Strings

January 3, 2022

1 Strings

[1]:
```
# Strings are a ordered sequence of characters enclosed in '' or ""
```

[2]:
```
print("Hello")
```

```
Hello
```

[4]:
```
print("Hello \nWorld")
```

```
Hello
World
```

[5]:
```
print("Hello \tWorld")
```

```
Hello   World
```

[6]:
```
len('hello')
```

[6]: 5

[7]:
```
len('I am')
```

[7]: 4

[10]:
```
mystring = 'Hello World'
```

[11]:
```
mystring[0]
```

[11]: 'H'

[12]:
```
mystring[8]
```

[12]: 'r'

[13]:
```
mystring[-2]
```

[13]: 'l'

[14]:
```
mystring[9]
```

[14]:
```
'l'
```

[15]:
```
string1 = 'abcdefghij'
```

[16]:
```
string1[1:]
```

[16]:
```
'bcdefghij'
```

[18]:
```
string1[:3]
```

[18]:
```
'abc'
```

[19]:
```
string1[1:4]
```

[19]:
```
'bcd'
```

[20]:
```
string1[::]
```

[20]:
```
'abcdefghij'
```

[21]:
```
string1[::2]
```

[21]:
```
'acegi'
```

[22]:
```
string1[::-1]
```

[22]:
```
'jihgfedcba'
```

[23]:
```
string1[::1]
```

[23]:
```
'abcdefghij'
```

2 String properties and methods

[24]:
```
# cannot use indexing to change the individual elements of a string
```

[25]:
```
name = 'Harsha'
name[5] = 'A'
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
~\AppData\Local\Temp/ipykernel_5928/639839250.py in <module>
      1 name = 'Harsha'
----> 2 name[5] = 'A'

TypeError: 'str' object does not support item assignment
```

[26]:
```
name[6] = 'a'
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
~\AppData\Local\Temp/ipykernel_5928/3505710760.py in <module>
----> 1 name[6] = 'a'

TypeError: 'str' object does not support item assignment
```

[27]:
```
# But we can do this with concatenation
```

[28]:
```
last_letters = name[1:]
'h' + last_letters # name changes from Harsha to harsha
```

[28]:
```
'harsha'
```

[33]:
```
x = 'Hello World'
x + x
```

[33]:
```
'Hello WorldHello World'
```

[31]:
```
x + ' Nice weather outside'
```

[31]:
```
'Hello World Nice weather outside'
```

[40]:
```
x = x + ' Nice weather outside'
x
```

[40]:
```
'Hello WorldNice weather outsideNice weather outsideNice weather outsideNice
weather outside Nice weather outside'
```

[41]:
```
letter = 'z'
letter * 10 # string multiplication
```

[41]:
```
'zzzzzzzzzz'
```

[42]:
```
2 + 3
```

[42]:
```
5
```

[43]:
```
'2' + '3'
```

[43]:
```
'23'
```

[44]:
```
x = 'Hello World'
```

[45]:
```
x.upper()
```

[45]:
```
'HELLO WORLD'
```

[46]:
```
x.lower()
```

[46]:
```
'hello world'
```

[47]:
```
x.split()
```

[47]:
```
['Hello', 'World']
```

[48]:
```
x.split('H')
```

[48]:
```
['', 'ello World']
```

[50]:
```
x = 'This is a string'
x.split('i')
```

[50]:
```
['Th', 's ', 's a str', 'ng']
```

3 print formatting with strings

[53]:
```
name ='Sri Harsha'
age = '25'
language = 'Python'
print(f'My name is {name} and I am {age} years old. I am learning {language}')
```

```
My name is Sri Harsha and I am 25 years old. I am learning Python
```