

Decision-making statements:

Decision-making statements are the statements that are used to verify a given condition/expression and decides whether a block of statements gets executed or not, based on the condition/expression result.

In the C programming language, there are two decision-making statements they are as follows.

1. Simple if statement
2. if-else statement
3. Nested if statement
4. if-else-if statement (if-else ladder)
5. switch statement.

Simple if statement

Simple if statement is used to verify the given condition and executes a statement or block of statements based on the condition result. The simple if statement evaluates specified condition. If it is TRUE, it executes the next statement or block of statements.

If the condition is FALSE, it skips the execution of the next statement or block of statements. The general syntax and execution flow of the simple if statement is as follows.

Syntax

```
If(condition)
{
    .....
    Block of statements
    .....
}
```

The if statement evaluates the test expression inside the parenthesis ().

- If the test expression is evaluated to be true, the statement or the blocks of statements following if, are executed.
- If the test expression is evaluated to false, the statement or the blocks of statements following if, are not executed.

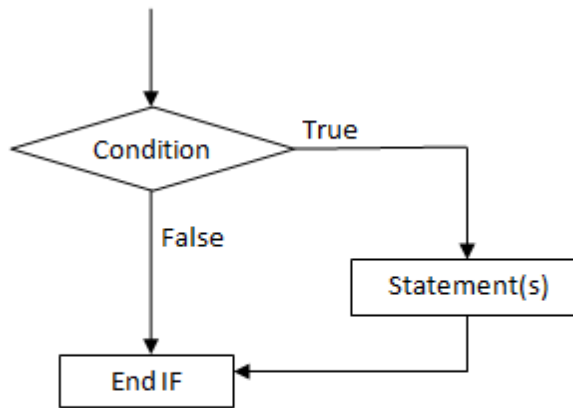


fig: Flowchart for if statement

Program :-

```
#include <stdio.h>
int main()
{
    int n ;
    printf("Enter any integer number: ") ;
    scanf("%d", &n) ;
    if ( n%5 == 0 )
        printf("Given number is divisible by 5\n") ;
    printf("Hello") ;
}
```

Output 1:-

```
Enter any integer number: 5
Given number is divisible by 5
Hello
```

Output 2:-

```
Enter any integer number: 6
Hello
```