

What are the differences between var, let, and const?

var is used to declare a variable with *function-level scope*. This means variables declared using *var* can be seen by the enclosing function and all functions within it. *var* can also be redeclared without throwing an error. This can lead to problems if code is trying to read different versions of the same variable at different parts of the program. Variables declared using *var* are *hoisted*, meaning they are processed before any code is executed. This can cause problems if code is referencing a variable before it has been declared.

let is used to declare a variable with *block-level scope*. This means variables declared using *let* are only visible within their code block { } and **can** have their value reassigned, but **let-declared variables cannot be redeclared**.

const is used to declare variables with *block-level scope* which are *read-only*. Variables declared with *const* **cannot have their value reassigned and cannot be redeclared**. However, if a variable declared using *const* is an array or object, its properties can be changed or removed.

What are some features that are new with ES6?

let keyword – Block-scoped variable that can be reassigned but **not** redeclared.

const keyword – Block-scoped variable that **cannot** be redeclared or reassigned.

for/of loop – A loop that iterates over the values of a variable and can perform actions every iteration. This saves code because it does not require a *for* loop.

Arrow functions – A new, shorter syntax for writing function expressions. If the function can be written in a single statement, you can omit both the curly braces and return keyword.

Template Literals – A string that uses back-ticks (` `) rather than quotes to define a string. The formatting inside a template literal, including all punctuation, spacing, and line breaks, is maintained when returned. It also provides an easy way to interpolate variables and expressions using the syntax `${...}`.

<https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Statements>

https://www.w3schools.com/js/js_es6.asp

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Template_literals

https://www.w3schools.com/js/js_string_templates.asp