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.

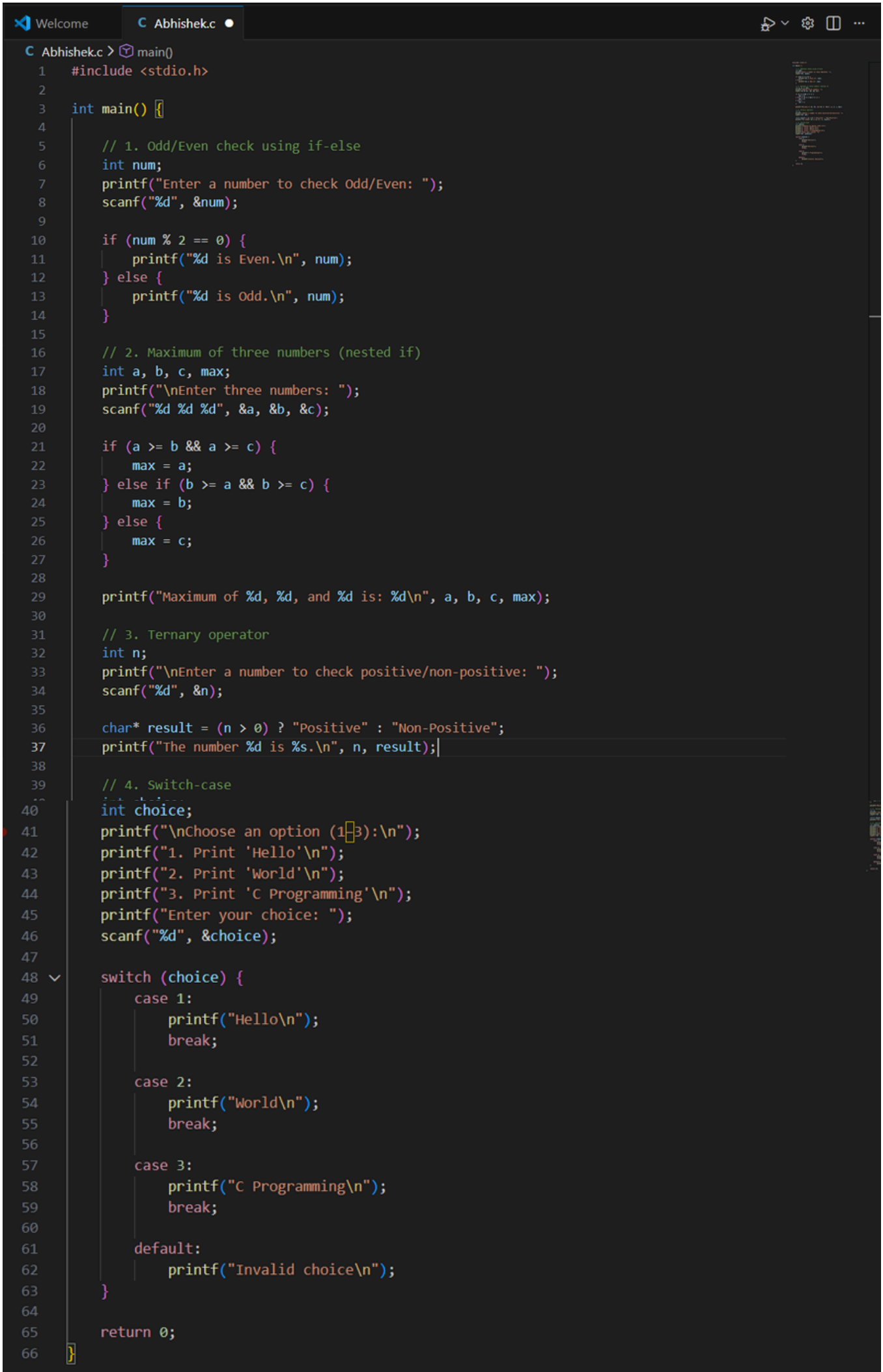
- **2. Nested If :-**
- **Nested if-else statements allow comparing multiple values.**
- **This structure is commonly used when determining the maximum among several numbers.**

- **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;**

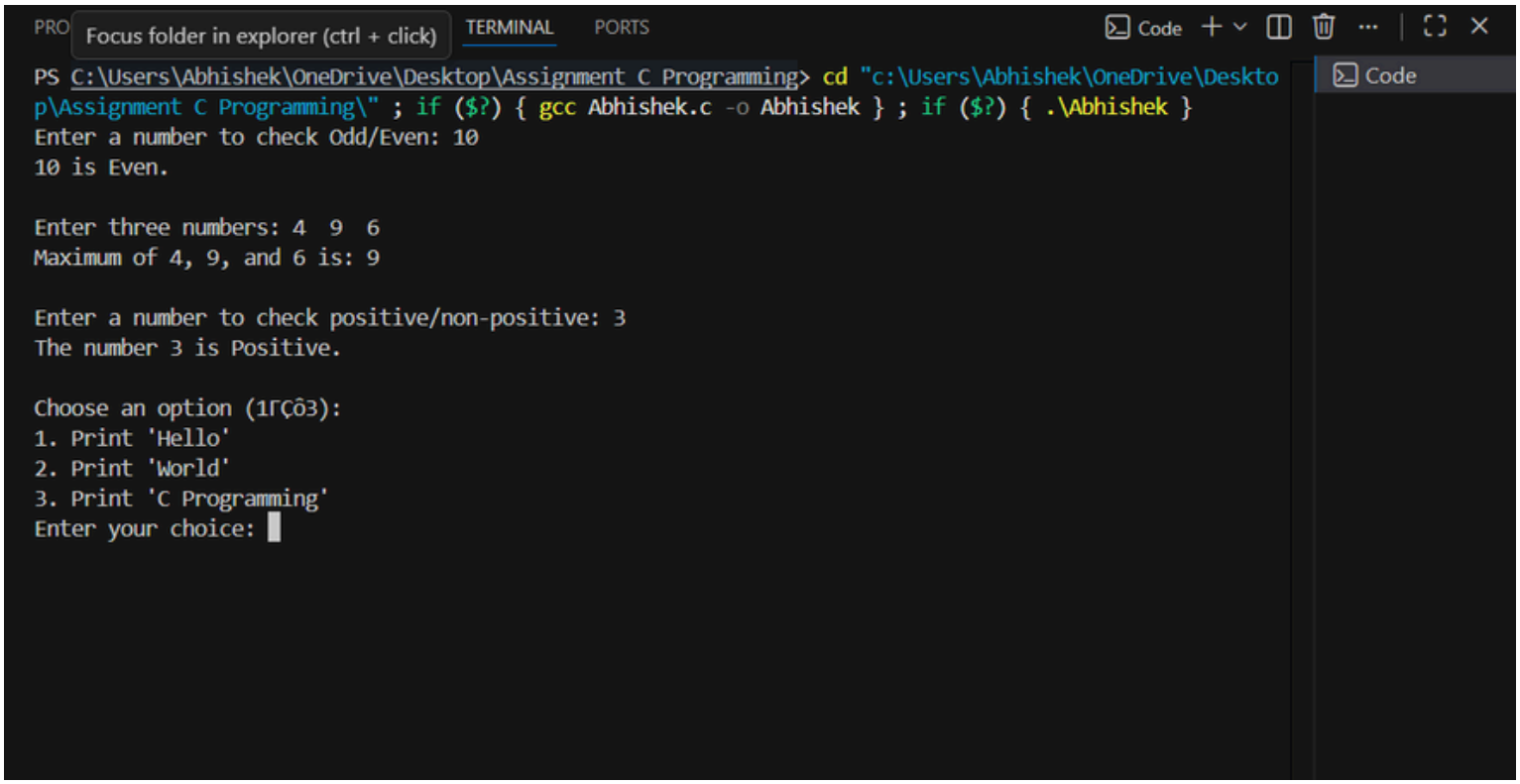
- **4. Switch-Case Statement**
- **The switch-case statement is used to choose one action from multiple options based on the value of a variable.**

- **CODE :-**



```c
#include <stdio.h>

int main() {

    // 1. Odd/Even check using if-else
    int num;
    printf("Enter a number to check Odd/Even: ");
    scanf("%d", &num);

    if (num % 2 == 0) {
        printf("%d is Even.\n", num);
    } else {
        printf("%d is Odd.\n", num);
    }

    // 2. Maximum of three numbers (nested if)
    int a, b, c, max;
    printf("\nEnter three numbers: ");
    scanf("%d %d %d", &a, &b, &c);

    if (a >= b && a >= c) {
        max = a;
    } else if (b >= a && b >= c) {
        max = b;
    } else {
        max = c;
    }

    printf("Maximum of %d, %d, and %d is: %d\n", a, b, c, max);

    // 3. Ternary operator
    int n;
    printf("\nEnter a number to check positive/non-positive: ");
    scanf("%d", &n);

    char* result = (n > 0) ? "Positive" : "Non-Positive";
    printf("The number %d is %s.\n", n, result);

    // 4. Switch-case
    int choice;
    printf("\nChoose an option (1-3):\n");
    printf("1. Print 'Hello'\n");
    printf("2. Print 'World'\n");
    printf("3. Print 'C Programming'\n");
    printf("Enter your choice: ");
    scanf("%d", &choice);

    switch (choice) {
        case 1:
            printf("Hello\n");
            break;

        case 2:
            printf("World\n");
            break;

        case 3:
            printf("C Programming\n");
            break;

        default:
            printf("Invalid choice\n");
    }

    return 0;
}
```

- **OUTPUT :-**



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