Python Surprise Test

Exercise 1: Reverse a given string.

str1 = "James"

Output: "semaJ"

Exercise 2: Change special # symbol with * in the following string.

str1 = '# Jon is @developer & musician##'

Exercise 3: Write a program to create a new string made of an input string's first, middle, and last character.

str1 = "Tuple"

Output: "Tpe"

Exercise 4: Sort Descending order of a list in Python.

list1 = [100, 200, 300, 400, 500]

Output: [500, 400, 300, 200, 100]

Exercise 5: Concatenate two lists index-wise.

list1 = ["M", "na", "i", "Ke"]

list2 = ["y", "me", "s", "lly"]

Output: ['My', 'name', 'is', 'Kelly']

Exercise 6: Write a program in Python to count lower, upper, numeric and special characters in a string.

x = @pyThOnlobb!Y34

Expected output

Numeric counts 2

Lower counts 8

Upper counts 3

Special counts 2

Exercise 7: Turn every item of a list into its square.

numbers = [1, 2, 3, 4, 5, 6, 7]

Output: [1, 4, 9, 16, 25, 36, 49]

Exercise 8: Slice list into 3 equal list and reverse them.

sample_list = [11, 45, 8, 23, 14, 12, 78, 45, 89]

list 1 [11, 45, 8]

After reversing it [8, 45, 11]

list 2 [23, 14, 12]

After reversing it [12, 14, 23]

list 3 [78, 45, 89]

After reversing it [89, 45, 78]

Exercise 9: Add new item to list after a specified item.

list1 = [10, 20, [300, 400, [5000, 6000], 500], 30, 40]

Output: [10, 20, [300, 400, [5000, 6000, 7000], 500], 30, 40]

Exercise 10: Replace list's item with new value if found.

list1 = [5, 10, 15, 20, 25, 50, 20]

Output: [5, 10, 15, 200, 25, 50, 20]

Exercise 11: Add a list of elements to a set.

sample_set = {"Yellow", "Orange", "Black"}

sample_list = ["Blue", "Green", "Red"]

Output: {'Green', 'Yellow', 'Black', 'Orange', 'Red', 'Blue'}

Exercise 12: Access value 20 from the tuple.

tuple1 = ("Orange", 20, [10, 30], (5, 15, 25))

Output: 20

Exercise 13: Remove all occurrences of a specific item from a list.

list1 = [5, 20, 15, 20, 25, 50, 20]

Output: [5, 15, 25, 50]

Exercise 14: Write a program to sum all the elements of a list.

Given = [2,3,2,4,7,8]

Output: Sum of list items 26

Exercise 15: Write a program to append data of the second list to the first list.

list1 = [23, 24, 25, 26] list2 = [27, 28, 29, 30]

Output: [23, 24, 25, 26, 27, 28, 29, 30]

Exercise 16: Remove items from set1 that are common to both set1 and set2.

set1 = {10, 20, 30, 40, 50}

set2 = {30, 40, 50, 60, 70}

Output: {10, 20}

Exercise 17: Create a tuple with single item 50

Exercise 18: Write a program to print only keys of a dictionary.

dict = {0:”Value 1”, 1:”Value 2”, 2:”Value 3”}

Output: dict_keys([0, 1, 2])

Exercise 19: Write a program in Python to display the Factorial of a number.

Input : 5

Output : Factorial is 120

Exercise 20: Return a new set of identical items from two sets.

set1 = {10, 20, 30, 40, 50}

set2 = {30, 40, 50, 60, 70}

Output: {40, 50, 30}

Exercise 21: Write a program in Python to reverse a word.

Input a word to reverse : python

Output: nohtyp

Exercise 22: Write a program to print multiplication table of a given number.

Exercise 23: Write a program to separate positive and negative number from a list.

x = [23, 4, -6, 23, -9, 21, 3, -45, -8]

Output: Positive: [23, 4, 23, 21, 3] Negative: [-6, -45, -9, -8]

Exercise 24: Write a program to modify the first item (22) of a list inside a following tuple to 222.

tuple1 = (11, [22, 33], 44, 55)

Output: (11, [222, 33], 44, 55)

Exercise 25: Write a program to sum all the values of a dictionary.

dict1 = {'key1': 200, 'key2': 300}

Output: 500

Exercise 26: Write a program to check whether a given key exists in a dictionary or not.

Exercise 27: Write a program to get only unique items from two sets.

set1 = {10, 20, 30, 40, 50}

set2 = {30, 40, 50, 60, 70}

Output: {70, 40, 10, 50, 20, 60, 30}

Exercise 28: Write a program to check whether a given is present then delete those values.

Given value = 56

list_val = [10, 40, 56, 5, "hello"]

tuple_val = (10, 40, 56, 5, "hello")

set_val = {10, 40, 56, 5, "hello"}

dct_val = {"a": 10, "b": 40, "c": 56, "d": "hello"}

Exercise 29: Write a program to delete random value from set.

sett = {100, 200, 300}

Exercise 30: Write a program to delete a value from set if the value is present, if not return the message value not.

present.

sett = {100, 200, 300}

After deleting 200: {100, 300}

After deleting 700: "Value 700 is not present in the set"

Exercise 31: Write a program to delete a key from dictionary, if key is not present then return zero.

dct = {'yellow': 1, 'blue': 2, 'orange': 3, 'black': 4, 'red': 1}

after deleting key 'black': {'yellow': 1, 'blue': 2, 'orange': 3, 'red': 1}

after deleting key 'green': zero