

Chapter 4 Conditional Statements

In some program that asks you to type a password, it checks your password. If your password is incorrect, the computer shows “Wrong Password.” Otherwise, some other tasks will be done. For example, login to the Window XP.

Another example is using computer to generating your exam report to get an overall grade which depends on the average marks.

if...statement:

```
if (Boolean expression) statement;
```

```
if (Boolean expression) {  
    statement1;  
    statement2;  
    ...  
    statementN;  
} // No semi-colon here
```

Left one is the first kind of conditional statement, **only one statement** is belong to the **if...statement**.

If we want to have multiple conditional statements, we can do as like the right one. All statements within the **if...statement** will be executed only when the expression has a **true** value. *Nothing will be done when the expression is **false**.*

If...else statement:

```
if (Boolean expression) statement_true; else statement_false;
```

In the **if...else statement**, the *statement_true* part will be executed when the expression is **true**, afterwards, skips the *statement_false* part. Otherwise, skips the *statement_true* part and execute the *statement_false*.

Similarly, we can use a pair of { } to enclose multiple statements.

Nested-If:

```
if (Boolean expression1) if (Boolean expression2) state_1; else state_2; else state_3;
```

There can be many and many **if...statements**, **if...else statements**.

Programming Examples:

From Ch4_01.cpp to Ch4_07.cpp

Reference Link:

<http://www.geocities.com/learnprogramming123/Clesson5Beginner.htm>

<http://www.geocities.com/learnprogramming123/Clesson7Beginner.htm>

http://gd.tuwien.ac.at/languages/c/programming-bbrowne/c_025.htm

http://www.cppreference.com/operator_precedence.html