

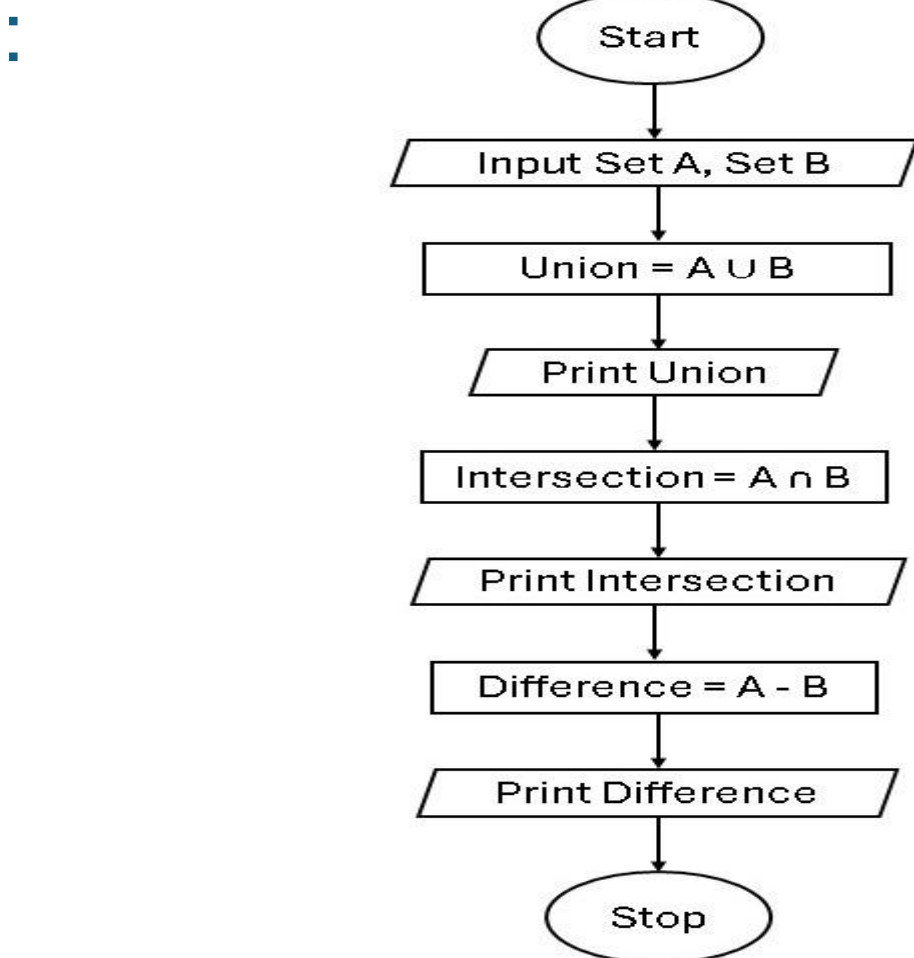
Experiment 4

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

4.1.1, Set Operations

26.08

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Submit

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 empty set, which appears as "set()" in the output.
- Please refer to the visible test cases for better understanding.

Sample Test Cases

+

Explorer

1 Set_A = set(map(int, input("Set A: ").split()))

2 Set_B = set(map(int, input("Set B: ").split()))

3

4 union_set = Set_A | Set_B

5 intersection_set = Set_A & Set_B

6 difference_set = Set_A - Set_B

7

8 print("Union: ", union_set)

9 print("Intersection: ", intersection_set)

10 print("Difference: ", difference_set)

Average time 0.008 s

Maximum time 0.009 s

7.75 ms 9.00 ms

2 out of 2 shown test case(s) passed

2 out of 2 hidden test case(s) passed

Test case 1 7 ms

Expected output

Set A: 0 2 4 5 8

Set B: 1 2 3 4 5

Union: {0, 1, 2, 3, 4, 5, 8}

Intersection: {2, 4, 5}

Difference: {0, 8}

Actual output

Set A: 0 2 4 5 8

Set B: 1 2 3 4 5

Union: {0, 1, 2, 3, 4, 5, 8}

Intersection: {2, 4, 5}

Difference: {0, 8}

Debug

Terminal

Test cases

< Prev

Reset

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