Assignment Day 2 | 9th December 2020

1. Try 5 Different functions of the String in Python.

Example 1.

txt = "Hello, welcome to my world."
x = txt.index("welcome")
print(x)

Output:

7

Example 2.

txt = "Hello, welcome to my world."
x = txt.index("e", 5, 10)
print(x)

Output:

8

Example 3.

txt = "welcome to the jungle"
x = txt.split()
print(x)

Output:

['welcome', 'to', 'the', 'jungle']

Example 4.

```
txt = "hello, my name is Peter, I am 26 years old"
x = txt.split(", ")
print(x)
```

['hello', 'my name is Peter', 'I am 26 years old']

Example 5.

```
txt = "apple#banana#cherry#orange"
# setting the maxsplit parameter to 1, will return a list with 2 elements!
x = txt.split("#", 1)
print(x)
```

['apple', 'banana#cherry#orange']

2. Try 5 Different functions of the List object in Python

Example 1.

```
my_list = ['p','r','o','g','r','a','m','i','z']
print(my_list[2:5])
print(my_list[:-5])
print(my_list[5:])
print(my_list[:])
```

Output:

```
['o', 'g', 'r']
['p', 'r', 'o', 'g']
['a', 'm', 'i', 'z']
['p', 'r', 'o', 'g', 'r', 'a', 'm', 'i', 'z']
```

Example 2.

```
numbers = [11, 99, 66, 22]
print(numbers)
```

Output:

```
[11, 99, 66, 22]
```

Example 3.

```
mixed = ["a string", 3.14, 199]  # list where elements are of different types
print(mixed)
```

Output:

```
['a string', 3.14, 199]
```

Example 4.

```
empty_list = []  # an empty list
print(empty_list)
```

Output:

[]

Example 5.

```
list1 = list()  # an empty list
list2 = list([3.2, 4, 0.12])  # again elements in a list can be of different types
list3 = list(["@@", "###", ""])   # you can use symbols too
list4 = list("1234")  # creating list from string
print(list1)
print(list2)
print(list3)
print(list4)
```

Output:

```
[]
[3.2, 4, 0.12]
['@@', '###', '']
['1', '2', '3', '4']
```

3. Experiment with at least 5 default functions of Dictionary

Example 1.

>>> mydict={x*x:x for x in range(8)}
>>> mydict

{0: 0, 1: 1, 4: 2, 9: 3, 16: 4, 25: 5, 36: 6, 49: 7}

Example 2.

>>> dict3={1:'carrots','two':[1,2,3]}
>>> dict3

{1: 'carrots', 'two': [1, 2, 3]}

Example 3.

>>> dict(([1,2],[2,4],[3,6]))

{1: 2, 2: 4, 3: 6}

Example 4.

>>> mydict2={1:2,1:3,1:4,2:4}
>>> mydict2

{1: 4, 2: 4}

Example 5.

```
my_dict = {'name': 'Jack', 'age': 26}
my_dict['age'] = 27
print(my_dict)
my_dict['address'] = 'Downtown'
print(my_dict)
```

```
{'name': 'Jack', 'age': 27}
{'name': 'Jack', 'age': 27, 'address': 'Downtown'}
```