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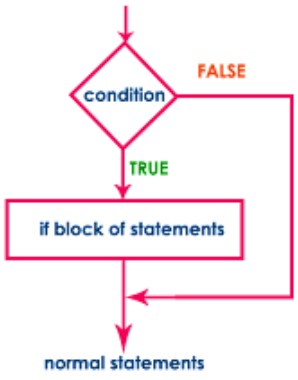
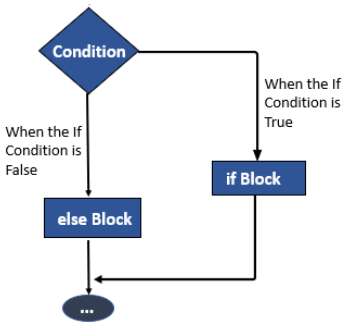
CONTROL STATEMENTS

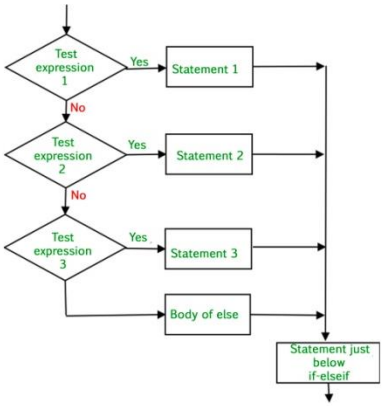
- **STATEMENT:** Statements are the instructions given to the computer to perform any kind of action. Action may be in the form of data movement, decision making etc.
- **COMPOUND STATEMENT:** A compound statement is a grouping of statements in which each individual statement ends with a semi-colon. The group of statements are called block. Compound statements are enclosed between the pair of curly braces "{ }".
- **NULL STATEMENT:** Writing only a semicolon indicates a null statement. This statement is generally used in for and while looping statements.
- **CONDITIONAL STATEMENT:** C++ provides the following statements for implementing the selection control structure:
  - **'if ' statement**



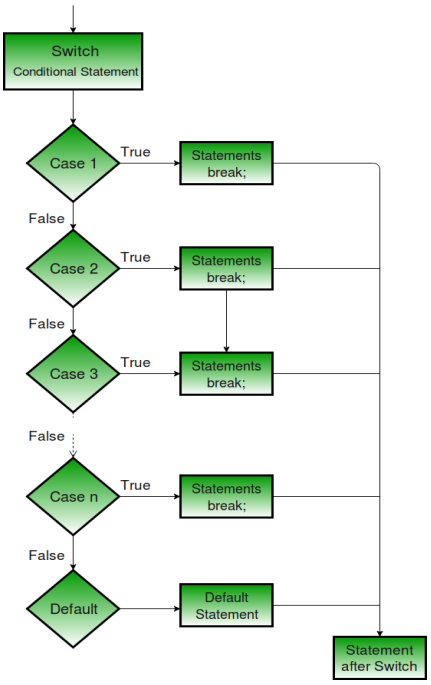
  - **'if else' statement**



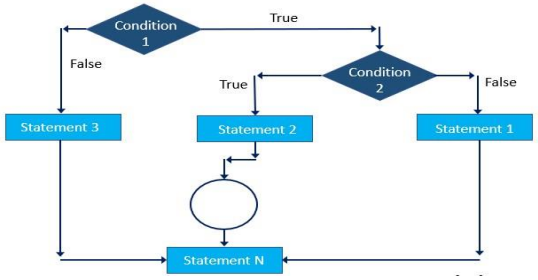
  - **'if-else if.. else**



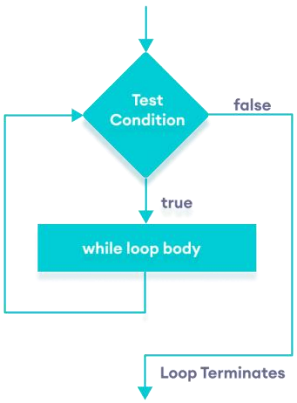
  - **'switch' statement**



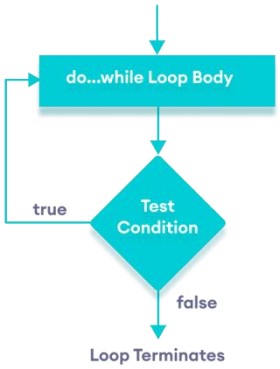
  - **'nested if' statement**



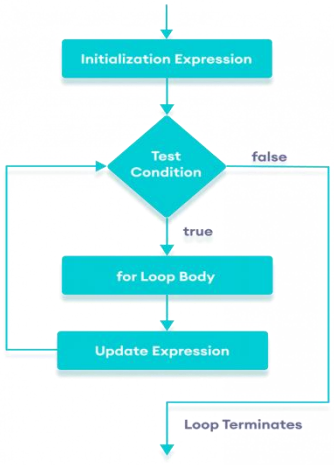
- **LOOP CONSTRUCT:** It is also called a repetitive / iterative control structure. Sometimes we require a set of statements to be executed a number of times by changing the value of one or more variables each time to obtain a different result. This type of program execution is called looping. C++ provides the following constructs:
  - **while loop**



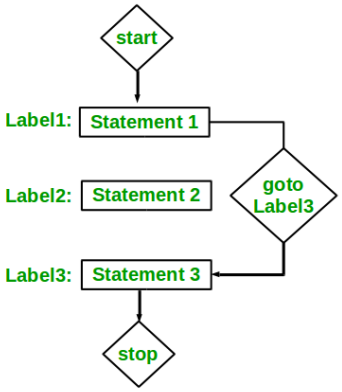
  - **do - while loop**



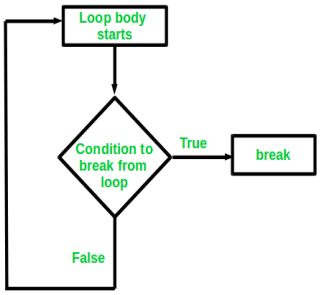
  - **for loop**



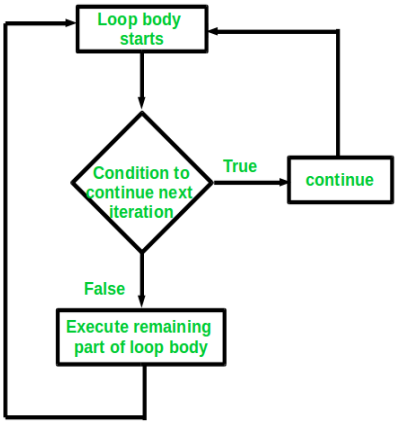
- **JUMP STATEMENT:** The jump statements unconditionally transfer program control to another statement elsewhere in program code. You can use the following statements in a program to (Jump statements) to transfer program control from one statement to another statement:
  - **Goto statement**



  - **Break statement**



  - **Continue statement**



- **EXIT FUNCTION**: The execution of a program can be stopped at any point with exit ( ) and a status code can be informed to the calling program. The general format is exit (code); where code is an integer value. The code has a value 0 for correct execution

CHECK YOURSELF

1. Decision Control statements in C++ can be implemented using
   A. If
   B. if-else
   C. Conditional Operator
   D. All of the above

2. What will be the output of the following code:

```
#include<iostream.h>
using namespace std;
int main() {
   if(0) {
      cout<<"Hello";
       }
   Else
      {
      Cout<<"Good Bye";
      }
   Return 0;
}
```

   A. Hello
   B. Good Bye
   C. HelloGood bye
   D. Compilation Error

3. If you have to make decision based on multiple choices, which of the following is best suited?
   A. If
   B. if-else
   C. if-else-if
   D. All of the above

4. What is the way to suddenly come out of or quit any loop in C++?
   A. continue; statement
   B. break; statement
   C. leave; statement
   D. quit; statement

5. Which of the following is an entry-controlled loop?
   A. For loop
   B. while loop
   C. do-while loop
   D. both B & C

STRETCH YOURSELF

1. What is the difference between if-else and if-else-if statement?
2. What is the use of Exit function?
3. Write a program in C++ to demonstrate difference between while and do-while loop?
4. Explain the use of for loop using an example?

ANSWERS

Answers to Check Yourself:

1. D
2. B
3. C
4. B
5. D