type casting()

In [1]:
```
i=4.5
i
```

Out[1]: 4.5

In [2]:
```
type(i)
```

Out[2]: float

In [3]:
```
s = int(i)
```

In [4]:
```
type(s)
```

Out[4]: int

In [5]:
```
int(True)
```

Out[5]: 1

In [6]:
```
int(1.2)
```

Out[6]: 1

Variables

In [7]:
```
i = 10
i
```

Out[7]: 10

In [8]:
```
i= 'hello'
```

In [9]:
```
i
```

Out[9]: 'hello'

String Functions

String Formating

In [10]:
```
num1=20
num2=30
add=num1+num2
print('The addition of {} and {} is= {}'.format(num1,num2,add))
```

```
The addition of 20 and 30 is= 50
```

In [11]:
```
num1=20
num2=30
add=num1+num2
print('The addition of ',num1,'and ',num2,' is= ',add)
```

```
The addition of  20 and  30  is=  50
```

In [12]:
```
n1 = 10
n2 = 22
n3 = 31
avg = round(n1+n2+n3/3,2)
avg
```

Out[12]: 42.33

In [13]:
```
add = n1 + n2
```

In [14]:
```
print(f'the addition of {n1} and {n2} is = {add}')
```

```
the addition of 10 and 22 is = 32
```

In [15]:
```
print('the addition of {} and {} is = {}'.format(n1,n2,add))
```

```
the addition of 10 and 22 is = 32
```

end

In [1]:
```
print('hello')
print('sir')
```

```
hello
sir
```

In [2]:
```
print('hello',end = ' ' )
print('sir')
```

```
hello sir
```

Seprator Sep()

In [18]:
```
print('hello','hi','what',sep='@')
```

```
hello@hi@what
```

In [19]:
```
print(3,'.')
```

```
3 .
```

In [20]:
```
print(3,'.',sep='')
```

```
3.
```

In [21]:
```
s = 'helllo'
print(id(s))
```

```
1589038405232
```

In [22]:
```
s = s+'world'
print(id(s))
```

```
1589038247408
```

In [23]:
```
s = 'bye'
```

In [24]:
```
print(id(s))
```

```
1589038406320
```

In [25]:
```
print(True*2)
```

```
2
```

In [26]:
```
poll_data = 7
print(type(poll_data))
```

```
<class 'int'>
```

In [27]:
```
list(range(9))
```

Out[27]:
```
[0, 1, 2, 3, 4, 5, 6, 7, 8]
```

In [28]:
```
obj = ()
print(type(obj))
```

```
<class 'tuple'>
```

In [29]:
```
p = 10
q = 10
r =q
type(p),hex(id(p))
type(q),hex(id(q))
type(r),hex(id(r))
```

Out[29]:
```
(int, '0x7ffa4428c448')
```

In [30]:
```
p,q,r = 10,2.3,'mine'
p,q,r
```

Out[30]:
```
(10, 2.3, 'mine')
```

In [31]:
```
import sys
val1 = 0
print(sys.getsizeof(val1))
```

```
28
```

In [32]:
```
isinstance(val1,int)
```

Out[32]: True

In [33]:
```
bool(True)
```

Out[33]: True

In [34]:
```
str1 = ("str1",'str2')
str2 = 'dats'*5
```

In [35]:
```
str1
```

Out[35]: ('str1', 'str2')

In [36]:
```
str1
type(str1)
type(str2)
```

Out[36]: str

In [37]:
```
str = str2*3
str
```

Out[37]: 'datsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdatsdats'

len()

In [38]:
```
len(str2)
```

Out[38]: 20

In [39]:
```
str1 = 'hello python'
```

In [40]:
```
len(str1)
```

Out[40]: 12

In [41]:
```
str1[len(str1)-1]
```

Out[41]: 'n'

In [42]:
```
str1[1-len(str1)]
```

Out[42]: 'e'

In [43]:
```
str1[0:11]
```

Out[43]: 'hello pytho'

In [44]:
```
str1[-1:]
```

Out[44]: 'n'

Operators, string concat

In [45]:
```
x = 10
y = 20
x,y = y, x #swapping value without third variable
x,y
```

Out[45]: (20, 10)

In [46]:
```
x = 5
y = 2
print(x//y)
```

```
2
```

In [47]:
```
x = 'y'
y = 'x'
x+y
```

Out[47]: 'yx'

dict , list ,

In [48]:
```
dict = {'hello':20}
```

In [49]:
```
if 'hello' in dict:
    print(True)
```

```
True
```

In [50]:
```
fruits = ['apple', 'banana','orange']
```

Enumerate()

In [51]:
```
for index ,fruits in enumerate(fruits):
    print(index,fruits)
```

```
0 apple
1 banana
2 orange
```

And,Or Operators

In [52]:
```
print('True != False: ', True != False)
```

```
True != False:  True
```

In [53]:
```
print('True and True: ', True and True)
```

```
True and True:  True
```

In [54]:
```
print('True or False:', True or False)
```

```
True or False: True
```

In [55]:
```
language = 'PYTHONN'
a,b,c,d,e,f,g= language
print(a)
```

```
P
```

In [56]:
```
print(g,f)
```

```
N N
```

Printing functions

In [57]:
```
print('I hope every one enjoying the python challenge.\nDo you ?') # line break
```

```
I hope every one enjoying the python challenge.
Do you ?
```

In [58]:
```
print('I hope every one enjoying the python challenge.Do you ?') # line break
```

```
I hope every one enjoying the python challenge.Do you ?
```

In [59]:
```
print('This is a back slash  symbol /')  #To write a back slash
```

```
This is a back slash  symbol /
```

In [60]:
```
print('Day 1\t3\t5\t10\t5')
```

```
Day 1	3	5	10	5
```

In [61]:
```
print('In every programming language it starts with \"Hello, World!\"')
```

```
In every programming language it starts with "Hello, World!"
```

Capitalize()

In [62]:
```
v = 'this is small case python'
```

In [63]:
```
print(v.capitalize())
```

```
This is small case python
```

Count()

In [64]:
```
v = 'this is small case python'
```

In [65]:
```
print(v.count('s'))
```

```
4
```

In [66]:
```
print(v.count('s',6,10))
```

```
2
```

ends with()

In [67]:
```
v = 'this is small case python'
```

In [68]:
```
print(v.endswith('on'))
```

```
True
```

In [69]:
```
print(v.endswith('se'))
```

```
False
```

In [70]:
```
print(v.endswith('thon'))
```

```
True
```

Expandtab()

In [71]:
```
v = 'this\tis\tsmall\tcase\tpython'
```

In [72]:
```
print(v.expandtabs()) #default size is 10
```

```
this    is      small   case    python
```

In [73]:
```
print(v.expandtabs(15))
```

```
this           is             small          case           python
```

find()

In [74]:
```
v = 'thirty days of python training'
```

In [75]:
```
v[-1]
```

Out[75]:
```
'g'
```

In [76]:
```
print(v.find('y'))
```

```
5
```

isalnum()

In [77]:
```
v = 'thirtydaysofpythontraining'
```

In [78]:
```
print(v.isalnum()) #checks if any alphanumeric charcter present in string
```

```
True
```

In [79]:
```
v1 = "30daysofpython"
```

In [80]:
```
print(v1.isalnum())
```

```
True
```

isalpha()

In [81]:
```
v = 'thirtydaysofpythontraining'
```

In [82]:
```
print(v.isalpha()) #checks if only alphabets prsent in string
```

```
True
```

In [83]:
```
v2 = '30daysofpythontraining'
```

In [84]:
```
print(v2.isalpha())
```

```
False
```

index()

In [85]:
```
v = 'thirty days of python training'
```

In [86]:
```
print(v.index('a')) #returns the index of first appearence
```

```
8
```

In [87]:
```
print(v.index('of'))
```

```
12
```

isdigit()

In [88]:
```
x = 'thirty days of fsds'
```

In [89]:
```
print(x.isdigit())
```

```
False
```

In [90]:
```
x = '30 days'
```

In [91]:
```
print(x.isdigit())
```

```
False
```

In [92]:
```
x = '300'
```

In [93]:
```
print(x.isdigit())
```

```
True
```

isdecimal()

In [94]:
```
print(x.isdecimal())
```

```
True
```

In [95]:
```
x = '300.5'
```

In [96]:
```
print(x.isdecimal())
```

```
False
```

isidentifier()

In [97]:
```
x = '30daysofpython'
```

In [98]:
```
print(x.isidentifier())
```

```
False
```

In [99]:
```
x = 'daysofpython'
```

In [100…
```
print(x.isidentifier())
```

```
True
```

isnumeric()

In [101…
```
x  = '30'
```

In [102…
```
print(x.isnumeric()) #checks if value is numeric or not
```

```
True
```

In [103…
```
x = 'hello'
```

In [104…
```
print(x.isnumeric())
```

```
False
```

join function

In [105…
```
web_tech = ['HTML', 'CSS', 'JavaScript', 'React']
```

In [106…
```
result = '#,'.join(web_tech)
print(result)
```

```
HTML#,CSS#,JavaScript#,React
```

In [107…
```
print(type(web_tech))
print(type(result))
```

```
<class 'list'>
<class 'str'>
```

strip()

In [108…
```
x = '!thirty days of python!'
```

In [109…
```
x =x.strip('!')
x
```

Out[109…
```
'thirty days of python'
```

replace()

In [110…
```
x
```

Out[110…
```
'thirty days of python'
```

In [111…
```
print(x.replace('python','coding'))
```

```
thirty days of coding
```

split()

In [112…
```
x = 'thirty days of python'
```

In [113…
```
print(x.split())
```

```
['thirty', 'days', 'of', 'python']
```

swapcase()

In [114…
```
x
```

Out[114…
```
'thirty days of python'
```

In [115…
```
x =print(x.swapcase())
x
```

```
THIRTY DAYS OF PYTHON
```

startswith()

In [116…
```
x = 'thirty days of python'
```

In [117…
```
print(x.startswith('thirty'))
```

```
True
```

In [ ]:
```

```