

## Making Sense of the CSS Box Model

### **Appetizer: The Web Is Made of Boxes**

- The web is a tool to convey info from the publisher and vice versa
- Web browser creates temporary manifestations of this info in whatever form the visitor requests
- The job of web developer is to provide the browser with the necessary instructions to present the content in the most accessible way for the visitor
- We can change the presentation of the content into anything we want
- The web is made of boxes
- Every time a browser sees a beginning tag, it starts to construct a box
- Images are displayed as inline
- Use Firefox's 3D view to understand the boxes
- Allows you to sketch out the whole website before you begin coding
- Every tag is a box

### **Entree: The Origin of the Box in Typography**

- The box model has origins in typography
- 1 em is the size of an uppercase 'M'
- Boxes are different for each font
- Line-height is the equivalent of strips of lead
- use letter-spacing to space out letters
- The text we display is restricted by the outer most container
- Without restriction, the box will widen to the size of the container and then expand vertically

### **Main Course: Understanding the Box Model**

- We provide the browser with instructions on how to render the box
- CSS box has four separate edges that can be moved relative to one another (content, padding, border, margin)
- Padding adds whitespace around the content (unless using border-box)
- Border goes around the padding
- Margin adds space between boxes (can apply negative values)
- Word-spacing adds space between each word
- Almost all images should be displayed as boxes so text can wrap around them
- Can change position of boxes, but leaves empty space in its original space
- Floated boxes are taken out of the normal flow of content

- Containing box collapses
- Clear fix injects invisible content before and after content
- Flex doesn't require clear fix, but isn't very backwards compatible
- Pseudo-elements can add content with css

### **Dessert: The Brave New World of CSS Boxes**

- Vertical centering is no longer an issue with flex box
- Same with equal height columns
- everything contained within a box has square corners
- New innovation: css shapes (shape-outside)
- Shapes can be anything
- Not fully supported