p

HAREESHA H M

AF0364330

python programming

LAB-15 Answers

1. Write a Python program to Get Only unique items from two sets.

Input:

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

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

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

Code:

set1 = {10, 20, 30, 40, 50} #input(set1)as set of elements.

set2 = {30, 40, 50, 60, 70} #input(set2)as set of elements.

unique\_items = set1.union(set2)# Combine the two sets and convert to set to get unique items.

print(unique\_items) #printing the unique items(unique\_items).

Output:

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

 2. Write a Python program to Return a set of elements present in Set A or B, but not both.

Input:

 set1 = {10, 20, 30, 40, 50}

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

Output: {20, 70, 10, 60}

Code:

set1 = {10, 20, 30, 40, 50} #taking input(set1).

set2 = {30, 40, 50, 60, 70} #taking input(set2).

result = set1.symmetric\_difference(set2) #finding the elements present in the set1 or set2 by using symmetric\_difference.

print(result) # printing the result as elements present in the set1 or set2 .

Output:

{20, 70, 10, 60}

3. Write a Python program to Check if two sets have any elements in common. If yes, display the common elements.

Input:

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

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

 Output: {10}

Code:

set1 = {10, 20, 30, 40, 50} #taking input(set1).

set2 = {60, 70, 80, 90, 10}#taking input(set2).

common\_elements = set1.intersection(set2) # Checking if two sets have any elements in common by using intersection.

if common\_elements: # Checking if two sets have any elements in common.

    print(common\_elements) #prints if two sets have any element is common.

else:

    print("No common elements found.")#prints if two sets do not have any element is common.

Output:

{10}

4. Write a Python program to Remove items from set1 that are not common to both set1 and set2.

 Input:

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

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

Output: {40, 50, 30}

Code:

set1 = {10, 20, 30, 40, 50} #taking input(set1).

set2 = {30, 40, 50, 60, 70} #taking input(set2).

set1.intersection\_update(set2)#Removing items from set1 that are not common to both set1 and set2 by using intersection.

print(set1) # printing the set1.

Output:

{40, 50, 30}