………………………………………………………………..Assignment……………………………………………………………..

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}

//code

def unique\_items(set1, set2):

combined\_set = set1 | set2 # Combine both sets using the union

operator |

return combined\_set

set1 = {10, 20, 30, 40, 50} # Input sets

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

print(unique\_items(set1, set2)) # Call the function and print the result

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

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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}

//code

def symmetric\_difference(set1, set2):

# Use the symmetric difference operator ^ to get elements present in set1 or set2, but not both

result\_set = set1 ^ set2

return result\_set

set1 = {10, 20, 30, 40, 50} # Input sets

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

print(symmetric\_difference(set1, set2)) #Call the function and print the result

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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}

//code

def common\_elements(set1, set2):

common\_set = set1 & set2 # Use the intersection operator &

to find common elements

return common\_set

set1 = {10, 20, 30, 40, 50} # Input sets

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

common = common\_elements(set1, set2) # Call the function

if common: # Check if there are any common

elements

print("Common elements:", common)

else:

print("No common elements found.")

output: Common elements: {10}

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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}

//code

def remove\_non\_common(set1, set2):

common\_elements = set1 & set2 # Find common elements between set1

and set2

set1.intersection\_update(set2) # Remove items from set1 that are not

common to both set1 and set2

return set1

set1 = {10, 20, 30, 40, 50} # Input sets

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

set1 = remove\_non\_common(set1, set2) # Call the function

print("Updated set1 after removing non-common elements:", set1) # Print the updated set1

output: Updated set1 after removing non-common elements: {40, 50, 30}

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