**Break vs. Return**

In the "Introduction to Objects" section, I mentioned that it's OK to declare an empty return statement when a method returns void.  As a reminder, the following is odd (not really something you'd see in the "real world"), but legal:

public void doSomething() {

return;

}

Now that you've been introduced to conditional statements, you can see some "real world" example of how this might be used.  In these examples, if a condition is true, we don't want to do any additional processing so we return out of the method.  This is different than "break," which would only cause us to break out of a loop or switch statement (rather than the entire method). I will say, however, I'm not a big fan of having return statements in the middle of a method... Having multiple exit points can lead to hard to read, if not buggy, code.

In any case, here are some legal examples of returning when the method's return type is void.

public void doSomething() {

if( isTrue ) {

return; // Exits the entire method

} else {

// Do some work...

}

// Do some work if we didn't already

// return out of the method...

}

and...

public void doSomething() {

switch (someVariable) {

case 0: {

return; // exits the entire method

}

case 1: {

// Do some work...

break; // exits the switch

}

case 2: {

// Do some work...

break; // exits the switch

}

}

// If we didn't return out of the method

// do some more work...

}

**Variable Scope**

Just like if / else if / else statements, any variables declared inside of a case are local to that code block.

switch (someVariable) {

case 0: {

// Declaration (rather than reference)

String msg = "Hello!";

break;

}

}

System.out.println(msg); // ILLEGAL

So make sure any variables you want to reference outside of the switch were also declared outside of the switch:

String msg = null; // Declaration

switch (someVariable) {

case 0: {

msg = "Hello!"; // Reference

break;

}

}

System.out.println(msg); // Legal

**Switch Content**

One final note: the only legal members of a switch statement are "case" and "default" statements.  For example, you can't have variables declared:

switch (someVariable) {

String msg = "Hello"; // ILLEGAL

case 0: {

msg = "Hello!";

break;

}

default: {

msg = "Hey!";

break;

}

}