

JavaScript Placement in HTML

When adding JavaScript to a web page, it's important to know where to place the **<script>** tag. The placement affects how and when the code is executed and can impact page loading performance.

1. Possible Placements

JavaScript code can be placed in several locations: **Inside the <head> section:** The script is loaded before the page content. Use the **defer** or **async** attribute to prevent blocking page rendering. **At the end of the <body> section:** Recommended for most cases so the HTML is loaded before the script runs. **External File:** Store JavaScript in a separate .js file and link it with **<script src="file.js">** for cleaner code and caching benefits.

2. Example: Script in <head>

`<head> <script src="script.js" defer></script> </head>` Here, the **defer** attribute ensures the script runs after the HTML is fully parsed.

3. Example: Script at End of <body>

`<body> ... <script src="script.js"></script> </body>` This is the most common method and ensures the HTML loads before the script executes.

4. Script Attributes

Attribute	Description
defer	Loads the script in the background and executes after HTML parsing is complete.
async	Loads the script in the background and executes as soon as it is ready, not guaranteed order.

5. Best Practices

Use external JavaScript files to keep HTML clean and improve caching. Place scripts at the end of the **<body>** or use **defer** to avoid blocking page rendering. Use **async** for independent scripts like analytics that do not depend on other scripts.