

let x = 10 + add(10, 20);

→ Inside another fun

→ Inside function generator undefined

```

function outerFun(){
  console.log("Inside OuterFun");
  function innerFun(){
    console.log("Inside another Fun");
  }
  return innerFun;
}

let y = outerFun();
console.log(y());
console.log(y());

```

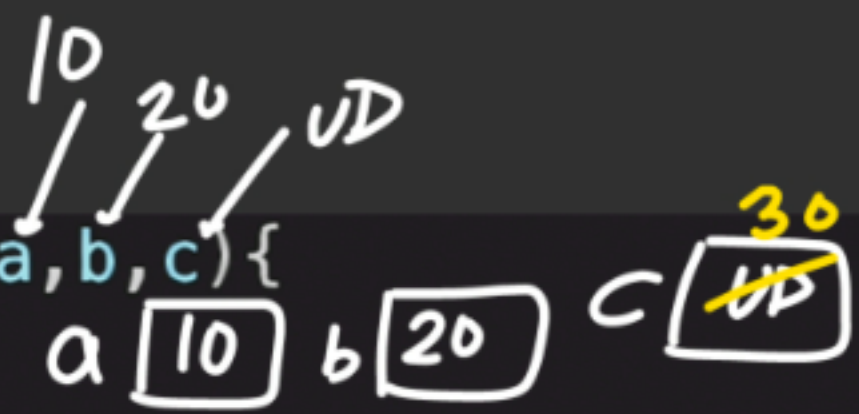
Diagram annotations:

- A box around the `innerFun` function definition and the `return innerFun;` statement.
- An arrow from the `return innerFun;` statement to the `y()` call in `console.log(y());`.
- An arrow from the `innerFun` function definition to the `y()` call in `console.log(y());`.
- A circled 'X' with an arrow pointing to the `y()` call in `console.log(y());`.
- A circled 'X' with an arrow pointing to the `y()` call in `console.log(y());`.
- A circled 'X' with an arrow pointing to the `y()` call in `console.log(y());`.

- I OF ✓  
 I AF (✓)  
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 I AK  
 US



```
function update(a,b,c){  
  c = a+b;  
  console.log("Inside update c: " + c);  
}
```



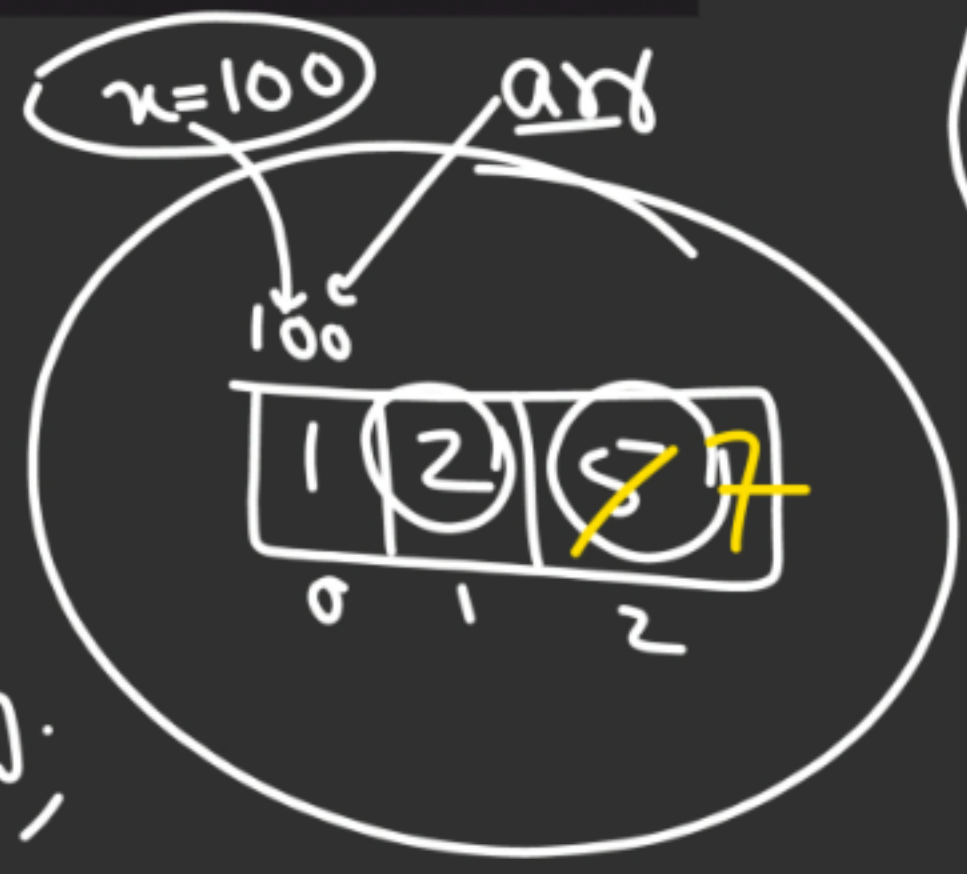
```
let a = 10, b = 20, c;  
update(a, b, c);  
console.log(c);
```



Independent

```
function update1(arr){  
  arr[2] = arr[1] + arr[2];  
}
```

```
let x = [1, 2, 5];  
console.log(x);  
update1(x);  
console.log(x);
```



Pass by value

✓ [1 2 5]  
arr[2] = arr[1] + arr[2];  
✓ [1 2 7]



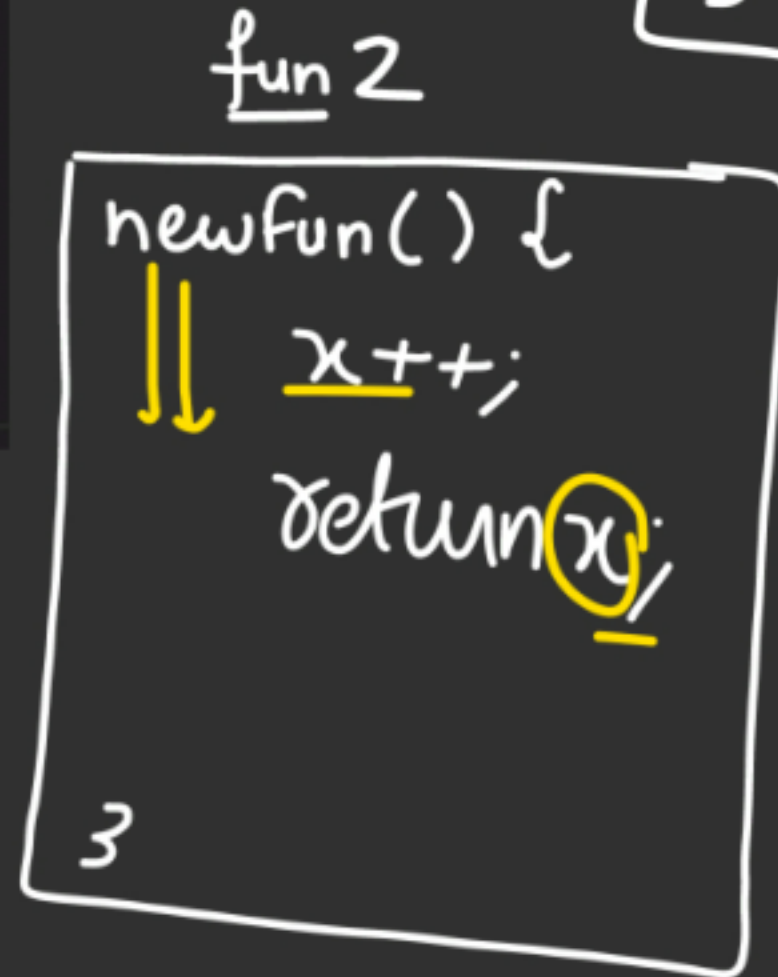
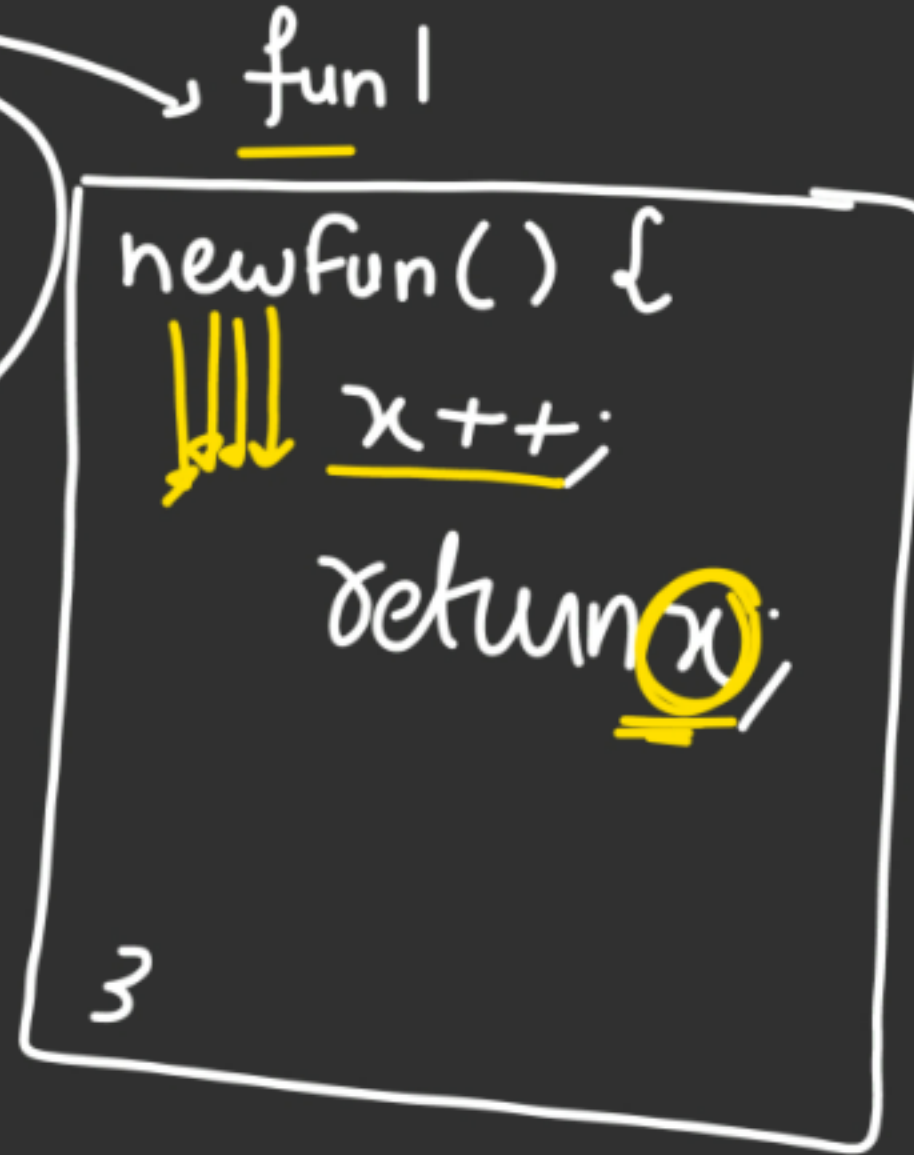
# CLOSURE

```
function FunGen(){  
  let x = 0;  
  function newFun(){  
    x++;  
    return x;  
  }  
  return newFun;  
}
```

```
✓ let fun1 = FunGen();  
✓ console.log(fun1()) ①  
  console.log(fun1()) ②  
  console.log(fun1()) ③
```

```
✓ fun2 = FunGen();
```

```
fun2() - ①  
fun2() - ②  
fun1() - ④
```





```

function FunGen(){
  let x = 0;
  function newFun(){
    x++;
    function newerFun(){
      x++;
      return x;
    }
    return newerFun;
  }
  return newFun;
}

```

```

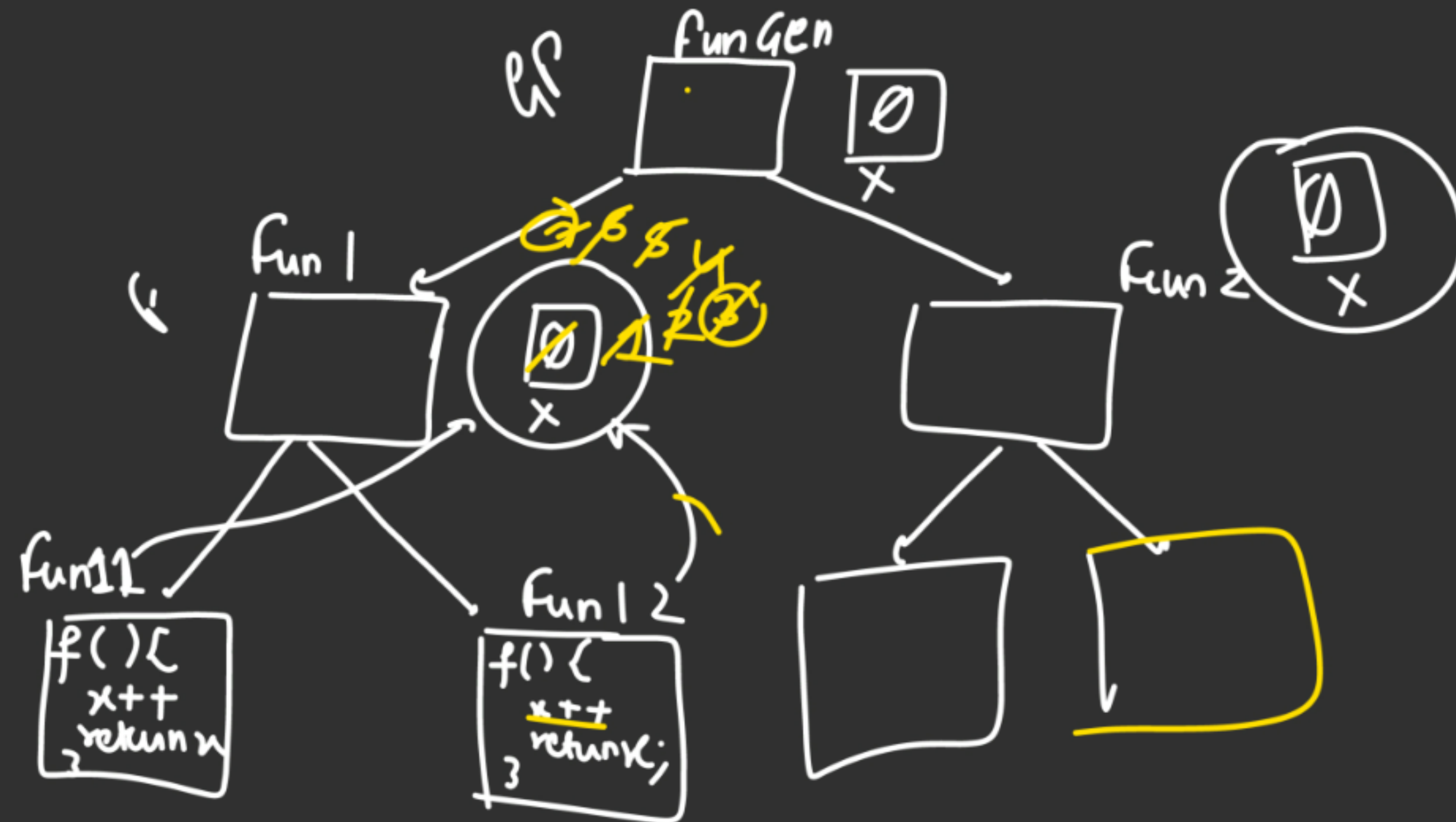
let fun1 = FunGen(); // Yeh func
let fun2 = FunGen(); // Yeh func
let fun11 = fun1(); // Yeh func
let fun12 = fun1(); // Yeh func

```

```

console.log(fun11()); // 2 3 2
console.log(fun11()); // 4 4 3
console.log(fun12()); // 2 3 2
console.log(fun12()); // 4 4 3
console.log(fun11()); // 6 5 4

```



A