

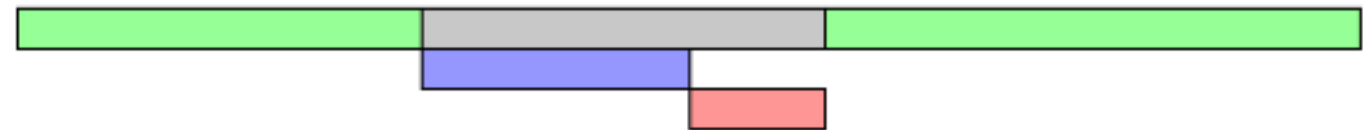
Loading Javascript

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.



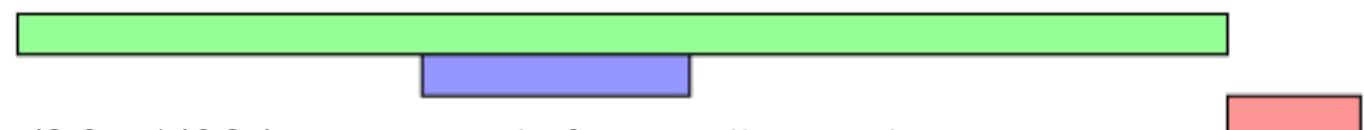
<script async>

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.



Problem with scoping

- ➔ In the browser, all Javascript files share the same execution environment i.e they share the same scope
 - ⦿ variable (and function) naming conflicts
 - ⦿ strict mode applied to all