Lecture 4: Content Delivery Networks (CDN)

CDN: Questions over reading

- Ch. 10
  - Font families
  - Styling text
  - Font sizing
  - etc.
- Ch. 11
  - HTML5 Shiv
  - Normalize CSS
  - Box Model
  - Changing Background

CDN: What & Why

CDN stands for "content delivery network" or "content distribution network"

- A CDN allows for the quick transfer of assets needed for loading Internet content including HTML pages, JavaScript Files, Stylesheets, images, and videos
- "CDN nodes are usually deployed in multiple locations, often over multiple backbones, Benefits include reducing bandwidth costs, improving page load times, or increasing global availability of content".

CDN: When will we use them?

CDN are vastly important and one way you can implement them is within your own projects.

For example let's take a look at [Twitter Bootstrap](#)

Twitter Bootstrap is/was an extremely popular framework for building Responsive Frontend websites and application.

Let's build a page that brings in Twitter Bootstrap to demonstrate how you might do this without the assistance of a CDN

CDN: Demonstrate Twitter Bootstrap (TWBS)

1. Open class-directory
2. Create a new folder called Fonts inside of class-directory/assets/fonts
3. Create bootstrap.html file
4. Download [Twitter Bootstrap](#)
5. Unzip TWBS assets
6. Place the assets
   a. bootstrap-3.3.7-dist/css/bootstrap.min.css >>> class-directory/assets/css
   b. Don't worry about JavaScript files
   c. bootstrap-3.3.7-dist/fonts/* >>> class-directory/assets/fonts
      i. The * means all the files
7. On Twitter Bootstrap site visit [Components](#) and paste in some examples

CDN: Manual file placement

With that example we had to manually go out to

1. Go to the website
2. Download the files
3. Unpack the files
4. Place the asset files
5. Code

That isn't a ton of work in this example but what if

- You had to do this for 30 different tools, plugins, etc.?
- You are serving files from your server say in the US. What if your user is in China?

CDN: How do we implement?

1. Staying in class-directory
2. Create a new file bootstrap-cdn.html
3. Navigate to [Twitter Boostrap "Getting Started"](#)
4. Copy the first CDN link for CSS
5. Paste that link inside your HTML file in the <head>
6. Now in the <body> copy all the elements you had from bootstrap.html

CDN: FTW

As you can see with a single line of html and the power of CDN you

1. ~~Go to the website~~
2. ~~Download the files~~
3. ~~Unpack the files~~
4. ~~Place the asset files~~
5. Code

CDN: Loading Fonts

Custom fonts are a popular and fun way to make your website unique and give your site a bunch of personality

Many popular sites like

- DaFont
- FontSpace

Are great places to download and use custom fonts

For this demonstration we are going to load in a custom Google Fonts

Google Fonts is a great site to get amazing professional looking fonts simply and easily for any project
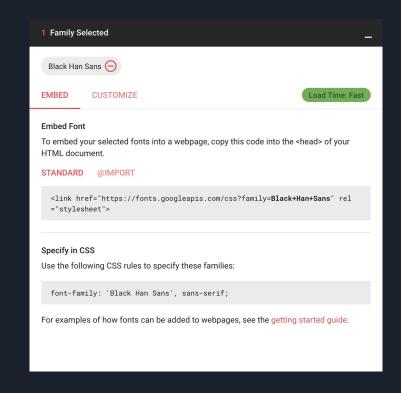
CDN: Manual loading of fonts

1. Open class-directory
2. Create a new html file called fonts.html
3. Go to Google Fonts and download a font
4. Unzip the file of the font you selected
5. Take that font file and place inside of class-directory/assets/fonts
6. Create a fonts.css file inside of class-directory/assets/stylesheets
7. Inside the CSS file link up @font-face rule for your downloaded font
8. Back to fonts.html link up fonts.css
9. Test

CDN: Load fonts by CDN

1. Create a file called fonts-cdn.html
2. Go back go Google Fonts
3. Select the font you had prior
4. Highlight the <link .../>
5. Paste link in <head> of your HTML file
6. Create a new CSS file
   a. assets/stylesheets/fonts-cdn.css
   b. Create a CSS rule and paste in the font family
7. View your code in the browser

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1 Family Selected   —

Black Han Sans ⊖

EMBED   CUSTOMIZE   Load Time: Fast

Embed Font

To embed your selected fonts into a webpage, copy this code into the <head> of your HTML document.

STANDARD   @IMPORT

```
<link href="https://fonts.googleapis.com/css?family=Black+Han+Sans" rel
="stylesheet">
```

Specify in CSS

Use the following CSS rules to specify these families:

```
font-family: 'Black Han Sans', sans-serif;
```

For examples of how fonts can be added to webpages, see the getting started guide.

CDN: Recap

- Content delivery networks are the transparent backbone of the Internet in charge of content delivery
- No matter what you do or what type of content you consume chances are it is being powered by some type of CDN
- CDNs minimize the distance between users locations and the web servers allow for better performance
- Spreads out your content so it is not in a single location

CDN: Homework

Reading:

- Ch 12 & 14
- Finish Designing pages
  - Media
  - Merch
  - Tour Dates