



# Lesson - 10

**Intro to Javascript. JS Data types.**

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# План занятия



1. **Вопросы по домашнему заданию.**
2. **Файлы скриптов и порядок выполнения.**
3. **Debugging JS**
4. **Data types**
5. **If ... else operator**
6. **Ternary operator**
7. **Switch operator**
8. **Домашнее задание**

# Файлы скриптов и порядок выполнения



- inline scripts
- external scripts
- scripts created from JS (will be covered later)

# Внешние скрипты



- It separates HTML and code
- It makes HTML and JavaScript easier to read and maintain
- Cached JavaScript files can speed up page loads

## Example:

```
<script src="https://js.cx/hello/ads.js?speed=0"></script>
```

# Файлы скриптов и порядок выполнения

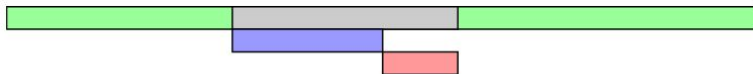


## Legend

- HTML parsing
- HTML parsing paused
- Script download
- Script execution

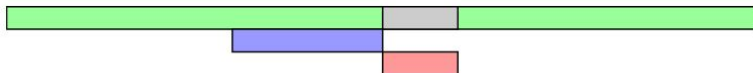
### <script>

Let's start by defining what **<script>** without any attributes does. The HTML file will be parsed until the script file is hit, at that point parsing will stop and a request will be made to fetch the file (if it's external). The script will then be executed before parsing is resumed.



### <script async>

**async** downloads the file during HTML parsing and will pause the HTML parser to execute it when it has finished downloading.



### <script defer>

**defer** downloads the file during HTML parsing and will only execute it after the parser has completed. **defer** scripts are also guaranteed to execute in the order that they appear in the document.



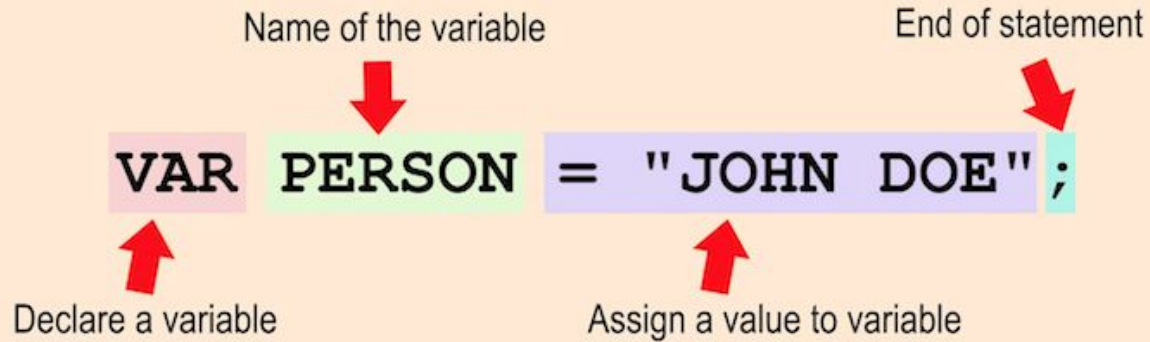
# Debugging JS



- `console.log()`
- setting breakpoint
- debugger
- turn off/on debugger in Chrome

# Variable declaration

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The diagram illustrates the syntax of a variable declaration statement: `VAR PERSON = "JOHN DOE";`. Each token is highlighted with a colored background, and red arrows point from descriptive labels to the corresponding tokens.

- VAR** (pink background): Labeled "Declare a variable" with an upward-pointing red arrow.
- PERSON** (green background): Labeled "Name of the variable" with a downward-pointing red arrow.
- = "JOHN DOE"** (purple background): Labeled "Assign a value to variable" with an upward-pointing red arrow.
- ;** (cyan background): Labeled "End of statement" with a downward-pointing red arrow.

# Comments



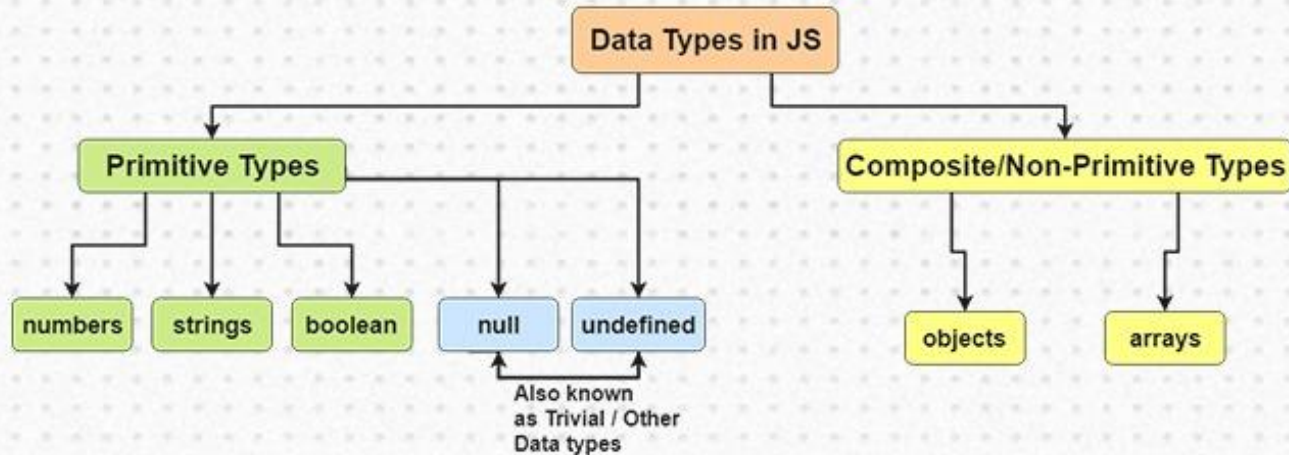
```
// THIS IS A LINE OF COMMENT AND WILL BE IGNORED DURING PROCESSING  
VAR X = "HELLO WORLD";
```

```
/* THIS IS ALSO A COMMENT.  
WHATEVER IS ENCLOSED WITHIN THIS PAIR OF  
"SLASH-STAR-STAR-SLASH" WILL BE IGNORED. */  
VAR Y = "GOODBYE WORLD";
```



# JS Data types

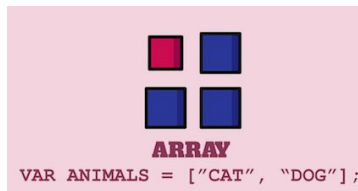
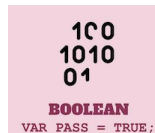
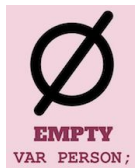
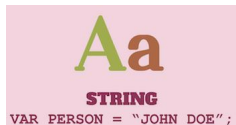
## *Variables & Datatypes* *in JavaScript*



# JS Data types

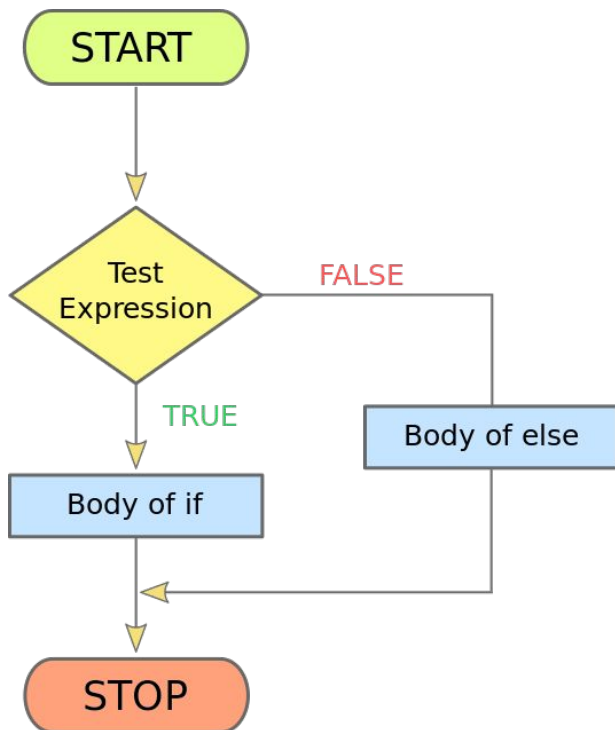
- Primitive

- number
- string
- boolean
- undefined
- null



- object
- symbol (ES6)

# Conditional Operators



```
if (condition) {  
    // body of if  
    console.log("Condition is truthy");  
} else {  
    // body of else  
    console.log("Condition is falsy");  
}
```

# Ternary Operator

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```
var result = ( age >= 18 )? "I am adult" : "I am child";
```

# References



## 1. Debugging

- a. General: [https://www.w3schools.com/js/js\\_debugging.asp](https://www.w3schools.com/js/js_debugging.asp)
- b. RU version: <https://learn.javascript.ru/debugging-chrome>
- c. Video from Chrome: <https://www.youtube.com/watch?v=HOXScE08hy8>

## 2. Scripts:

- a. MDN: <https://developer.mozilla.org/en-US/docs/Web/HTML/Element/script>
- b. W3C: <https://www.w3.org/TR/2011/WD-html5-20110525/scripting-1.htm>
- c. EN version: <https://javascript.info/hello-world>
- d. RU version: <https://learn.javascript.ru/external-script>

## 3. JS Data types:

- a. [https://developer.mozilla.org/en-US/docs/Web/JavaScript/Data\\_structures](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Data_structures)
- b. RU version: <https://learn.javascript.ru/types-intro>
- c. EN version: <https://javascript.info/types>

## 4. Conditional operator:

- a. [https://www.tutorialspoint.com/javascript/javascript\\_ifelse.htm](https://www.tutorialspoint.com/javascript/javascript_ifelse.htm)
- b. <https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Statements/if...else>
- c. [https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/Conditional\\_Operator](https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/Conditional_Operator)
- d. <https://learn.javascript.ru/ifelse>

# Домашнее задание - теоретическая часть

В примере ниже подключены два скрипта `small.js` и `big.js`.

Если предположить, что `small.js` загружается гораздо быстрее, чем `big.js` – какой выполнится первым?

```
1 <script src="big.js"></script>
2 <script src="small.js"></script>
```

А вот так?

```
1 <script async src="big.js"></script>
2 <script async src="small.js"></script>
```

А так?

```
1 <script defer src="big.js"></script>
2 <script defer src="small.js"></script>
```

# Домашнее задание - практика

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1. Подключить Javascript файл. Пример из класса: <https://github.com/vitalicernomschi/first-js>
2. Вывести результат работы typeof оператора в консоле браузера для 6 разных типов данных.
3. Создать переменную «myCurrentAge», которой присвоить значение ваш возраст.
4. Вывести на экран строку «I am over 25 years old», если ваш возраст больше или равен 25, в противном случае «I am under 25». Сделать это 2 способами:
  - a. Используя оператор if else
  - b. Используя тернарный оператор

