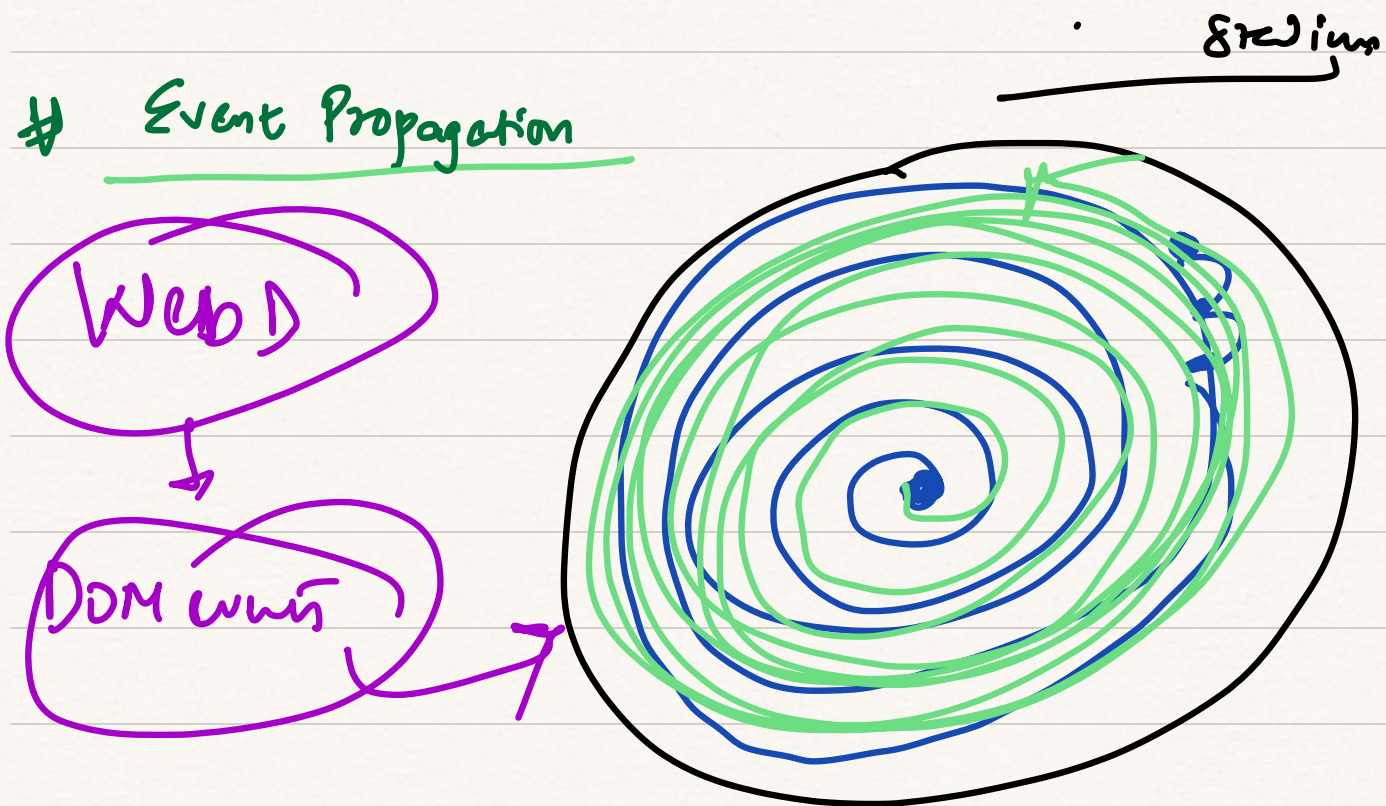


22. EVENT PROPAGATION & MACHINE CODING

Agenda:

- Event Propagation
- ~~22~~ Event Bubbling & Capturing
- Machine Coding Question
 - ↳ Star rating component
 - ↳ Counter component

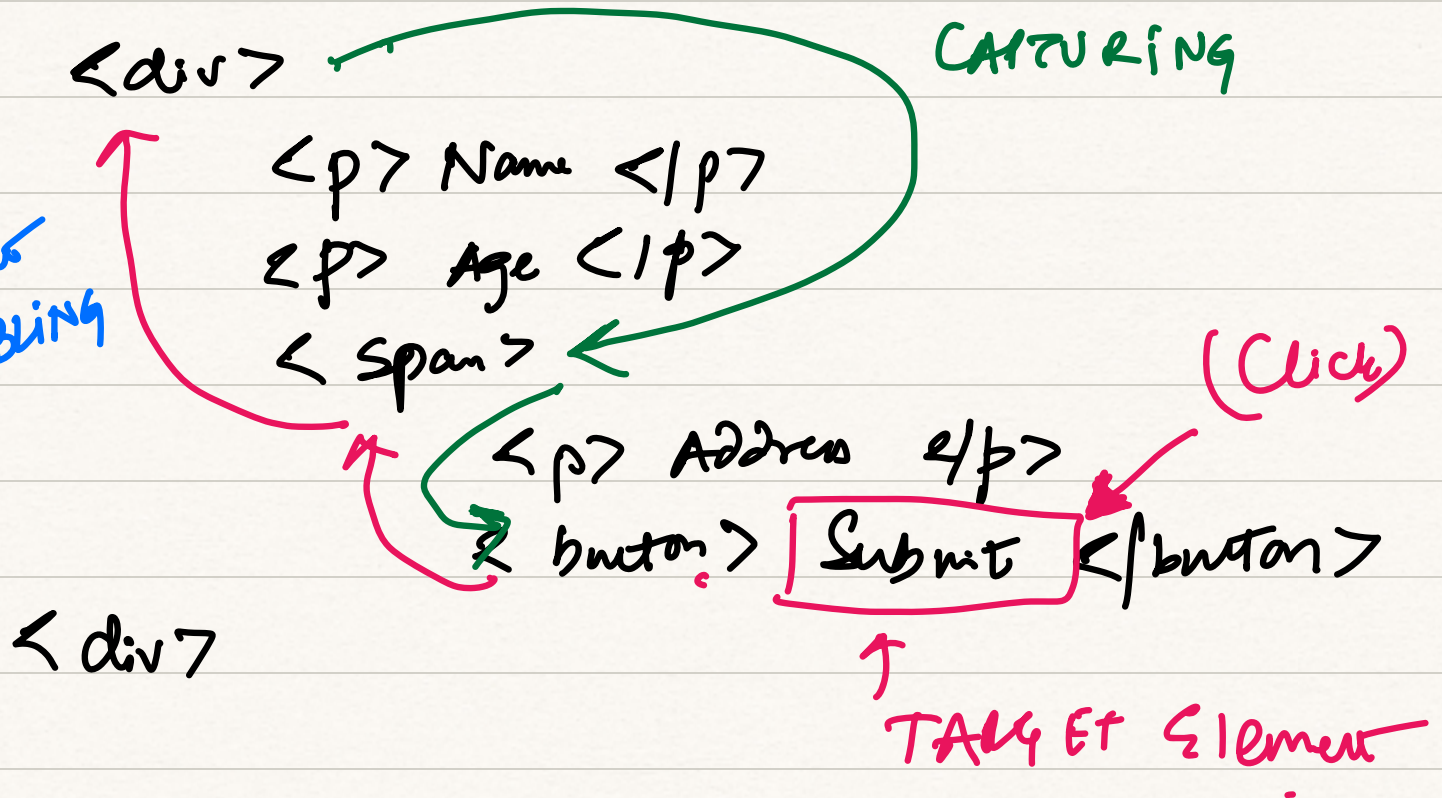
Event Propagation



finish

event
BUBBLING

event
CAPTURING



DOM events \rightarrow From target to outermost element \Rightarrow Event Bubbling

Outermost element to target element \Rightarrow Event Capturing

Event Propagation \rightarrow How events are dispatched & processed in DOM hierarchy

Elem. addEventListener ('Click', function () {

root

target

})

BUBBLING

Elem. addEventListener ('Click', function () {

root



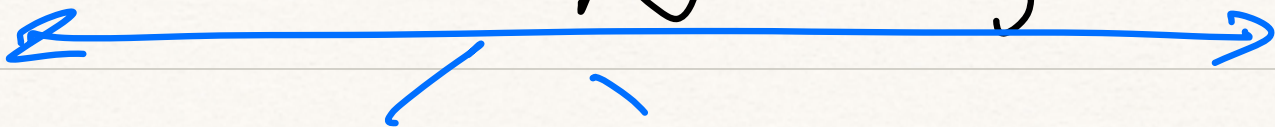
target

{ true }

CAPTURING

useCapture

Event Propagation Cycle



Capturing



<html>

Bubbling :

<target Elem>

Target

↓
<target elem>

- Event registered with (useCapture = true) are triggered on each ancestor from root to target
- Event reaches the target

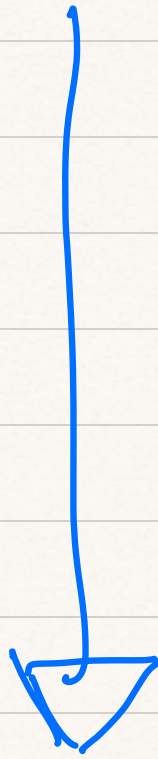
↓
<html>

Events registered with 'useCapture = false', are triggered on each ancestor element in reverse order [target to Root]

Target phase → • Event reaches target element for which event was triggered
• Event handlers on target will be called

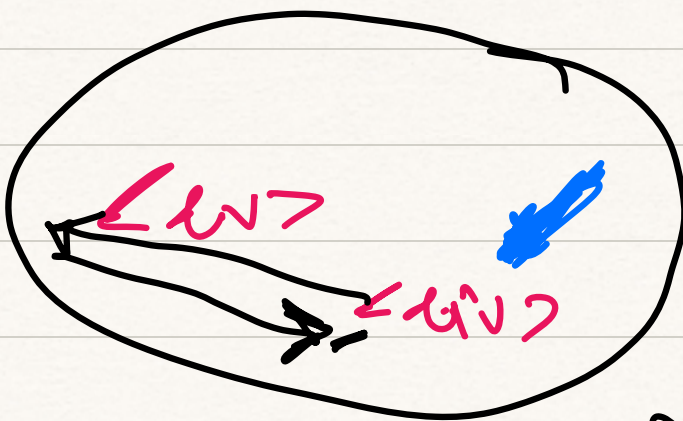
- ① Capture phase
- ↓
- ② Target phase
- ↓
- ③ Bubbling phase

(order)



To stop event,

~~e~~ e.stopPropagation()

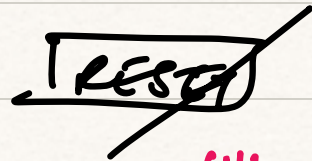
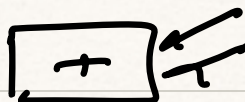
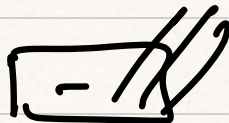


<div>

<div>

COUNTER

0 1 2 3 4 5



filled &
color: yellow



1 → 2
add
filled.
class.

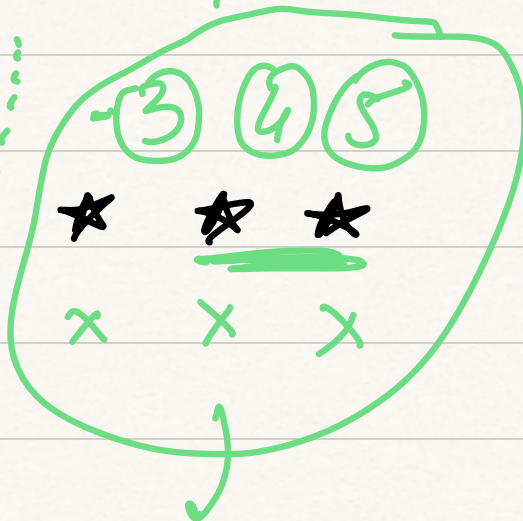
filled



Star
Value



value = 2



1 → 2

add
filled
class class

Remove filled
class from 3rd
star. ~~class~~

① stopPropagation

→ It will block events to propagate in the event propagation cycle (not: bubbling/capturing).

② stopImmediatePropagation

```
btn.addEventListener('click', function(e) {  
  // log(1)  
  e.stopPropagation() Clicked ✓  
})
```

```
btn.addEventListener('click', function(e) {  
  // log(2)  
})
```

X

③ preventDefault

<form>

(URL
change)
POST

<button type = 'Submit' >