In [ ]:
```
======================== Python Basic level ================================
1. Variables
2. Data types
3. Data type conversion (type caste)
4. print,eval,input
5. Basic codes
6. Packages information we start using the packages
7. conditional statements
8. functions
9. loops

==================== Python Intermediate Core python ====================
10.Strings
11.List
12.Tuple
13.Sets
14.Dictionary
15.List comprehension
16.lambda functions
17.file handling sessions

====================== Pyth Advanced OOPS ============================
python+statistics
python+ml
python+dl
python+nlp
python+genai
```

In [ ]:
```
different people some knows alreday python
some are knows other languages
some are never use any programming language (=====third====)
30days python
10-15 ====
step-1: able to write the code with out error
step-2: week able to undertsnad the codes
step-3: able to write the logics  100-150
```

Variables

- variable is used to store the values
- and that values can be change

In [3]:
```
num=100   # 100 is stored in a variable called num
num
```

Out[3]: 100

In [5]:
```
num
```

Out[5]: 100

In [7]:
```
print(num)
```

100

In [9]:
```
num=200
num
```

Out[9]: 200

In [11]:
```
a=10
b=20
a
b   # last line only we can see
```

Out[11]: 20

In [13]:
```
a=10
b=20
print(a)
print(b)
```

```
10
20
```

In [15]:
```
a,b
```

Out[15]: (10, 20)

In [17]:
```
print(a),print(b)
```

```
10
20
```

Out[17]: (None, None)

In [19]:
```
print(a,b)
```

```
10 20
```

In [21]:
```
a,b
```

Out[21]: (10, 20)

In [23]:
```
print(a,b)
```

```
10 20
```

In [25]:
```
print a
```

```
  Cell In[25], line 1
    print a
    ^
SyntaxError: Missing parentheses in call to 'print'. Did you mean print(...)?
```

In [29]:
```
a=22
b=40
a
```

Out[29]: 22

In [31]:
```
a=10,20
a,b=10,20
a=10
a,b=10
```

Out[31]: (10, 20)

In [33]:
```
NUMBER=100
number=200
```

In [37]:
```
number,NUMBER
```

Out[37]: (200, 100)

In [39]:
```
NUMBERone=300
NUMBERone
```

Out[39]: 300

In [41]:
```
number123=500
number123
```

Out[41]: 500

In [43]:
```
123number=600
123number
```

```
  Cell In[43], line 1
    123number=600
      ^
SyntaxError: invalid decimal literal
```

In [ ]:
```
number =100# W
NUMBER=200 # W
NUMBERone=300 # W
number123=400 # W
123number=500 # F
```

In [45]:
```
number&one=600
numer&one
```

```
  Cell In[45], line 1
    number&one=600
    ^
SyntaxError: cannot assign to expression here. Maybe you meant '==' instead of
'='?
```

In [47]:
```
number one=900
number one
```

```
  Cell In[47], line 1
    number one=900
           ^
SyntaxError: invalid syntax
```

In [49]:
```
number_one=900
number_one
```

Out[49]: 900

In [51]:
```
_=1000
_
```

Out[51]: 1000

In [ ]:
```
number&one=200  # f
number one=300  # f
number_one=400  # w
_=500 # w
```

In [53]:
```
number_one=400   # error orv ans == ans
_=500            # ans
number one=300   # error
numberone=200   # ans
```

```
  Cell In[53], line 3
    number one=300   # error
           ^
SyntaxError: invalid syntax
```

In [57]:
```
print=100
print
```

Out[57]: 100

In [59]:
```
sum=100
sum
```

Out[59]: 100

In [1]:
```
sum([1,2,3])
```

Out[1]: 6

In [3]:
```
if=800
if
```

```
  Cell In[3], line 1
    if=800
      ^
SyntaxError: invalid syntax
```

In [ ]:
```
number=100  # w
NUMBER=200  # w
NUMBERone=300 # w
number123=400 # w
123number=500 # f
number&one=600 # f
number one=700 # f
number_one=800 # w
_=900 # w
if=1000 # f
sum=100 # w  but dont use
print =200 # w but dont use
```

- variables are case sensistive which means both capital,small are allowed and different
- variables should not starts with numbers

- Special characters are not allowed in variables expect underscore
- only underscore allowed
- keywords are not allowed as varaiables
- keywords are in green color, variables are in balck color

In [ ]:
```
Next class on Tuesday
```