Strings are Arrays

Python does not have a character data type, a single character is simply a string with a length of 1

Get the character at position 1

a = "Hello, World!"  
print(a[1])

## Looping Through a String

for x in "banana":  
  print(x)

## Check String

txt = "The best things in life are free!"  
print("free" in txt) => true

txt = "The best things in life are free!"  
print("expensive" not in txt)

# **Slicing Strings**

Get the characters from position 2 to position 5

b = "Hello, World!"  
print(b[2:5]) 🡺 llo

print(b[:5]) 🡺 hello

print(b[2:]) 🡺 llo, World!

print(b[-5:-2]) 🡺 orl

# **Modify Strings**

a = "Hello, World!"  
print(a.upper())

print(a.lower())

print(a.strip()) removes any whitespace

print(a.strip(“o”)) 🡺 Hell, Wrld!

print(a.replace("H", "J"))

print(a.split(",")) # returns ['Hello', ' World!']

# **Format - Strings**

we cannot combine strings and numbers like this:

age = 36  
txt = "My name is John, I am " + age

The format() method takes the passed arguments, formats them, and places them in the string where the placeholders {} are:

age = 36  
txt = "My name is John, and I am {}"  
print(txt.format(age))

quantity = 3  
itemno = 567  
price = 49.95  
myorder = "I want {} pieces of item {} for {} dollars."  
print(myorder.format(quantity, itemno, price))

===> I want 3 pieces of item 567 for 49.95 dollars.

quantity = 3  
itemno = 567  
price = 49.95  
myorder = "I want to pay {2} dollars for {0} pieces of item {1}."  
print(myorder.format(quantity, itemno, price))

===> I want to pay 49.95 dollars for 3 pieces of item 567

# **Escape Characters**

txt = "We are the so-called \"Vikings\" from the north."

txt = 'It\'s alright.'

txt = "This will insert one \\ (backslash)."

txt = "Hello\nWorld!"

​

Hello  
World!

txt = "Hello\tWorld!"

Hello   World!

#This example erases one character (backspace):

txt = "Hello \bWorld!"

HelloWorld!

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| **Method** | **Description** |
| [count()](https://www.w3schools.com/python/ref_string_count.asp) | Returns the number of times a specified value occurs in a string |
| [find()](https://www.w3schools.com/python/ref_string_find.asp) | Searches the string for a specified value and returns the position of where it was found |
| [isalnum()](https://www.w3schools.com/python/ref_string_isalnum.asp) | Returns True if all characters in the string are alphanumeric |
| [isalpha()](https://www.w3schools.com/python/ref_string_isalpha.asp) | Returns True if all characters in the string are in the alphabet |
| [isdecimal()](https://www.w3schools.com/python/ref_string_isdecimal.asp) | Returns True if all characters in the string are decimals |
| [isnumeric()](https://www.w3schools.com/python/ref_string_isnumeric.asp) | Returns True if all characters in the string are numeric |
| [startswith()](https://www.w3schools.com/python/ref_string_startswith.asp) | Returns true if the string starts with the specified value |
| [swapcase()](https://www.w3schools.com/python/ref_string_swapcase.asp) | Swaps cases, lower case becomes upper case and vice versa |