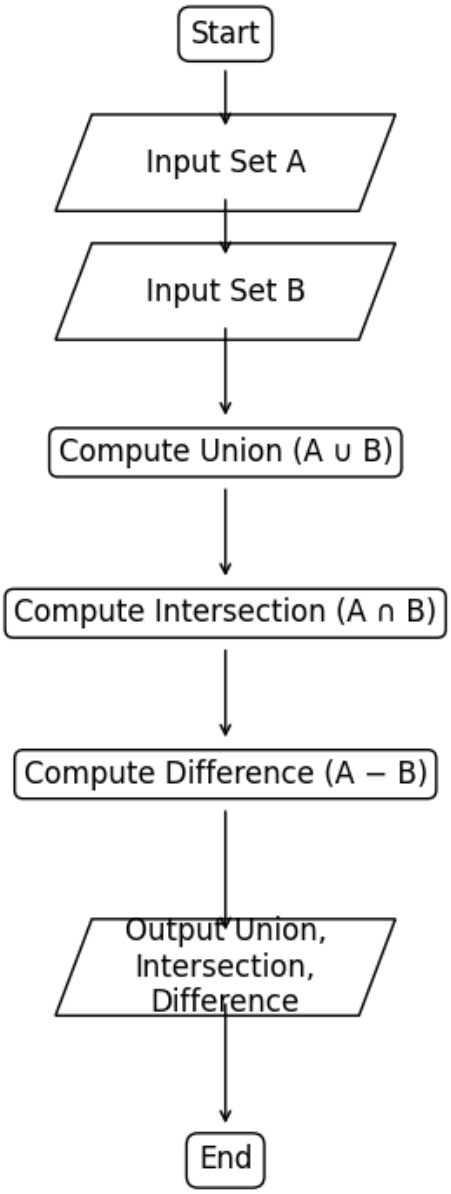
4.1.1

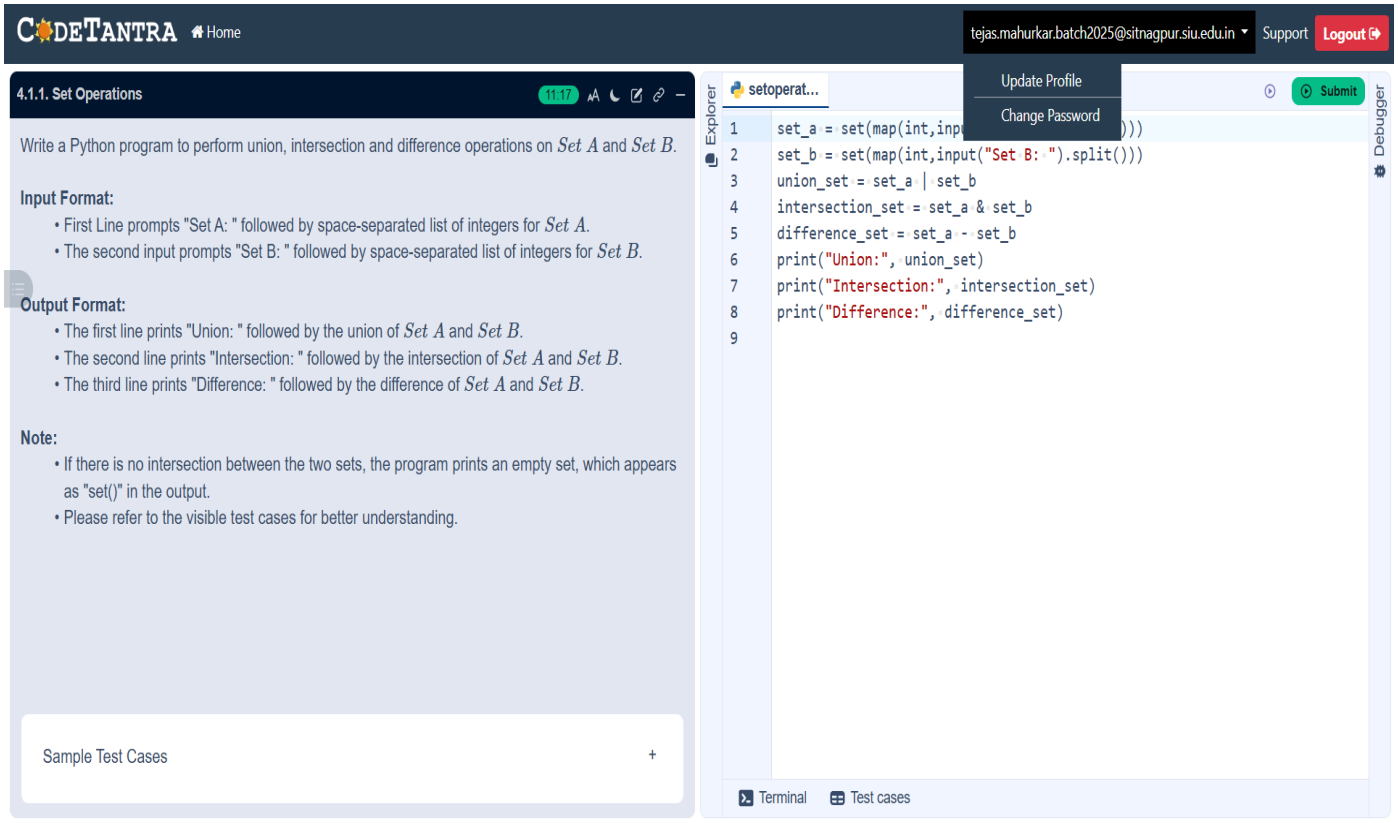
AIM:Write a Python program to perform union, intersection and difference operations on SET A and SETA .

Algorithm: Set Operations (Union, Intersection, Difference)

1. Start
2. Prompt the user to enter elements of Set A as space-separated integers.
3. Read the input and convert it into a set set_a.
4. Prompt the user to enter elements of Set B as space-separated integers.
5. Read the input and convert it into a set set_b.
6. Find the union of set_a and set_b using the union operation.
7. Find the intersection of set_a and set_b using the intersection operation.
8. Find the difference of set_a and set_b (elements present in Set A but not in Set B).
9. Display the union result.
10. Display the intersection result.
11. Display the difference result.
12. Stop


Start
Input Set A
Input Set B
Compute Union (A ∪ B)
Compute Intersection (A ∩ B)
Compute Difference (A − B)
Output Union, Intersection, Difference
End

CODE:


CODETANTRA
Home
tejas.mahurkar.batch2025@sitnagpur.siu.edu.in
Support
Logout
Update Profile
Change Password
4.1.1. Set Operations
11:17
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
setoperat...
Submit
Debugger
1 set_a = set(map(int,inp))))
2 set_b = set(map(int,input("Set B: ").split()))
3 union_set = set_a | set_b
4 intersection_set = set_a & set_b
5 difference_set = set_a - set_b
6 print("Union:", union_set)
7 print("Intersection:", intersection_set)
8 print("Difference:", difference_set)
9
Terminal
Test cases