is the addition operator. It is used to add 2 values.

2. Subtraction Operator: In Python, – is the subtraction operator. It is used to subtract the second value from the first value.

**3**. Multiplication Operator: In Python, **\*** is the multiplication operator. It is used to find the product of 2 values.

4. Division Operator: In Python, / is the division operator. It is used to find the quotient when first operand is divided by the second.

5. Modulus Operator: In Python, % is the modulus operator. It is used to find the remainder when first operand is divided by the second.

**Data Type Conversion:** Sometimes, you may need to perform conversions between the built-in types. To convert between types, you simply use the type name as a function.

There are several built-in functions to perform conversion from one data type to another. These functions return a new object representing the converted value.

**Requirements:** Computer, Vs Code, Python 3.3.34.

**Flowchart:**

**Program: 1)**

# Write a Python program to calculate Sum, Diff, Multiply, and Division.

a = 10

b = 5

print(a + b)

print(a - b)

print(a \* b)

print(a / b)

**2)**

from typing import Tuple

Sr\_no = 29

ID\_CODE = 19029

Name = "Dhiraj Madhukar Jagtap"

Branch = "Computer"

Sub = ['Python','Linux','CG', "Cloud Computing",'ETCE']

Branches = ('IT','CM','CE','ETC','EE','ME')

#Printing the type of the Identifiers

print(ID\_CODE, type(ID\_CODE))

print(Sr\_no, type(Sr\_no))

print(Name, type(Name))

print(Branch, type(Branch))

print(Sub, type(Sub))

print(Branches, type(Branches))

#Type casting

print(float(Sr\_no))

print(str(ID\_CODE))

print(list(Name))

print(tuple(Sub))

print(list(Branch))

**Output/Result:**

1. 15, 5, 50, 2.0

29 <class 'int'>

Dhiraj Madhukar Jagtap <class 'str'>

Computer <class 'str'>

['Python', 'Linux', 'CG', 'Cloud Computing', 'ETCE'] <class 'list'>

('IT', 'CM', 'CE', 'ETC', 'EE', 'ME') <class 'tuple'>

After Conversion of their Type:

29.0

19029

['D', 'h', 'i', 'r', 'a', 'j', ' ', 'M', 'a', 'd', 'h', 'u', 'k', 'a', 'r', ' ', 'J', 'a', 'g', 't', 'a', 'p']

('Python', 'Linux', 'CG', 'Cloud Computing', 'ETCE')

['C', 'o', 'm', 'p', 'u', 't', 'e', 'r']

**Conclusion: Hence, In this practical we have learned the basics of python language like variables and arithmetic operations and type conversion in python.**