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```
1 # percipio11_bytearray_type.py
2 # Percipio video: Data & Sequence Types; The Bytearray Type in Python
3 # This shows 5 different ways to construct a bytearray object
4 # The bytearray class provides an mutable sequence (mutable = changable sequence of integers)
5 # Values must be integers from 0-255 to represent a byte
6 #
7 empty_array = bytearray() # 1st way to create a bytearray object, empty
8 null_array = bytearray(11) # 2nd way to create a bytearray object, filled with nulls, here
   there are 11 elements filled with a byte value of zero
9 ints_array = bytearray((84, 114, 97, 100, 101, 109, 97, 114, 107, 32, 194, 174)) # 3rd way to
   create a bytearray object using a sequence of integers
10 str_array = bytearray('Trademark ®', 'utf-8') # 4th way to create a bytearray object by using
   an existing string & the string encoding
11 bytes_array = bytearray(b'Trademark \xc2\xae') # 5th way to create a bytearray object by
   creating a bytearray object based on a bytes object
12 #
13 nl = '\n'
14 print(nl, 'Next')
15 #
16 print('bytes_array =', bytes_array)
17 print(['bytes_array.decode() ->',
18       bytes_array.decode()])
19 print(nl, 'Next')
20 str_literal = 'Trademark ®'
21 # A bytearray sequence behaves similar to a string
22 print('str_literal.count("T") ->',
23       str_literal.count('T')) # counts number of T's in a string
24 print('str_literal.index("T") ->',
25       str_literal.index('T')) # indexes position number of T's in a string
26 # This performs the same function as above except uses byte values instead of string values
```



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03_Collections-Mapping-Loo...

04_Modules-Functions

```
25 | str_literal.index('T')) # indexes position number of T's in a string
26 | # This performs the same function as above except uses byte values instead of string values
27 | print('bytes_array.count(0x54) ->',
28 |       bytes_array.count(0x54)) #
29 | print('bytes_array.index(0x54) ->',
30 |       bytes_array.index(0x54)) #
31 | print(nl, 'Next')
32 | # Bytearray objects have methods to mutate them
33 | bytes_array.append(32) # appends a single byte
34 | print('bytes_array after .append(32) =', bytes_array)
35 | bytes_array.extend((194,174)) # extends to a bytearray object with multiple bytes
36 | print('bytes_array after .extend((194,174)) =', bytes_array)
37 | print('bytes_array.decode() ->',
38 |       bytes_array.decode()) #
39 | bytes_array.remove(0x54) # take a byte out of the bytearray
40 | print('bytes_array after .remove(0x54) =', bytes_array)
41 | bytes_array.insert(0, 0x54) # insert at a specific position
42 | print('bytes_array after .insert(0, 0x54) =', bytes_array)
43 | bytes_array.pop() # this removes from the end of the string
44 | bytes_array.pop()
45 | print('bytes_array.decode() ->',
46 |       bytes_array.decode())
```