**PYTHON EXERCISES- SET 1**

**Numbers**

Q1). Write a program to reverse an integer in Python

Q2). Write a program in Python to check whether an integer is Armstrong number or not.

Q3). Write a program in Python to check given number is prime or not.

Q4). Write a program in Python to print the Fibonacci series using iterative method.

Q5). Write a program in Python to check whether a number is palindrome or not using iterative method.

Q6). Write a program in Python to find greatest among three integers.

Q7). Write a program in Python to check if a number is binary?

Q8). Write a program in Python to find sum of digits of a number

Q9). Write a program in Python to swap two numbers without using third variable?

Q10). Write a program in Python to swap two numbers using third variable?

Q11). Write a program in Python to find prime factors of a given integer.

Q12). Write a program in Python to add two integer without using arithmetic operator?

Q13). Write a program in Python to find given number is perfect or not?

**String**

Q1). Write a method in Python which will remove any given character from a String.

Q2). Write a program in Python to count occurrence of a given character in a String?

Q3). Write a program in Python to check a String is palindrome or not.

**List**

Q1).Remove duplicates elements in the list

ans:

L=[10,2,3,5,3,7,4,2,9]

s=set(L)

L=list(s)

print(L)

output:

[2, 3, 4, 5, 7, 9, 10]

Q2). Sort a list

L=[10,2,3,5,3,7,4,2,9]

s=L.sort()

print(L)

Output:

[2, 2, 3, 3, 4, 5, 7, 9, 10]

Q4). Write a program in Python for, In list 1-100 numbers are stored, one number is missing how do you find it.

Q5). Write a program in Python for, In a list 1-100 multiple numbers are duplicates, how do you find it.

Q6). Write a program in Python for, How to find all pairs in list of integers whose sum is equal to given number.

Q7). Write a program in Python for, How to compare two list is equal in size or not.

Q8). Write a program in Python to find largest and smallest number in a list

Q9). Write a program in Python to find second highest number in a list

**Dictionary:**

Q1) Check if a Given Key Already Exists in Dictionary

eg:

D1 = {'first\_name' : 'Jim', 'age' : 23, 'height' : 6.0 , 'job' : 'developer', 'company': 'XYZ'}

input:enter the key to be serached: first\_name

output: yes

input:enter the key to be serached: jobs

output: no

Q2) Print sum of key-value pairs in the dictionary

D1 = {2: 8, 5: 20, 3: 15}

Output:

Sum of Key-value pairs is = [10, 25, 18]

Q3)Replace Dictionary Values From Other Dictionary

Let’s say you are given two dictionaries. You need to write a python program that will replace the values in the first dictionary with the values from the second dictionary if the key is present in the second dictionary.

Eg:

# initializing D1 - first dictionary

D1 = {'first\_name' : 'Jim', 'age' : 23, 'height' : 6.0 , 'job' : 'developer', 'company': 'XYZ'}

# initializing D2 - - first dictionary

D2 = {'age' : 35, 'job' : 'senior data analyst'}

Output:

dictionary1: {'first\_name': 'Jim', 'age': 35, 'height': 6.0, 'job': 'senior data analyst', 'company': 'XYZ'}

dictionary2: {'age': 35, 'job': 'senior data analyst'}

## **Q4) Delete a List of Keys in a Given Dictionary**

You can do this using the pop() method or using dictionary comprehension. Here’s the solution using the pop() method.

*#deleting list of keys of dictionary*  
D1 = {'jim': 23, 'sam': 29, 'dean': 33, 'micheal': 40}  
   
# Keys to remove  
keys = ["jim", "sam"]  
   
for k **in** keys:  
 D1.pop(k)  
print(D1)

## Q5) **Sort a Given Dictionary by Key**

You need to write a program that will sort the dictionary based on the key. Taking keys type as string, the string takes place in lexicographical order.

Here’s the code!

*#sort a dictionary by key*  
*# Dictionary Initialization*  
D1 = {'Jim': 23, 'Jerry': 29, 'Micheal': 40, 'Merlin': 45, 'Antony': 34}   
res\_dict = sorted(D1.items())  
print(res\_dict)