CMSC335

Web Application Development with JavaScript

Event Propagation

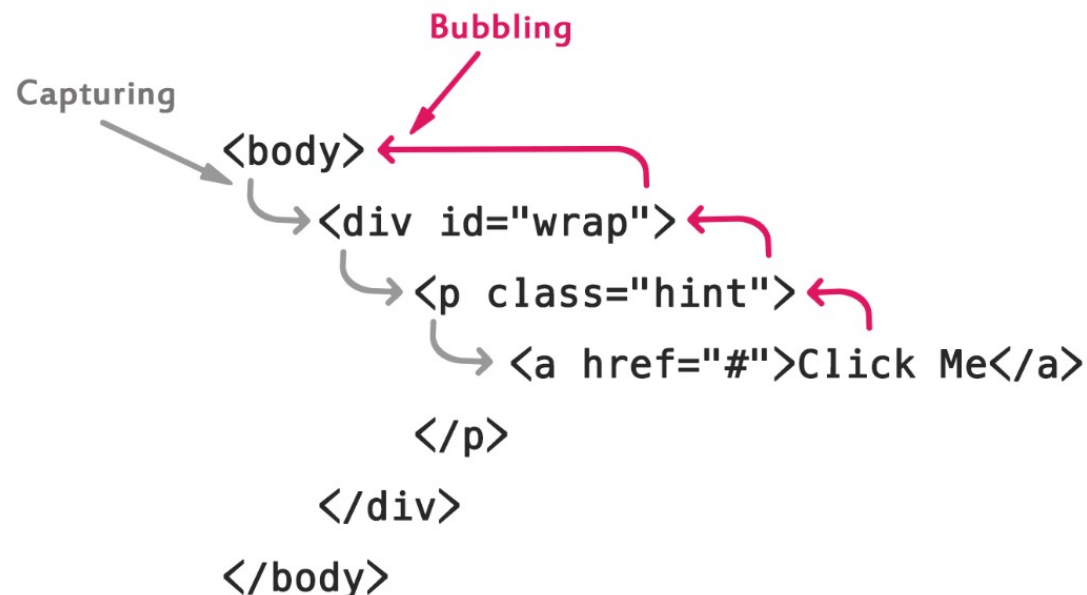### Department of Computer Science

University of MD, College Park

Slides material developed by Ilchul Yoon, Nelson Padua-Perez

Event Propagation

- A mechanism that defines how events propagate or travel through the DOM tree to arrive at its target and what happens in the process

- In modern browsers, event propagation proceeds in two phases: the ***capturing phase*** (from the top of the DOM to the point where the event took place) and the ***bubbling phase*** (from the place the event took place up)

Source: https://www.tutorialrepublic.com/javascript-tutorial/javascript-event-propagation.php

Event Propagation

- **Example:** EventPropagation.html (click on each line displayed) and see results in the console
  - Notice that we have nested div's
  - By default, we have bubbling propagation
- **Example:** EventPropagationControlled.html
  - Set **capturingPhase** variable to true to see alternative

Event Target

- A handler on a parent element can get the event details
  - The most deeply nested element that caused the event is called a *target* element, accessible as **event.target**
- **Example:** AccessingElementEventOcurred.html

Stopping Bubbling

- Any handler may decide that the event has been fully processed and stop the bubbling
- Use **event.stopPropagation()**
- **Example:** EventStopBubbling.html

Video Camera

- **Example:** VideoCamera.html