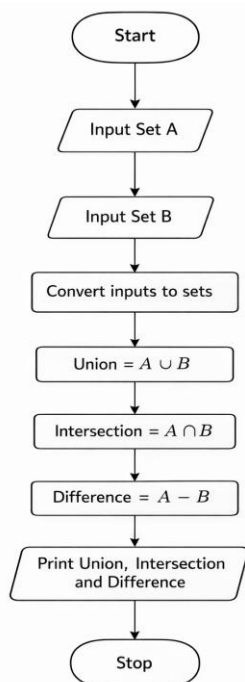


4.1.1. Set Operations

ALGORITHM:

1. Start
2. Read elements of Set A as space-separated integers.
3. Read elements of Set B as space-separated integers.
4. Convert the inputs into two sets set_a and set_b.
5. Find Union of Set A and Set B.
6. Find Intersection of Set A and Set B.
7. Find Difference of Set A and Set B.
8. Print Union, Intersection, and Difference.
9. Stop

FLOWCHART:



CODE:

```
# Read input

set_a_input = input("Set A: ").split()

set_b_input = input("Set B: ").split()

# Convert to sets of integers

set_a = set(map(int, set_a_input))

set_b = set(map(int, set_b_input))

# Perform set operations

union_set = set_a | set_b

intersection_set = set_a & set_b

difference_set = set_a - set_b

# Print results

print("Union:", union_set)

print("Intersection:", intersection_set)

print("Difference:", difference_set)
```

CODETANTRA:

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4.1.1. Set Operations05:11

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*.

Sample Test Cases

setoperat...

```
1 # Read input
2 set_a_input = input("Set A: ").split()
3 set_b_input = input("Set B: ").split()
4
5 # Convert to sets of integers
6 set_a = set(map(int, set_a_input))
7 set_b = set(map(int, set_b_input))
8
9 # Perform set operations
10 union_set = set_a | set_b
11 intersection_set = set_a & set_b
12 difference_set = set_a - set_b
13
14 # Print results
15 print("Union:", union_set)
16 print("Intersection:", intersection_set)
17 print("Difference:", difference_set)
18
19
```

TerminalTest cases

Submit

< PrevResetSubmitNext >

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4.1.1. Set Operations05:11

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*.

Sample Test Cases

setoperat...

```
1 # Read input
2 set_a_input = input("Set A: ").split()
3 set_b_input = input("Set B: ").split()
4
```

Average time0.011 s10.75 ms

Maximum time0.015 s15.00 ms

2 out of 2 shown test case(s) passed

2 out of 2 hidden test case(s) passed

Test case 115ms

Debug

Expected output

Actual output

Set A: {0, 2, 4, 5, 8}Set A: {0, 2, 4, 5, 8}

Set B: {1, 2, 3, 4, 5}Set B: {1, 2, 3, 4, 5}

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

Intersection: {2, 4, 5}Intersection: {2, 4, 5}

Difference: {0, 8}Difference: {0, 8}

TerminalTest cases

Submit

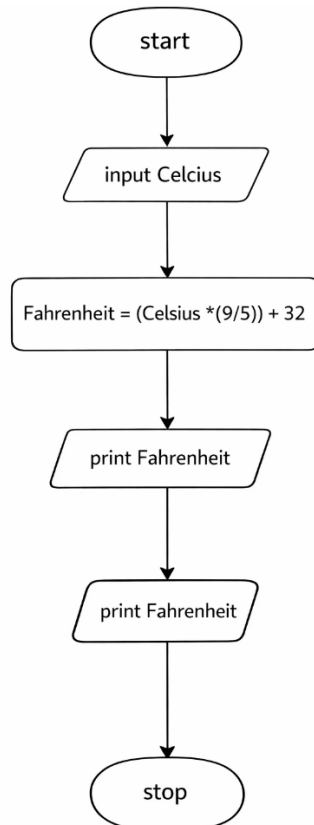
< PrevResetSubmitNext >

3.1.2. Celsius to Fahrenheit

ALGORITHM:

- 1 Start
- 2 Read the temperature in Celsius as a floating-point number.
- 3 Convert the temperature to Fahrenheit using the formula:
- 4 $\text{Fahrenheit} = (\text{Celsius} \times \frac{9}{5}) + 32$
- 5 Display the temperature in Fahrenheit formatted to 2 decimal places.
- 6 Stop

FLOWCHART:



CODE:

```
celsius = float(input())  
  
fahrenheit = (celsius * 9/5) + 32  
  
print(f"{fahrenheit:.2f}")
```

CODETANTRA:

The screenshot displays the CODETANTRA web interface. The top navigation bar includes the logo, a home link, a user profile (ira.handa.batch2025@sitnagpur.siu.edu.in), support, and a logout button. The main content area is titled "3.1.2. Celsius to Fahrenheit" and contains the following instructions:

Write a Python program to convert temperature from Celsius to Fahrenheit.

Formula:
$$\text{Fahrenheit} = \left(\text{Celsius} \times \frac{9}{5}\right) + 32$$

Input Format:
• Single line contains a float value representing the temperature in Celsius.

Output Format:
• Print the temperature in Fahrenheit as a float value formatted to 2 decimal places.

Below the instructions is a "Sample Test Cases" section with a plus icon. To the right, the code editor shows the following Python code:

```
1 celsius = float(input()) # Read temperature in Celsius  
2 fahrenheit = (celsius * 9/5) + 32 # Convert to Fahrenheit  
3 print(f"{fahrenheit:.2f}") # Print result formatted to 2 decimal places
```

The code is submitted, and the results are shown:

- Average time: 0.010 s (9.63 ms)
- Maximum time: 0.027 s (27.00 ms)
- 4 out of 4 shown test case(s) passed
- 4 out of 4 hidden test case(s) passed

The test cases are listed below:

Test Case	Expected output	Actual output
Test case 1 (7 ms)	0.0	0.0
Test case 2 (4 ms)	32.00	32.00
Test case 3 (11 ms)		

At the bottom, there are buttons for "Terminal", "Test cases", "Prev", "Reset", "Submit", and "Next".