

# Performance

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## Overview

This module includes some methods by which a programmer can improve the performance of their javascript code.

## Reduce Activity in Loops

Loops are often used in programming. Each statement in a loop, including the for statement, is executed for each loop iteration.

**Statements or assignments that can be placed outside the loop will make the loop run faster.**

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| <b>Example :</b>  | <pre>for ( let i = 0 ; i &lt; arr.length ; i++ ) {<br/>    console.log( "Hello" );<br/>}</pre>                     |
| <b>Improved :</b> | <pre>let len = arr.length ;<br/>for ( let i = 0 ; i &lt; len ; i++ ) {<br/>    console.log( "Hello" );<br/>}</pre> |

- ❖ It is better to store the length of the array in a variable rather than getting the length every time.

## Avoid Unnecessary Variables

Don't create new variables if you don't plan to save values because it increases the space complexity of your code.

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| <b>Example :</b> | <pre>var z = x + y ;<br/>console.log( z );</pre> |
| <b>Improved:</b> | <pre>console.log( x + y );</pre>                 |

## Avoid Using with

Avoid using the **with** keyword. It has a negative effect on speed. It also clutters up JavaScript scopes.

**The with keyword is not allowed in strict mode.**

## Avoid using new keyword

Create objects and arrays using brackets rather than using new keyword. new keyword slows down the javascript code.

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| <b>Example :</b> <code>var arr = new Array( );</code> |
| <b>Improved:</b> <code>var arr = [ ];</code>          |