Name: Manish Kumar

Admission Number: 20SCSE1010830

Section 10 Group P1

Experiment 2

Aim: To understand the use of arithmetic operation, variable declaration and data types in python using jupyter notebook (Anaconda).

Manish Kumar(20SCSE1010830)

Section 10 Group P1

In [1]:
```
# Experiment 2
# Arithmetic operations
# Variables
# Data Types in python
```

In [7]:
```
# Variable Declaration and Arithmetic Operations
num_1 = 10
num_2 = 7
sum=num_1 + num_2
difference=num_1 - num_2
product=num_1 * num_2
division=num_1 / num_2
modulus=num_1 % num_2
power_1=num_1**num_2
power_2=pow(num_1, num_2)
print("Sum is",sum)
print("Difference is ",difference)
print("Product is ",product)
print("Division is ",division)
print("Modulus is ",modulus)
print("Power using ** is ",power_1)
print("Power using pow function is ",power_2)
```

```
Sum is 17
Difference is  3
Product is  70
Division is  1.4285714285714286
Modulus is  3
Power using ** is  10000000
Power using pow function is  10000000
```

In [12]:
```
# Data Types
a="Manish Kumar"
b=201010869
c=1.7
d=True
List_Details=[a,b,c,d]
Tuple_Details=(a,b,c,d)
Set_Details={a,b,c,d}
Dictionary_Details={1:a, 2:b, 3:c, 4:d}
print(a," ",type(a))
print(b," ",type(b))
print(c," ",type(c))
print(d," ",type(d))
print(List_Details," ",type(List_Details))
print(Tuple_Details," ",type(Tuple_Details))
print(Set_Details," ",type(Set_Details))
print(Dictionary_Details," ",type(Dictionary_Details))
```

```
Manish Kumar   <class 'str'>
201010869   <class 'int'>
1.7   <class 'float'>
True   <class 'bool'>
['Manish Kumar', 201010869, 1.7, True]   <class 'list'>
('Manish Kumar', 201010869, 1.7, True)   <class 'tuple'>
{'Manish Kumar', 201010869, 1.7, True}   <class 'set'>
{1: 'Manish Kumar', 2: 201010869, 3: 1.7, 4: True}   <class 'dict'>
```

In [19]:
```
# Type Casting
x="13.1010101010"
name="Manish Kumar"
print(x," ",type(x))
x=float(x)
print(x," ",type(x))
x=int(x)
print(x," ",type(x))
x=complex(x)
print(x," ",type(x))
name=list(name)
print(name," ",type(name))
name=tuple(name)
print(name," ",type(name))
name=set(name)
print(name," ",type(name))
```

```
13.1010101010   <class 'str'>
13.101010101   <class 'float'>
13   <class 'int'>
(13+0j)   <class 'complex'>
['M', 'a', 'n', 'i', 's', 'h', ' ', 'K', 'u', 'm', 'a', 'r']   <class 'list'>
('M', 'a', 'n', 'i', 's', 'h', ' ', 'K', 'u', 'm', 'a', 'r')   <class 'tuple'>
{'r', 'K', 's', 'i', 'm', 'a', 'u', 'h', 'n', ' ', 'M'}   <class 'set'>
```

Conclusion: Successfully executed the arithmetic operation, variable declaration and data types concept on jupyter platform.