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Batch code: ANP-C9180

Day 15: Set

Set lab questions:
Solve below questions:

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

```python
# Input:
set1 = {10, 20, 30, 40, 50}  # Define the first set of numbers.
set2 = {30, 40, 50, 60, 70}  # Define the second set of numbers.

# Use the union() method to combine both sets, retaining only unique
elements.
result = set1.union(set2)

# Print the unique elements from both sets.
print(f"Only unique (|) items from {set1} and {set2} are:")
print(result)
print("-----------------------------")
```

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

```python
# Input:
set1 = {10, 20, 30, 40, 50}  # Define the first set of numbers.
set2 = {30, 40, 50, 60, 70}  # Define the second set of numbers.

# Find elements present in set1 but not in set2 using set difference.
set3 = set1 - set2
# Find elements present in set2 but not in set1 using set difference.
set4 = set2 - set1

# Print elements unique to set1 and set2.
```

```
print("Set of elements present in Set A but not in B:")
print(set3)
print("Set of elements present in Set B but not in A:")
print(set4)
print("------------------------------")
```

3. Write a Python program to Check if two sets have any elements in common.

```
# If yes, display the common elements.
# Input:
myset1 = {10, 20, 30, 40, 50}  # Define the first set.
myset2 = {60, 70, 80, 90, 10}  # Define the second set.

# Use the intersection operator (&) to check if there are common
elements.
if myset1 & myset2:
    # If common elements exist, display them.
    print("Common element in both sets:", myset1 & myset2)
else:
    # If no common elements exist, print a message.
    print("No common elements present")
print("------------------------------")
```

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}  # Define the first set.
set2 = {30, 40, 50, 60, 70}  # Define the second set.

# Find common elements between set1 and set2 using the intersection
operator (&).
print("Common elements from both sets are: ", set1 & set2)

print("------------------------------")
```

Output:

```
CONSOLE    PREVIEW

Only unique(|) items from {50, 20, 40, 10, 30} and {50, 70, 40, 60, 30} are:
{70, 40, 10, 50, 20, 60, 30}
------------------------------
Set of elements present in Set A but not in B:
{10, 20}
Set of elements present in Set B but not in A:
{60, 70}
------------------------------
Common element in both sets: {10}
------------------------------
Common elements from both sets are:  {40, 50, 30}
------------------------------
>>>
```