Conditional (if) Statements: Branching Statements

Before actually discussing if statements, you should check out this brief web tutorial on logical operators to refresh your memory on how they work:

http://www.java-made-easy.com/logical-operators.html

Conditional/branching statements in Java use the reserved word `if`. These statements in Java are the same as the if statements we use in our everyday lives. If something happens then some result will occur.

if (some Boolean expression is true) then
    Something happens
Otherwise
    Something else happens
end if

Let’s look at a real example.

```java
int age;
if (age >= 18) {
    System.out.println("You can vote");
}
```

A few things to note:

the { is then in Java if statements, and the } is end if
We don’t actually need an else statement. If we don’t have one, and the Boolean expression is not true, then nothing will happen (as in the example above - for example if age was 15).

We can make something happen if the Boolean expression is false by adding an else.

```java
int age;
if (age >= 18) {
    System.out.println("You can vote");
} else {
    System.out.println("You cannot vote…");
}
```
System.out.println("Yay!");

**Note:** Regardless of the result of the if statement the word “yay” will be printed because it is outside the if statement.

Now, sometimes you may have to deal with other conditions that occur. In that case, it may not be as simple as either one thing happens, or another thing happens. You need to use an if…else if…else. See the example below.

```java
if (x > 0) {
    System.out.println("x is positive");
} else if (x < 0) {
    System.out.println("x is negative");
} else {
    System.out.println("x is 0");
}
```

In this example, a number is either positive, negative, or equal to zero. So, we have to check to see if the number is > 0, or if the number is < 0. If neither of these if statements are true, we go to the else statement.

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We can also have situations where we need to use what are called nested if statements. Check out this video tutorial that reviews if statements and talks about nested if statements.