

# Task 1

In [3]:

```
# a
```

In [6]:

```
rollno = 5
print(rollno)
print(id(rollno))
print(type(rollno))
```

```
5
2299413490096
<class 'int'>
```

In [7]:

```
# b
firstname='john'
print(firstname)
print(id(firstname))
print(type(firstname))
```

```
john
2299493262384
<class 'str'>
```

In [12]:

```
#c
lastname= 'Doe'
print(lastname)
print(id(lastname))
print(type(lastname))
```

```
Doe
2968131853296
<class 'str'>
```

In [15]:

```
#d
maxmarks = 50
print(maxmarks)
print(id(maxmarks))
print(type(maxmarks))
```

```
50
2968052068176
<class 'int'>
```

## Task 2

In [17]:

```
#a
var1=2
print(var1)
```

2

In [18]:

```
#b
2var=2
print(2var) # variables are not start with int
```

```
File "C:\Users\Akshay\AppData\Local\Temp\ipykernel_54148\1135521293.py", line 2
    2var=2
    ^
SyntaxError: invalid syntax
```

In [19]:

```
#c
var 1= 2
print(var 1) # while assign variable their should bo no space
```

```
File "C:\Users\Akshay\AppData\Local\Temp\ipykernel_54148\2671879285.py", line 2
    var 1= 2
    ^
SyntaxError: invalid syntax
```

In [20]:

```
#d
var$2 = 2
print(var$2) # while assign variable their should be no symbol
```

```
File "C:\Users\Akshay\AppData\Local\Temp\ipykernel_54148\749039857.py", line 2
    var$2 = 2
    ^
SyntaxError: invalid syntax
```

## Task 3

In [21]:

```
Class = 15
print(Class)
```

15

In [22]:

```
#b
class = 14 # c is different in #a and #b
```

```
File "C:\Users\Akshay\AppData\Local\Temp\ipykernel_54148\1193013501.py", line 2
    class = 14
          ^
```

**SyntaxError:** invalid syntax

In [24]:

```
#c
DEF = 13
print (DEF)
```

13

In [25]:

```
#d
def = 12 # syntax is incorrect as we already assign DEF
print(def)
```

```
File "C:\Users\Akshay\AppData\Local\Temp\ipykernel_54148\1982638556.py", line 2
    def = 12
      ^
```

**SyntaxError:** invalid syntax

In [26]:

```
#e
a= TRUE
print(a) # sting should be in ''
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_54148\956403386.py in <module>
      1 #e
----> 2 a= TRUE
      3 print(a)
```

**NameError:** name 'TRUE' is not defined

In [27]:

```
#f
b= false
print(b)  # sting should be in ''
```

```
-----
NameError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_54148\984933569.py in <module>
      1 #f
----> 2 b= false
      3 print(b)
```

**NameError:** name 'false' is not defined

## Task 4 :- Using id()

In [29]:

```
#a
marks = 2.5
print(marks)
print(id(marks))
print(type(marks))
```

```
2.5
2968132118064
<class 'float'>
```

In [30]:

```
#b
marks = 3.5
print(marks)
print(id(marks))
print(type(marks))
```

```
3.5
2968132116656
<class 'float'>
```

In [31]:

```
#c
#id same in a and b because variable name is same
```

## Task 5:- Formating the output

In [43]:

```
percentage = 100* (marks/maxmarks)
print(percentage, '%')
```

7.000000000000001 %

In [46]:

```
#b
fullname = 'john Doe'
print(fullname)
```

john Doe

In [47]:

```
#c
print(fullname, 'scored', percentage, '%')
```

john Doe scored 7.000000000000001 %

## Task 6 :- Creating data structures

In [49]:

```
#a
rollno = 5
dictionary = {rollno:fullname}
print(dictionary)
```

{5: 'john Doe'}

In [51]:

```
#b
list = [rollno, fullname, marks]
print(list)
```

[5, 'john Doe', 3.5]

## Task 7 :- Arithmetic operations

In [52]:

```
#a
1 +"2" # In addition one int and one str are naot added
```

```
-----
TypeError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_54148\1956035309.py in <module>
      1 #a
----> 2 1 +"2"
```

**TypeError:** unsupported operand type(s) for +: 'int' and 'str'

In [53]:

```
#b
"1" + "2" # printed sting value not addition
```

Out[53]:

'12'

In [54]:

```
1/2
```

Out[54]:

0.5

In [55]:

```
1//2 # rounded to 0
```

Out[55]:

0

## Task 8 :- Logical operations

In [56]:

```
#a
True and True # logical and both are same so true
```

Out[56]:

True

In [57]:

```
#b
True and False # logical and both are not same so false
```

Out[57]:

False

In [61]:

```
#c
False or True # in logical operator or both value should different so true
```

Out[61]:

True

In [60]:

```
False or False #in logical operator or both value should different so false
```

Out[60]:

False

## Task 9:- Identify and Membership operations

In [69]:

```
#a
fullname = 'john Doe'
print(firstname in fullname) # true because firstname is in lastname
```

True

In [70]:

```
#b
print(firstname is fullname) # false as both name is different
```

False

## Task 10 :- Associativity

In [76]:

```
a,b,c= 4,3,2
print(a,b,c)
d= a**b+c
print(d) # 4^3= 64 64+2=66
e=a**(b+c)
print(e) # 3+2=5 4^5=1024
```

```
4 3 2
66
1024
```

In [ ]: