

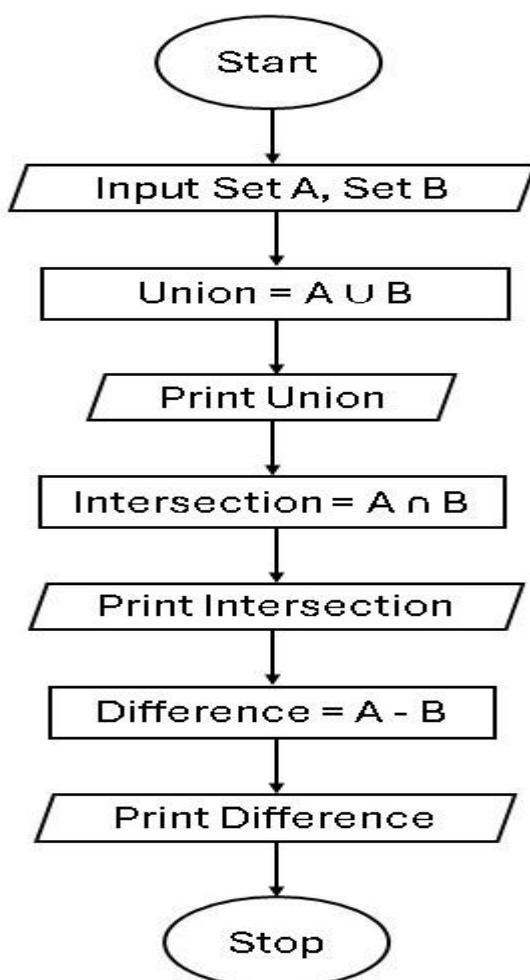
# Experiment 4

## 4.1.1 Set Operations

### Algorithm :

- Step 1 : Start
- Step 2 : Input Set A, Set B
- Step 3 : Union =  $A \cup B$
- Step 4 : Print Union
- Step 5 : Intersection =  $A \cap B$
- Step 6 : Print Intersection
- Step 7 : Difference =  $A - B$
- Step 8 : Print Difference
- Step 9 : Stop

### Flowchart :



# Code :

```
set_a = set(map(int,input("Set A: ").split()))
set_b = set(map(int,input("Set B: ").split()))
union = set_a | set_b
Print("Union: ",union)
intersection = set_a & set_b
Print("Intersection: ",intersection)
difference= set_a - set_b
Print("Difference: ",difference)
```

# Execution :

Logout

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Debugger

Submit

Explorer

setoperati...

```
1 set_a=set(map(int,input("Set A: ").split()))
2 set_b=set(map(int,input("Set B: ").split()))
3 union=set_a | set_b
4 print("Union:",union)
5 intersection= set_a & set_b
6 print("Intersection:",intersection)
7 difference=set_a-set_b
8 print("Difference:",difference)
```

Average time	Maximum time
0.014 s	0.016 s
14.00 ms	16.00 ms

2 out of 2 shown test case(s) passed

2 out of 2 hidden test case(s) passed

Test case 1 16 ms

Test case 2 12 ms

Terminal Test cases

Sample Test Cases +

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## 4.1. Set Operations

Write a Python program to perform union, intersection and difference operations on Set A and Set B.

**Input Format:**

- First Line prompts "Set A:" followed by space-separated list of integers for Set A.
- The second input prompts "Set B:" followed by space-separated list of integers for Set B.

**Output Format:**

- The first line prints "Union:" followed by the union of Set A and Set B.
- The second line prints "Intersection:" followed by the intersection of Set A and Set B.
- The third line prints "Difference:" followed by the difference of Set A and Set B.

**Note:**

- If there is no intersection between the two sets, the program prints an