In [2]:
```
p=q=r=20
```

In [3]:
```
print(id(p))
print(id(q))
print(id(r))
```

```
140709031062552
140709031062552
140709031062552
```

In [4]:
```
p1=q1=r1=20,21,22
```

In [5]:
```
s='hello python'
s
```

Out[5]:
```
'hello python'
```

In [6]:
```
len(s)
```

Out[6]:
```
12
```

In [7]:
```
s[0] # forward index
```

Out[7]:
```
'h'
```

In [8]:
```
s[-1] #backward index
```

Out[8]:
```
'n'
```

In [9]:
```
s[:]
```

Out[9]:
```
'hello python'
```

In [10]:
```
s[6:12]
```

Out[10]:
```
'python'
```

In [11]:
```
s[0:5]
```

Out[11]:
```
'hello'
```

In [12]:
```
s[6:9]
```

Out[12]:
```
'pyt'
```

In [15]:
```
s[-5:-1]
```

Out[15]:
```
'ytho'
```

In [16]:
```
s[2:]
```

Out[16]: 'llo python'

In [17]:
```
s[:6]
```

Out[17]: 'hello '

In [18]:
```
s[::-1]
```

Out[18]: 'nohtyp olleh'

In [19]:
```
s[0:13:3]
```

Out[19]: 'hlph'

In [21]:
```
s[0:10:5]
```

Out[21]: 'h '

In [22]:
```
 s1='nareshit'
s1
```

Out[22]: 'nareshit'

In [3]:
```
c=1+2j
c
```

Out[3]: (1+2j)

In [7]:
```
print(c.real)
print(c.imag)
```

```
1.0
2.0
```

In [8]:
```
a=1+2j
b=2+3j
print(a+b)
print(a-b)
```

```
(3+5j)
(-1-1j)
```

In [13]:
```
c=1+2j
print(abs(c))
```

```
2.23606797749979
```

In [25]:
```
import cmath
print(cmath.sqrt(c))
print(cmath.polar(c))
```

```
(1.272019649514069+0.7861513777574233j)
(2.23606797749979, 1.1071487177940904)
```

In [19]:
```
c
```

Out[19]: (1+2j)

In [28]:
```
p1=p2=p3=50 # variables with same number
print(p1)
print(p2)
print(p3)
```

```
50
50
50
```

In [30]:
```
a,b,c=1,2,3 # using commas to seperate variables
print(a)
print(b)
print(c)
```

```
1
2
3
```

In [34]:
```
print(type(int))
print(type(float))
print(type(complex))
print(type('string'))
print(type(bool))
```

```
<class 'type'>
<class 'type'>
<class 'type'>
<class 'str'>
<class 'type'>
```

In [48]:
```
print(True*2)
```

```
2
```

In [49]:
```
poll_data=7
print(type(poll_data))
```

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

In [54]:
```
obj_data=1
print(type(obj_data))
```

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

In [59]:
```
v1='hello'
v2="hello"
v3='''hello'''
print(v1)
print(v2)
print(v3)
```

```
hello
hello
hello
```

In [64]:
```
s='good morning'
print(s)
```

```
good morning
```

In [65]:
```
len(s)
```

Out[65]: 12

In [66]:
```
s[5:8]
```

Out[66]: 'mor'

In [69]:
```
s[len(s)-2]
```

Out[69]: 'n'

In [73]:
```
tuple(range(9))
```

Out[73]: (0, 1, 2, 3, 4, 5, 6, 7, 8)

In [76]:
```
obj_data=()
type(obj_data)
```

Out[76]: tuple

In [81]:
```
language = 'hyderbad'
len(language)
```

Out[81]: 8

In [88]:
```
first_three=language[0:3]
last_four=language[4:7]
print(first_three)
print(last_four)
```

```
hyd
rba
```

In [94]:
```
first=1
second=2
third=3
full=first+second+third
print(full)
```

```
6
```

In [117…
```
first_name='ramya'
last_name='panidepu'
place='india'
print('im {} {} . i live in {}'.format(first_name,last_name,place))
print(f'im {first_name} {last_name} and i live in {place}')
```

```
im ramya panidepu . i live in india
im ramya panidepu and i live in india
```

In [119…
```
code='thirty days python'
print(code.isdecimal())
```
```
False
```

In [120…
```
print(code.isdigit())
```
```
False
```

In [123…
```
code='30'
print(code.isdigit())
```
```
True
```

In [124…
```
code='thirty days python'
print(code.isdecimal())
```
```
False
```

In [126…
```
code='thirty days python'
print(code.replace('python','coding'))
```
```
thirty days coding
```

In [129…
```
code='thirty days python'
print(code.split('y'))
```
```
['thirt', ' da', 's p', 'thon']
```

In [137…
```
print(code.strip())
```
```
thirty days python
```

In [138…
```
print(code.swapcase())
```
```
THIRTY DAYS PYTHON
```

In [139…
```
code='Thirty Days Python'
print(code.swapcase())
```
```
tHIRTY dAYS pYTHON
```

In [140…
```
print(code.title())
```
```
Thirty Days Python
```

In [144…
```
print(code.islower())
```
```
False
```

In [ ]:
```
```