

6th class

polyfills - 2

→ filter } → Arrays
→ reduce }

5 mins

→ Call
→ Apply } → functions
→ Bind }

\Rightarrow old Arr \rightarrow [ele1, ele2, ele3]

oldArr.filter(callback);

* callback(ele1) \rightarrow true \rightarrow ✗
 \rightarrow false \rightarrow ✓

* callback(ele2) \rightarrow true \rightarrow ✓
 \rightarrow false \rightarrow ✗

* callback(ele3) \rightarrow true

* [ele2, ele3]

```
Array.prototype.filter = function(callbackfn) {  
    const result = [ ];  
    for(let i=0; i<this.length; i++) {  
        if(callback(this[i], i)) {  
            result.push(this[i]);  
        }  
    }  
    return result;  
}
```

→ Reduce

↳ Collection of Something

↳ it reduces collection

to single entity

$\{ \{ \}, \{ \}, \{ \} \} \Rightarrow \{ \}$

$\{ "string", "string" \} \Rightarrow "string"$

[1, 2, 3, 4, 5]

$$* \text{Sum} = 0$$

for (let i=0; i<Size; i++) {

$$\text{Sum} = \boxed{\text{Sum} + \text{Arr}[i];}$$

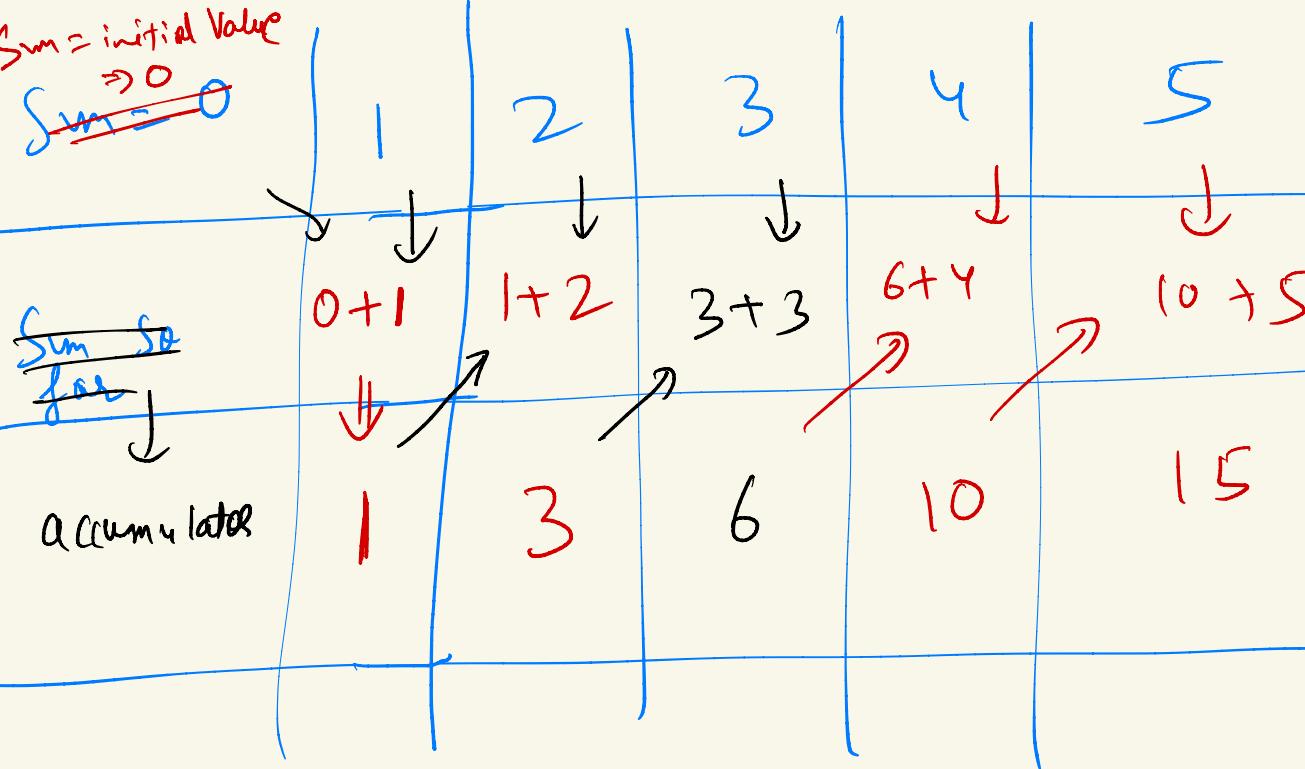
}

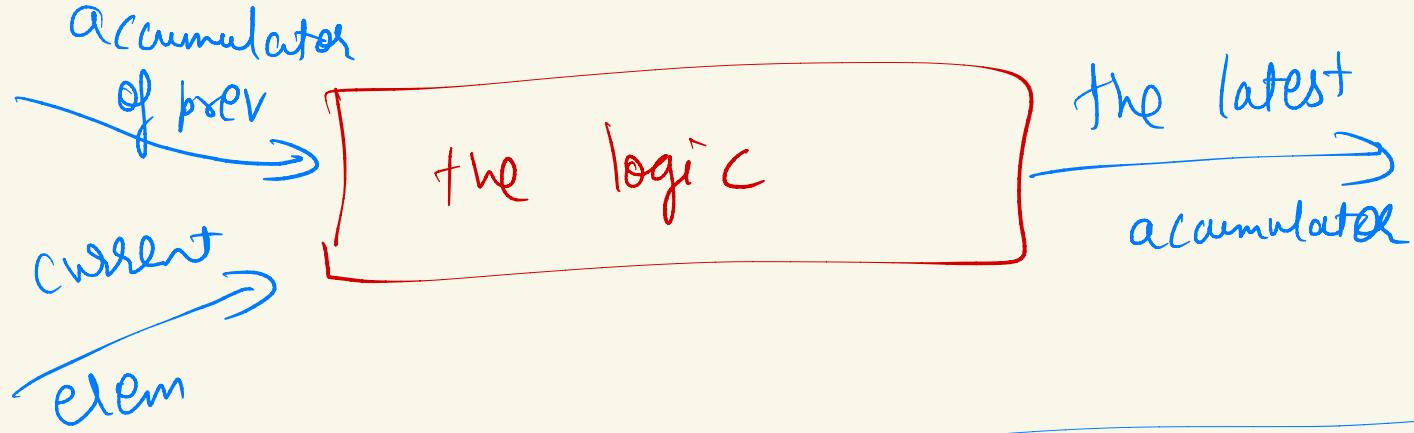
accumulator

return Sum;

Sum = initial Value

$$\cancel{\text{Sum}} \rightarrow 0$$



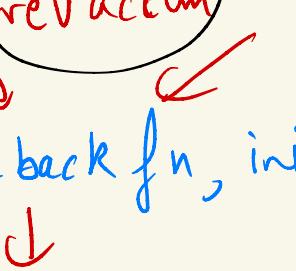


the latest accumulator

reduce → dividing → Sum into

initial Value & accumulator

* let arr = [1, 2, 3, 4, 5];  initial value
prev accum

* let sum = arr.reduce(callback fn, initial value);

curr
latest accum

let arr = [1, 2, 3]

* arr. reduce ((**accumulator**, item) \Rightarrow {
 // whatever logic to write here
 // it will update my accumulator
 return **accumulator** + item;
}, 0);

function (callback, ^{undefined}~~initialValue~~) {

let acc = initialValue → undefined

for (let i = 0; i < length; i++) {

acc = this[0] → for ←

acc = callback(acc, item);

}

}

+ [1, 2, 3]

acc ⇒ 1

initialValue ⇒ undefined

* call , apply

* oldfn. call (obj , arg1, arg2, arg3);

{ tempFn: oldFn
* obj

- } |
* obj . tempFn = old Fn
* obj . tempFn ()
* delete obj . tempFn

{ tempfn: test() }

function test() {
}

obj

* obj.tempfn = this;

* obj.tempfn();

test, call()
↓
any this will
be having
access fn defi