

Experiment 3: Conditional Statements

3.6. WAP using ternary operator, the user should input the length and breadth of a rectangle, one has to find out which rectangle has the highest perimeter. The minimum number of rectangles should be three.

Ans-:

```
#include <stdio.h>

int main() {
    printf("Name - Aryan kamboj\nSAP ID - 590025526\ncourse - BCA\nBatch - 6");
    printf("\n-----\n");
    int l1, b1, l2, b2, l3, b3;
    int p1, p2, p3, max;

    printf("Enter length and breadth of Rectangle 1: ");
    scanf("%d %d", &l1, &b1);
    printf("Enter length and breadth of Rectangle 2: ");
    scanf("%d %d", &l2, &b2);
    printf("Enter length and breadth of Rectangle 3: ");
    scanf("%d %d", &l3, &b3);

    p1 = 2 * (l1 + b1);
    p2 = 2 * (l2 + b2);
    p3 = 2 * (l3 + b3);

    // Ternary operator to find maximum
    max = (p1 > p2) ? ( (p1 > p3) ? p1 : p3 )
          : ( (p2 > p3) ? p2 : p3 );

    printf("\nPerimeter 1 = %d", p1);
    printf("\nPerimeter 2 = %d", p2);
    printf("\nPerimeter 3 = %d", p3);

    printf("\n\nLargest Perimeter = %d\n", max);

    if (max == p1) printf("Rectangle 1 has the highest perimeter.\n");
    else if (max == p2) printf("Rectangle 2 has the highest perimeter.\n");
    else printf("Rectangle 3 has the highest perimeter.\n");

    return 0;
}
```

Output :

```
1st January 2025 07:10:10 is Wednesday
aryankamboj@users-MacBook-Air lab_4 % cd "/Users/aryankamboj/Desktop/c_programming_theory/lab_4/" && gcc
3.6.c -o 3.6 && "/Users/aryankamboj/Desktop/c_programming_theory/lab_4/"3.6
Name - Aryan kamboj
SAP ID - 590025526
course - BCA
Batch - 6
=====
Enter length and breadth of Rectangle 1: 1 2
Enter length and breadth of Rectangle 2: 4 5
Enter length and breadth of Rectangle 3: 1 3

Perimeter 1 = 6
Perimeter 2 = 18
Perimeter 3 = 8

Largest Perimeter = 18
Rectangle 2 has the highest perimeter.
```