

**MANAV RACHNA UNIVERSITY, FARIDABAD**

**Department of Computer Science and Technology**

**Course: B.Tech(CSE) Semester:IV Subject: Programming for Problem Solving using Python(CSW208B) Session: 2020-21**

***Lab 6:*** *Operation on Sets : hands-on practice*

***Learning Outcome CO1*:** *Student will be able to implement concepts of Sets in Python*

***Blooms Taxonomy Level****: BT1, BT2*, *BT3*

Sets

Consider the sets: set1 = {10, 20, 30, 40, 50}

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

1. Write a program to create two sets Set1 and Set2 as above.
2. Write a program to add an element 80 to set2.
3. Write a Python program to create a union of set1 and set2.
4. Write a Python program to clear a set1
5. Add a list of elements to a given set

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

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

Expected output:

In set item order is not a concern

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

1. Write a program to find length of a set1.
2. Write a program to remove 30 from set2.
3. WAP to Returns a new set with all items from both sets by removing duplicates
4. Write a program to pop an element from a set
5. Return a set of identical items from a given two Python set

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

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

Expected output:

{40, 50, 30}

1. Determines whether or not the following two sets have any elements in common. If yes display the common elements

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

set2 = {60, 70, 80, 90, 10}

Expected output:

Two sets have items in common

{10}

1. Return a set of all elements in either A or B, but not both

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

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

Expected output:

{20, 70, 10, 60}

1. Given two Python sets, update first set with items that exist only in the first set and not in the second set.

set1 = {10, 20, 30}

set2 = {20, 40, 50}

Expected output:

set1 = {10, 30}

1. Remove 10, 20, 30 elements from a following set at once

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

Expected output:

{40, 50}

1. Update set1 by adding items from set2, except common items

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

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

Expected output:

{70, 10, 20, 60}

1. Remove items from set1 that are not common to both set1 and set2

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

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

Expected output:

{40, 50, 30}