

University of Washington, CSE 190 M, Spring 2009
Section 6: Raptor Attack (Tuesday, May 5)
JavaScript DOM

section idea/code by Stefanie Hatcher

This section is about using JavaScript's Document Object Model (DOM). The following links may be helpful:

- [Firebug](#)
- W3C Validators: [XHTML](#), [CSS](#)
- [JSLint](#)

Raptor:

A raptor is on the loose! Rawr. The raptor wants to crush, kill, and eat the nearby townspeople. We will write a page to allow the raptor to eat them. The HTML and CSS are already completely written (and we shouldn't modify them); start from a skeleton of [attack.html](#). We must add JavaScript code to make the UI respond when the user clicks the buttons. This code will heavily use the JS DOM and Prototype. Here is the page (click the image to run our sample solution, written by TA Stefanie Hatcher): [\(solution JS code attack.js\)](#)

RANDY THE RAPTOR IS HUNGRY



Attack!

Add!

Kill!

☐ Boys ☒ Girls

Clean up!

Stomp!

Enrage!

Patrol!

Legend



boy



girl



raptor splat!

When the page first appears, 5 boys should be visible in the town. There are currently 5 people in the HTML code, but they haven't been assigned any gender. These are stored inside the `div` with `id` of `people`, and are represented as `divs` with class `person`. Assign them the class `boy` when the page loads. (Note: The `person` class is still required to size and position the people, so you must add the `boy` class without disturbing the existing `person` class on these `divs`.)

The following are the behaviors of the buttons on the page:

- **Add!** Adds 5 more people of the currently selected gender to the page. A person is a `div` with the classes of `person` and either `boy` or `girl`.
- **Kill!** Randomly "kills" 1/5 of the people of the currently selected gender. Kill them by giving them a class of `splat` (in addition to their existing `person` class, but in place of their gender class such as `boy` or `girl`). The `splat` class will set their background image to `splat.png`.
- **Boys / Girls:** Selects which gender to add or kill.
- **Clean Up!** Removes any dead splatted people from the page.
- **Stomp!** Makes the raptor move up or down (sets his `top` style attribute to be either 10px or 85px) and also kills 1/5 of both genders. The raptor is an `img` tag with an `id` of `raptor`.
- **Enrage!** Applies the CSS class of `enrage` to the raptor and the page's top `h1` heading. In addition, the raptor should be made to be 50px wider than his current width. Clicking the button again removes the class from both elements and returns the width to its previous value. The `h1` has an existing CSS class that should not be removed during this process. You are guaranteed that there is exactly one `h1` element on the page.
- **Patrol!** (advanced) Makes the raptor animate. He should move right by 4px every 20ms until his

`left` position style is at least 300px, he should change directions and start patrolling to the left until his `left` position is 10px or less, at which point he stops patrolling.

You may want to review the following DOM and Prototype methods: `window.onload`, `$`, `$$`, `document.createElement`, `appendChild`, [remove](#), [addClassName](#), [hasClassName](#), [removeClassName](#), [getStyle](#)

