If statement

Relational operators:

<table>
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<tr>
<th>Operator</th>
<th>Description</th>
<th>Example</th>
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</thead>
<tbody>
<tr>
<td>&gt;</td>
<td>greater than</td>
<td>5 &gt; 4 is TRUE</td>
</tr>
<tr>
<td>&lt;</td>
<td>less than</td>
<td>4 &lt; 5 is TRUE</td>
</tr>
<tr>
<td>&gt;=</td>
<td>greater than or equal</td>
<td>4 &gt;= 4 is TRUE</td>
</tr>
<tr>
<td>&lt;=</td>
<td>less than or equal</td>
<td>3 &lt;= 4 is TRUE</td>
</tr>
<tr>
<td>==</td>
<td>equal to</td>
<td>5 == 5 is TRUE</td>
</tr>
<tr>
<td>!=</td>
<td>not equal to</td>
<td>5 != 4 is TRUE</td>
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</table>

Basic if-statement syntax:

if (boolean expression is TRUE) {
    Execute one statement;
}

Here is a simple example that shows the syntax:

if (5 < 10) {
    cout << "Five is now less than ten, that's a big surprise"
}

Basic if-statement syntax for compound statements:

if (boolean expression is TRUE) {
    Execute one statement;
    Execute another statement;
    So on;
}

**Else If statement**

**Basic else-if statement syntax:**

```plaintext
if ( <condition> ) {
    // Execute these statements if <condition> is TRUE
} else if ( <another condition> ) {
    // Execute these statements if <another condition> is TRUE and
    // <condition> is FALSE
}
```

**Sample program:**

```c
#include <iostream>
using namespace std;

int main() {
    int age; // Need a variable...
    cout<<"Please input your age: "; // Asks for age
    cin>> age; // The input is put in age
    if (age < 100) {
        cout<<"You are pretty young!\n"; // Just to show you it works...
    } else if (age == 100) { // I use else just to show an example
        cout<<"You are old\n"; // Just to show you it works...
    } else { // Executed if no other statement is
        cout<<"You are really old\n";
    }
}
```