

PRACTICAL NO:-5

- **Aim:** Odd/Even check using if-else, Max of three numbers (nested if), Ternary operator, Switch-case

- **1. If-Else Statement :-**

- The if-else statement is used for conditional checking.
- It allows the program to execute one block when the condition is true and another when it is false.

Example use-case: checking whether a number is odd or even.

- **2. Nested If :-**

- Nested if-else statements allow comparing multiple values.
- This structure is commonly used when determining the maximum among several numbers.

- **3. Ternary Operator (?:)**

- It is a shorthand form of an if-else decision.
- It evaluates a condition and returns one of the two values.
- **Format:** condition ? value_if_true : value_if_false;

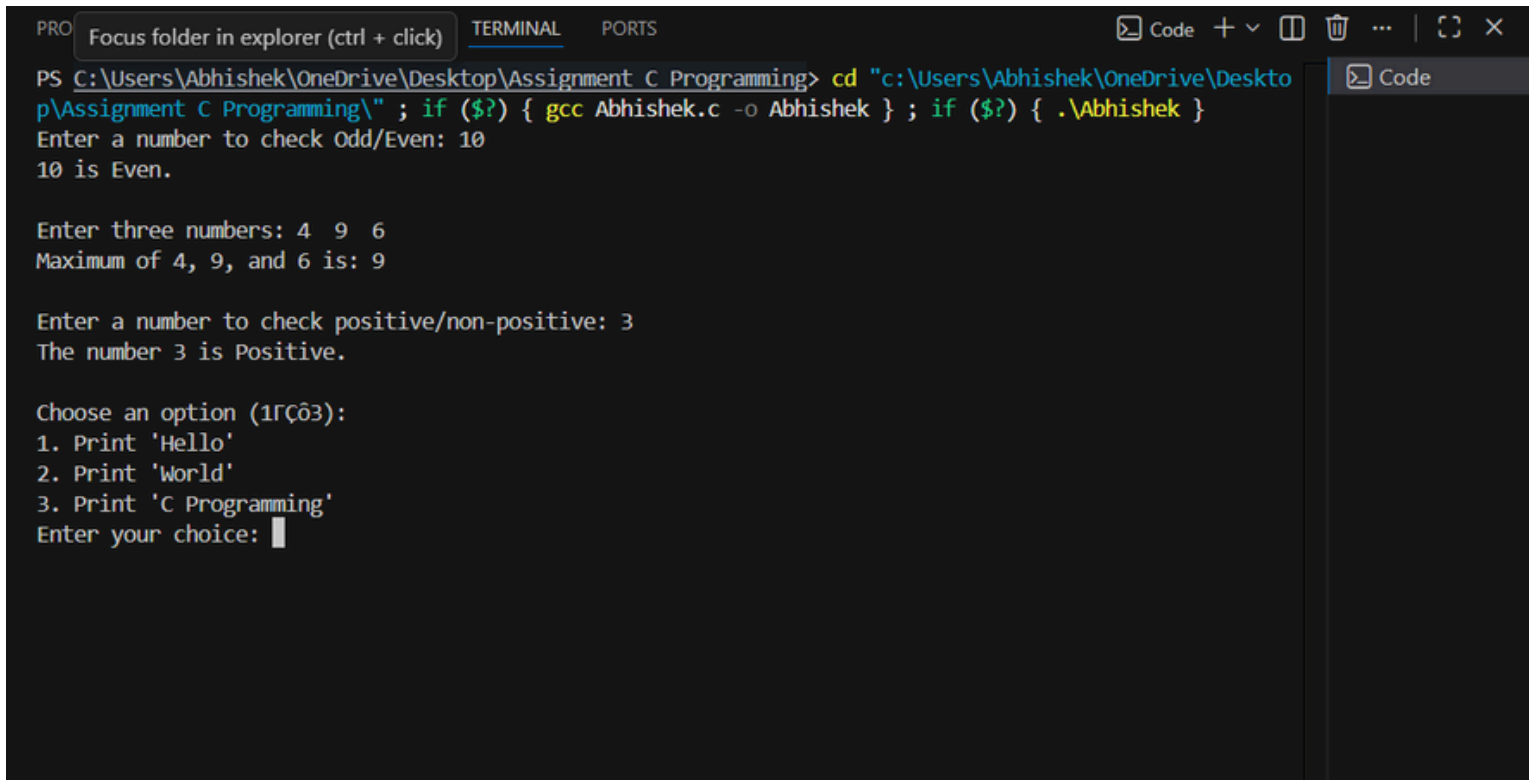
- **4. Switch-Case Statement**

- The switch-case statement is used to choose one action from multiple options based on the value of a variable.

• CODE :-

```
Welcome C Abhishek.c •
C Abhishek.c > main()
1  #include <stdio.h>
2
3  int main() {
4
5      // 1. Odd/Even check using if-else
6      int num;
7      printf("Enter a number to check Odd/Even: ");
8      scanf("%d", &num);
9
10     if (num % 2 == 0) {
11         printf("%d is Even.\n", num);
12     } else {
13         printf("%d is Odd.\n", num);
14     }
15
16     // 2. Maximum of three numbers (nested if)
17     int a, b, c, max;
18     printf("\nEnter three numbers: ");
19     scanf("%d %d %d", &a, &b, &c);
20
21     if (a >= b && a >= c) {
22         max = a;
23     } else if (b >= a && b >= c) {
24         max = b;
25     } else {
26         max = c;
27     }
28
29     printf("Maximum of %d, %d, and %d is: %d\n", a, b, c, max);
30
31     // 3. Ternary operator
32     int n;
33     printf("\nEnter a number to check positive/non-positive: ");
34     scanf("%d", &n);
35
36     char* result = (n > 0) ? "Positive" : "Non-Positive";
37     printf("The number %d is %s.\n", n, result);
38
39     // 4. Switch-case
40     int choice;
41     printf("\nChoose an option (1-3):\n");
42     printf("1. Print 'Hello'\n");
43     printf("2. Print 'World'\n");
44     printf("3. Print 'C Programming'\n");
45     printf("Enter your choice: ");
46     scanf("%d", &choice);
47
48     switch (choice) {
49         case 1:
50             printf("Hello\n");
51             break;
52
53         case 2:
54             printf("World\n");
55             break;
56
57         case 3:
58             printf("C Programming\n");
59             break;
60
61         default:
62             printf("Invalid choice\n");
63     }
64
65     return 0;
66 }
```

• OUTPUT :-



The screenshot shows a Windows Command Prompt window with the title bar 'PRO Focus folder in explorer (ctrl + click)'. The terminal window has tabs for 'TERMINAL' and 'PORTS'. The command prompt shows the following commands and output:

```
PS C:\Users\Abhishek\OneDrive\Desktop\Assignment C Programming> cd "c:\Users\Abhishek\OneDrive\Desktop\Assignment C Programming\" ; if ($?) { gcc Abhishek.c -o Abhishek } ; if ($?) { .\Abhishek }
Enter a number to check Odd/Even: 10
10 is Even.

Enter three numbers: 4 9 6
Maximum of 4, 9, and 6 is: 9

Enter a number to check positive/non-positive: 3
The number 3 is Positive.

Choose an option (1-3):
1. Print 'Hello'
2. Print 'World'
3. Print 'C Programming'
Enter your choice: 1
```

Conclusion :-

- This experiment demonstrates the use of:
- If-Else for odd/even checking
- Nested If for finding the maximum among three numbers
- Ternary Operator for concise decision-making
- Switch-Case for selecting actions based on user input