LAB MANUAL 04

CONDITIONAL STATEMENTS (IF-ELSE)

Lab Objectives:

At the end of this lab students will know about

- **What is the purpose of conditional statements?**
- **How to use if else in C++ programs**

The if statement

The if statement can be used to test conditions so that we can alter the flow of a program. In other words: if a specific statement is true, execute some instructions. If not true, execute these instructions**.**

In the following example the user can input a number. The number is stored in the variable A. Now take a look at the "if statement": if the number stored in the variable A is equal to ten, then "is equal" is printed on the screen. Simple, isn't it. If the number is not equal to ten, then nothing is printed.

Take a look at the example:

#include <iostream>

using namespace std;

int main()

{

int a;

cout<< "enter number=";

cin>> a;

if(a==10)

cout<< "a is equal to 10";

return 0;

}

Now we like to also print something if the "if statement" is not equal. We could do this by adding another "if statement" but there is an easier / better way. Which is using the so called **"else statement"** with the "if statement".

#include<iostream>

```cpp
using namespace std;

int main()
{
        int a;

        cin >> a;

        if ( a == 10 )

                {

                        cout << " a is equal to 10" << '\n';

                        cout << "closing program" << '\n';

                }

                else

                {

                        cout << " a is not equal to 10" << '\n';

                        cout << "closing program" << '\n';

                }

                return 0;

        }
```

Question #01

Write a C++ program that tells the user that the number entered is less than or greater than 10?

Question #02

Write a C++ program that tells the user that the number entered is even or odd?

Question #03

Write a menu driven C++ program that ask the user to choose the type in which he wants the output?

Either he wants to convert the entered Celsius temperature in to Fahrenheit or Kelvin?

Question #04

Write a program to compare following strings with each other and display which string is smaller.

string str1 = "Hello";

string str2 = "Hi";

string str3 = "Air";

string str4 = "Bill";

string str5 = "Big";

Question #05

According to your grading system mark the user entered numbers as Grade A, B, C, D, F?

Question # 06

Write a program to implement all conditions of lecture # 7 (Slide:19 & 20) and display results.

Variables are given below.

EXAMPLE 4-5

Suppose you have the following declarations:

```
bool found = true;
bool flag = false;
int num = 1;
double x = 5.2;
double y = 3.4;
int a = 5, b = 8;
int n = 20;
char ch = 'B';
```