

Type

Coercion

in Javascript

What Is Type Coercion?

Automatic conversion of a value from one data type to another data type is called Type Coercion or implicit type conversion.



The process of automatic or implicit conversion of values from one data type to another.

String Coercion

It occurs when the ' +, -, /, * ' operator is used.

When a number is added to a string, the number type is always converted into string type.

When a number is divided, subtracted or multiplied to a string, the string is always converted into number type.


```
// Example 1
var a = 5;
var b = "5";
console.log(a + b);           //returns "55"

// Example 2
var str = "CR ";
var num = 7;
console.log(str + num);      // returns "CR 7"
```

Boolean Coercion

When a Boolean is added to a Number, the Boolean value is converted to a number.

A Boolean value can be represented as 0 for false or 1 for true.



```
// Example 1
var p = true + 10;
var q = false + 10;

console.log(p); // return 11
console.log(q); // return 10
```

All values except 0, 0n, -0, "", undefined, null, NaN are truthy values.

Equality Coercion

The '==' operator compares values but not types.

Returns true because both 'a' and 'b' are converted to the same type and then compared. Hence the operands are equal.



```
// Example
```

```
var a = 10;
```

```
var b = "10";
```

```
console.log(a == b);           //true
```

```
console.log(true == "true");   // false
```

Returns false as string 'true' is coerced to NaN which is not equal to 1 or true in Boolean, so returns false.