PHYTON 22-10-2024

Phyton Variable Concept = Phyton Identifier Concept = Phyton Object Concept

- syntax of define variable || (VARIBALE NAME = VALUE) || || (WE CANNOT SAY VALUE = VARIABLE NAME) ||

In [2]:
```
NIT = 15
NIT
```

Out[2]: 15

In [ ]:
```

```

In [ ]:
```
For example: In the abouve code ( NIT is  variable name || and 15 is value)

1.  We call variable with same name it means when we enter variable namne as NIT

2. For futher code  aslo we need to use same NIT we cannot use nit to get the ou
```

In [3]:
```
NIT = 20
NIT
```

Out[3]: 20

In [ ]:
```
1. We can change the memory, earlier we have defined NIT as 15 and in the above

2. To get ole memory again we need to define with same varvialbe name and value

3. Whatever variable name we define the value shows as per the present variable
```

In [8]:
```
v= 15
v
```

Out[8]: 15

In [12]:
```
print (v)
print (NIT)
```

```
15
20
```

1. In memory system will store two varavle with name and value

In [13]:
```
1var = 20
1var
```

```
  Cell In[13], line 1
    1var = 20
    ^
SyntaxError: invalid decimal literal
```

1. It is showing error because Varialbe name never start with digit or numeric

In [14]:
```
var1 = 20
var1
```

Out[14]: 20

1. In the above code with have give variable name as var1, we can add digit in the variable name but cannot add as first letter or word.

In [15]:
```
var$ = 50
var$
```

```
  Cell In[15], line 1
    var$ = 50
       ^
SyntaxError: invalid syntax
```

In [ ]:
```
1. It is showing error because in  Varialbe name no special character is allowed
2. We can use only one sepcial character that is under score (_) as you can see
```

In [17]:
```
var_=67
var_
```

Out[17]: 67

In [18]:
```
x_train, x_test = 80, 20
print(x_train)
print(x_test)
```

```
80
20
```

In [19]:
```
x_train, x_test = 80, 20, 50
print(x_train)
print(x_test)
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call last)
Cell In[19], line 1
----> 1 x_train, x_test = 80, 20, 50
      2 print(x_train)
      3 print(x_test)

ValueError: too many values to unpack (expected 2)
```

In [ ]:
```
1. In the above code it is showing error beacuse we have given only two varaible
2. We can assign only as per ( how many varialbe name = how many values ) only
3. We cannot assgin three values for two variable name that is why it is showing
4. You can see the output below for the above code.
```

In [20]:
```
x_train, x_test, x_west = 80, 20, 50
print(x_train)
print(x_test)
print( x_west)
```

```
80
20
50
```

In [ ]:
```
instead of writing
a = 10
b = 20
c = 30
d = 40

we can write a,b,c,d = 10,20,30,40
```

```
print(a)
print(b)
print(c)
print(d)

and you will get the out put, you can check below
```

In [33]:
```
a,b,c,d = 10,20,30,40

print(a)
print(b)
print(c)
print(d)
```

```
10
20
30
40
```

In [29]:
```
a,b,c,d = 10,20,30,40

print(a,b,c,d)
```

```
10 20 30 40
```

1. In the abve code i just did some research and i got this, it means we can write print like this also and got the output.

In [31]:
```
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa =78
aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
```

Out[31]:
```
78
```

1. Variable name doesnt have any length limit

In [1]:
```
import keyword
keyword.kwlist
```

Out[1]:
```
['False',
 'None',
 'True',
 'and',
 'as',
 'assert',
 'async',
 'await',
 'break',
 'class',
 'continue',
 'def',
 'del',
 'elif',
 'else',
 'except',
 'finally',
 'for',
 'from',
 'global',
 'if',
 'import',
 'in',
 'is',
 'lambda',
 'nonlocal',
 'not',
 'or',
 'pass',
 'raise',
 'return',
 'try',
 'while',
 'with',
 'yield']
```

In [3]:
```
len(keyword.kwlist)
```

Out[3]:
```
35
```

In [ ]:
```
There are total 35 keywords
```

In [4]:
```
if= 45
if
```

```
  Cell In[4], line 1
    if= 45
      ^
SyntaxError: invalid syntax
```

It is showing error because in Python keywords never been an variable, in the above caode if is an keyword

Rules & Regualtion to Define PHYTON VARIABLE -->

In [ ]:
```
1. Varialbes are case sesitive.
2. Varialbe never start with digit or numeric.
```

```
3. Variable never ever have any special characters
4. Only one special character is allowed that is  under score (_)
5. Variable name doesnt have any length limit
6. Python keywords never been an variable

The keywords are called reserved words in phyton
```

END OF SESSION