In [3]:

```python
def hello_team():
    print('good morning team')

hello_team()
```

```
good morning team
```

In [5]:

```python
class nit():
    def hello_team():
        print('good morning team')
    hello_team()
```

```
good morning team
```

keywords

In [24]:

```python
import keyword
```

In [25]:

```python
keyword.kwlist
```

```
Out[25]: ['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 [26]: len(keyword.kwlist)
```

```
Out[26]: 35
```

id

```
In [14]: p=10
         q=20
         r=20
```

```
In [15]: p=q=r=20
```

```
In [16]: print(id(p))
         print(id(q))
         print(id(r))
```

```
140703730838552
140703730838552
140703730838552
```

In [20]:

```
p1,q1,r1=20,25,30
```

In [28]:

```
print(id(p1)) # printing address of p1
'''printing
address
of q1'''
print(id(q1))
"""
printing
address
of r1
"""
print(id(r1))
```

```
140703730838552
140703730838712
140703730838872
```

In [38]:

```
p=20
q=20
r=q
(p, type(p), hex(id(p)))
```

Out[38]:

```
(20, int, '0x7ff823e52c18')
```

In [39]:

```
(q, type(q), hex(id(q)))
```

Out[39]:

```
(20, int, '0x7ff823e52c18')
```

In [40]:

```
print(2, type(r), hex(id(r)))
```

```
2 <class 'int'> 0x7ff823e52c18
```

In [41]:

```
p=20
p=p+10
p
```

Out[41]:

```
30
```

Variable Assignment

In [44]:

```
a=10
b=10.2
c='hello'
d=True
print(type(a),type(b),type(c),type(d))
```

```
<class 'int'> <class 'float'> <class 'str'> <class 'bool'>
```

In [45]:

```python
a,b,c,d=10,10.2,'hello',True
print(a,b,c,d)
```

```
10 10.2 hello True
```

Data Types

Numeric

In [48]:

```python
import sys
val1=10   # integer datatype
print(val1)
print(type(val1))
print(sys.getsizeof(val1))
print(val1,'is Integer?',isinstance(val1, int))
```

```
10
<class 'int'>
28
10 is Integer? True
```

In [49]:

```python
val2=10.2    #float datatype
print(val2)
print(type(val2))
print(sys.getsizeof(val2))
print(val2,'is Float?',isinstance(val2,float))
```

```
10.2
<class 'float'>
24
10.2 is Float? True
```

In [51]:

```python
val3=10+20j    #complex datatype
print(val3)
print(type(val3))
print(sys.getsizeof(val3))
print(val3,'is coplex?',isinstance(val3,complex))
```

```
(10+20j)
<class 'complex'>
32
(10+20j) is coplex? True
```

In [53]:

```python
sys.getsizeof(int())
```

Out[53]:

```
28
```

In [54]:

```python
sys.getsizeof(float())
```

Out[54]:

```
24
```

In [55]:

```python
sys.getsizeof(complex())
```

Out[55]:
```
32
```

Boolean

In [56]:
```python
bool(0)
```

Out[56]:
```
False
```

In [57]:
```python
bool(1)
```

Out[57]:
```
True
```

In [58]:
```python
bool(None)
```

Out[58]:
```
False
```

String

In [64]:
```python
s='hello python'
s1="hello python"
s2='''hello
        python'''
s3="""hello
        python"""
print(s, 'length is',len(s))
print(s1, 'length is',len(s1))
print(s2, 'length is',len(s2))
print(s3, 'length is',len(s3))
```

```
hello python length is 12
hello python length is 12
hello
        python length is 21
hello
        python length is 21
```

In [66]:
```python
str1='woohoo '
str1=str1*5
str1
```

Out[66]:
```
'woohoo woohoo woohoo woohoo woohoo '
```

In [67]:
```python
s
```

Out[67]:
```
'hello python'
```

In [68]:
```python
s[0] # forward indexing
```

Out[68]:
```
'h'
```

```
In [69]: s[-1] #backword indexing
```

```
Out[69]: 'n'
```

```
In [72]: s[len(s)-1]
```

```
Out[72]: 'n'
```

String Slicing

```
In [75]: s[0:7]
```

```
Out[75]: 'hello p'
```

```
In [76]: s[1:7]
```

```
Out[76]: 'ello p'
```

```
In [78]: s[6:9]
```

```
Out[78]: 'pyt'
```

```
In [79]: s[6:12]
```

```
Out[79]: 'python'
```

```
In [81]: s[-4:]
```

```
Out[81]: 'thon'
```

```
In [82]: s[-6:]
```

```
Out[82]: 'python'
```

```
In [83]: s[-5:-1]
```

```
Out[83]: 'ytho'
```

```
In [84]: s[1:]
```

```
Out[84]: 'ello python'
```

```
In [85]: s[5:]
```

```
Out[85]: ' python'
```

```
In [86]: s[2:7]
```

```
Out[86]: 'llo p'
```

```
In [88]: s[:5]

Out[88]: 'hello'

In [90]: s[2:10:5]

Out[90]: 'ly'

In [91]: s[::-1]

Out[91]: 'nohtyp olleh'

In [92]: int(12.3)

Out[92]: 12
```

Update and delete string

```
In [105… str1

Out[105… 'woohoo woohoo woohoo woohoo woohoo '

In [106… del str1

In [107… print(str1)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[107], line 1
----> 1 print(str1)

NameError: name 'str1' is not defined
```

String Cancatenation

```
In [108… s1='hello '
         s2='okula'
         s3=s1+s2
         print(s3)
```

```
hello okula
```

Basic Code

```
In [110… print(3+2)
         print(3-2)
         print(3*2)
         print(3**2)
         print(3/2)
         print(3//2)
         print(3%2)
```

```
5
1
6
9
1.5
1
1
```

In [113…

```
print(type(3))
print(type(4.3))
print(type(3+2j))
print(type('hello'))
print(type([1,2,3,4]))
print(type({'name':'Okula'}))
print(type({2.2,3.2,1.1}))
print(type((2.2,3.2,1.1)))
print(type(3==3))
print(type(3>9))
```

```
<class 'int'>
<class 'float'>
<class 'complex'>
<class 'str'>
<class 'list'>
<class 'dict'>
<class 'set'>
<class 'tuple'>
<class 'bool'>
<class 'bool'>
```

Complex Datatype

In [114…

```
z=3+4j
print(z.real)
print(z.imag)
```

```
3.0
4.0
```

In [116…

```
a=3+4j
b=1+2j
print(a+b)
print(a-b)
print(a*b)
print(a/b)
```

```
(4+6j)
(2+2j)
(-5+10j)
(2.2-0.4j)
```

In [123…

```
abs(a)
```

Out[123…

```
5.0
```

In [124…

```
print(a.conjugate())
```

```
(3-4j)
```

Boolean Comparition

In [127…

```
print('True == True: ', True == True)
print('True == False: ', True == False)
print('False == False:', False == False)
print('True and True: ', True and True)
print('True or False:', True or False)
```

```
True == True:  True
True == False:  False
False == False: True
True and True:  True
True or False: True
```

Another wayComparision

In [134…

```
print('1 is 1',1 is 1)
print('1 is not 2', 1 is not 2)
print('A in Asabghjh', 'A' in 'Asabghjh')
print('c in Asabghjh', 'c' in 'Asabghjh')
print('coding' in 'coding for all')
print('4 is 2*2', 4 is 2*2)
```

```
1 is 1 True
1 is not 2 True
A in Asabghjh True
c in Asabghjh False
True
4 is 2*2 True
```

```
<>:1: SyntaxWarning: "is" with 'int' literal. Did you mean "=="?
<>:2: SyntaxWarning: "is not" with 'int' literal. Did you mean "!="?
<>:6: SyntaxWarning: "is" with 'int' literal. Did you mean "=="?
<>:1: SyntaxWarning: "is" with 'int' literal. Did you mean "=="?
<>:2: SyntaxWarning: "is not" with 'int' literal. Did you mean "!="?
<>:6: SyntaxWarning: "is" with 'int' literal. Did you mean "=="?
C:\Users\world\AppData\Local\Temp\ipykernel_18808\4191186718.py:1: SyntaxWarning: "i
s" with 'int' literal. Did you mean "=="?
  print('1 is 1',1 is 1)
C:\Users\world\AppData\Local\Temp\ipykernel_18808\4191186718.py:2: SyntaxWarning: "i
s not" with 'int' literal. Did you mean "!="?
  print('1 is not 2', 1 is not 2)
C:\Users\world\AppData\Local\Temp\ipykernel_18808\4191186718.py:6: SyntaxWarning: "i
s" with 'int' literal. Did you mean "=="?
  print('4 is 2*2', 4 is 2*2)
```

In [138…

```
print(3>2 and 4>3)
print(3>2 and 4<3)
print(3<2 and 4<3)
print(3>2 or 4>3)
print(3>2 or 4<3)
print(3<2 or 4<3)
print(not 3>2)
print(not True)
print(not False)
print(not not True)
print(not not False)
```

```
True
False
False
True
True
False
False
False
True
True
False
```

More about String

In [142…

```
letter='O'
print(letter)
print(len(letter))
greeting='Hello,Okula!'
print(greeting)
print(len(greeting))
sentence="I hope you are enjoying 30 days of python challenge"
print(sentence)
multiline_string = '''I am a teacher and enjoy teaching.
I didn't find anything as rewarding as empowering people.
That is why I created 30 days of python.'''
print(multiline_string)
multiline_string = """I am a teacher and enjoy teaching.
I didn't find anything as rewarding as empowering people.
That is why I created 30 days of python."""
print(multiline_string)
```

```
O
1
Hello,Okula!
12
I hope you are enjoying 30 days of python challenge
I am a teacher and enjoy teaching.
I didn't find anything as rewarding as empowering people.
That is why I created 30 days of python.
I am a teacher and enjoy teaching.
I didn't find anything as rewarding as empowering people.
That is why I created 30 days of python.
```

In [147…

```
first_name='vakula'
last_name='thipparthi'
space=' '
full_name=first_name+space+last_name
print(full_name)
print(len(first_name))
print(len(last_name))
print(len(first_name)>len(last_name))
print(len(full_name))
```

```
vakula thipparthi
6
10
False
17
```

In [148…

```
language='python'
a,b,c,d,e,f=language;
print(a)
print(b)
print(c)
print(d)
print(e)
print(f)
```

```
p
y
t
h
o
n
```

String methods

In [151…

```
name1='hello okula'
print(name1.capitalize())
```

```
Hello okula
```

In [176…

```
challenge = 'thirty days of python'
print(challenge.count('y'))
print(challenge.count('y', 3,10))
print(challenge.count('th'))
# endswith()
print(challenge.endswith('on'))
print(challenge.endswith('thoon'))
# startswith()
print(challenge.startswith('thirty'))
```

```
3
2
2
True
False
True
```

In [159…

```
challenge = 'thirty\tdays\tof\tpython'
print(challenge.expandtabs())
print(challenge.expandtabs(20))
```

```
thirty  days    of      python
thirty              days                of                  python
```

In [174…

```
challenge = 'thirty days of python'
print(challenge.find('y'))
print(challenge.find('th'))
```

```
5
0
```

Variables in Python

In [179…

```
first_name='vakula'
last_name='thippartthi'
country='india'
city='hyderabad'
age=111
isMarried=True
skills=['HTML','CSS','Java','python']
emergency_contact={
    'firstname':'vasanth',
    'lastname':'thipparthi',
    'country':'USA',
    'city':'chicago'
    }

print('First Name:',first_name)
print('Length of First Name:',len(first_name))
print('Last Name:',last_name)
print('Length of Last Name:',len(last_name))
print('Country:',country)
print('city:',city)
print('Age:',age)
print('Emergency Contact:',emergency_contact)
```

```
First Name: vakula
Length of First Name: 6
Last Name: thippartthi
Length of Last Name: 11
Country: india
city: hyderabad
Age: 111
Emergency Contact: {'firstname': 'vasanth', 'lastname': 'thipparthi', 'country': 'US
A', 'city': 'chicago'}
```

In [180…

```
print(True*2)
```

```
2
```

In [ ]:

```
In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]:
```