

RANGE

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In [1]: r=range(10)
r

Out[1]: range(0, 10)

In [2]: type(r)

Out[2]: range

In [3]: r

Out[3]: range(0, 10)

In [4]: r=range(5,10)
r

Out[4]: range(5, 10)

In [5]: list(r)

Out[5]: [5, 6, 7, 8, 9]

In [6]: r=list(range(5,10))
r

Out[6]: [5, 6, 7, 8, 9]

In [7]: r1=list(range(2,20,2))
r1

Out[7]: [2, 4, 6, 8, 10, 12, 14, 16, 18]

In [8]: len(r1)

Out[8]: 9

In [9]: r2=list(range(2,10,2,4))
r2

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TypeError                                 Traceback (most recent call last)
Cell In[9], line 1
----> 1 r2=list(range(2,10,2,4))
      2 r2

TypeError: range expected at most 3 arguments, got 4

In [10]: r3=list(range(10,100,10))
r3

Out[10]: [10, 20, 30, 40, 50, 60, 70, 80, 90]

In [14]: for a in r3:
          print('abc')
          print(a)

abc
10
abc
20
abc
30
abc
40
abc
50
abc
60
abc
70
abc
80
abc
90

In [15]: for a in enumerate(r3):
          print(a)

(0, 10)
(1, 20)
(2, 30)
(3, 40)
(4, 50)
(5, 60)
(6, 70)
(7, 80)
(8, 90)

In [16]: r

Out[16]: [5, 6, 7, 8, 9]

In [17]: r1

Out[17]: [2, 4, 6, 8, 10, 12, 14, 16, 18]

In [18]: r3

Out[18]: [10, 20, 30, 40, 50, 60, 70, 80, 90]

In [19]: 10 in r3

Out[19]: True

In [20]: 100 in r3

Out[20]: False

In [21]: range(1.1,2.0) # float values

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TypeError                                 Traceback (most recent call last)
Cell In[21], line 1
----> 1 range(1.1,2.0)

TypeError: 'float' object cannot be interpreted as an integer

In [22]: range('True')

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TypeError                                 Traceback (most recent call last)
Cell In[22], line 1
----> 1 range('True')

TypeError: 'str' object cannot be interpreted as an integer

In [23]: range(1+2j)

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TypeError                                 Traceback (most recent call last)
Cell In[23], line 1
----> 1 range(1+2j)

TypeError: 'complex' object cannot be interpreted as an integer

In [24]: a1=range(20,30)
a1

Out[24]: range(20, 30)

In [25]: for i in a1:
          print(i)

20
21
22
23
24
25
26
27
28
29

In [26]: for i in a1:
          print(i)

20
21
22
23
24
25
26
27
28
29

In [27]: range(30,40)

Out[27]: range(30, 40)

In [30]: for i in range(30,40):
          print(i)

30
31
32
33
34
35
36
37
38
39

In [31]: r

Out[31]: [5, 6, 7, 8, 9]

In [32]: r[3]

Out[32]: 8

In [33]: r[-4]

Out[33]: 6

In [34]: r[1:5]

Out[34]: [6, 7, 8, 9]

In [35]: del r

In [36]: r

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NameError                                 Traceback (most recent call last)
Cell In[36], line 1
----> 1 r

NameError: name 'r' is not defined

In [37]: r=list(range(1,10))
r

Out[37]: [1, 2, 3, 4, 5, 6, 7, 8, 9]

In [38]: r.append(10)
r

Out[38]: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

In [39]: r.count(4)

Out[39]: 1

In [40]: r.clear()

In [41]: r

Out[41]: []

In [42]: r=list(range(2,20))
r

Out[42]: [2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19]

In [43]: r3

Out[43]: [10, 20, 30, 40, 50, 60, 70, 80, 90]

In [44]: r3.reverse()
r3

Out[44]: [90, 80, 70, 60, 50, 40, 30, 20, 10]

In [45]: r3.remove(70)
r3

Out[45]: [90, 80, 60, 50, 40, 30, 20, 10]

In [46]: r3.pop()
r3

Out[46]: [90, 80, 60, 50, 40, 30, 20]

In [47]: r3.pop(30)
r3

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IndexError                                 Traceback (most recent call last)
Cell In[47], line 1
----> 1 r3.pop(30)
      2 r3

IndexError: pop index out of range

In [48]: r3.pop(20)
r3

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IndexError                                 Traceback (most recent call last)
Cell In[48], line 1
----> 1 r3.pop(20)
      2 r3

IndexError: pop index out of range

In [49]: r3.pop(-1)
r3

Out[49]: [90, 80, 60, 50, 40, 30]

In [50]: r3.pop(2)
r3

Out[50]: [90, 80, 50, 40, 30]

In [51]: r3.sort()
r3

Out[51]: [30, 40, 50, 80, 90]

In [52]: r3.sort(reverse=False)
r3

Out[52]: [30, 40, 50, 80, 90]
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In [53]:

x3.sort(reverse=True)

x3

Out[53]: [90, 80, 50, 40, 30]