

Conditional Branching and Loops

UNIT-1

BASICS

Conditional Statements in C programming are used to make decisions based on the conditions.

In order to write useful programs, we almost always need the ability to check conditions and change the behavior of the program accordingly. Conditional statements give us this ability.

Conditional Statement

If-else

Switch

if

```
if( condition )  
{  
    //true  
}
```

if-else

```
if( condition )  
{  
    //true  
}  
else  
{  
    //false  
}
```

if-else if

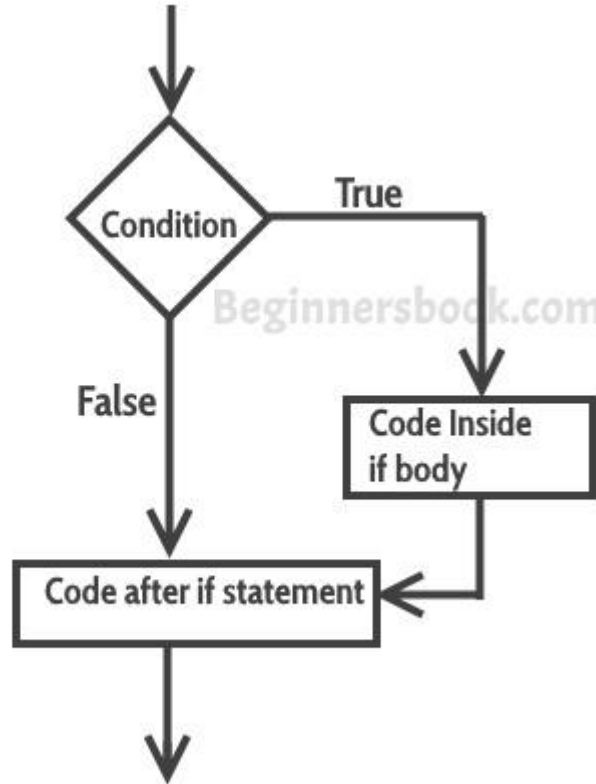
```
if( condition 1 )  
{  
    //true  
}  
else if( condition 2 )  
{  
    //true  
}  
else  
{  
}
```

Nested if

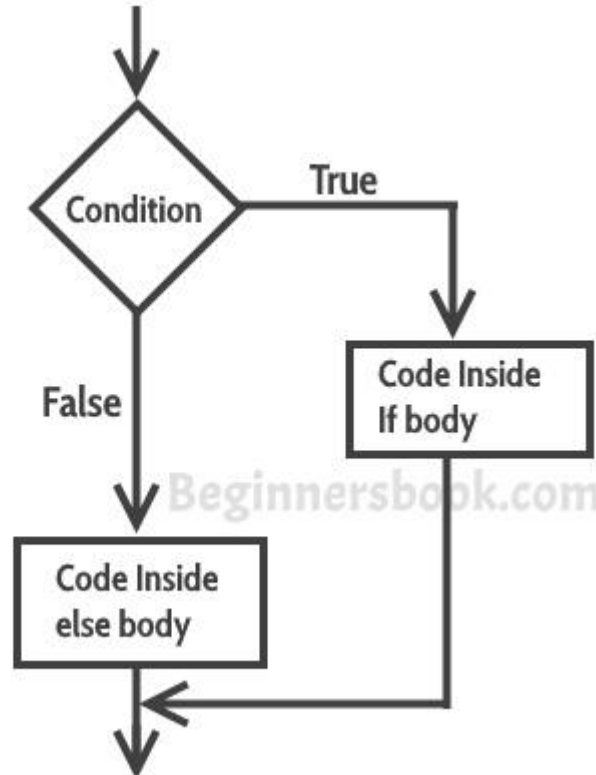
```
if( condition 1 )  
{  
    if(condition)  
    {  
    }  
    else  
    {  
    }  
}  
else  
{  
    if(condition)  
    {  
    }  
    else  
    {  
    }  
}
```

```
switch( expression )  
{  
    case 1:  
        break;  
    case 2:  
        break;  
    case 3:  
        break;  
    default;  
}
```

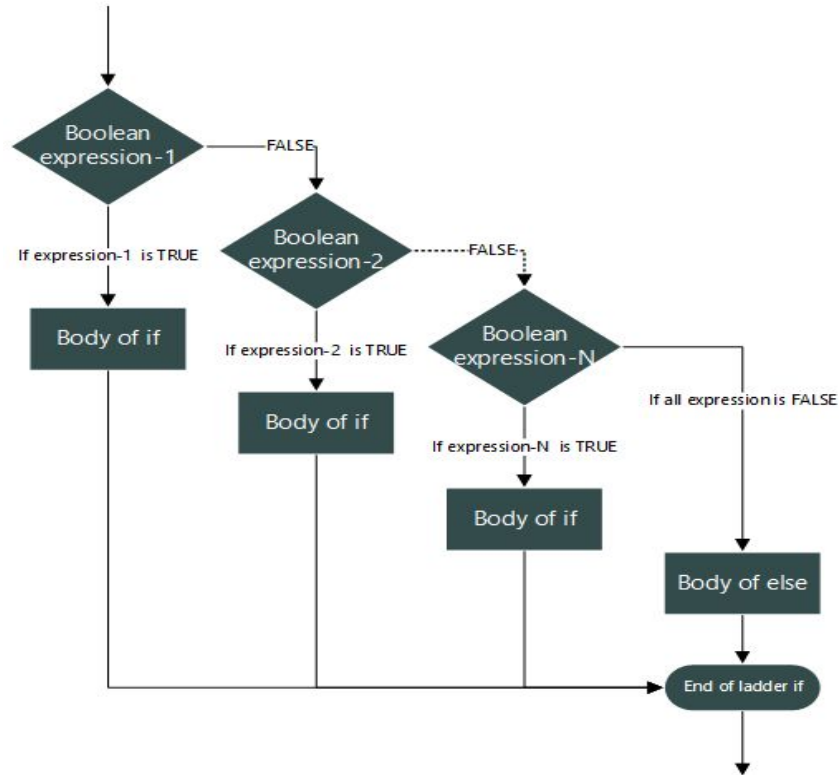
Flow diagram of if statement



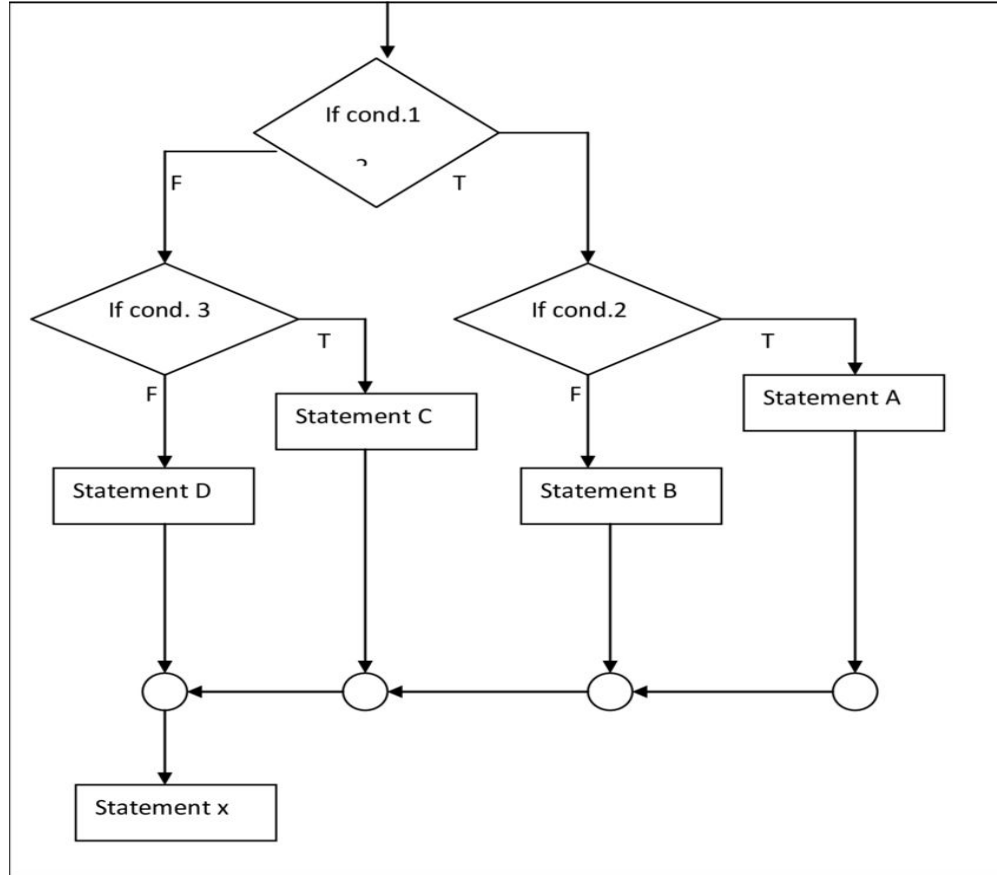
Flow diagram of `if else` statement



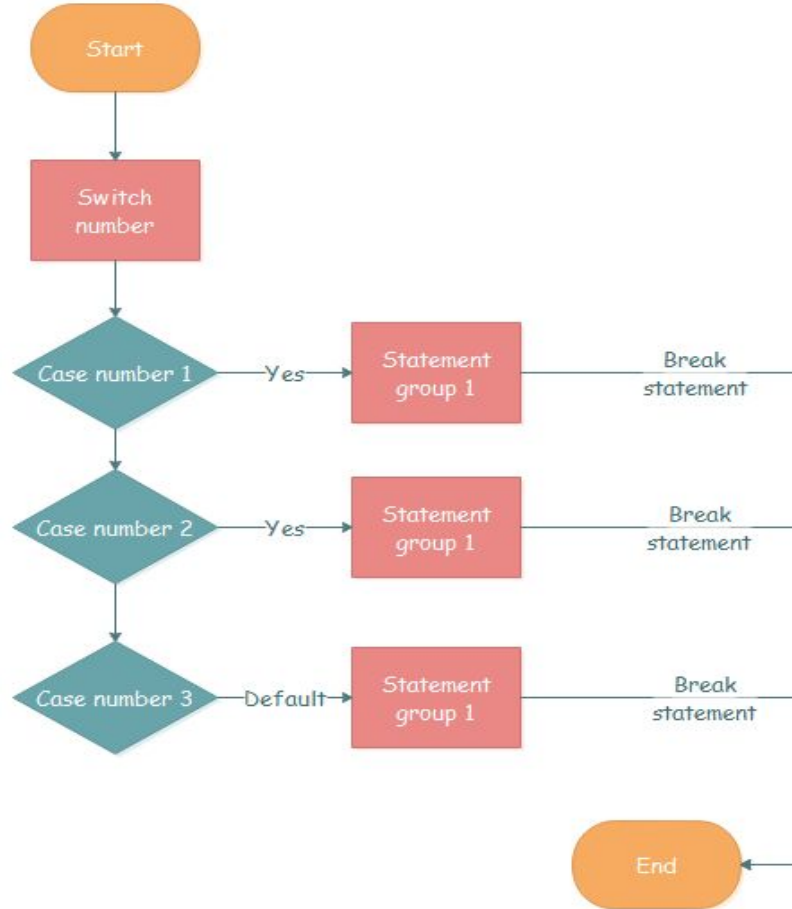
Flow diagram of if - else if -else statement



Flow diagram of nested if statements



Flow diagram of switch statement:



Loops

```
for (initializationStatement; testExpression; updateStatement)  
{  
    // statements inside the body of loop  
}
```