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Subject-Day 2 Assignment for LetsUpgrade Program

Q1 List and its Default Functions

```
#List: A list is a data structure in Python that is a mutable, or changeable, ordered seq
lst=["Jalaj","python",24,90.5,[1,2,3,4],"hey"]
lst
```

```
['Jalaj', 'python', 24, 90.5, [1, 2, 3, 4], 'hey']
```

>List Default functions

1. Append function

```
#Appending List: The append() method will add certain content you enter to the end of the
lst.append("hello world")
lst
```

```
['Jalaj',
 'python',
 24,
 90.5,
 [1, 2, 3, 4],
 'hey',
 'hello world',
 'hello world']
```

2. Reverse function

```
#Reversing List:The reverse() method reverses the elements of the list.
lst.reverse()
lst
```

```
['hello world',
 'hello world',
 'hey',
 [1, 2, 3, 4],
 90.5,
```

3. Extend function

```
#Extending List:The extend() method increases the length of the list by the number of ele
lst.extend ([100,8.2])
lst
```

4. Index function

```
#Indexing List: The index() method returns the first appearance of the specified value.
lst.index("python")
```

5.Type function

```
#Typing List: For the type() function, it returns the class type of an object.
lst
```

6. Remove function

```
#Removing List: The remove() method removes the first matching element (which is passed a
lst.remove(90.5)
lst
```

7. Insert function

```
#Inserting List: The list insert() method inserts an element to the list at the specified
lst.insert(3,"o")
lst
```

Q2 Dictionary and its Default Functions

```
#Dictionary:dictionary is an unordered collection of items. Each item of a dictionary has
my_dict= {'name': 'Jalaj', 'age': 18,'Email':'guptajalaj5402@gmail.com' }
my_dict.get('name')
```

```
my_dict.get('age')
```

```
my_dict.get('Email')
```

>Dictionary Default Functions

1. Clear Dictionary

```
#The clear() method removes all items from the dictionary.
my_dict= {'name': 'Jalaj', 'age': 18,'Email':'guptajalaj5402@gmail.com' }
my_dict.clear()
print('my_dict=', my_dict)
```

2. Copy Dictionary

```
#They copy() method returns a shallow copy of the dictionary.
my_dict= {'name': 'Jalaj', 'age': 18,'Email':'guptajalaj5402@gmail.com' }
new = my_dict.copy()
print('my_dict=', my_dict)
print('new=',new)
```

3.Value Dictionary

```
#The values() method returns a view object that displays a list of all the values in the
my_dict= {'name': 'Jalaj', 'age': 18,'Email':'guptajalaj5402@gmail.com' }
print(my_dict.values())
```

4.Items Dictionary

```
#The items() method returns a view object that displays a list of dictionary's (key, valu
my_dict= {'name': 'Jalaj', 'age': 18,'Email':'guptajalaj5402@gmail.com'}
print(my_dict.items())
```

5.Pop Dictionary

```
#The pop() method removes and returns an element from a dictionary having the given key.
my_dict= {'name': 'Jalaj', 'age': 18,'Email':'guptajalaj5402@gmail.com'}
element = my_dict.pop('age')
print('The popped element is:', element)
print('The dictionary is:', my_dict)
```

6.keys Dictionary

```
#The keys() method returns a view object that displays a list of all the keys in the dict
my_dict= {'name': 'Jalaj', 'age': 18,'Email':'guptajalaj5402@gmail.com'}
print(my_dict.keys())
empty_dict = {}
print(empty_dict.keys())
```

Q3 Sets and its default functions.

```
#Sets: A set is created by placing all the items (elements) inside curly braces {}, separ
set = {"python","LetsUpgrade",100,76.5,1,2,7,54,23,90}
print(set)
```

```
set1 = {100,200,300,"program"}
print(set1)
```

>Sets default function

1. Add Function

Double-click (or enter) to edit

```
#The set add() method adds a given element to a set. If the element is already present, i
set.add("Jalaj")
print(set)
```

2. Intersection Function

```
#The intersection() method returns a new set with elements that are common to all sets.
set1.intersection(set)
```

3.Difference Function

```
#The difference() method returns the set difference of two sets.
set1.difference(set)
```

4.Copy Function

```
#The copy() method returns a shallow copy of the set.
new_set = set1
new_set.add(500)
print('set1: ', set1)
print('new_set: ', new_set)
```

5. Clear Function

```
#The clear() method removes all elements from the set.
set.clear()
print('set:',set)
```

6.Discard Function

```
#The discard() method removes a specified element from the set (if present).
set1.discard(200)
print('set1 = ', set1)
```

7.Issubset Function

```
#The issubset() method returns True if all elements of a set are present in another set (
set.issubset(set1)
```

```
set1.issubset(set)
```

Q4 Tuple and explore default methods.

```
#Tuple: tuples are immutables. Meaning, you cannot change items of a tuple once it is ass
vowels = ('a', 'e', 'i', 'o', 'i', 'u')
print(vowels)
```

>Tuple default methods

1. count()

```
#The count() method returns the number of times the specified element appears in the tupl
count = vowels.count('i')
print('The count of i is:', count)
```

2.Index()

```
#The index() method returns the index of the specified element in the tuple.
index = vowels.index('e')
print('The index of e:', index)
```

Q2 Strings and explore default methods.

```
#A string is a sequence of characters enclosed in quotation marks. In this reference page
str=(" python is the best coding language ")
print(str)
```

1.Split()

```
#The split() method breaks up a string at the specified separator and returns a list of s
print(str.split())
```

2.capitalize()

```
#the capitalize() method converts first character of a string to uppercase letter and low
new_str = str.capitalize()
print('Old Str:', str)
print('New Str:', new_str)
```

3.Count()

```
#The string count() method returns the number of occurrences of a substring in the given
str = (" python is the best coding language ")
substr = "best"
```

```
count = str.count(substr)
print("The count is:", count)
```

4. replace()

```
#The replace() method returns a copy of the string where all occurrences of a substring i
print(str.replace('python', 'c++'))
```

5.Find()

```
#The find() method returns the index of first occurrence of the substring (if found). If
result = str.find('coding')
print("Substring 'coding':", result)
```

6.Index()

```
#The index() method returns the index of a substring inside the string (if found). If the
result = str.index('language')
print("Substring 'language':", result)
```

7. Lower()

```
#The string lower() method converts all uppercase characters in a string into lowercase c
str = (" PYTHON IS THE BEST CODING LANGUAGE ")
print(str.lower())
```