CSS BOX MODEL & SELECTORS

Adam Sebti, Programming section TA

WEB DESIGN DECAL
PROGRAMMING | FALL 2014

This section

- CSS Selectors
- CSS Box Model

CSS Selectors

Use an id:

- Single ID element per page

Use a class:

- Multiple classes per page
- Use when things are repeated

#id

Use # for ids in the CSS file!

```
<div id="example"></div>

#example {
  font-size: 25px;
  color: white;
}
```

.class

Use . for classes in the CSS file!

```
<div class="example"></div>
```

```
.example {
  font-size: 25px;
  color: white;
}
```

Different types of CSS selectors

- In CSS, there's way more than .class and #id, for instance:

```
element1 element2 {
    /* Selects all element2 elements in all element 1's */
}

div p {
    /* Selects all <p> elements in all <div> elements*/
}
```

Different types of CSS selectors

- A space makes the difference!
- Choosing elements with both classes vs. something else

```
.class1 .class2 {
    /* Selects elements of class2 whose parents are class1 */
}

.class1.class2 {
    /* Selects elements of BOTH class1 and class2. */
}
```

Different types of CSS selectors

- Pseudo-classes react to various page events.
- For example, hovering over a certain element:

```
#test:hover {
    /* Styles elements with id="test" when user hovers over */
}

 #popup:hover {
    /* Styles elements with id="popup" when user hovers over */
}
```

Different types of CSS selectors

- Finally, nth-child, which is a little tricker.

```
element1:nth-child(n) {
    /* Selects every element1 that is the nth child of its parent */
}

p:nth-child(3) {
    /* Selects every <p> that is the 3rd one of its parent */
}
```

Different types of CSS selectors

- Finally, nth-child, which is a little tricker.

```
element1:nth-child(n) {
    /* Selects every element1 that is the nth child of its parent */
}

p:nth-child(3) {
    /* Selects every <p> that is the 3rd one of its parent */
}
```

Different types of CSS selectors

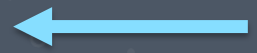
```
p:nth-child(3) {
    /* Selects every <p> that is the 3rd one of its parent */
}
```

```
 <div class="parent">
    <p></p>
    <p></p>
    <p></p>
    <p></p>
</div>
```

Different types of CSS selectors

```
p:nth-child(3) {
    /* Selects every <p> that is the 3rd one of its parent */
}
```

```
<div class="parent">
    <p></p>
    <p></p>
    <p></p>
    <p></p>
</div>
```



Goal: See all websites in terms of boxes.

CodePrep Code School

WHY CODEPREP?

STUDENT STORIES

OUR TEAM

OUR CLASS

QUESTIONS?

Andy Qin
Founder & CEO
UC Berkeley '16

B.A. Computer Science, Public Policy minor

At Arcadia High, Andy was a national-level competitor in Speech & Debate before discovering the power of computer programming in college. At Berkeley, Andy is an Associate Teaching Assistant for CS10, one of Berkeley's introductory courses in Computer Science, where he helped to teach a section of over 30 students. He also serves as a Teaching Assistant for The Web Design Workshop, a student-run class in web design. When he isn't teaching others how to code, he's developing the site for UC Berkeley's Center for Entrepreneurship and Technology. He is inspired to pursue projects that make the future exciting.

Jon Ma
Founder & President
Princeton University '15

A.B. Economics, Computer Science minor

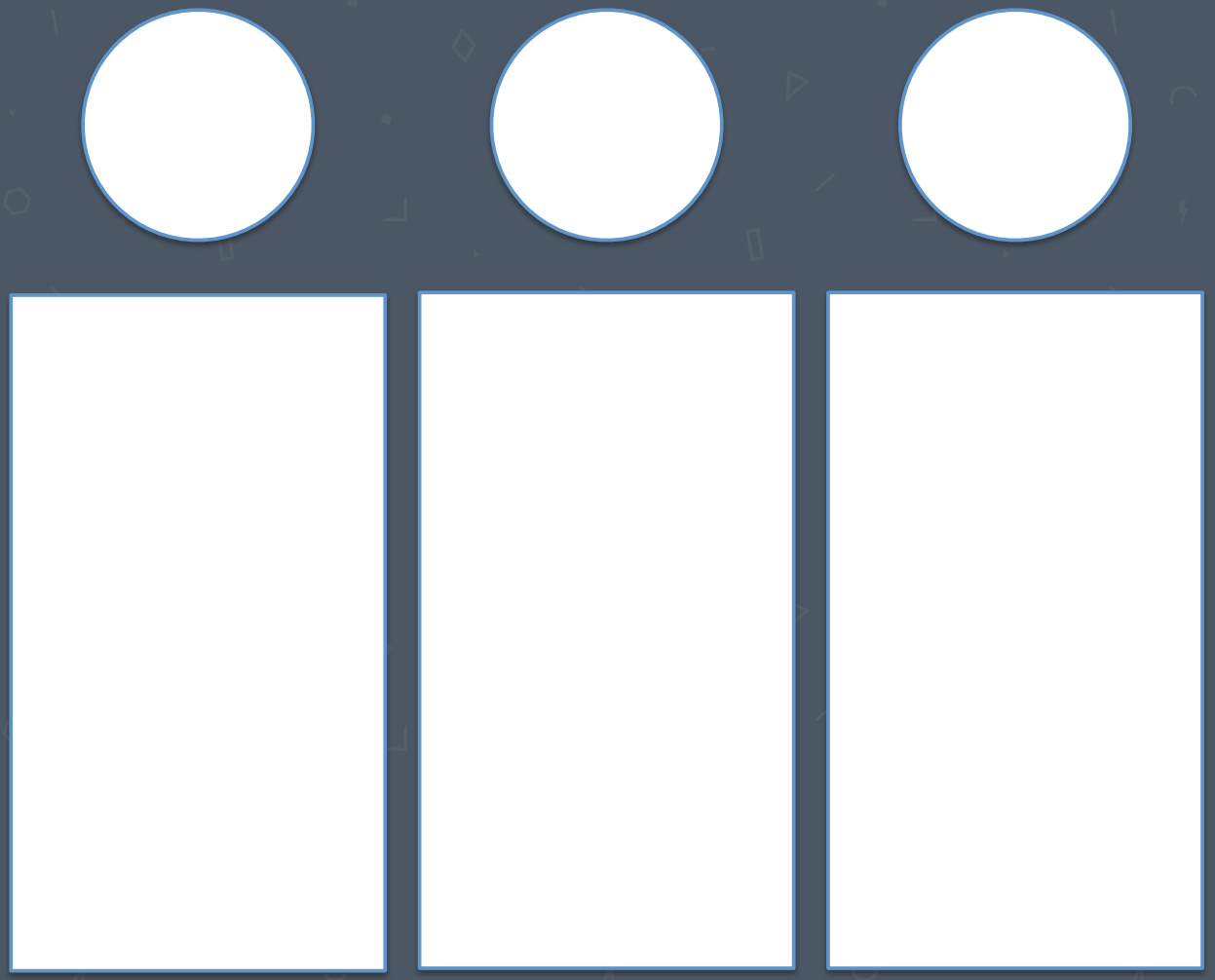
Jon Ma was inspired to learn how to code after many hours of playing PC games in middle school. At Arcadia High School he was the Student Body President and the Valedictorian for the Class of 2011. He wrote scripts in Python for a New York big data startup in the Summer of 2013 and built a mobile website with friends at a hackathon. Jon really wished he had been exposed to programming earlier when he was younger as he really believes learning computer languages is a lot like learning foreign languages: the more exposure, the better you are at it. Jon is excited to bring the coding revolution to Arcadia.

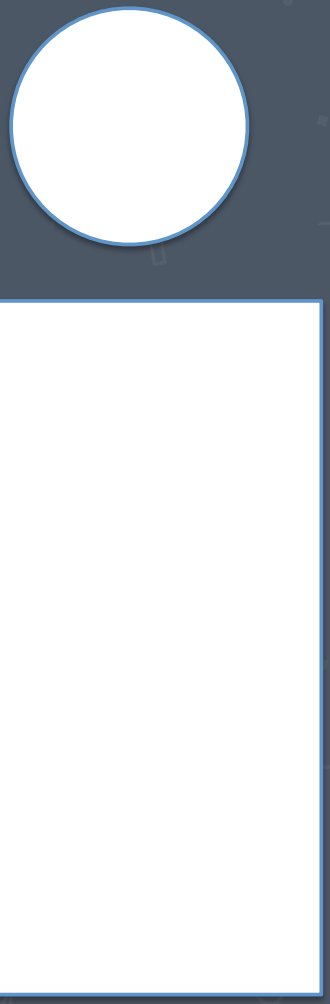
Jon Chan
Advisor
New York University '12

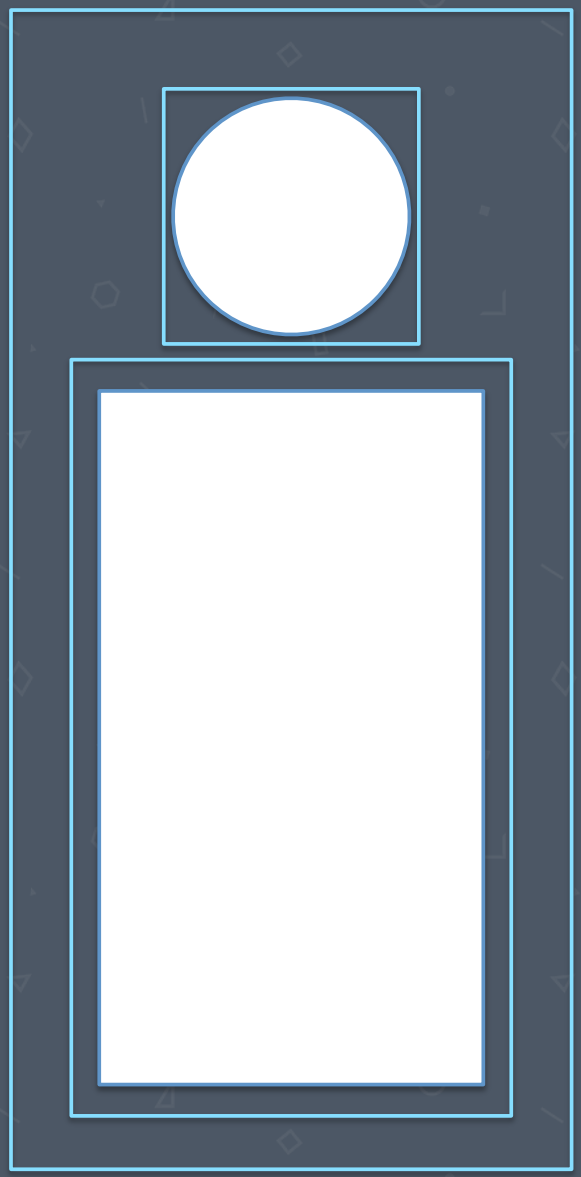
B.A. Complex Systems Analysis

Jon Chan is the creator of Bento and is currently a software developer at Stack Overflow. He started to code when he was 10 years old. Later, he moved from Los Angeles to New York where studied philosophy at NYU Gallatin. Jon has held a number of positions, especially in technology, education, and startups. He has held board positions at Tech@NYU, the NYU Entrepreneur's Network, the Gallatin's Young Alumni Council, and held key founding roles at NYUHacks, the Gallatin Business Club, and the Albert Gallatin Founder's Fund. You can follow him on Twitter at @jonhmchan.

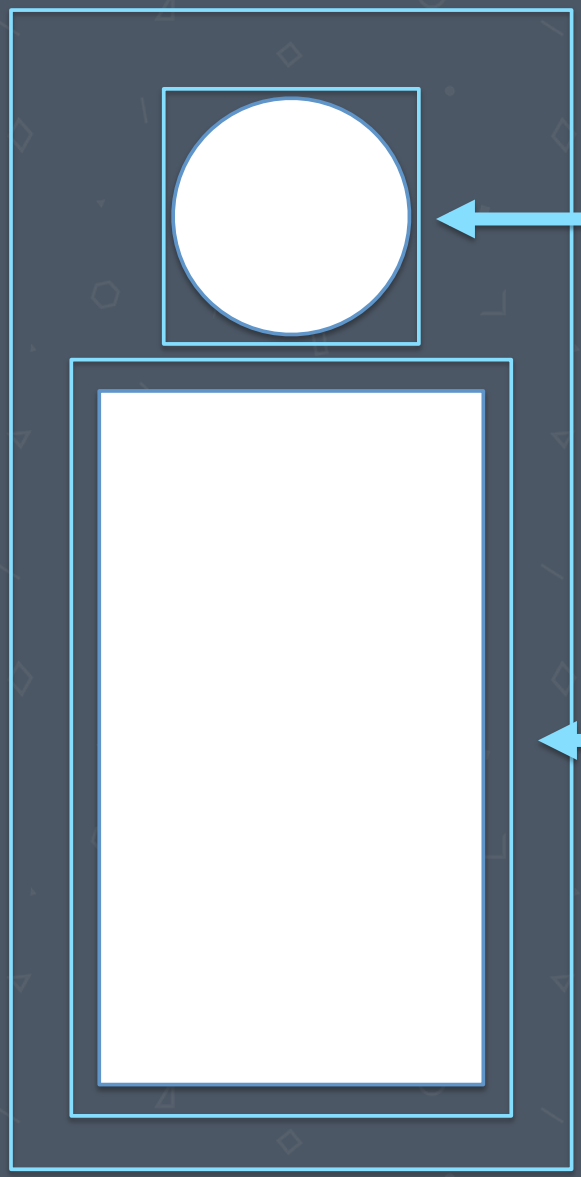
How would I “stack” those profiles?

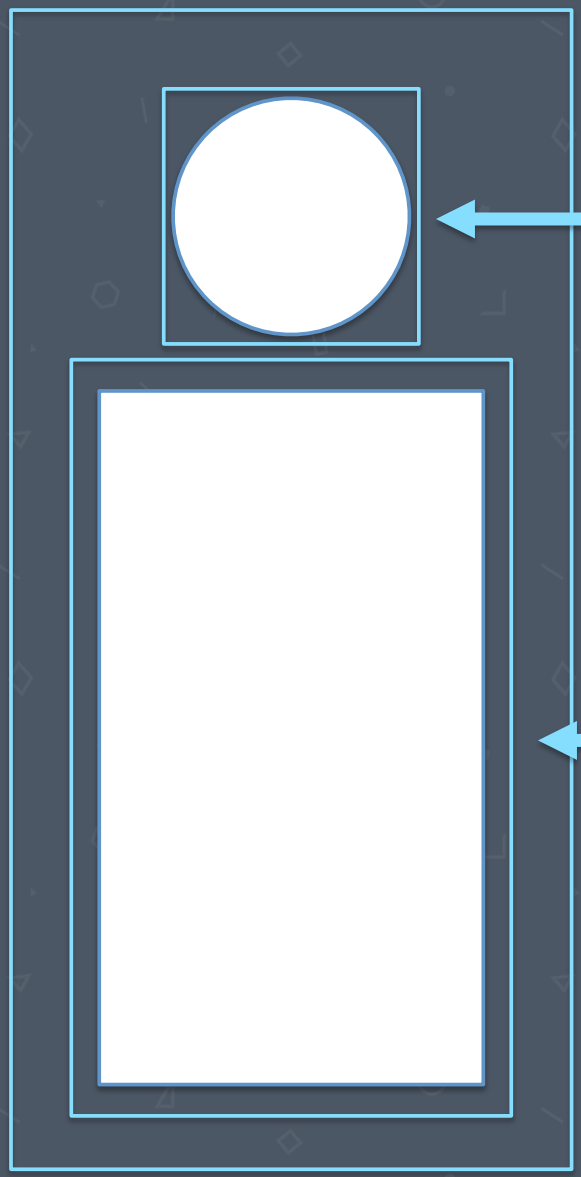






Which should be id’s and which should be classes?





ID's & Classes: Profile Page

Use an id:

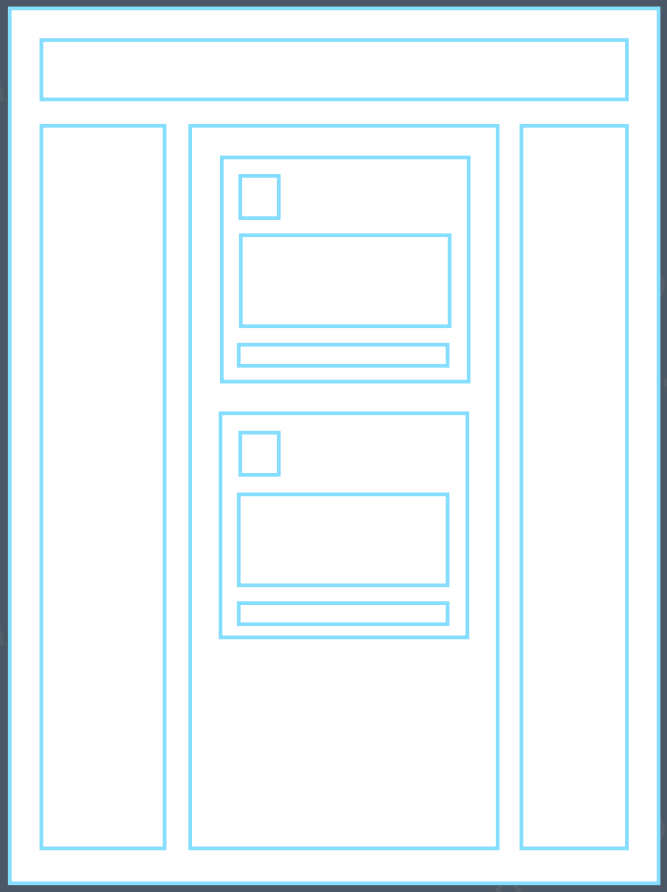
- Unique elements in classes
- The color of the profile

Use a class:

- Reuse the code!
- Essentially everything else:
  - Circularity of images
  - Formatting of the bios
  - The margin between image & bio

This way of structuring your elements is the CSS Box Model.

For example: Facebook's News Feed



The CSS Box Model

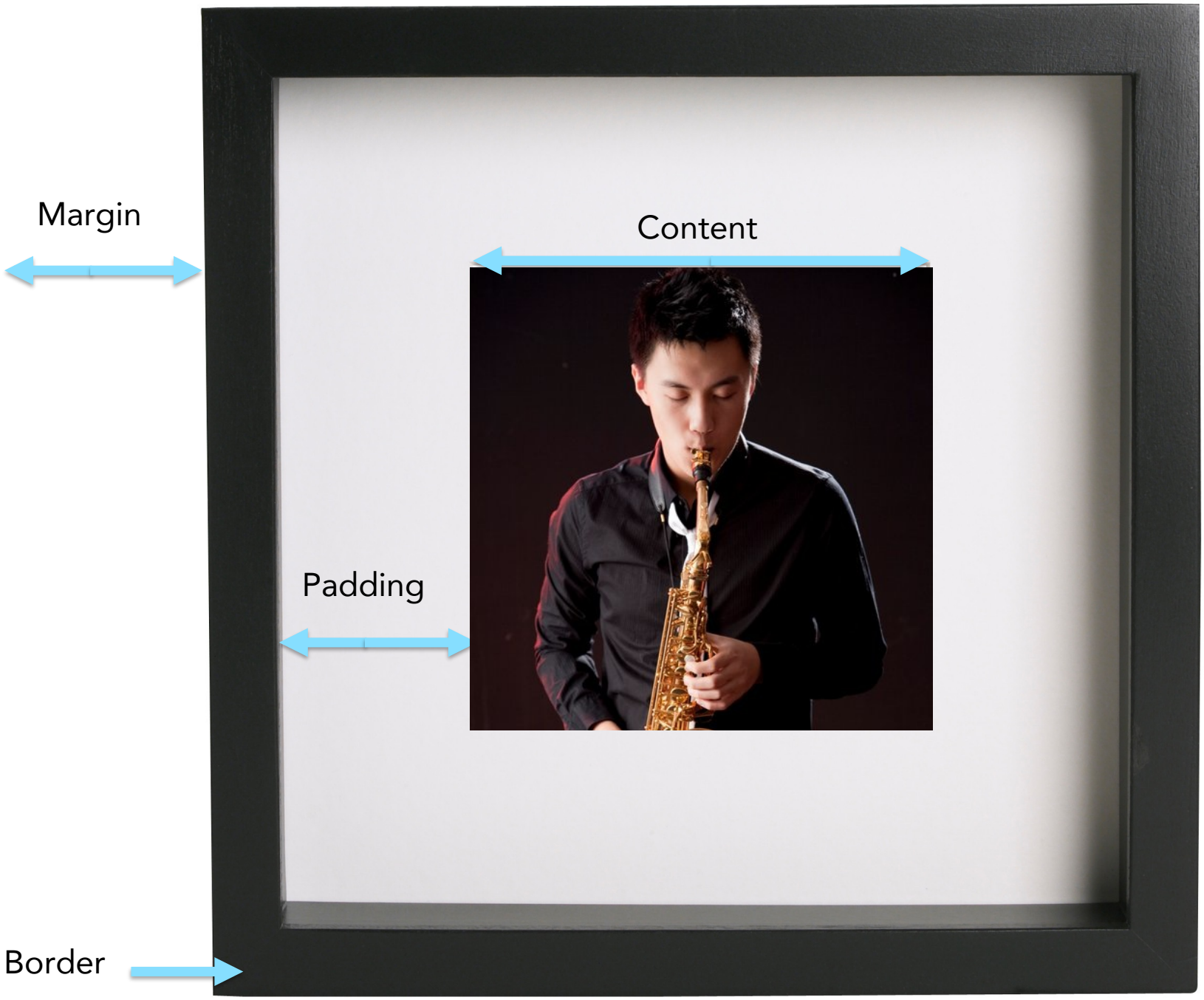
4 Key Components

- Content
- Padding
- Border
- Margin

The CSS Box Model

4 Key Components

- Content - inside the element
- Padding - between the content and border
- Border - surrounds the content
- Margin - space between border and nearby elements


Margin
Content
Padding
Border

The CSS Box Model - Border

Border

- Takes in 3 values: width, style, color
- ex.) *border*: 1px *dashed blue*;
- Note that style and color are *optional*

The CSS Box Model - Padding & Margin

Padding & Margin

- If 1 value:
  - *padding*: 10px; then 10 pixels of space all around, from content to border
- If 2 values:
  - *padding*: 10px 5px; then 10 pixels goes above and below, and 5 pixels goes left and right of content

The CSS Box Model - Padding & Margin

Padding & Margin

- If 3 values:
  - *padding*: 10px 5px 15px; then they in the order: top, left & right, bottom.
- If 4 values:
  - *padding*: 10px 5px 15px 20px; then they are assigned clockwise (top, right, left, bottom)