PRACTISE SESSION SOLUTION :

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# String In Python :


# 1.write a python program to calculate the
length of the string ?

str1 = "welcome"
print("The length of given string :",
len(str1)

# Output : The length of given string : 7



# 2.write a python program to remove the
starting four character from a non empty
string
# Given string is : " india is my country "

str2 = " india is my country "
x = str2.replace("indi", "")
print(x)

# Output : a is my country
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# 3. write a python program to count a
occurencess of each world in given sentence
.

str3 = " india is my country and india is
special country "
c = str3.count(" india ")
print(c)
c = str3.count(" is ")
print(c)
c = str3.count(" my ")
print(c)
c = str3.count(" country ")
print(c)
c = str3.count(" special ")
print(c)
c = str3.count(" and ")
print(c)

# Output: 2
#         2
#         1
#         2
#         1
#         1
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# 4. write a python script that takes input from the user and displays that input back in upper and lower cases .

str1 = input(" write the msg that u want in small letter :")
print(" input back in upper case :", str1.upper())
print(" input back in lower case :", str1.lower())

# Output :  write the msg that u want in small letter :MY name is GAURAV bharat GANGURDE
# input back in upper case : MY NAME IS GAURAV BHARAT GANGURDE
#input back in lower case : my name is gaurav bharat gangurde



# 5. write a python program to sort a string .

s1 = "yxz"
s2 = sorted(s1)
s3 = "".join(s2)
print(s3)

# Output : xyz
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# List In Python :

# 1. write a python program to get the
smallest number from a list.

ls = [15,12,1,5,8,10.5,25]
ls1 = min(ls)
print("The smallest number from the list
:", ls1)

# Output : The smallest number from the
list :  1



# 2. write a python program to check list
is empty or not.

list1 = [5, 12.3, " Vaishnavi ", 4, 8,
True, 1+5j]
print("Given list is empty :", len(list1)
== 0)            # Here we can use if-else
statements....
print("Given list is not empty :",
len(list1) != 0)

# Output : Given list is empty : False
#          Given list is not empty : True
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# 3.write a python program to clone or copy
a list.

list2 = [2, 10.2, "abc", 5, 8, False]
copied = list2.copy()
print(copied)

# output : [2, 10.2, 'abc', 5, 8, False]



# 4. Write a python program to access the
index of a list.

my_list = ["Educated", "Student", "Python
learner", "Gamer"]
access_index = my_list.index("Python
learner")
print(access_index)

# Output : 2



# 5. Write a python program to append a
list to the second list.

my_list1 = [1, 2, 3, 4, 5]
my_list2 = ["India", "china", "West-
indies", "pakistan"]
my_list1.append(my_list2)
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print("The appending of my_list1 and
my_list2 is :", my_list1)

# Output : The appending of my_list1 and
my_list2 is : [1, 2, 3, 4, 5, ['India',
'china', 'West-indies', 'pakistan']]



# Tuple in python :


# 1. Write python program to create a tuple
with different data types.

tup = (1, 2, 5, 10.5, 15.89, 0.833333,
"vaishnavi", True, 1+15j)
print("Tuple with different data types :",
tup)

# Output : Tuple with different data types
: (1, 2, 5, 10.5, 15.89, 0.833333,
'vaishnavi', True, (1+15j))




# 2.write a python program to create a
tuple with numbers and print one item.

tup1 = (4,2,8,6,7,22,45,6325,859647)
x = tup1[6]
print(x)
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# Output : 45



# 3.Write a python program to add an item
in a tuple.

tup2 = ("bhairavi", "tamanna", "minakshi",
"karina")
tup2 = tup2 + ("katrina",)
print(tup2)

# Output : {'bhairavi', 'karina',
'tamanna', 'minakshi', 'katrina'}




# 4.Write a python program to convert tuple
to a string.

tup3 = ("my", "name", "is",  "a vaishnavi")
str_new = str(tup3)
print(str_new)
print(type(str_new))

# Output : ('my', 'name', 'is', 'a
vaishnavi')
#          <class 'str'>
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# 5.Write a python program to remove an item from a tuple.

tup4 = (5, 8, "bharat", True, 1+86j, 10.5000)
convert = list(tup4)
convert.remove("bharat")
tup5 = tuple(convert)
print(tup5)

# Output : (5, 8, True, (1+86j), 10.5)



# Dictionary in python :


# 1.Write a python script to add an key name "Education" with respected value to a dictionary.
# Input :
{"Name":"virat","Address":"canada"}

Input = {"Name": "Ramesh", "Address": "canada"}
Input.update({"Education": "BE"},)
print(Input)

# Output : {'Name': 'Ramesh', 'Address': 'canada', 'Education': 'BE'}
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# 2.Write a python script to check whether a given key exists in a dictionary or not.use above dictionary.

Above_d = {'Name': 'Ramesh', 'Address': 'canada', 'Education': 'BE'}
z = Above_d.setdefault("Name")
print(z)

# Output : Rames



# 3.Write a python program to remove a key from dictionary.

New_d = {'Name': 'Ramesh', 'Address': 'canada', 'Education': 'BE'}
New_d.pop("Address")
print(New_d)

# output : {'Name': 'Ramesh', 'Education': 'BE'}
```

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# 4.Write a python program to check
dictionary is empty or not.

Again_d = {'Name': 'Ramesh', 'Education':
'BE'}
Again_d.clear()
print("Given list is empty :", len(Again_d)
== 0)            # Here we can use if-else
statements....
print("Given list is not empty :",
len(Again_d) != 0)

# Output : Given list is empty : True
#          Given list is not empty : False



# 5.Write a python program to check how
many keys present in dictionary.

My_D = {'Name': 'Ramesh', 'Address':
'canada', 'Education': 'BE'}
My_D.keys()
print("The keys present in a dictionary
is:", len(My_D))

# Output : The keys present in a dictionary
is: 3
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# SET in python :

# 1.Write a python program to create a set
with data of string type.

my_set = {"mango", "banana", "apple",
"orange", "guava", "grapes", "mango"}
print("The fruits in the form of set is :",
my_set)

# Output : The fruits in the form of set is
: {'grapes', 'orange', 'guava', 'apple',
'mango', 'banana'}



# 2.Write a python program to add member(s)
in a set.

new_set = {"mango", "banana", "apple",
"orange", "guava", "grapes", "mango"}
new_set.add("s")
print(new_set)

# Output : {'grapes', 'apple', 'mango',
'guava', 'orange', 'banana', 's'}
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# 3.Write a python program to remove
item(s) from a given set.

again_set = {'grapes', 'apple', 'mango',
'guava', 'orange', 'banana', 's'}
again_set.remove('s')
print(again_set)

# Output : {'mango', 'grapes', 'banana',
'orange', 'guava', 'apple'}



# 4.Write a python program to create a
union of sets.

P = {1, 4, 6, 8, 2, 0}
Q = {45, 2, 4, 8, 10, 12, 6}
R = {1, 2, 3}

union_set = P.union(Q,R)        # P | Q | R
print("The union of P and Q,R is:",
union_set)

# Output : The union of P and Q,R is: {0,
1, 2, 3, 4, 6, 8, 10, 12, 45}
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```python
# 5.Write a python program to check if a
set is a subset of another set.

P = {1, 4, 6, 8, 2, 0, 3}
Q = {45, 2, 4, 8, 10, 12, 6}
R = {1,2,3}

check = P.issubset(Q)
print("check whether p is subset of Q or
not :", check)
check_again = R.issubset(P)
print("check whether R is subset of P or
not :", check_again)

# Output : check whether p is subset of Q
or not : False
#          check whether R is subset of P
or not : True
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