

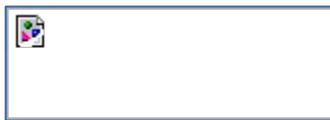
JavaScript Type Conversions



IT TALENTS
Training Camp

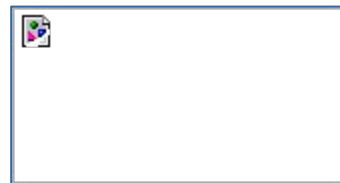
Using the Javascript strict mode

- ▶ JavaScript has been around for more than 25 years, it features some bad behaviours that we no longer tolerate, but cannot remove from the language
- ▶ Strict mode changes previously accepted "bad syntax" into real errors
- ▶ Simply add „use strict“ at the beginning of the file.



Old and wrong
But will work

[Strict Mode Rules](#)



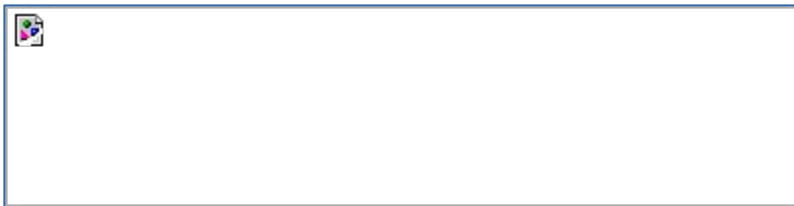
Will return an error
And won't execute



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Automatic Type Conversion

- ▶ Some operators or statements expect data of a particular type and will perform automatic type conversion. JavaScript will temporarily convert the value in parentheses to a boolean to evaluate the if expression:



Automatic Type Conversion

- ▶ Values that are evaluated to **false**:
 - false
 - „“ -> empty string
 - 0
 - NaN
 - undefined
 - null

Automatic Type Conversion

- ▶ Values that are evaluated to **true**:
 - true
 - „Peter“ -> all strings except of empty string
 - „0“ -> even the string 0
 - [] -> empty (or not) array
 - {} -> empty (or not) object

Explicit Type Conversion

- ▶ How to convert data to type number
 - Using **Number()** function
 - Using **parseInt()** function
 - Using **parseFloat()** function
- ▶ Numeric conversion happens in mathematical functions and expressions automatically.

Explicit Type Conversion

- ▶ How to convert data to type string
 - Using the **String()** function



Explicit Type Conversion

- ▶ How to convert data to type boolean
 - Using the Boolean() function
 - Using the double exclamation mark - !!

```
const x = "JavaScript is great!";
```

```
if(x === true) {  
  console.log("Yeah, it is!"); //never triggers  
}
```

```
if(x === false) {  
  console.log("Sure!"); //also never triggers  
}
```

JS test1.js > ...

```
1  let x = "Female relative";  
2  
3  x = Boolean(x);  
4  
5  if(x === true) {  
6    console.log("Yours also!"); // this will execute  
7  }  
8  // -----  
9  let y = "Slavi";  
10  
11 y = !!y;  
12  
13 console.log(typeof x); // boolean
```