

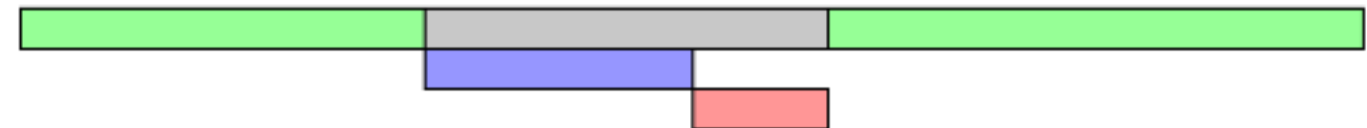
[old way] Loading Javascript

Legend

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

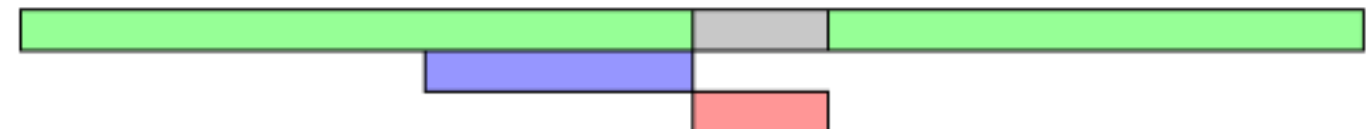
<script>

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.



[new way] Javascript Modules (new in es6)

- ➡ provides encapsulation and namespace by default
- ➡ load the code asynchronously and defer execution by default

index.html

```
<script type="module" src="file1.mjs">
```

file1.mjs

```
export doSomething = ...
```

file2.mjs

```
import { doSomething } from "/file1.mjs"
```