SUMANTH S
AF0363570

PYTHON LAB: 15 SETS

Definition:

"A set is an unordered collection of unique elements. It is defined using curly braces {} or the set() constructor."

Questions:

1. Write a Python program to Get Only unique items from two sets.
set1 = {10, 20, 30, 40, 50}
set2 = {30, 40, 50, 60, 70}

```
set1 = {10, 20, 30, 40, 50}
set2 = {30, 40, 50, 60, 70}
unique_items = set1.union(set2) #using union function it will return the all unique elements from both the sets
print(unique_items) # print 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.
set1 = {10, 20, 30, 40, 50}
set2 = {30, 40, 50, 60, 70}

```
set1 = {10, 20, 30, 40, 50}
set2 = {30, 40, 50, 60, 70}
symmetric_difference_items = set1.symmetric_difference(set2) # using symmetric difference function it returns elements from set A and B, But doesn't repeate the common elements
print(symmetric_difference_items) # print Symmetric difference items
```

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.
set1 = {10, 20, 30, 40, 50}
set2 = {60, 70, 80, 90, 10}

```
set1 = {10, 20, 30, 40, 50}
set2 = {60, 70, 80, 90, 10}
common_elements = set1.intersection(set2) # intersection functions returns the common items from both the sets
print(common_elements) # print the common elements
```

Output:
{10}

4. Write a Python program to 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}

```
set1 = {10, 20, 30, 40, 50}
set2 = {30, 40, 50, 60, 70}
not_common_items_in_set1 = set2.intersection(set1) # intersection functions return the common items from both the sets
print(not_common_items_in_set1) # print not common items in set1
```

Output:
{40, 50, 30}