EXPERIMENT NO 7

Do while loop in C++

Objectives:

- Learn the syntax of do while loop and how & when to use it in C++
- Understand the differences between for loop, while Loop and do while loop

Equipment required:

- Dev-C++/Eclipse/Visual Studio installed in PC/Windows

DISCUSSION

1. Pre-Lab

Do while loop
Syntax

```
do
{
  statement;
  statement;
  // Place as many statements here
  // as necessary.
} while (expression);
```

Do while loop will always execute at least once, and after the first execution it will check the condition whether to repeat or not, but remember the first iteration will always execute, On the contrary, for and while loop first check the condition, if the condition is not true, the loop will not execute even for the first time.

Preferences
1. Always prefer while loop when you do not know about the exact number of iterations.
   Example

```
int i=1;
While(i){
cout<<"enter 0 to exit or any other to continue"<<endl;
Cin>>i;

}
```

2. Use Do while loop when you know you must execute the code at least once and can repeat after certain condition is True.
3. Use For loop when you know the exact number of iterations.

2. **Post-Lab (Lab Tasks)**

1. Write a program that finds the average marks of three test scores of a student. After the average is displayed, your program should ask the user if he or she wants to average another set of test scores. The program repeats as long as the user enters Y for yes.

2. Make a calculator that takes 2 numbers and operation type (+, -, /, *) from the user. Take the input again if the user enters the operation type not listed above. You should provide the user with an option to repeat for other calculations or to close the program.

3. Write a program that displays back-counting from 10 to i using do-while loop

END