

## The Structure of `switch` statements

The `switch` statement is similar to an `if-else` ladder. It is used to choose from among many courses of action depending on the value of a particular variable (which must be an integer or a character. Some newer compilers are allowing string). The syntax is as follows:

```
switch(switchvariable)
{
    case firstvalue:  statement(s);
                      break;
    case secondvalue: statement(s);
                      break;

    [more cases optional]

    [default:         statement(s) ;]
}
```

Because this syntax may appear rather opaque, we present the following example:

```
int usernumber, option=4;
cout << "Enter your user number: ";
cin >> usernumber;

switch (usernumber)
{
    case 0:   cout << "You are the null user!" << endl;
              break;
    case 42:  if(option==1)
                cout << "You are all-knowing!" << endl;
              else
                cout << "You are almost all-knowing!" << endl;
              break;
    case 999: cout << "You are the superuser!" << endl;
              break;
    default:  cout << "You are some random user." << endl;
}
```

The default clause is optional. The `break` statement is important—without it, the appropriate statements **and all statements that follow it are executed**. In the example above, if there were no `break` statement, the “null user” would see all four messages. All code written after the case is listed will be executed up to the `break`, so loops, `if-else` etc. may be used.