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# EXISTING IN JAVASCRIPT

- 📌 **Hoisting:** Makes some types of variables accessible/usable in the code before they are actually declared. "Variables lifted to the top of their scope".

↓ **BEHIND THE SCENES**

Before execution, code is scanned for variable declarations, and for each variable, a new property is created in the **variable environment object**.

## EXECUTION CONTEXT

- 📌 Variable environment
- ✅ Scope chain
- 📌 this keyword

	HOISTED?	INITIAL VALUE	SCOPE
function declarations	✅ YES	Actual function <i>we can use func declaration actual value = Actual function before initialization &amp; it will give</i>	Block
var variables	✅ YES <i>why we don't prefer var</i>	undefined <i>on call before declaration value undefined</i>	Function
let and const variables	❌ NO	<uninitialized>, TDZ <i>Technically, yes. But not in practice</i>	Block
function expressions and arrows		Depends if using var or let/const <i>they are simply like variables so act as normal variable &amp; follow above</i>	Block <i>Temporal Dead Zone</i>

# TEMPORAL DEAD ZONE, LET AND CONST

```
const myName = 'Jonas';  
  
if (myName === 'Jonas') {  
  console.log(`Jonas is a ${job}`);  
  const age = 2037 - 1989;  
  console.log(age);  
  const job = 'teacher';  
  console.log(x);  
}
```

TDZ  
↓

TEMPORAL DEAD ZONE FOR job VARIABLE

✦ Different kinds of error messages:

ReferenceError: Cannot access 'job' before initialization

ReferenceError: x is not defined

## WHY HOISTING?

- ✦ Using functions before actual declaration;
- ✦ var hoisting is just a byproduct.

## WHY TDZ?

- ✦ Makes it easier to avoid and catch errors: accessing variables before declaration is bad practice and should be avoided;
- ✦ Makes const variables actually work