

9 Video

Let & Const in JS Temporal Dead Zone
* let and const declaration are hoisted, but they hoisted very differently.

They are in Temporal dead zone.

→ console.log(b); → undefined
var b = 100;

Memory is allocated to variable & function even before a single line of code executed.

→ console.log(a);
let a = 10;
var b = 100;
uncaught Reference Error: cannot access 'a' before initialization

- Throwing Error as let and const are hoisted in a separate execution context with value undefined (not in global EC and we are accessing in GEC (by default) hence - throwing an error).

- let and const variable can't be accessed until unless they are assigned.

Temporal dead zone The time period between allocating memory and assigning value to let & const.

let & const remain in Temporal dead zone until they are assigned a value. After that only they can be accessed.

* `console.log(x);`
`console.log(b);`
`let b = 10;`

O/P

`let x = 10;`
`console.log(x);`
O/P: 10

Uncaught Reference Error: x is not defined
 Uncaught Reference Error: Cannot access 'a' before initialization

→ `let` and `const` are not attached to window/object. [i.e. `window.b` will give undefined]

→ One can't redefine `let`

eg 1 `console.log("Rahul");`

`let a = 10;`

`let a = 100;`

O/P

- Syntax Error -
 Even a single of code will not executed.

- Not possible in same scope.

eg 2

`console.log("UK");`

`var a = 10;`

`var a = 100;`

O/P

UK

perfectly fine.

`let` can be initialized anywhere in program -
 however `const` must be initialized at the time of declaration only. And their value can't be change.

For

`const a;`

→ Syntax Error: missing initialization in const declaration

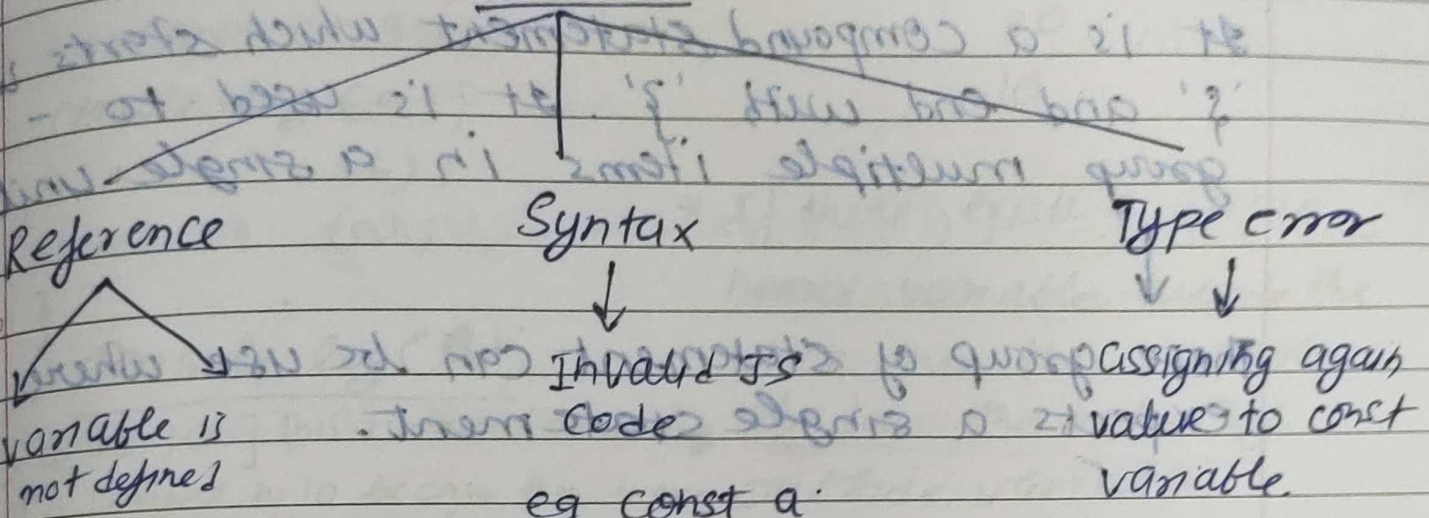
`const a = 10;`

`a = 100;`

→ Type Error: Assignment to constant variable.

var < let < const
Restriction [preference of use is reverse order]

Restriction Errors



- ① may be Temporal dead zone
- ② Not present in scope at all

- To avoid Temporal dead zone all declaration & initialization at the top of the JS code
- ↓
- We shrinked Temporal zone to zero.

off
10
11
10

var a = 10;
var b = 11;
console.log(a);
console.log(b);
console.log(a);
console.log(b);