**if Statements & Comparison Operators**

When using **if statements** - no matter if inside or outside of functions - as well as when using **ternary expressions**, you ultimately must provide a boolean value (true / false):

* if (true) {
* // do something ...
* }
* // or
* true ? 'this' : 'that'

Of course, hardcoding true or false into the code makes no sense though - you wouldn't need an if statement or ternary expression if a value would always be true or always be false.

Instead, true or false is typically derived by comparing values - e.g, comparing a number to an expected value:

* if (randomNumber == 5) {
* // do something
* }

The == operator checks for **value equality** (i.e., the values on the left and right side of the operator must be equal). It **must not be mistaken** with the **assignment operator** (which uses a single equal sign: =).

The assignment operator is used to assign values to variables:

* var userName = 'Max'; // assignment operator used
* if (userName == 'Max') { ... } // comparison operator used

Besides the equality operator (==) Dart also supports many other key comparison operators:

* != to check for **inequality** (randomNumber != 5 expects randomNumber to NOT be 5, i.e., to be any other value)
* > to check for the value on the left to be **greater than** the value on the right (randomNumber > 5 yields true if randomNumber is greater than 5)
* >= to check for the value on the left to be **greater than or equal to** the value on the right (randomNumber >= 5 yields true if randomNumber is greater than 5 or equals 5)
* < to check for the value on the left to be **smaller than** the value on the right (randomNumber < 5 yields true if randomNumber is smaller than 5)
* <= to check for the value on the left to be **smaller than or equal to** the value on the right (randomNumber <= 5 yields true if randomNumber is smaller than 5 or equals 5)