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#1.Find Common Elements: Given two lists: list1 = [1, 2, 3, 4] list2 = [3, 4, 5, 6] Find the common elements using a set.

list1 = [1, 2, 3, 4]
list2 = [3, 4, 5, 6]
set1 = set(list1)
set2 = set(list2)
common_elements = set1.intersection(set2)
print(common_elements)
```

⤳ {3, 4}

```
#2.Unique Characters in a String: Write a program to find all unique characters in the string "programming" using a set.

string =  "programming"
unique_characters = set(string)
print(unique_characters)
```

⤳ {'n', 'p', 'm', 'g', 'o', 'r', 'a', 'i'}

```
#3.Union of Sets: Find the union of the sets: set1 = {1, 2, 3} set2 = {3, 4, 5}

set1 = {1, 2, 3}
set2 = {3, 4, 5}
union_set = set1.union(set2)
print(union_set)
```

⤳ {1, 2, 3, 4, 5}

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#4. Intersection of Sets: Find the intersection of the sets: A = {'a', 'b', 'c'} B = {'b', 'c', 'd'}

A = {'a', 'b', 'c'}
B = {'b', 'c', 'd'}
intersection_set = A.intersection(B)
print(intersection_set)
```

⤳ {'c', 'b'}

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#5. Difference of Sets: Find the difference of the sets: X = {1, 2, 3, 4} Y={3,4,5,6}

X = {1, 2, 3, 4}
Y = {3, 4, 5, 6}
difference_set = X.difference(Y)
print(difference_set)
```

⤳ {1, 2}