

Hackathon Prep

Make Yourself at Home

- Take a pillow with you
- Take a sleeping bag with you
- Laptop & Charger

If you are building a (Web) App

You will want to...

- Frontend
 - Backend
 - Deployment
-
- Save Time
 - Save Energy
 - Impressive

Styling and Layouts

- Twitter Bootstrap
- Sass & Less
- Google Polymer

Sass & Less: *CSS preprocessor languages*

```
$font-stack: Helvetica, sans-serif;  
$primary-color: #333;  
  
body {  
  font: 100% $font-stack;  
  color: $primary-color;  
}
```



```
body {  
  font: 100% Helvetica, sans-serif;  
  color: #333;  
}
```

Making CSS more like a programming language

Multi-Browser Support

```
@mixin border-radius($radius) {  
    -webkit-border-radius: $radius;  
    -moz-border-radius: $radius;  
    -ms-border-radius: $radius;  
    border-radius: $radius;  
}  
  
.box { @include border-radius(10px); }
```

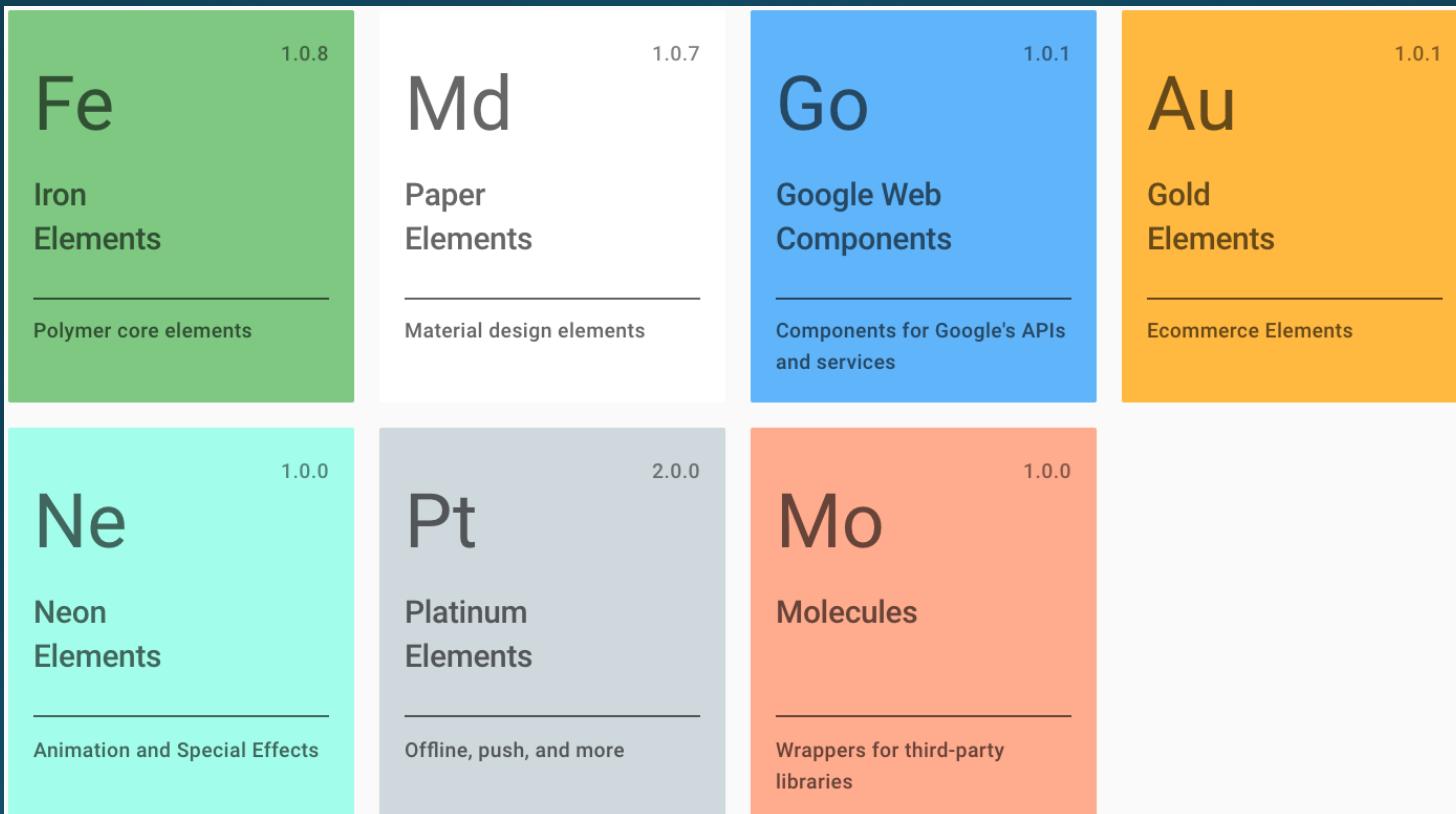


```
.box {  
    -webkit-border-radius: 10px;  
    -moz-border-radius: 10px;  
    -ms-border-radius: 10px;  
    border-radius: 10px;  
}
```

More ...

- <http://lesscss.org/>
- <http://sass-lang.com/>

Google Polymer: Elements -> Webapp



- <https://www.polymer-project.org/1.0/>
- Example (Poly Mail): <https://poly-mail.appspot.com/>

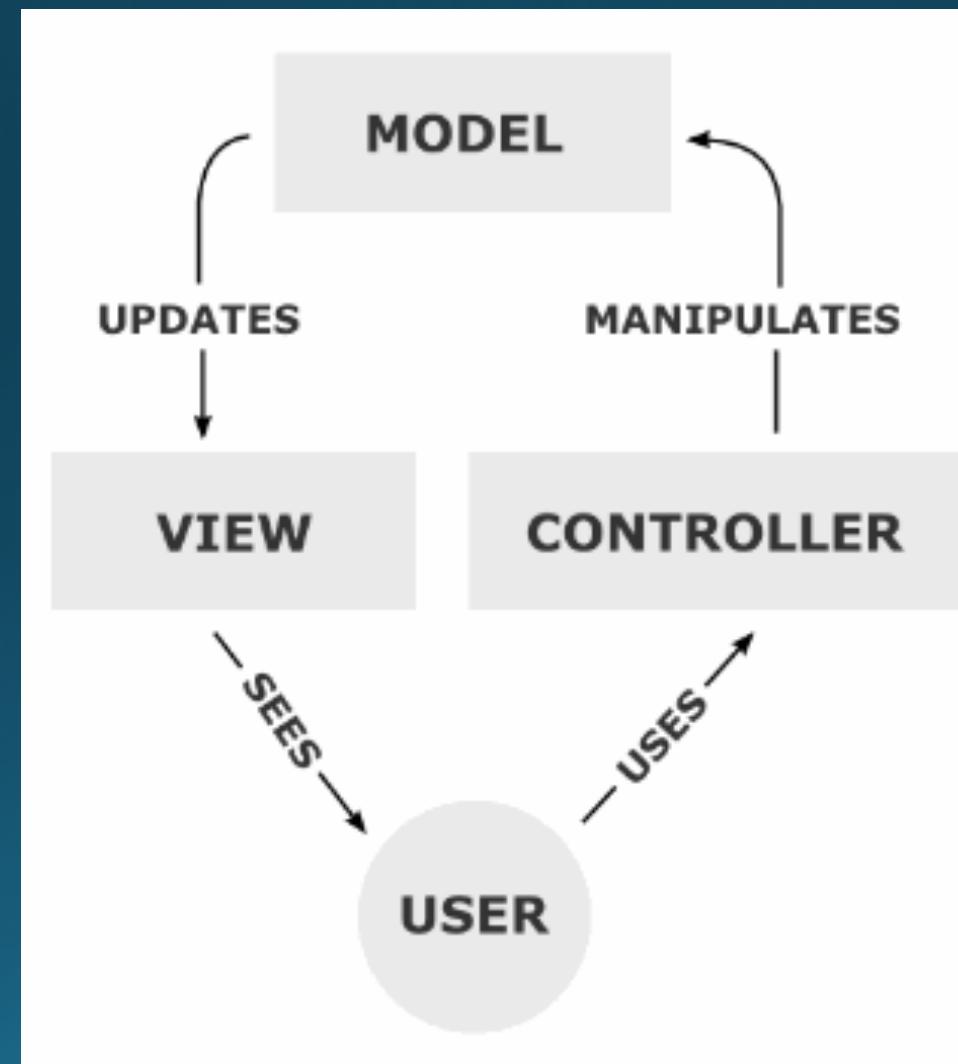
JavaScriptssss

- Node.js, Express.js

Express is a minimal and flexible Node.js web application framework that provides a robust set of features for web and mobile applications.

- Angular.js (Angular2.js): <https://angularjs.org/>
- Backbone.js: <http://backbonejs.org/>
- Ember.js: <http://emberjs.com/>
- React.js: <https://facebook.github.io/react/>

MVC (MV*) Framework Family



APIs

- API (application program interface) is a set of routines, protocols, and tools for building software applications.
- The API specifies how software components should interact and APIs are used when programming graphical user interface (GUI) components.

Example: Twitter API

- REST (representational state transfer) API:
<https://dev.twitter.com/rest/public> (Single Ratings)
- Streaming API: <https://dev.twitter.com/streaming/overview> (Tweet Data)

Many Useful APIs

- Youtube: <https://developers.google.com/youtube/>
- Facebook: <https://developers.facebook.com/>
- OpenWeather: <http://openweathermap.org/api>
- YahooWeather: <https://developer.yahoo.com/weather/>

Yo, Grunt, Bower(npm) & Yeoman

- Scaffolding: builds out a new application, writing your build configuration (e.g Gruntfile, Gulpfile) and pulling in relevant build tasks and package manager dependencies (Bower, npm) that you might need for your build.
- Build System: is used to build, preview and test your project.
- Package Manager: is used for dependency management.

Version Control ---- Git