Handling touch events with
JavaScript
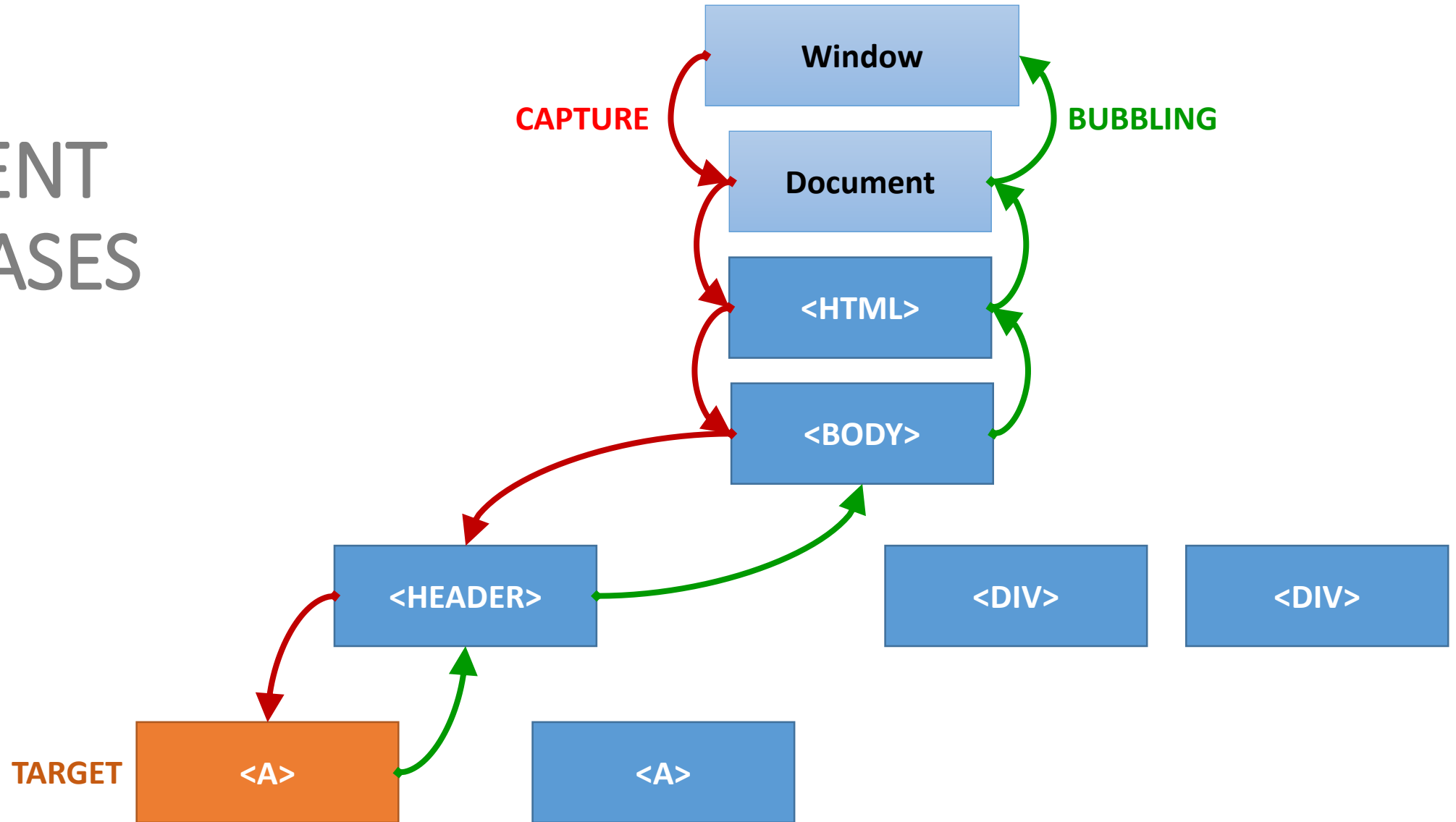
About me

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Events in JS

- The event object
- Event phases
  - Capture
  - Target
  - Bubbling
- stopPropagation() and preventDefault()

EVENT PHASES

CAPTURE

BUBBLING

Window

Document

<HTML>

<BODY>

<HEADER>

<DIV>

<DIV>

TARGET

<A>

<A>

Touch events

- Touch events object
  - Identifier, Type
  - Touches and Changed touches
- Firing events
  - touchStart
  - touchMove
  - touchEnd
  - touchEnter
  - touchLeave
  - touchCancel

Implementing custom gesture

- One finger gesture

- Horizontal swipe gesture

- Simple implementation

- Trigger animation

First things first

- Setting the main variables: X, Y, dX, dY, pxDev
- Setting the event handlers
  - Calculating the point movement
- Animation on swipe

Setup the event handlers & listeners

- touchStart
  - Save starting points
- touchMove
  - Calculate where did the point move to
  - Is movement horizontal or vertical or diagonal
  - Swipe direction: left or right
- addEventListener
- removeEventListener

Sample code

http://jsfiddle.net/martinchaov/e3P2K/

Animation on swipe

- CSS transform3d string
- Attach/detach events while animation is running
- transitionEnd event

Performance tips

- Don't calculate for every pixel
    - Use timeouts
    - Parse to integers
    - Calculate absolute numbers
- Calculate for mistakes
- Force GPU animation when possible

Browser Support

IE	Firefox	Chrome	Safari	Opera	iOS Safari	Opera Mini	Android Browser	Blackberry Browser	IE Mobile
							2.1		
					3.2		2.2		
					4.0-4.1		2.3		
8.0					4.2-4.3		3.0		
9.0	23.0	29.0	5.1		5.0-5.1		4.0		
10.0	24.0	30.0	6.0		6.0-6.1		4.1	7.0	
11.0	25.0	31.0	7.0	17.0	7.0	5.0-7.0	4.2-4.3	10.0	10.0
	26.0	32.0		18.0			4.4		
	27.0	33.0							

Questions & Conclusion