SWITCH STATEMENT

alternative to else if ladder

Switch Statement:
What You Need to Know

The switch statement allows us to execute one code block among many alternatives.

You can do the same thing with the if...else..if ladder.

However, the syntax of the switch statement is much easier to read and write.

The switch statement is used to perform different actions based on different conditions.

Switch case and default

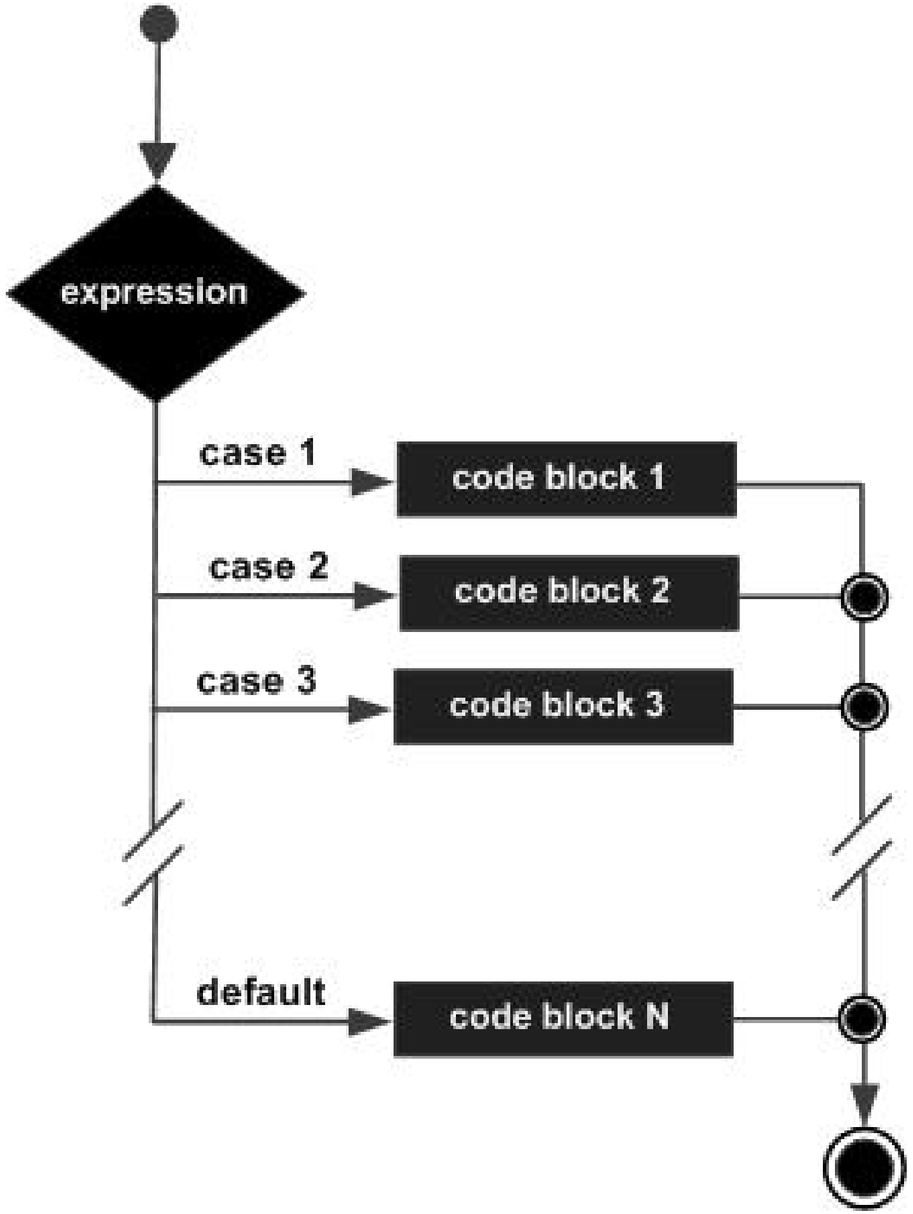
Use the switch case statement to select one of many code blocks to be executed and default chooses the last statement which does not match any case.

```
switch(expression) {
  case x:
    // code block
    break;
  case y:
    // code block
    break;
  default:
   // code block
}
```

This is how it works:

- The switch expression is evaluated once.
- The value of the expression is compared with the values of each case.
- If there is a match, the associated block of code is executed.
- If there is no match, the default code block is executed.

Flow Chart


expression
case 1
code block 1
case 2
code block 2
case 3
code block 3
default
code block N

Some Important Points

Duplicate case values are not allowed.

// Constant expressions allowed
switch(1+2+23)
switch(1*2+3%4)

// Variable expression are allowed provided
// they are assigned with fixed values
switch(a*b+c*d)
switch(a+b+c)

```
// Following is a simple C++ program
// to demonstrate syntax of switch.
include <iostream>
using namespace std;

int main() {
int x = 2;
    switch (x)
    {
        case 1:
            cout << "Choice is 1";
            break;
        case 2:
            cout << "Choice is 2";
            break;
        case 3:
            cout << "Choice is 3";
            break;
        default:
            cout << "Choice other than 1, 2 and 3";
            break;
    }
return 0;
}
```

Demo Program

```
#include<iostream>
using namespace std;
int main()
{
   int n1,n2;
   cout<<"enter n1"<<endl;
   cin>>n1;
   cout<<"enter n2"<<endl;
   cin>>n2;
   switch(n1>n2)
   {
      case 0:
         cout<<n1<<"is not greater"<<endl;
         break;
      case 1:
         cout<<n1<<"is greater"<<endl;
         break;
      default:
         cout<<"invalid"<<endl;
   }
}
```

Program with **switch**

Program to find the maximum of 2 numbers

Practice Problem

C++ Program to find the maximum between three numbers.
Using the switch statement.

Let US TRY THIS :)

🙏 THANK YOU 🙏

keep calm,
wear mask,
and
study hard

ISSUED IN PUBLIC INTEREST

whoami

AKASH MAJI

Your Mentor