AL-MUSTAQBAL UNIVERSITY

College of Science

Section: Cyber Security

Subject Name : Programming Basics

Topic Name: Report For (If statement)

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If Statement

The if conditional is a fundamental part of the C++ language and is used to make decisions based on the values of variables. It allows us to execute certain code if a certain condition is met, otherwise it will be ignored.

Conditional structure (if):

```
if (condition) {
   // Commands that execute if the condition is true
} else {
   // Commands that are executed if the condition is false
}
```

Note: The condition is written in parentheses () after the word if.

If the condition is true, commands inside the brackets {} will be executed.

If the condition is false, commands inside the brackets {} after else will be executed.

Example:

```
#include <iostream>
using namespace std;

int main() {
   int x = 5;
```

If Statement

```
    if (x > 3) {


  cout << "x is greater than 3" << endl;
    } else {
        cout << "x is less than or equal to 3" << endl;
    }


    return 0;
}
```

In this example, if x is greater than 3, “x is greater than 3” will be printed, otherwise “x is less than or equal to 3” will be printed.

- ## Can an if condition be included inside a case in switch?

  Yes, the if conditional can be used inside a case in a switch statement in C++. :For example, you can write the condition inside the condition as follows

```
#include <iostream>
using namespace std;


int main() {
    int x = 10;


    switch (x) {
```

```
        case 1:
            cout << "The value is equal to 1" << endl;
            break;
        case 2:
            cout << "The value is 2" << endl;
            break;
        default:
            if (x > 5) {
                cout << "The value is greater than 5" << endl;
            } else {
                cout << "The value is less than or equal to 5" << endl;
            }
            break;
    }

    return 0;
}
```

In this example, if x is greater than 5, “Value greater than 5” will be printed, otherwise “Value less than or equal to 5” will be printed as 1.