

# JAVA SCRIPT



## Where to Place JavaScript Code ?

Head `<Head> ... </Head>`

Body `<Body>...</Body>`

Separate File `XYZ.js`

Reference [w3Schools.com](http://w3Schools.com)

## The <script> Tag

- In HTML, JavaScript code must be inserted between <script> and </script> tags.

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h2>JavaScript in Body</h2>
```

```
<p id="demo"></p>
```

```
<script>
```

```
document.getElementById("demo").innerHTML = "My First JavaScript";
```

```
</script>
```

```
</body>
```

```
</html>
```

## The <script> Tag

```

<!DOCTYPE html>
<html>
<body>

<h2>JavaScript in Body</h2>

<p id="demo"></p>

<script>
document.getElementById("demo").innerHTML = "My First JavaScript";
</script>

</body>
</html>

```

Old JavaScript examples may use a type attribute: `<script type="text/javascript">`.

The type attribute is not required. JavaScript is the default scripting language in HTML.

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<script>
```

```
function myFunction() {
```

```
    document.getElementById("demo").innerHTML = "Paragraph changed.";
```

```
}
```

```
</script>
```

```
</head>
```

```
<body>
```

```
<h1>A Web Page</h1>
```

```
<p id="demo">A Paragraph</p>
```

```
<button type="button" onclick="myFunction()">Try it</button>
```

```
</body>
```

```
</html>
```

## Java Script in Head

In this example, a JavaScript function is placed in the <head> section of an HTML page.

## Java Script in Head

```

<!DOCTYPE html>
<html>

<head>
<script>
function myFunction() {
    document.getElementById("demo").innerHTML = "Paragraph changed.";
}
</script>
</head>

<body>

<h1>A Web Page</h1>
<p id="demo">A Paragraph</p>
<button type="button" onclick="myFunction()">Try it</button>

</body>
</html>

```

### JavaScript in Head

A Paragraph.

Try it



### JavaScript in Head

Paragraph changed.

Try it

# JavaScript in <body>

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1>A Web Page</h1>
```

```
<p id="demo">A Paragraph</p>
```

```
<button type="button" onclick="myFunction()">Try it</button>
```

```
<script>
```

```
function myFunction() {
```

```
    document.getElementById("demo").innerHTML = "Paragraph changed.";
```

```
}
```

```
</script>
```

```
</body>
```

```
</html>
```

In this example, a JavaScript function is placed in the <body> section of an HTML page.

```

<!DOCTYPE html>
<html>
<body>

<h1>A Web Page</h1>
<p id="demo">A Paragraph</p>
<button type="button" onclick="myFunction()">Try it</button>

<script>
function myFunction() {
    document.getElementById("demo").innerHTML = "Paragraph changed.";
}
</script>

</body>
</html>

```

## JavaScript in Body

A Paragraph.

Try it



## JavaScript in Body

Paragraph changed.

Try it



# External JavaScript

Scripts can also be placed in external files:

External file: myScript.js

```
function myFunction() {  
    document.getElementById("demo").innerHTML = "Paragraph changed."  
}
```

- External scripts are practical when the same code is used in many different web pages.
- JavaScript files have the file extension **.js**.
- To use an external script, put the name of the script file in the src (source) attribute of a <script> tag:

```
<!DOCTYPE html>
<html>
<body>

<h2>External JavaScript</h2>

<p id="demo">A Paragraph.</p>

<button type="button" onclick="myFunction()">Try it</button>

<p>(myFunction is stored in an external file called "myScript.js")</p>

<script src="myScript.js"></script>

</body>
</html>
```

## External JavaScript

A Paragraph.

Try it

(myFunction is stored in an external file called "myScript.js")



## External JavaScript

Paragraph changed.

Try it

(myFunction is stored in an external file called "myScript.js")

- You can place an external script reference in `<head>` or `<body>` as you like.
- The script will behave as if it was located exactly where the `<script>` tag is located.
- External scripts cannot contain `<script>` tags.

# External JavaScript Advantages

- Placing scripts in external files has some advantages:
- It separates HTML and code
- It makes HTML and JavaScript easier to read and maintain
- Cached JavaScript files can speed up page loads
- To add several script files to one page - use several script tags:

## Example

```
<script src="myScript1.js"></script>  
<script src="myScript2.js"></script>
```

## External References

- External scripts can be referenced with a full URL or with a path relative to the current web page.
- This example uses a full URL to link to a script:

```
<!DOCTYPE html>
<html>
<body>

<h2>External JavaScript</h2>

<p id="demo">A Paragraph.</p>

<button type="button" onclick="myFunction()">Try it</button>

<p>(myFunction is stored in an external file called "myScript.js")
</p>

<script src="https://www.w3schools.com/js/myScript.js"></script>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>External JavaScript</h2>

<p id="demo">A Paragraph.</p>

<button type="button" onclick="myFunction()">Try it</button>

<p>(myFunction is stored in an external file called "myScript.js")
</p>

<script src="/js/myScript.js"></script>

</body>
</html>
```

```
<!DOCTYPE html>
<html>
<body>

<h2>External JavaScript</h2>

<p id="demo">A Paragraph.</p>

<button type="button" onclick="myFunction()">Try it</button>

<p>(myFunction is stored in an external file called "myScript.js")
</p>

<script src="myScript.js"></script>

</body>
</html>
```



