COLLEGE OF ENGINERING AND COMPUTER STUDIES

PERFORMANCE TASK #1

[Odd or Even scheme]

Subject Code / Description
CPFL – Fundamentals of Programming Lab

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Course & Section
BSCS 1-1

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I. INTRODUCTION

A. Problem Description

Your task it to write a real, interactive, odd/even number scheme. Logically the program will tell if the number is odd or even number for a series of int inputs.

B. Objectives

- using the while loop and if conditional statement;
- and improve your skills in building interactive programs with loops.

II. CONCEPTUAL FRAMEWORK

INPUT	PROCESS	OUTPUT
Range	`cout << "Enter a range of number:";` `cin >> N;`	**Range**
Number/s	`cout << "Enter a number/s :";` `cin >> N1 >> N2 >> N3 >> N4 >> N5;`	**Number/s**

III. I/O SCREEN SHOTS

INPUT:

```cpp
//Name          : Mike Villegas
//Activity Name: PT 1
//Description   : Odd or even scheme
//Date          : 10/10/21


#include <iostream>
using namespace std;

int main() {
    int N;
    int N1, N2, N3, N4, N5;

    cout << "Enter a range of number:";
    cin >> N;

    do{
        if (N == 5) //If range entered is 5
        {
            cout << "Enter a number/s :";
            cin >> N1 >> N2 >> N3 >> N4 >> N5;


            if (N1 % 2 == 0 )
            {
                cout << N1 << " IS EVEN\n";
            }
            else
            {
                cout << N1 << " IS ODD\n";
            }

            if (N2 % 2 == 0 )
            {
                cout << N2 << " IS EVEN\n";
            }
            else
            {
                cout << N2 << " IS ODD\n";
            }

            if (N3 % 2 == 0 )
            {
                cout << N3 << " IS EVEN\n";
            }
            else
            {
                cout << N3 << " IS ODD\n";
            }

            if (N4 % 2 == 0 )
            {
                cout << N4 << " IS EVEN\n";
            }
            else
            {
                cout << N4 << " IS ODD\n";
            }

            if (N5 % 2 == 0 )
            {
                cout << N5 << " IS EVEN\n";
            }
            else
            {
                cout << N5 << " IS ODD\n";
            }

        }

        else if (N == 4)//If range entered is 4
        {
            cout << "Enter a number/s :";
            cin >> N1 >> N2 >> N3 >> N4;


            if (N1 % 2 == 0 )
            {
                cout << N1 << " IS EVEN\n";
            }
            else
            {
                cout << N1 << " IS ODD\n";
            }

            if (N2 % 2 == 0 )
            {
                cout << N2 << " IS EVEN\n";
            }
            else
            {
                cout << N2 << " IS ODD\n";
            }

            if (N3 % 2 == 0 )
            {
                cout << N3 << " IS EVEN\n";
            }
            else
            {
```

```
                cout << N3 << " IS ODD\n";
            }

            if (N4 % 2 == 0 )
            {
                cout << N4 << " IS EVEN\n";
            }
            else
            {
                cout << N4 << " IS ODD\n";
            }
        }

        else if (N == 3)//If range entered is 3
        {
            cout << "Enter a number/s :";
            cin >> N1 >> N2 >> N3;

            if (N1 % 2 == 0 )
            {
                cout << N1 << " IS EVEN\n";
            }
            else
            {
                cout << N1 << " IS ODD\n";
            }

            if (N2 % 2 == 0 )
            {
                cout << N2 << " IS EVEN\n";
            }
            else
            {
                cout << N2 << " IS ODD\n";
            }

            if (N3 % 2 == 0 )
            {
                cout << N3 << " IS EVEN\n";
            }
            else
            {
                cout << N3 << " IS ODD\n";
            }
        }

        else if (N == 2)//If range entered is 2
        {
            cout << "Enter a number/s :";
            cin >> N1 >> N2;

            if (N1 % 2 == 0 )
            {
                cout << N1 << " IS EVEN\n";
            }
            else
            {
                cout << N1 << " IS ODD\n";
            }

            if (N2 % 2 == 0 )
            {
                cout << N2 << " IS EVEN\n";
            }
            else
            {
                cout << N2 << " IS ODD\n";
            }
        }

        else if (N == 1)//If range entered is 1
        {
            cout << "Enter a number/s :";
            cin >> N1;

            if (N1 % 2 == 0 )
            {
                cout << N1 << " IS EVEN\n";
            }
            else
            {
                cout << N1 << " IS ODD\n";
            }
        }

        else//If range entered is not within the limit
        {
            cout << "Invalid Input! Only enter numbers [1-5]";
        }


    }
    while(N = 0);


    return 0;
}
```

OUTPUT:

```
Enter a range of number:5
Enter a number/s :15 23 58 49 65
15 IS ODD
23 IS ODD
58 IS EVEN
49 IS ODD
65 IS ODD
PS C:\Users\63997\Downloads>
```

```
Enter a range of number:3
Enter a number/s :864 531 654
864 IS EVEN
531 IS ODD
654 IS EVEN
PS C:\Users\63997\Downloads>
```

```
Enter a range of number:0
Invalid Input! Only enter numbers [1-5]
PS C:\Users\63997\Downloads>
```

```
Enter a range of number:4
Enter a number/s :32 89 456 357
32 IS EVEN
89 IS ODD
456 IS EVEN
357 IS ODD
PS C:\Users\63997\Downloads>
```

IV. PROGRAM SOURCE CODE (Main Logic Only)

```
if (N == 5) //If range entered is 5
        {
            cout << "Enter a number/s :";
            cin >> N1 >> N2 >> N3 >> N4 >> N5;


            if (N1 % 2 == 0 )
            {
                cout << N1 << " IS EVEN\n";
            }
            else
            {
                cout << N1 << " IS ODD\n";
            }

            if (N2 % 2 == 0 )
            {
                cout << N2 << " IS EVEN\n";
            }
            else
            {
                cout << N2 << " IS ODD\n";
            }

            if (N3 % 2 == 0 )
            {
                cout << N3 << " IS EVEN\n";
            }
            else
            {
                cout << N3 << " IS ODD\n";
            }

            if (N4 % 2 == 0 )
            {
                cout << N4 << " IS EVEN\n";
            }
            else
            {
                cout << N4 << " IS ODD\n";
```

```
        }

        if (N5 % 2 == 0 )
        {
            cout << N5 << " IS EVEN\n";
        }
        else
        {
            cout << N5 << " IS ODD\n";
        }

    }
```

V. GitHub ACTIVITY LINK

https://github.com/MikeVillegas00/Activities/blob/master/PT1.cpp

VI. LEARNING OUTCOMES

I learned the use of modulo operator and setting up range thresholds.

VII. REFERENCES

https://www.programiz.com/cpp-programming/do-while-loop

https://www.sanfoundry.com/cpp-program-check-given-integer-even-or-odd/