In [1]:
```python
#TYPE CASTING IN PYTHON

# all data types to integer
```

In [3]:
```python
int (5.4)     #float to int
```

Out[3]: 5

In [4]:
```python
int(True)      #boolean to int
```

Out[4]: 1

In [5]:
```python
int(True+False)
```

Out[5]: 1

In [6]:
```python
int('10')
```

Out[6]: 10

In [7]:
```python
int('ten')       # text string to int is invalid
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call las
t)
Cell In[7], line 1
----> 1 int('ten')

ValueError: invalid literal for int() with base 10: 'ten'
```

In [8]:
```python
int(1+2j)       # COMPLEX TO INT IS NOT POSSIBLE
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call las
t)
Cell In[8], line 1
----> 1 int(1+2j)

TypeError: int() argument must be a string, a bytes-like object or a real
number, not 'complex'
```

In [9]:
```python
# OTHER DATA TYPES TO FLOAT
```

In [10]:
```python
float(200000)      # int to float    float doesnot take 2 arguments
```

Out[10]: 200000.0

In [11]:
```python
float(False)      # bool to float
```

Out[11]: 0.0

In [12]: ```python
float(True+False)
```

Out[12]:  1.0

In [13]: ```python
float('233')    # number string... text str is not possible
```

Out[13]: 233.0

In [14]: ```python
OTHER DATA TYPES TO STRING
```

In [17]: ```python
str(34)      # int to str
```

Out[17]: '34'

In [18]: ```python
str(4.4)   # float to str
```

Out[18]:  '4.4'

In [19]: ```python
str(2+1j)    #complex to str
```

Out[19]: '(2+1j)'

In [20]: ```python
str(True+False)   #boolean to str
```

Out[20]:  '1'

In [21]: ```python
#OTHER DATS TYPES TO BOOLEAN
```

In [23]: ```python
bool(9)   # int to bool
```

Out[23]:  True

In [24]: ```python
bool(2.5)    # float to bool
```

Out[24]: True

In [25]: ```python
bool('ten')   # str to bool
```

Out[25]:  True

In [26]: ```python
bool(1+3j)       # complex to bo0ol
```

Out[26]: True

In [27]: ```python
OTHER DATA TYPES TO COMPLEX
```

In [28]: ```python
complex(10)
```

Out[28]: (10+0j)

In [29]:
```python
complex(10,34)     # complex takes only till 2 arguments
```

Out[29]: (10+34j)

In [30]:
```python
complex(True)      # bool to complex
```

Out[30]: (1+0j)

In [31]:
```python
complex('12','34')     # in complex one string is allowed as parameter
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call las
t)
Cell In[31], line 1
----> 1 complex('12','34')

TypeError: complex() can't take second arg if first is a string
```

In [32]:
```python
# SLICING
```

In [33]:
```python
str="hello world"
```

In [35]:
```python
str[1:3]        # forward slicing
```

Out[35]: 'el'

In [40]:
```python
str[0:3:3]
```

Out[40]: 'h'

In [38]:
```python
print (str[1])
print (str[2])
print (str[3])
```

```
e
l
l
```

In [39]:
```python
str[::3]
```

Out[39]: 'hlwl'

In [41]:
```python
str[-1]       #backward indexing
```

Out[41]: 'd'

In [ ]: