



FUNCTIONS

① Normal functions / Function Definition style

② Anonymous Functions

③ NFE { Named Function Expression }

④ Arrow Function

& general
Function → Keyword
Name
Brackets
Code
Return statement

SIF (Self Invoking Function) (Recommended)
IIFE (Immediate Invoking Function Expression)

LOCAL Scope U/s Global Scope → override

within scope
→ available

→ change
→ accessible anywhere.

→ override X
outside scope no change

1st type → Global → override, change

2nd type → Local → no change in logic, cannot be override

① function can be returned inside a function.

Arrow Functions

- ↳ Recommended
- ↳ Short hand syntax
- ↳ Pure Functions ✓

THIS X

Window → global object

- ↳ Pure Functions ✓
- ↳ Lambda funⁿ
- ↳ Very popular

this ✗

this → holds the address of current calling object.

HOISTING → Placing at TOP.

(CMS)

① Variable Hoisting

```
function disp1(){
  console.log('BEGINING ---z is ',z);
  var z=1000;
  console.log('START--z is ',z);
  if(10>2){
    var z =2000;
    console.log('z is ',z);
  }
  var z= 3000;
  console.log('END--z is ',z);
}
```

Annotations:
- var z → initialize
- console.log('BEGINING ...z is ',z); → undefined
- var z=1000; → 1000
- console.log('START--z is ',z); → 1000
- var z =2000; → re-assign
- console.log('z is ',z); → 2000
- var z= 3000; → 3000

var → functional level hoisting

② initialize → undefined

② Function Hoisting

4	3	2	1	0
2	2	2	2	2
16	8	4	2	1
0	1	0	1	0

01010 > 010

\sim
z = 010

Let, const (ES6) (2015)

2 scopes

```
function disp1(){
  console.log('BEGINING ---z is ',z);
  let z=1000;
  console.log('START--z is ',z);
  if(10>2){
    let z =2000;
    console.log('z is ',z);
  }
  let z= 3000;
  console.log('END--z is ',z);
}
```

ES6

Rules

Let

→ within the same scope,

u cannot redeclare same variable

→ you cannot access let variables before initialization

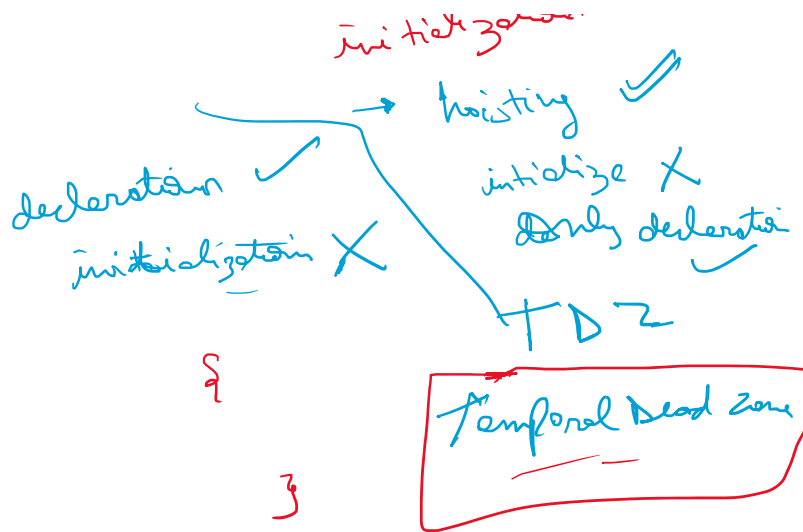
→ initiative ✓

2015 ES6

let z

```
function display(){
  console.log('BEGINING ---z is ',z);
  let z=1000;
  console.log('START--z is ',z);
  if(10>2){
    let z=2000;
    console.log('z is ',z);
  }
  // let z= 3000;
  console.log('END--z is ',z);
}
```

yes



→ they are only limited & available within their respective scopes.

const. (ES6-2015)

→ same ^{rules} as of let

a++ ✓
a++ X

```
const a = 1000;
```

→ you cannot re-assign anything to a constant variable.

