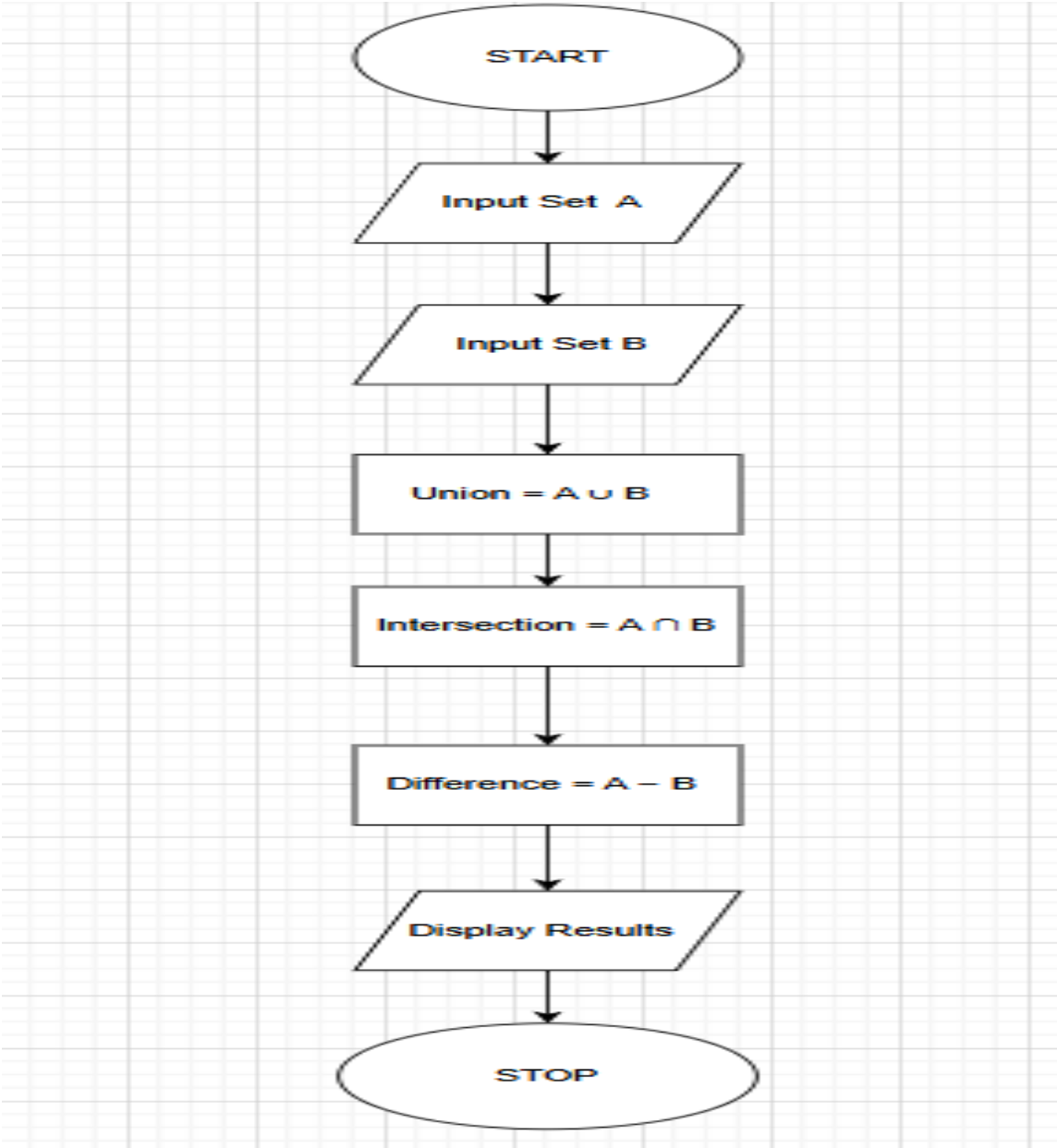
4.1.1 SET OPERATIONS

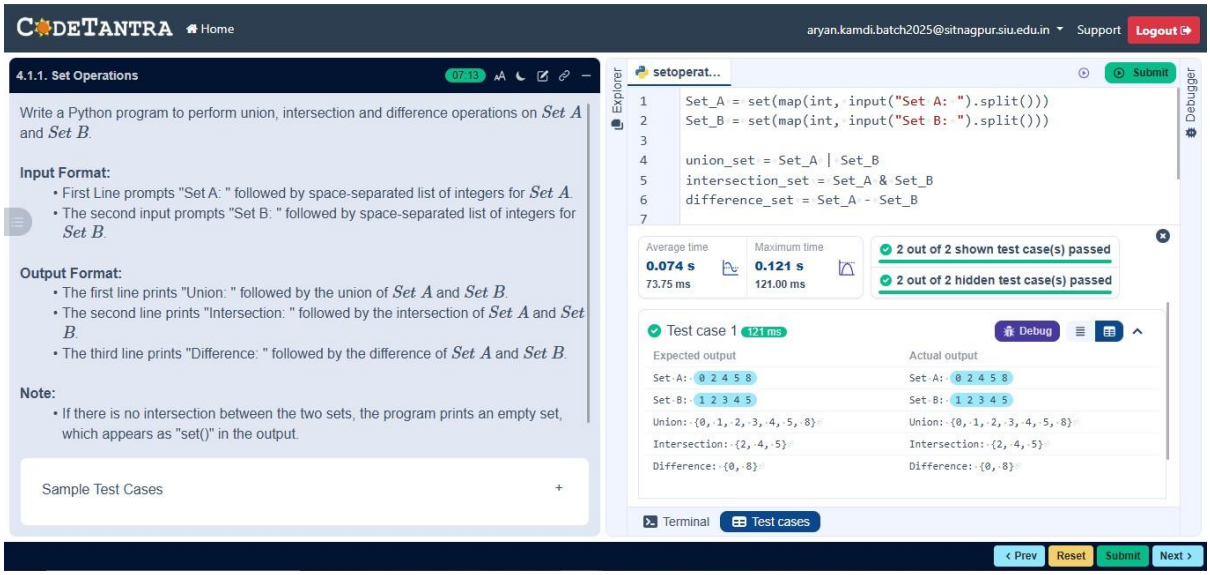
ALGORITHM

Step 1: Start
Step 2: Read elements of **Set A**
Step 3: Read elements of **Set B**
Step 4: Compute **Union** of A and B
Step 5: Compute **Intersection** of A and B
Step 6: Compute **Difference** (A − B)
Step 7: Display Union, Intersection, and Difference
Step 8: Stop

FLOWCHART



PROGRAM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4.1.1. Set Operations
07:13
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.
Sample Test Cases
Explorer
setoperat...
Submit
Debugger
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
Average time
0.074 s
73.75 ms
Maximum time
0.121 s
121.00 ms
2 out of 2 shown test case(s) passed
2 out of 2 hidden test case(s) passed
Test case 1
121 ms
Debug
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}
Terminal
Test cases
‹ Prev
Reset
Submit
Next ›