Lec # 3.1

Rising Coders Era

- len() function.
- ASCII values.
- bytes, bytearray datatype.

## 6) bytes datatype

"byte is a unit of digital information storage that typically consists of 8 bits. Each bit can represent a 0 or 1. Bytes are used to represent characters, numbers, and other data in a computer's memory."

1 byte = 8 bits

Code

```
my_byte = bytes([65, 66, 67])
# Represents ASCII values for 'A', 'B', 'C'

# Print byte & its length
print(my_byte)
# output: b'ABC'
print(len(my_byte))
# output: 3
```

```
print("datatype of my_byte is: ", type(my_byte))
```

## ASCII (American Standard Code For Information Interchange

In the above example, we created a bytes object containing the ASCII values for the characters 'A', 'B' & 'C'. The 'b' prefix befor the string indicates that it's a bytes object. The 'len()' function gives us the length of the byte object, which is 3 in this case. Bytes are commonly used for handling Binary data & encoding text.

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## bytearray datatype

changeable

"'bytearray' datatype is similar to the 'bytes' datatype, but with one key difference: 'bytearray' objects are mutable, which means you can modify the values within the 'bytearray'.

Code

```
#Create a bytearray
my-bytearray = bytearray([65, 66, 67])
# Represents values for 'A', 'B', 'C'.
# changing value
my-bytearray[1] = 68  # changing 'B' to 'D'
print(my-bytearray)
```

```
print("datatype of my_byte array: ", type(my_byte))
```

In the above example, we first create a 'bytearray' with ASCII values for 'A', 'B', and 'C'. Then, we modify the value at index 1 (which represents 'B') to 68 (ASCII value for 'D'). As a result, the 'bytearray' becomes 'bytearray(b'ADC')'.