

#### A.Y. 2022-2023

Subject: Python SAP ID: 60004220253 – Devansh Mehta

# **Experiment No. 01**

Aim: To study and implement different data types and operators in python.

#### Code:

```
x = 'hello'
print(type(x))
p = 786
print(type(p))
f = 12.3
print(type(f))
11 = [1, 'were', 76]
print(type(11))
a = range(7)
for i in a:
  print(i,end=" ")
print(type(a))
tp = ('qwert',)
print(type(tp))
Dict = dict()
Dict = {'Name': 'devansh', 'SAP':60004220253}
print(type(Dict))
set1 = set("the World is A beautiful pLace.")
print(set1)
print(type(set1))
print(type(True))
print(type(False))
```

```
<class 'str'>
<class 'int'>
<class 'float'>
<class 'list'>
0 1 2 3 4 5 6 <class 'range'>
<class 'tuple'>
<class 'dict'>
{'o', 'L', 'c', 'd', 'p', 't', 'l', 'f', 'A', 'W', 'b', 'i', 'r', 'u', 'a', '.', 'h', 'e', ' ', 's'}
<class 'set'>
<class 'bool'>
<class 'bool'>
```

# **Assignment Operators:**

```
x = 10
print("Initial value: ",x)
x += 7
```





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print("New value: ",x)

x = 7

print("New value: ",x)

x \*= 7

print("New value: ",x)

x /= 7

print("New value: ",x)

x % = 7

print("New value: ",x)

x / = 7

print("New value: ",x)

x \*\*= 7

print("New value: ",x)

x = 2

x \*\*= 7

print("New value: ",x)

# PS C:\Users\devan\OneDrive\Desktop\Py

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Initial value: 10

New value: 17

New value: 10

New value: 70

New value: 10.0

New value: 3.0

New value: 0.0

New value: 0.0

New value: 128

# **Arithmetic Operators:**

x = 100

y = 5

opt = x+y

print(opt)

opt = x-y

print(opt)

opt = x\*y

print(opt)

opt = x/y

print(opt)

opt = x\*\*y

print(opt) opt = x//y

print(opt)

opt = x%y

print(opt)

# PS C:\Users\devan\OneDrive\ 105 95

500

20.0

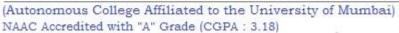
100000000000

20

# Comparison, Logical, Identity, Membership and Bitwise Operators:

t = 12print(t==y)y = 10print(t!=x)x = 100print(t>=x)#Comparison  $print(t \le x)$ 

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print(x is y)

print(x == y)

# #Logical print(x) print(x > 50 and x < 112) print(x > 3 or x < 4) print(not(x > 50 and x < 112)) #Identity x = ["apple", "banana"] y = ["apple", "banana"] z = x</pre> print(x is z)

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```
print(x is not z)
print(x is not y)
print(x != y)

#Membership
print("banana" in x)
print("orange" not in x)

#Bitwise
print(6 & 3)
print(6 | 3)
print(6 ^ 3)
print(-3)
print(3 << 2)
print(8 >> 2)
```

```
False
True
False
True
100
True
True
False
True
False
True
False
True
False
True
True
2
7
5
-4
12
2
PS C:\Users\devan\OneDrive\Desktop\Python Codes>
```