

Most of the time,
operators and functions automatically convert the values given to them to
the right type.

String Conversion:

```
// String Conversion Implicitly
"25" + 56; // '2556'
"25" + null; // '25null'
"Ale " + undefined; // 'Ale undefined'
"25" + false; // '25fasle'
```

```
// String Conversion Explicitly
String(23); // '23'
String(true); // 'true'
String(32 - false); // '32'
String(32 - true); // '31'
```

****From the above example, we have conquered that the + operator tends to
convert the value of different data types into a
string when there is an addition
between a string and an operand of a different data type.**

Numeric Conversion:

=====

```
// Explicit conversion into number
Number(" 12 "); // 12
Number("-12.34"); // -12.34
Number("\n"); // 0
```

```
//null and indefined into a number
Number(null); // 0
Number(undefined); // NaN
```

```
// Booleans into Number
Number(true); // 1
Number(false); // 0
```

```
// Difference between results of the same prompt..
prompt('what is you age?'); // '26'
Number(prompt('what is you age?')); // 26
```

Boolean Conversion:

```
Boolean(2); // true
```

```
// conversion to boolean implicitly in an statement
if(' ') {console.log(`Empty string`)}; // Empty string
```

```
// implicit conversions due to logical operators
!! 2;    // true
'' || 23; // 23
```

```
Boolean('');    // false
Boolean(0);     // false
Boolean(-0);    // false
Boolean(NaN);   // false
Boolean(null);  // false
Boolean(undefined); // false
Boolean(false); // false
```

Explicit type coercion:

```
let myVar_1 = String(45);
console.log(myVar_1);    // returns '45' as a String

let myVar_2 = String(-45.22);
console.log(myVar_2);    // returns '-45.22' as a String

let myVar_3 = String(true);
console.log(myVar_3);    // returns 'true' as a String

let myVar_4 = String(false);
console.log(myVar_4);    // returns 'false' as a String

let myVar_5 = String(null);
console.log(myVar_5);    // returns 'null' as a String

let myVar_6 = String(undefined);
console.log(myVar_6);    // returns 'undefined' as a String
```

Explicit type coercion:

```
let myVal1 = Boolean(0);
console.log(myVal1) // returns false

let myVal2 = Boolean('');
console.log(myVal2) // returns false

let myVal3 = Boolean(NaN);
console.log(myVal3) // returns false

let myVal4 = Boolean(false);
console.log(myVal4) // returns false

let myVal5 = Boolean(undefined);
console.log(myVal5) // returns false

let myVal6 = Boolean(null);
console.log(myVal6) // returns false
```

```
let myVal7 = Boolean(23);  
console.log(myVal7) // returns true
```

```
let myVal8 = Boolean(-23);  
console.log(myVal8) // returns true
```

```
let myVal9 = Boolean(23.51);  
console.log(myVal9) // returns true
```